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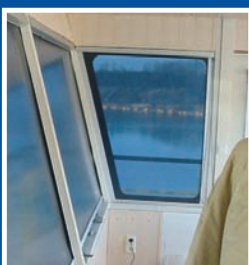
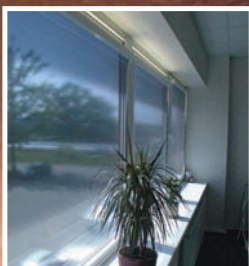
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COLUMN CASINGS FOR MEARS CASTLE SCHOOL

Pendock has provided six bespoke column casings for the canteen refurbishment at Mears Castle School near Glasgow – P. 11

Reflex-Rol

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Enquiry Number QE1



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* Accredited data reports from Sonnergy of Oxford - copies available on request

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Welcome...

...to the October issue of PSB. On this month's cover we feature Pendock's installation of bespoke column casings at Mears Castle School near Glasgow (P.11)

Our October Focal Point covers Heating, Ventilation + Damp Prevention and looks at the installation of boiler cascades (P. 14), the role of insulation in preventing condensation (P. 16) and how installing a hot water storage cylinder designed for use with PV arrays can help social housing landlords to provide optimum energy savings (P. 18).

On page 30 Radian discusses Brexit and its affect on affordable and social housing and on page 48 Simon Marklew looks at the benefits of sourcing drainage products from one supplier.

With a host of other features and our usual array of product information, we hope that you enjoy this month's offering, **from all at PSB**



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 TIMBER SYSTEMS DIVISION

Extra 24,000 classrooms required by 2020

New research from Scape Group, the public sector owned built environment specialist, reveals the full extent of the school building challenge in England, as the equivalent of 24,287 classrooms or 2,122 new schools must be built before 2020 to meet the growing numbers of primary and secondary school pupils.

Local authorities are estimating there will be an additional 729,000 primary and secondary school pupils by 2020.

The number of primary school pupils in England will rise 8.6% by 2020 but the greatest growth will come from secondary school pupils, set to increase 12% by 2020.

Bankside Boardwalk



SE1-based practice, Steer Davies Gleave, has been appointed by Better Bankside to develop design proposals for the Bankside Boardwalk project, which is funded, in part, through Transport for London's Future Streets Incubator.

The project will trial a temporary reconfiguration of Lavington Street to a one-way street and use the freed-up road space to extend the footpath at grade through the design of a new modular structure –

Bankside Boardwalk – to help improve the quality of environment for those on foot.

The appointment of Steer Davies Gleave came as result of a design competition held this summer. Ten high quality submissions were made representing a total of 28 organisations representing a wide range of disciplines from highways engineering to urban landscape and product design. A panel made up of key partners Southwark Council and Transport for London were involved in selecting the winning team.

Initially located on Lavington Street, it will help to test how streets and pavements can be reconfigured to respond to the changing pressures that streets in cities and towns face, including accommodating increases in footfall and the need to navigate safely around building sites, temporary hoardings or roadworks.

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Enquiry Number QE3



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Our fully equipped, in-house Research & Development centre is what makes TigerTurf the industry leader for quality and innovation. To ensure that this high quality is carried throughout the entirety of your project, we work with only the best partners in construction and installation.

With our sports range, we strive to deliver the most dynamic, innovative range of high performance engineered surfaces for Soccer, Rugby, Hockey, Tennis and Multi-Sport suitable for all levels of play, from youth to professional stages.

Our landscape range replicates the varied tones and shapes of natural grass and accommodates various applications, making it the best choice for you, whether it is for embankments, roundabouts, commercial landscaping or leisure applications.

For more information, contact TigerTurf on 01299 253 966 or email us UKinfo@tigerturf.com

Enquiry Number QE4

Videx Launches New GSM PRO Door Entry System

New System Provides Greater Security and Freedom at the Same Time

Videx has launched a new GSM door entry system that uses mobile technology to communicate and operate doors, automatic gates, car parks and remote site applications.

The GSM PRO intercoms are available in kit form or as part of the popular 4000 Series modular door entry system for single call button applications up to 50 apartments all with the facility to divert to three additional numbers if the first is busy or unanswered.

Steve Natton, Special Projects Manager at Videx UK, said: "We're excited to introduce our new GSM system as it's the next generation of Videx GSM that provides users with much greater security and freedom. The intercom enables people to answer calls to their front door or gate from their mobile phone or land line so they never have to miss that important visitor and are made aware of who has visited even when they are not there. The systems provide spoken call progress information so that the visitor is informed how the call is progressing. Four call progress LEDs also offer the visitor a visual indication of the call's status."

Programming is carried out via SMS messaging or using the micro USB connection and specially developed PC software. The intercoms also include an exit button input,

auxiliary inputs and outputs and a dry contact relay. Kits are also supplied with a surface or flush housing, antenna and 2A power supply unit.

Steve added: "An exciting new feature to GSM PRO is the integrated proximity access control (for up to 1000 users), administrators can remotely manage their access control user fobs and cards, eliminating the need for the engineer to visit site to enrol, modify or delete users. The reader is concealed behind the call button name plate window meaning the door panel is no larger than the previous version that doesn't carry this feature and, importantly, is half the length of previous proximity access door panels. Programming options are by text or via the PC software and an optional desk mount proximity reader is also available to enrol large numbers of users quickly. In addition to the 1000 user proximity access control, there is also a 1000 user dial to open access control where users can dial the intercom number to release a door or gate without being charged for the call."

Other key features of the GSM intercom include an event log that is maintained within the entry panel. This will log events such as who is being called and when, who's opened the door or gate and many other functions. The operation voltage is also wider than the



previous version - it is now 12-24V AC or DC and the bespoke PC software within the intercom includes many features to simplify the installation and programming process. **For more information about the 4000 Series GSM PRO, please visit www.videxuk.com or contact 0870 300 1240.**

Enquiry Number QE5

THE NEXT GENERATION OF VIDEX GSM

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Brexit cannot distract us from building more homes

The British Property Federation has welcomed announcements made by Communities Secretary Sajid Javid to boost the building of new homes at the Conservative Party Conference.

Melanie Leech, chief executive of the British Property Federation, said: "We are glad to see Government getting on with business as usual. Brexit cannot be allowed to distract us all from the pressing need to build more homes.

"Plans to use surplus public land to build homes faster and changes to planning rules to help build on brownfield land are both very welcome news, particularly for the build-to-rent sector. Purpose-built rental development mostly takes place on brownfield land and, therefore, anything that helps with planning will be welcomed with open arms by our sector."

New Payment Services Framework to de-scope councils from PCI compliance

UK payments specialist, allpay, has been awarded a place on a new Payment Services Framework (PSF) led by Shropshire Council, enabling any UK local authority to offer a range of PCI DSS-compliant debit and credit card payment solutions while de-scoping their own compliance requirements.

The services provided via the framework – which spans several lots across cash, debit/credit card and direct debit acceptance – will be accessible to other local authorities and the wider public sector as part of a four-year agreement, reducing the estimated £20,000 cost of tendering for such services.

The framework is being managed by card processing consultancy – the Card Processing Advisory Service (CPRAS) – whose Freedom

of Information requests to local authorities last year revealed that more than 65% are not fully PCI compliant and, as a result, are paying significantly high rates with merchant acquirers due to the risk.

As a result, the rigorous procurement to appoint suppliers to the framework saw suppliers evaluated against hundreds of criteria in a competitive due diligence process lasting several months. Under the framework, local authorities and the wider public sector, including universities, central Government and the private sector, will be able to call-off allpay services directly and offer payment channels to allow their customers to pay bills.

allpay already provides payment solutions to 160 local authorities.

Providing students with a clear vision for the future

GEZE UK has given Tyneside students a brand new outlook on life – by supplying more than 100 windows systems for a new state-of-the-art science and technology centre.

The STEM – Science, Technology, Engineering and Maths – building is part of a £14.5 million redevelopment of the Thorp Academy, in Ryton.

The standalone development – one of five buildings on the campus, houses 11 science labs, 11 maths and two ICT rooms as well as two seminar rooms and a dining room to cater for the whole school. There are also new engineering and technology rooms, a construction area where building and related trades are taught, two food technology rooms and a textile room.

With such a practical learning environment, it was vital that the building benefited from optimum natural light and ventilation. This is why GEZE's OL Line openers and operators were specified – to maximise functionality with a window arrangement that incorporates key safety features for use in schools.

OL Line systems with winding openers were fitted to all of the top opening sections of all windows throughout the three-storey building. These were positioned over a fixed middle section and a bottom opener with manual handles.

The STEM building was the first school development in a batch of seven schools in the



North East to be completed by Sir Robert McAlpine. The construction company won the contract which was funded by the Government's Priority Schools Building Programme. The windows within all the schools share the same design DNA and have the same configuration.

The STEM building has an engineering suite which has been equipped with more than £30,000 worth of CNC milling machinery provided by a local charity trust, The Reece Foundation, that promotes local engineering and manufacturing in the region.

Thorp Academy is part of the Northern Education Trust which is a not-for-profit charity, approved by the Department for Education to establish and maintain primary and secondary academies. It founded Thorp in September 2014, providing secondary and sixth form education for more than 1170 students, and it



has gone from strength-to-strength, with strong A-level performances and a higher than national average of students achieving top grades.

John Taylor, project director of new buildings, for the Northern Education Trust, said: "We are really pleased with the quality of the new STEM building at Thorp Academy which meets our specification for a high quality working environment for students and staff. Putting Science, Technology, Engineering and Maths in one building promotes collaboration between those subjects, and our links with the Reece Foundation is a welcome addition to the facilities we can now offer local students."

For more information about GEZE UK's comprehensive range of automatic and manual door closers call 01543 443000 or visit www.geze.co.uk.

Relieve the pain of rising patient numbers



A rise of patient numbers means hospitals and clinics could face a facility shortfall putting pressure on healthcare management to provide more space quickly and economically.

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For additional information visit www.wernick.co.uk/healthcare

Enquiry Number QE8

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QE200



Improving recycling Plastic Omnium Environment

has introduced a range of products aimed at supporting property developers and local authorities in improving their recycling performance. The company has introduced M4, the latest addition to its range of underground waste disposal systems. It has also launched the new Plastic Omnium Bin-Shelter, with night safe opening system and access control options. M4 has been designed to improve the collection of different flows of paper and packaging, glass and also residual waste.

Aggregate Industries adds Agilia

Aggregate Industries has enhanced its product portfolio with the addition of Agilia – a highly fluid, self-compacting concrete. Backed-up by 20 years of research and development, Agilia is a self-compacting concrete that is easily placed, significantly reducing construction time and cost. Highly fluid, the concrete has obtained a worldwide reputation due to its flow properties – eliminating the need for vibration. Alongside the advanced product technology, Aggregate Industries is providing a premium service offer with the Agilia range covering design, installation and technical support; as well as guaranteed delivery time slots. Chris Husdon, Aggregate Industries' managing director of Asphalt and Readymix said: "The Agilia range comes with a whole host of benefits including exceptionally quick pours, high aesthetic finishes and a considerable improvement to conditions on the building site."

QE201



QE202



Seek Thermal launches RevealPRO

Seek Thermal has announced the expansion of its new line of high performance, affordable, infrared thermal imaging cameras designed for experts in commercial building and trades with the introduction of the RevealPRO. Seek Thermal's most advanced handheld thermal imaging camera yet, the RevealPRO combines a high-performance 320 x 240 thermal sensor, intuitive software, and a powerful 300-lumen LED light into one highly durable, handheld and easy to use device. Offering adjustable thermal span and level, full frame thermography imaging 76,800 pixels, the RevealPRO breaks new barriers by offering high-resolution fastframe thermal imaging and software capabilities at an affordable price of £508 excluding VAT. Seek's Pro Series cameras, which include the new RevealPRO and CompactPRO, deliver high performance thermal resolution at an ergonomic and portable size to assist commercial trades professionals in getting a full look at the problem in the fastest time possible.



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Enquiry Number **QE10**



LATHAM'S RANGE OF FR PRODUCTS IS SECOND TO NONE

James Latham offers one of the biggest ranges of high performance, fire retardant panel and timber products on the market, all directly available from stock through its nationwide network of depots.

Fire damage in buildings can be devastating and as a result, flame retardant products are being specified in construction to help reduce this impact. Latham's extensive collection of fire retardant products includes; CE marked Birch Plywood, Timber Cladding, Chipboard, MDF, MF/MDF, OSB, and Decorative Products for interiors including Valchromat, MFC, HI-MACS solid surface, Laminate and Fire door blanks.

All products are certified and independently tested to Euroclass B or Euroclass C and copies of these reports and the Field of Application are available to download from www.lathamtimber.co.uk

These fire tests are carried out for the manufacturer by an approved third party and measure readings such as; rate of fire propagation, lateral fire spread, total heat release and smoke production.

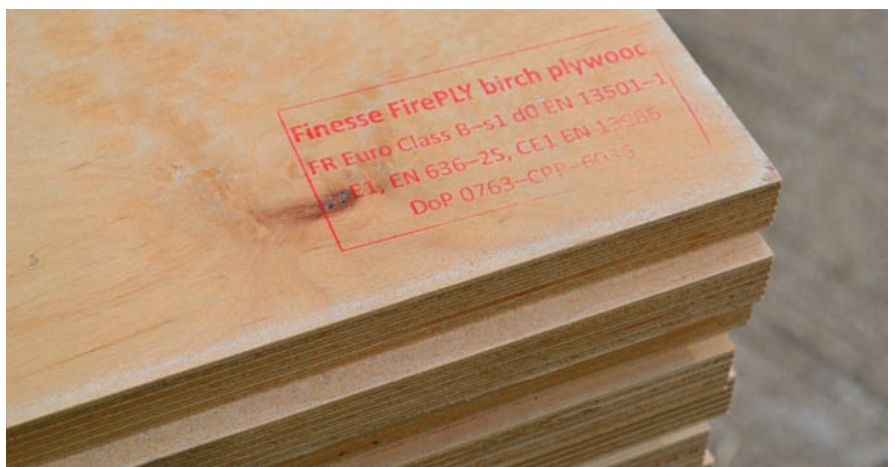
Andrew Wright, Director of Lathams Limited said, "The number of projects where Fire

Retardant products are being specified is increasing. When the correct fire retardant product is specified and installed in accordance with the Field of Application, they can provide the first line of defence in a fire, helping to protect lives in both commercial and residential properties."

Mr Wright added, "We are continually reviewing our range to ensure we have the most up-to-date offering available for all our customers and our team of knowledgeable and experienced staff can provide information and samples for all these products."



Phone 0116 257 3415, e-mail marketing@lathams.co.uk or visit www.lathamtimber.co.uk



Enquiry Number Q11



QE203

Express delivery

The Portakabin Group has expanded a PFI primary school in Leeds to provide more than 200 additional places, helping to meet the increasing demand for primary education in the city. The scheme at Asquith Primary School was delivered after just 18 weeks on site using a **Yorkon** off-site solution – reducing the programme by at least five months to the benefit of the school. The Yorkon off-site solution helped Asquith Primary School to move to two forms of entry and increase capacity with a Key Stage Two extension. Much of the two-storey building was fitted out off-site at the group's production centre in York to minimise any disruption to teaching and to radically reduce the programme time.

Yale makes a pledge

Window and door hardware manufacturer, **Yale**, has



Door & Window Solutions

QE204

launched a new audited scheme, offering a 15-year warranty. As part of the company's commitment to its partners, the Partnership Pledge Plus offers an audited warranty scheme to housing providers that specify Yale's hardware, including the austenitic stainless steel range. It has been designed to help ensure that the hardware specified is that which is supplied and fitted. Under the scheme, Yale will monitor individual contracts to ensure that the right components have been used and correctly installed. Additionally, site visits by the specification team will help to confirm that the most suitable ironmongery products are being used and that standards are maintained throughout the duration of the project. Visits will also oversee any hardware issues that may arise during the installation process. Yale will then provide a 15-year warranty direct to the housing provider on contracts where the specification has been met in full.

QE205



Tubular fittings range expanded

Kee Safety has expanded its Kee Klamp range with the introduction of 12 new types of tubular fittings. Designed for installation on steeper gradients, the new slope fittings offer builders and specifiers an aesthetically pleasing option. The latest addition to the Kee Klamp portfolio is an extension to the current range of slope fittings. The new components have been designed to enhance the building of guardrail along staircases and ramps, particularly when the slope is greater than 30°. The new range introduces single fittings to cater for situations where a combination of fittings is currently required.

Not only does this improve the aesthetics of the finished guardrail but it also allows for a quicker and easier installation.



QE206

16 classrooms in four days

When the Royal High School of Edinburgh had to be closed for urgent remedial building works, **Portakabin** responded with 16 classrooms to enable 480 children to resume their studies – in just four days from the initial enquiry. The local Portakabin Hire Centre team in Edinburgh provided the exceptionally fast response – sourcing 16 buildings for high quality classrooms, transporting each building to the school and putting in place external power connections to generators, emergency lighting, fire alarms and extinguishers and access steps and ramps. The Portakabin building solution allowed the school to re-open and, most importantly, with all children at Royal High School on their original site. This avoided the need for any displacement which would have been very disruptive.

and extinguishers and access steps and ramps. The Portakabin building solution allowed the school to re-open and, most importantly, with all children at Royal High School on their original site. This avoided the need for any displacement which would have been very disruptive.

Big Wipes launches The Cage

With the new **Big Wipes** Cage you will never need to search for your powerful set of Big Wipes products again. The fully-adjustable wall and van bracket means you can keep Big Wipes close at hand, whether you're in a workshop or zipping around in your van. The new Big Wipes Cage holds any Big Wipes 80s tub, the 1L Big Wipes Power Spray and the 1L Big Wipes Power Gel firmly and securely. Simply push your Big Wipes product into the adjustable bracket, tighten and you're ready to go. It fixes easily into ply panelling or into a bespoke racking system in vans and is wall mountable for the workshop or near the sink for the Power Gel. Made from tough, high quality polycarbonate, the Cage comes with pre-drilled holes for screw fixing. Once installed, the cage allows Big Wipes 4x4, Power Spray and Power Gel to be accessed with just one hand for those very messy jobs.



QE208

QE207



The smarter postbox

Startup company, **Brizebox**, is making sure online shoppers receive their orders when not at home. The company has designed a simple Parcel Delivery Box that requires minimum courier intervention, while keeping parcels totally secure and continuing to receive parcels until full. The products come in three sizes – Compact (accepts parcels 32 x 23 x 18cm), Standard (accepts parcels 41 x 31 x 22cm) and Large (accepts parcels 52 x 39 x 32cm) – and are the first to be adaptable for use in apartments. They can be mounted on a wall, into the ground or attached to an optional post.

PENDOCK PROVIDES COLUMN CASINGS FOR CASTLE SCHOOL CANTEEN REFURBISHMENT

Mearns Castle School canteen, located in Newton Mearns near Glasgow, has undergone a full interior refit. Bespoke column casings produced by encasement specialist, Pendock Limited have been used, as well as other works by Marshall Construction, with Advanced Refurbishment Ltd.



East Renfrewshire Council, the architectural consultancy leading the refit programme, was keen that the existing load-carrying columns should be unified by the completed works. Thus the various different sizes and finishes of reinforced concrete stanchion have all now been covered by the 590mm wide x 450 mm deep column casings; each one approximately 2600 mm tall. Their sectional design allows them to be quickly and easily assembled on site, before being screw fixed into battens secured against the existing columns. The fixings are concealed by feature joint details running the height of the columns while a painted metal perimeter angle at the top of each column supports the ceiling, neatening the interface. The column casings themselves are produced using FSC certified materials with a bonded Formica surface in an ultra-hardwearing black finish which matches the main floor colour and other elements to the interior décor. Pendock is a widely specified specialist in the field of designing, fabricating and supplying to site bespoke column casings, having a successful track record in the commercial, retail, leisure, medical and other sectors as well as education. Its engineers are experienced in working both with main contractors and fit-out contractors, as well as architects and interior designers, to ensure completed building interiors achieve all of a client's aspirations. Other product ranges include wall claddings and radiator casings.

FOR FURTHER INFORMATION PLEASE CONTACT:
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Enquiry Number QE14



QE209

Contemporary cool

UK composite door manufacturer, **Door-Stop**, has extended its portfolio to include more ultra-modern hardware suites and a brand new door style – providing customers with even more choice. Sometimes less is more and, as such, Door-Stop's new handle-less option suits those who prefer a minimalist look, thanks to its sleek and sophisticated design. Available on all door types, the handle-less suite is balanced by an Ingot knocker, a brushed stainless steel letterbox and timeless pull escutcheon.

Lockouts range expanded

Martindale Electric continues to lead the way in safe isolation with the addition of new, professional electrical locking off devices and kits for miniature circuit breakers and fuse holders. The new lockouts provide simple and reliable solutions to ensure circuits have been de-energised and properly isolated prior to maintenance and modifications of plant and equipment – in accordance with HSG85, the Electricity at Work Regulations. The new LOKKIT6 includes everything needed to lock off and label Red Spot or similar fuse holders as part of a safe isolation procedure. The kit includes the LOK6 universal fuse carrier lock off, a TAG4 warning tag and marker pen, plus a PAD10R padlock. The LOK6 is designed to restrict finger access to live contacts and prevent the reinsertion of a fuse while maintenance is in progress. It is easily adjustable to fit fuse holders from 20 to 100A, providing a one size fits all solution that is always to hand.



QE210

QE211



Securikey is a safe bet

Securikey is dedicated to supplying products that meet the very highest criteria and is proud to announce that its range of Euro Vault safes now offers even more value and quality with updated features and two new models. Suitable for floor or wall fixing and now extended to five models, the Euro Vault range of safes are manufactured from solid steel with a 4mm thick door and 25mm hardened steel locking bolts, offering an overnight cash cover of £1,500 (£15,000 in valuables). The introduction of the DR12 and DR17 models extends the range by two options with capacities of 12 and 17L respectively and completes a comprehensive suite of products which, while aimed at the lower retail price, still maintain Securikey's excellent reputation for delivering quality and benefits to both the retailer and the end user. With capacities now available at 12, 13, 17 and 34L, there is a Euro Vault to suit every need. In addition to the two new models, the existing Euro Vaults have also been updated and all now include a new dual lock function and interior light plus new electronics which enable both single domestic user or hotel audit mode to be engaged.



QE212

EVC system BIM objects announced by Baldwin Boxall

Baldwin Boxall has announced the availability of BIM objects for its two Emergency Voice Communication (EVC) systems – Omnicare and CARE2. The drawings are freely available from the company to anyone upon request. BIM (Building Information Modelling) increases efficiency, reduces costs and saves time for building and infrastructure projects. Baldwin Boxall's EVC systems (encompassing disabled refuge, fire telephones and disabled toilet alarms) have been well-proven and are the systems of choice for many. The company builds on its reputation for offering a complete service and will always go that extra mile for its customers. This has been proven to be the case by a recent customer survey, the results of which can be found on the company's website. Typical comments include: "As good as it gets" and "Always consistently good."



Clement steel windows provide modern thermal performance for 1930s residential building in Vauxhall Conservation Area

Clement Windows' bespoke EB16 steel window range has been chosen to replace the original single glazed fenestration at Harleyford Court, a residential building within Lambeth's Vauxhall Conservation Area. Like many of its neighbouring towns, Vauxhall is undergoing a major transformation by Lambeth Borough Council. Their vision is to recreate Vauxhall as "the living town centre it once was". The Vauxhall regeneration and development project includes restoring existing historical buildings as well as providing modern new buildings and facilities. Clement's EB16 window range benefits from slim 16mm glass units, is krypton filled and Part L compliant, offering improved thermal efficiency over that of the original windows. The window restoration was a huge success. Doug Black from the London Borough of Lambeth's Conservation and Urban Design Department said: 'It was essential that the building, which is in a Conservation Area, retained its original 1930s character after the refurbishment. We were very impressed with the close match Clement were able to provide to the historic steel windows and their ability to provide modern thermal performance.'

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Enquiry Number QE15

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Pencil Bin gets top of the class for recycling



The new pencil bins from Leaffield Environmental have been attracting a lot of attention in schools nationwide, encouraging children to recycle and volunteer to be 'litter pickers' according to Abbey Catholic Primary School.

The brightly coloured pencil range have been specifically for children aged 3-8 years.

Ideal for both indoors and outside, and manufactured in durable polyethylene for a long and useful life, each pencil bin has a 70 litre plastic liner inside to assist easy and clean emptying and disposal. Optional extras include: WRAP compliant recycling label, a lock, steel liner and ground fixing kit.

The range is priced from £153.00.

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Enquiry Number QE19



Boiler cascades – the energy efficient system

As the commercial building sector continues to strive to perform in line with the UK's green agenda, installers of HVAC equipment need access to high-performance heating systems that are not only cost-effective but tick all the right boxes for carbon savings too. Neville Small, sales director at Potterton Commercial, explains how boiler cascades could be the answer...

According to the Carbon Trust, heating and hot water can account for as much as 60% of total energy use in a commercial building. It's not unsurprising then that energy efficiency has become a key driver for many building owners.

It is therefore essential that those choosing the system understand the considerations that must be taken into account when selecting heating equipment. First on the list will be ensuring

that the system has been correctly sized to the predicted demand of the building, which will help to safeguard those all-important energy and cost savings.

Managers and occupiers of today's buildings will also expect a system that is flexible enough to respond swiftly, accurately and efficiently to changes in heating and hot water demand, so the chosen system needs to be intuitive enough to achieve this.

Commercial building owners should also be aware that, under the Energy Act 2011, from 2018 it will be unlawful to let premises that fail to achieve minimum energy performance standards (MEPS). However, whether let or owner occupied, the energy efficiency of a building can obviously have a direct impact on overhead costs, so there are good arguments for considering alternative approaches to boiler system design.

Boiler cascades are rapidly emerging as a good solution for commercial heating systems, delivering significant cost and energy savings. They marry the best in modern heating technology with controls that ensure the boilers operate at maximum efficiency, respond rapidly to changes in usage patterns and extend the operating life and reliability of the equipment.

Cascade systems comprise multiple linked boilers, which can respond more efficiently to changing heat loads and offer more flexibility to match the exact heat requirements of a building. Individual boiler modulation ensures flexibility by enabling each boiler to adjust its operating capacity in line with demand.

For example, some wall-hung condensing boilers have a modulation ratio of 9:1 and for every additional boiler added to the system the modulation range improves by a multiple of nine. With three linked boilers, a modulation range of 27:1 can be achieved, delivering impressive efficiencies plus low flue gas emissions. Cascade systems also offer a high turndown capability when only one boiler is needed. The flexibility of this approach also means that the system will still work if one boiler in the cascade needs to be serviced or repaired.

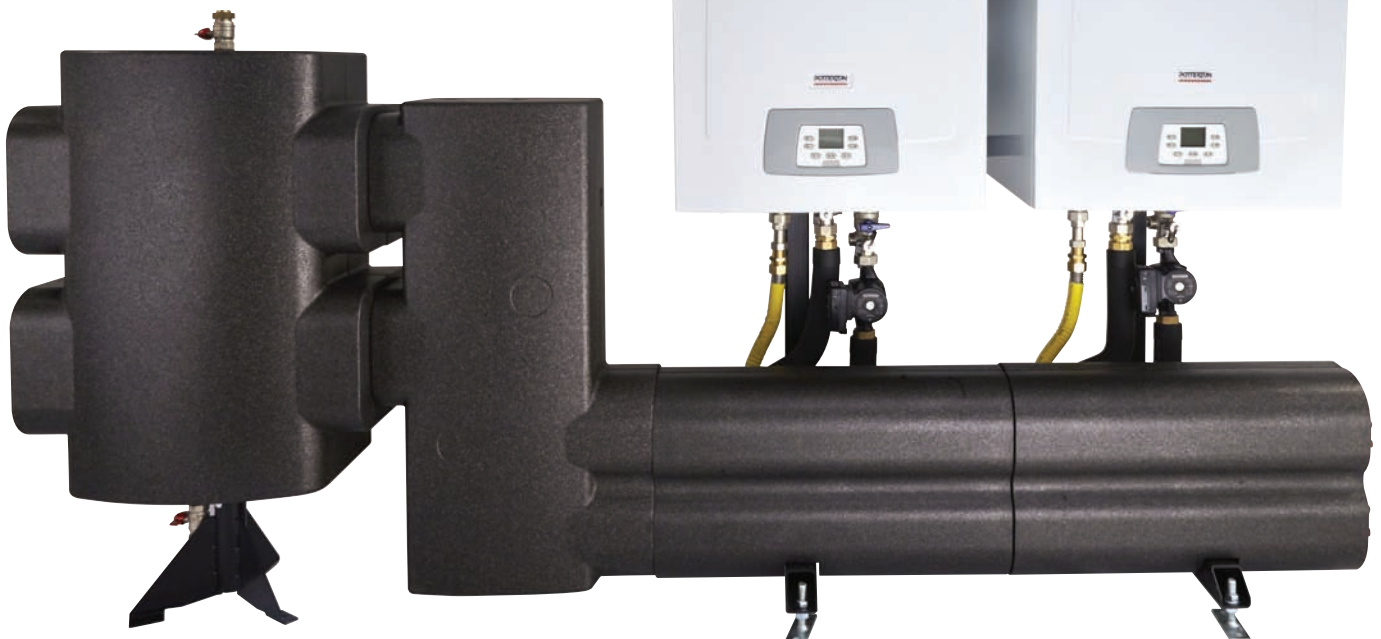


Boiler cascades come in one package from a single manufacturer with components designed to work seamlessly together as a single product and control systems that ensure optimum demand-matched performance. The compact, modular framework offers distinct advantages compared to conventional system designs; offering logistical ease in restricted space, while saving installation time and costs. Furthermore, when it comes to service and maintenance, a cascade system allows engineers to work on each individual boiler, while the remaining boilers on the

cascade stay switched on – reducing disruption to building occupants.

Boiler cascades are flexible, responsive systems that deliver both optimum performance and energy savings. A solution, in other words, that ticks all the regulatory boxes while delivering increased user benefits.

 **Enquire about Potterton QE215**





Eliminating condensation

Flexible elastomeric foam (FEF) insulation materials prevent condensation forming on cold, refrigeration and air-conditioning pipes. PSB finds out more...

Condensation on pipework should always be prevented wherever possible. Moisture formation can damage the structural fabric of a building, promote mould growth and either cause, or greatly accelerate, pipe corrosion. In extreme circumstances corrosion attributed to condensation can even shorten the lifespan of a mechanical system.

Insulation is used to ensure that the surface temperature remains above the critical dew-point temperature so that condensation cannot form. "The properties of the insulation play an important role in preventing condensation and closed-cell materials have a clear advantage," explains Ralf Springub from the European FEF/PEF Interest Group.

Warmer air can hold lots of moisture as water vapour but this capacity is diminished as it cools. Eventually cooling air must relinquish some of the moisture it could hold at higher

temperatures, creating what we know as condensation. Any surface cooler than the surrounding air presents the potential for condensation but the risks are greater as the temperature decreases, making it a particular issue for refrigeration and air-conditioning pipes.

Fortunately pipe insulation doesn't just reduce energy loss – it can also be used to prevent the

warm, moisture laden, air coming into contact with the cold surfaces of refrigeration and air-conditioning pipework.

Better in black

"The properties of an insulation material are important when assessing its suitability for refrigeration and air conditioning pipework," explains Ralf Springub, "it's essential to keep the surface temperature above the dew-point



so that condensation cannot form". Besides the specific thermal conductivity, the surface emissivity of the insulation material is critical.

The surface emissivity describes the potential of a material to give off energy in the form of thermal radiation etc. With a non-reflective, high emissivity finish, black surfaces are well suited to controlling the surface temperature. In this way, relatively low insulation thicknesses can be used for the reliable control of condensation.

Keep water vapour out of insulation and off the pipe

Differences in partial water vapour pressure force moisture towards cold surfaces. If water vapour is free to pass through the insulation surface it can cause interstitial condensation within the material, dramatically reducing energy saving performance and increasing the risk of pipe corrosion.

For many insulation materials the only way to prevent this is to apply an external water vapour barrier – usually in the form of a thin and easily damaged aluminium foil. Closed cell FEF and PEF materials are, however, so inherently effective at preventing the passage of water vapour that they can be considered to possess an in-built water vapour barrier and do not require an external foil to be applied.

The nature of this resistance means that surface damage to a closed cell FEF or PEF insulation material is unlikely to significantly impair or diminish its ability to prevent condensation moisture ingress.

Maximising flexibility, minimising thickness

Because FEF and PEF insulation materials are not reliant on an low-emissivity external water vapour barrier they are able to present a high emissivity surface finish. This can lead to notably



thinner insulation solutions for controlling condensation when using FEF or PEF materials.

FEF insulation materials are particularly practical when it comes to insulating irregularly shaped pipework elements like valves and flanges. Thanks to the flexibility of the foam and the inherent water vapour resistance offered by the closed cell structure, FEF materials can be easily shaped and cut to size and aren't reliant on an externally applied water vapour barrier for protection against moisture ingress.

Green Guide ratings for Nitrile rubber (FEF) insulation

The BRE (Building Research Establishment) has recently added pipe insulation products to its *Green Guide to Specification*. Nitrile rubber (FEF) insulation products are classified with an A rating across all of the material use categories for pipe insulation products.

Green Guide ratings allow consultants to compare the environmental impact of different construction products using an easily understood scale ranging from A+ to E. With A ratings across the board, nitrile rubber (FEF) products are amongst the pipe insulation products with the lowest environmental impact, making them a great choice for

anyone looking to deliver sustainable buildings.

BRE provides *Green Guide* ratings for pipe insulation for the following building types:

- Domestic
- Health
- Commercial
- Industrial
- Retail
- Education

In each case using A rated FEF insulation can help to realise vital credits under the BREEAM environmental assessment scheme.

BRE has defined six different application types for pipe insulation – each representing a different range of operating temperatures. In each category the *Green Guide* provides summary ratings for the most commonly used material types. For FEF insulation products these ratings are:

Application Type	Product Type	Element Number	Summary Rating
Domestic heating & hot water	Nitrile rubber pipe insulation	1635800004	A
BOTD Hot Water	Nitrile rubber pipe insulation	1636810004	A
BOTD Heating	Nitrile rubber pipe insulation	1637820004	A
BOTD Chilled Water 10° C	Nitrile rubber pipe insulation	1638830004	A
BOTD Chilled Water 5° C	Nitrile rubber pipe insulation	1639840004	A
BOTD Chilled Water 0° C	Nitrile rubber pipe insulation	1640850004	A

 Enquire about CEFE **QE220**



Harnessing excess electricity from PV panels

In the UK, thousands of domestic solar photovoltaic (PV) panels are generating electricity every day but in 50% of cases the energy isn't being used. John Forster, product manager at Heatrae Sadia, explains why installing a hot water storage cylinder designed for use with PV arrays can help social housing landlords to provide optimum energy savings for their tenants...

There are around 892,817 PV installations in the UK. Thousands of these installations are in the social housing sector, with local authorities and housing associations often seeing PV as a way to improve energy efficiency and help reduce fuel poverty among their tenants.

The PV market has been boosted by a reduction in the cost of PV panels and, of course, by the introduction of the Feed-in-Tariff (FiT) in 2010. While there have been recent reductions to FIT payments – the original scheme closed in January 2016 and a new scheme opened in February

2016, with reduced tariffs and different rules – installations are still taking place. For example, in July 2016 alone there were 4,337 installations.

According to the Energy Saving Trust, the most can be made from a PV system by using the electricity it generates within the



property, rather than exporting it back to the grid. This is because electricity bought from an electricity supplier will cost more than the owner would get back through the FiT scheme.

While the electricity is being generated, it makes sense to use appliances with high energy demands, such as washing machines, dishwashers and vacuum cleaners and charge devices, such as laptops and mobile phones, which run on batteries. However, the problem with this is that the electricity is generated in the daytime, when many homes are unoccupied, so electrical appliances are not being used. In fact, it is estimated that 50% of solar PV users are not consuming the power produced by the PV panels installed – leading to a surplus.

There are ways to harness the surplus electricity – one of them being to heat stored hot water which, in turn, reduces utility bills. This can be achieved via a hot water cylinder fitted with an immersion heater but it is not a straightforward procedure. If the system isn't properly managed there is a risk that the occupier could end up buying more electricity from their supplier, or they might be left with insufficient hot water for their daily needs.

A much more reliable method is to use a specially-designed hot water storage cylinder that has been optimised for use with PV arrays. Here, any power that is generated in addition to the household's normal requirements will be diverted to the cylinder, rather than being sent to the grid. The water is heated to the desired temperature, controlled by a thermostat, ready for the household to use when required – if the cylinder has high-performance insulation the water will remain hot for many hours.

With a specially-designed cylinder, only excess power is diverted to the cylinder – so normal household power requirements are not affected. Increasing electricity usage to more than the solar PV panels generate will obviously raise electricity bills rather than reduce them, so to avoid any draw from the grid, a buffer of energy needs to be retained. Typically, if there is 2.2kW of export energy, a controller will divert 2kW into the cylinder's immersion heater, leaving a 200W buffer.

In a property with a PV array generating a 2kW surplus and a 200L PV cylinder, after five hours the hot water temperature can potentially increase from 20 to 60°C. The weather will of course affect the amount of energy

produced but PV cells don't need direct sunlight to work – they can still generate some electricity on cloudy days, so even then the water will still be pre-heated, reducing the amount of energy required to heat the cylinder.

Electricity from the grid can still be used to heat hot water when required and the tenant would still be able to take advantage of economy energy tariffs.

Solar PV cylinders do not affect the landlord's FiT payments either. Where an export meter isn't fitted (which is usually the case if the solar PV system is less than 30kWp⁴), a deemed usage contract will be in place – this means an export tariff is paid whether the energy is consumed or not.

Whether the recent changes to the FiT scheme have an impact on the PV market or not, there are still thousands of social housing properties in the UK with the technology fitted. By upgrading to an unvented hot water cylinder that has been optimised to work with PV panels, the landlord can ensure any excess electricity is put to good use, helping to make energy savings and reduce fuel poverty.



■ ■ Enquire about
■ ■ Heatrae Sadia QEE225

QE230



Creating homes from disused offices

Since regulations were altered, Class B1 offices may now be converted to Class C3 residential dwellings, without the need for specific planning and development permission. In recent months **Giacomini** has been involved in many such projects that transform commercial office units into residential areas. The latest is Babcock House, in Crawley, where 185 apartments are being created in a disused eight-storey office block. The work will involve re-roofing the building, renovating the external façade and installing 185 of Giacomini's twin plated heat interface units to allow each apartment to be independently controlled, providing efficient heating and hot water for the multi-dwelling building.

Efficiency makeover with QRL

As part of a £5.8m regeneration project to enhance heating efficiency and slash bills by 50%, four 1960s tower blocks in North London have replaced their outdated electric underfloor heating systems with next-generation radiators from **QRL Radiator Group** – all matched with renewable heat sources. The award-winning Exeter Road Retrofit Project saw all four blocks – comprising 181 flats in total – undergo a series of extensive efficiency upgrades in a bid to tackle fuel poverty, raise heating standards and improve quality of life in the community. The team specified QRL hi-lo Compact panel radiators to work in conjunction with the GSHPs, as their super-efficient design makes them a suitable partner for renewables (which run at lower temperatures than traditional heat sources).

QE231



QE232



Hands-free dosing with twist-and-dose aerosol

Dosing heating systems with **Sentinel's** award-winning and boiler manufacturer-endorsed water treatment chemicals just got even easier and faster thanks to the company's new Rapid-Dose aerosol. The new, smaller Rapid-Dose features a pre-assembled adapter and twist-and-dose mechanism (there is no need to depress a lever or trigger) that allows easy hands-free dosing of a system in just 30 seconds. This makes it suitable for everyday jobs in addition to service, emergency, pre-dose and social housing applications where time is of the essence. The new, no fuss, mess-free Rapid-Dose cans are available with Sentinel X100 Inhibitor, Sentinel X400 High Performance Cleaner and Sentinel Leak Sealer chemicals and can be tried out on a no-risk basis, since installers who don't like the new Rapid-Dose can claim a free bottle of X100 Inhibitor from Sentinel (subject to terms and conditions). Not that Sentinel expects this to be the case – it saves time on site, is easy to use, can be connected to multiple locations on a system and there is no loss of product or spillage.

QE233



Fusing efficient ventilation

Gilberts (Blackpool) has developed a natural ventilation unit that also features both heat reclamation and space heating. The Mistrale MFS Fusion unit can now be optioned with an integrated LPHW coil, which provides a complete solution for both morning warm-up and any boost heating requirements. The stand-alone unit is installed as normal through the building façade. The core MFS appliance provides natural ventilation and blends the incoming fresh air with the warmth from the exhaust air without the need for a heat exchanger. With the LPHW coil option, for morning warm-up, the coil is energized and the fan runs on full speed for approximately 20 minutes (depending on night set-back temperatures and flow temperatures) to provide an even heat distribution across the room before occupancy.

QE234



The Ideal work out

Four **Ideal Commercial** Evomax 100 boilers with frame and header kits have been installed as part of an extensive retrofit at the Lymington Health & Leisure centre in Lymington, Hampshire. The new Evomax boilers were installed in the boiler room to supplement two older, standard efficiency boilers which were deemed to be inefficient and did not modulate, meaning output was all or nothing when fired. The combination of ease of installation and high efficiency readings were found to be very impressive and offered an attractive appearance. The introduction of the new Multiline cascade flue assembly allowed more of the work to be carried out by New Forest District Council, thereby reducing the cost materials and labour.

Polypipe Ventilation launches BIM library

Polypipe Ventilation has set up a BIM Library, available free of charge. The BIM Library features an extensive array of products, including energy saving, whole house Silavent HRX Mechanical Ventilation with Heat Recovery (MVHR) appliances and Silavent CMX Mechanical Extract Ventilation (MEV) units, as well as award-winning Domus Radial semi-rigid duct systems and the full range of Domus rigid ducting and accessories, which incorporates Domus Thermal duct insulation and duct sound attenuators. BIM object data on Polypipe Ventilation products includes detailed information such as product properties, geometry, visualisation data and functional data that enables the object to be positioned and behave in the same manner as the product would in-situ.



QE235

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Enquiry Number **QE20**



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Enquiry Number **QE23**



QE236

Wireless controller

Consort Claudgen's new CRX1 wireless controller features a large easy-to-read backlit LCD display and offers up to six temperature settings a day, seven days a week. It has four different operating modes and features a 15-minute Boost with temperature control to provide the maximum comfort quickly. The CRX1 works with all Consort RX heaters and can operate different products at the same time, allowing total heating systems to be effectively controlled. This modern design controller is supplied with a security wall bracket and a table top stand so that it can be placed anywhere in a room.

Efficient solution to warehouse heating

In tall buildings, heat losses can be increased by around 20%, adding to the country's carbon burden unless an adequate means of de-stratification is designed into any high bay heating system. A simple to install, economical and fuel efficient system has been developed by **Nordair Niche** that uses first physical principles to keep warm air gently circulating, maintaining constant comfort temperatures without the need for additional costly high level equipment. An air rotation heating system works in a completely different way from most other warm air heating systems. A high airflow, low air velocity unit positioned at floor level draws in cool air at floor level and discharges it at high level across the roof space. The units rotate the cool air normally located at floor level, and mix it with the warmer high level air causing it to fall and be drawn back down to low level by the constant air re-circulation. The system is fully automatic, constantly modulating to maintain the temperature at a pre-set level.



QE237



QE238

Vent-Axia shortlisted for HVR award

Vent-Axia has announced that it has been shortlisted in the prestigious HVR Awards 2016, which celebrate innovation in the building services sector. The company's award-winning Sentinel Kinetic Advance is a finalist in the Commercial Ventilation Product of the Year category. This is the second time the Advance has been shortlisted in a month, with the HVR nomination following hot on the heels of it being named as a finalist at the Electrical Industry Awards. 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 suitable for care homes and student accommodation as well as new build residential properties.

GAS SAFETY IS AN ALL YEAR ROUND COMMITMENT FOR JOHNSON & STARLEY

19-25 September 2016 saw the sixth annual Gas Safety Week take place in the UK. Johnson & Starley is one of many UK organisations that works all year round to raise awareness of the hazards that can occur if gas appliances are incorrectly installed or poorly serviced and maintained. The company marked the week by underlining its commitment to industry training that will help to raise standards and minimise the dangers of gas leaks, fires, explosions and carbon monoxide poisoning that can occur in the autumn and winter period.

The 2016 Gas Safety Week was coordinated by the Gas Safe Register that maintains details of businesses and operatives who are competent to undertake both piped natural gas and LPG work. Over the coming months Johnson & Starley will be working closely with individual gas engineers and contracting companies by offering comprehensive gas appliance training programmes. These cover safe practice guidance and tuition on all areas of gas warm air heating installation, maintenance and upgrades as well as on gas boiler servicing and installation.

With some 23 million gas fuelled homes in the UK, the company also recognises the

need for continuous gas safety education and awareness campaigns aimed at householders, local authorities and housing associations. "Gas safety is an all year round issue but it is now particularly important to plan for the seasons ahead when the performance of heating systems come under the greatest pressure. Gas Safety Week has been an excellent platform for raising awareness and Johnson & Starley would also stress the need to now ensure that carbon monoxide detectors are fully functional, appliance safety checks are undertaken and regular servicing programmes by competent engineers are put in place," says Ann Chinsang, Marketing Manager at Johnson & Starley.

Gas safety is also enhanced by appliance build quality and the company's British built ranges of gas fired QuanTec condensing boilers and WarmCair condensing warm air heating systems are produced at its Northampton factory to the highest possible standards. For example, the use in the QuanTec range of high durability full condense stainless steel heat exchanger technology reflects a commitment to a high level of build quality and extremely low NOx levels help to maintain a cleaner, safe indoor



environment. Easy servicing of the boilers also encourages regular maintenance regimes to be implemented.

For more information on any of the company's gas boiler and warm air training programmes or ranges, contact Johnson & Starley Ltd, Rhosili Road, Brackmills, Northampton, NN4 7LZ, Tel: +44 (0) 1604 762881 Email: marketing@johnsonandstarley.co.uk or visit their website www.johnsonandstarley.co.uk

Enquiry Number QE24



Creating quality conditions for patient recovery

Built primarily with diagnosis and treatment in mind, when it comes to developing healthcare facilities, the provision of healing environments has traditionally tended to come further down the priority list. However, as an increasing body of research sheds new light on the beneficial role building design itself can play in supporting improved health and wellbeing outcomes, this area has rapidly grown in importance in healthcare projects. Paul Campbell, commercial sector manager at British Gypsum, looks at how adopting evidence-based design can help to create environments that are more conducive to patient recovery and recuperation...

Numerous studies have documented the link between health, wellbeing and the built environment. It is becoming increasingly evidenced that physical factors such as noise reduction, increased natural light and contact with nature need to be taken into account when designing and modifying healthcare facilities.

Exploring the implications of research in this way and putting

learnings into practice, is quickly becoming the standard way of working when designing healthcare facilities. Known as evidence-based design (EBD), the idea is to help create spaces that actively work to benefit occupants. For example, instead of focusing only on the environmental efficiency of a building, factors such as stress, experience and general health levels are considered in

evaluating performance and the results are used to inform future designs.

Patient well-being

One area in which EBD has been used with great success, particularly in the healthcare sector, is in regards to air quality. It is well-documented that poor indoor air quality can have a detrimental effect on patients and the speed at which they recover.

The Tenth International

Continued on page 24...



...Continued from page 23

Conference Enhanced Building Operations report into indoor air quality and the affect it can have within healthcare environments found that 50% of illnesses are caused by, or aggravated by, poor indoor air quality.

Furthermore, studies show that patients staying in environments that have systems in place to remove harmful air pollutants, such as air conditioning systems, generally have a quicker recovery time that those in an environment with less advanced systems.

Considering the average person typically uses 15kg of air each day just through breathing, compared to 1kg of food and 2kg of water, it is vital that specifiers are aware of the impact of a design which mitigates air contamination on the building users.

The impact on staff

Poor indoor air quality doesn't only affect patients; it can also have a significant effect on employees. Sick Building Syndrome (SBS),

for instance – in which people who spend prolonged periods of time in one building, such as doctors and nurses, experience health issues related to no particular illness – has been linked to poor indoor air quality. The symptoms can include throat and eye irritation, dizziness, headaches and the inability to concentrate.

As hospital staff work notoriously long hours, the reduced concentration and productivity levels that SBS can induce could have serious consequences. To mitigate this, it is important that those designing and constructing hospitals have access to all available research, in order to inform the design and specification process, guaranteeing comfortable and safe facilities.

Specifying the right products

Research is also being used by product manufacturers to create specialist solutions, such as

British Gypsum's ACTIVair technology. The innovation is designed specifically to decompose formaldehyde – a common volatile organic compound which has been linked to health issues in high concentrations – into non-harmful inert compounds, thus reducing the risk of re-emission.

The benefits of using technologies like this in healthcare environments were highlighted during the redevelopment of the St Mary's hospital, Kettering. The main contractor in the project wanted to deliver an interior as conducive to recovery as possible and made air quality one of its key considerations. British Gypsum's Gyptone ceiling range incorporating ACTIVair was installed in four key areas of the facility and tests were carried out to demonstrate the performance and success of the product in-situ.

The results showed that, following the installation of Gyptone ceiling tiles and plasterboard featuring ACTIVair, there was an average reduction of 42% in levels of formaldehyde. Further tests from the Eurofins laboratory have gone on to show that ACTIVair can decompose up to 70% of formaldehyde in a controlled test environment.

Growing pressures

There is a growing requirement and real opportunity for industry professionals to create comfortable buildings that improve the health and wellbeing of their occupants. By using the latest available research from resources such as the Evidence Space website to understand how real-life users are affected by built environments, designers can ensure they create buildings that actively benefit users.



Enquire about
British Gypsum QE245



EVIDENCE SPACE

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Enquiry Number QE25





Prevention is the best cure for hospital security risks

Glenn Foot, [technical manager at Eaton](#), looks at the security challenges facing hospitals and other healthcare facilities and what can be done to prevent them...

Upholding the security of patients, staff and visitors in hospitals has never been more complicated. A glance at recent news reveals an array of security challenges facing hospitals and other healthcare facilities on a daily basis. This spans the theft of property, equipment and drugs to attacks on staff and the potential mistreatment of vulnerable patients.

Considering the range of risks and the growing diversity of buildings, facilities and activities taking place in modern healthcare, it's clear that no single solution will suffice.

Yet protecting the safety and security of people within a hospital environment is one of the most fundamental expectations of a healthcare facility.

As a result, hospital managers are required to consider carefully the potential risks they may face and plan both preventative and remedial actions.

Access control is perhaps the most logical place to start. This refers not only to the entry and exit points of buildings but also oversight of particular areas within hospitals that might be restricted. They may be restricted because they are hazardous, such as chemical storage and waste areas, or because they are particularly sensitive to intrusion, such as baby units.

In many cases, simple push-button access controls are a sufficient safeguard and can provide security managers with a real-time view of where people

are in the building. However, given the diversity of activity that happens in a modern hospital, there are many cases where the outputs from the access panel will need to be customisable and linked to other devices. This might include, for example, restricting access to an X-ray room when it is in operation.

An advantage of access control is that it's possible to programme which doors would open in the event of an emergency such as a fire alert. This not only helps occupants evacuate the building safely but also prevents trespassers from taking advantage of the scenario and entering the building.

A common problem that arises is when staff leave 24-hour doors

open, either by failing to shut them properly or by propping them open. However, this can be solved with a door monitoring system, whereby, upon opening, a signal is sent directly to a keypad or security guard who can switch to CCTV to see who is there.

Suffice to say, CCTV is a necessity in most hospitals now. It can now be linked to a security system so that, when an alarm is triggered, CCTV monitoring focuses on the door in question.

CCTV is particularly important in areas containing vulnerable people, such as baby units, dementia or psychiatric wards. Here the risk not only concerns people entering a restricted area but people leaving those areas.

A vital consideration is that the whereabouts of occupants can be established quickly in the event of an emergency evacuation and vulnerable people require specific attention in these cases. A good demonstration of the latest technology and its ability to protect vulnerable people can be found at The Westgate School, in Berkshire, where a safety system was installed to give greater peace of mind to students with physical disabilities.

In the event of an emergency, disabled students are required to congregate in one of three refuge points while awaiting assistance. However, to better determine the precise location of the students, they are issued either with a pendant or wristband. When activated, an alert is sent to a radio receiver integrated with a paging system that sends a message to members of staff who can then locate the students.

The same system could be equally helpful to certain patient groups who are vulnerable. When a wristband is touched in a safe refuge, a light turns green and a pager alert is sent to a staff member. In addition, CCTV cameras can be programmed to pick up their whereabouts. Such systems are ideally connected to an uninterruptible power supply (UPS) to ensure they

still work even if power is lost.

Another important consideration for hospitals is the protection of lone workers. Panic buttons provide a certain level of protection but are rendered ineffective if a lone worker has fallen unconscious or been incapacitated by an injury.

By using a lone worker transmitter attached to a belt, an integral tilt switch issues an alert to an alarm panel if the worker falls to the ground. The signal is typically sent to a keypad where a security guard is based, or it can alternatively be linked to a pager, or transmitted via text message or voice message.

A challenge for hospital environments is that text messages can be unreliable. By contrast, pagers work on a 173 frequency, which doesn't interfere with sensitive equipment. Lone worker solutions are particularly pertinent in laboratories, for example, where individuals may be working alone with hazardous chemicals. Walking into a specified area, the staff member clips the device onto his or her belt and replaces it when they leave. Of course, this is reliant upon employees following a pre-determined procedure, which should be clearly communicated at the outset.

Despite advances in technology, human interaction is vital to the success of a hospital security strategy. In many cases, for example, security guards will be required to conduct regular rounds of a site. However, there is still a place for checks and balances. Proximity tags can be deployed to ensure that these patrols are carried out with the necessary diligence and regularity, which is particularly important on large sites comprised of multiple buildings. In hospitals, for example, nurses'

accommodation may need to be monitored in this way.

Considering the breadth of risks and the available technologies, it is perhaps surprising that there has not been greater adoption of the latest security systems.

One concern is the *Big Brother* perception of security and surveillance infrastructure. Staff, patients and visitors may be resistant to what they see as an intrusion upon their privacy. As previously mentioned, it is vital that staff fully embrace standards and procedures in order for them to be effective. From checking that security doors are closed to activating lone worker fobs, staff can make or break the success of a security system.

It is incumbent upon managers to take a holistic view and carry out regular risk assessments. In this way, a definitive statement can be compiled to explain how the various hazards will be addressed.

It is advisable to look for a supplier with a range of available technologies and a track record of expertise. Considering the intensity of requirements, a supplier that also offers CPD certified training can be helpful.



 Enquire about Eaton QBE250

QE255



Healthier door closing

Powermatic concealed door closers from **Samuel Health** are becoming increasingly popular with specifiers, estates managers and clinicians throughout the healthcare sector thanks to the many health, safety and hygiene benefits that they deliver. Totally concealed when the door is closed, Powermatic offers few surfaces on which dust and potentially harmful detritus can accumulate. Its low mounting height also simplifies inspection and cleaning procedures.

Where safety is concerned, Powermatic door closers are suitable for anti-ligature and anti-barricade applications in post-natal depression and psychiatric care facilities as well as secure units. Their concealment also means that they are less likely to be vandalised.

Yorkon off-site at Healthcare Estates

The **Portakabin Group** will be showcasing its **Yorkon** off-site solutions at this year's Healthcare Estates event. Its team of off-site specialists will be on hand to advise healthcare providers, architects and contractors on how to increase capacity on constrained hospital sites – with shorter programme times, less disruption and greater certainty of completion on time and on budget. The Yorkon stand at Healthcare Estates will demonstrate the latest advancements in off-site technology and some of the ground-breaking projects which have changed the face of the construction industry. Yorkon off-site solutions offer the unrivalled flexibility to meet almost any design brief, hospital site and building footprint with greater efficiency. The approach will reduce programme times by up to 50%, and deliver buildings with improved thermal efficiency for lower running costs and offer assurance of completion on time and on budget.



QE256

QE257



Hospital prescribes GEZE UK products

GEZE UK has provided the prescription for a world-class hospital in Glasgow. The Queen Elizabeth University Hospital received the GEZE treatment as part of a £842m development which incorporated the company's automatic swing doors and sliding doors into its ultra-modern design. A total of 17 automatic doors, which included Slimdrive SL NT sliding operators and Slimdrive EMD-F and TSA 160 NT swing doors, were installed into the new, state-of-the-art complex which incorporates the Royal Hospital for Children (RHC), a teaching and learning centre and a number of specialist clinics. The specification included large public entrances for the adult and children's accident and emergency departments, the acute receiving unit, the GP out-of-hours centre, as well as the main entrance for the RHC and door systems for ambulance admissions areas.

QE258



A new lease of life for theatres

The successful delivery of several state-of-the-art operating theatres at Jersey General Hospital has been achieved thanks to the healthcare engineering expertise of the **TNG** team. The Southampton-based mechanical and electrical consulting engineer, formerly Henderson Green, has worked on two construction contracts at the hospital to both upgrade and expand the surgical facilities. Building on its long-term relationship with the

hospital, TNG was brought on board to design and specify the critical engineering services such as emergency power systems, ultra-clean ventilation and medical gases. The first contract, to provide two new operating theatres, has been completed and handed over. The second contract, which has now started on site, sees the refurbishment of four existing theatres.

QE259



Altro flooring sets the clinical standard

Altro's flooring and wall cladding systems are proving their clinical capabilities in a new, state-of-the-art primary healthcare facility in Maidstone, Kent, where safety and infection control are paramount. Altro Wood Safety safety flooring in Oak Traditions was selected for the circulation spaces on all three floors of the medical centre and on the staircase. Altro Wood Safety creates a homely, comforting and familiar look without compromising on safety. There are 16 wood-look designs, including classic, contemporary classic and on-trend.

Novus creates new physiotherapy centre

Novus Property Solutions has created a new physiotherapy centre at West Suffolk Hospital in Bury St Edmunds as part of a £20,000 programme of works. The ground floor of the Maple House office complex has been transformed into a hygienic, air-conditioned space for physiotherapy treatments, while the building's first floor offices have also been upgraded. Non-touch water heaters and new hand basins have been installed at the building, boxed-in and covered in hygienic cladding to ensure the facility meets the hospital's health and safety standards. Novus operatives also installed new window blinds on both floors as well as solar film on all south facing windows to reduce the build-up of heat inside the building. Air conditioning units were also serviced and given full electrical checks and certificates.

QE260



CHANGING PLACES IN HOSPITAL

NHS Trusts are being urged to implement new 'best practice' guidelines to facilitate the hygiene and safety of disabled users of their buildings.

The Department of Health's Health Building Note 00-02: sanitary spaces has just been updated, and now incorporates specification details for a Changing Places assisted accessible toilet- previously not covered under the guidelines.



"Over a third of NHS users are disabled people, and access health services more frequently, but for many, typical wheelchair-accessible toilets are not suitable," explains Changing Places campaigner Lorna Fillingham. "They need a carer to help them, and may need changing or lifting. Without enough space, an adult-sized changing bench and hoist, they either end up having to sit in a soiled pad or lie on the toilet floor. Neither option is acceptable, for health, hygiene or wellbeing, and especially not in a health building!"

"Yet of all the 2,300 British hospitals, less than 10% have Changing Places toilets. Their inclusion in the Building Note is a major step in the right direction. It reinforces the need."

"Under the Equality Act 2010, which replaced the Disability Discrimination Act, there is a requirement to make 'reasonable adjustments' including to the built environment where a disabled person would otherwise be at a 'substantial' disadvantage: isn't having to lie on a toilet floor or sit in faeces a 'substantial' disadvantage?"

Clos-o-Mat is the UK's leading provider of disabled toilet solutions in and out of the home. It has also undertaken more Changing Places than any other single provider, due in part to its unique ability to project manage the complete installation from design to commissioning and ongoing service & maintenance.

Clos-o-Mat is also unique in the depth of support provided, from design advice, site surveys, CAD blocks, 2D and 3D visualisations, white papers and technical and compliance guidance, much of which is available to access freely via its website www.clos-o-mat.com

Enquiry Number [QE26](#)

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Enquiry Number [QE27](#)

Longevity of A Door Hinges on the Hinge!

The simple hinge can actually be heralded as a revolution in the construction world. If this concept had not been invented life, as we know it, could well be different! Leading manufacturers and solution providers in protecting doors, people and places, Intastop, is keen to highlight the importance of this simple but effective piece of ironmongery.

From T-hinges to Piano there are many types which will allow a door in particular to be easily and smoothly manoeuvred, yet these tend to have a shelf life and if not maintained can ultimately lead to costly door replacements. The next generation of hinges has taken this into consideration and now provide enhanced operation, user safety and longevity.

Sarah Barsby, marketing director for Intastop commented: "The importance of a hinge is often overlooked but when considering the effects it has on door repair and replacement costs it really should be a priority. Particularly in public buildings where there is continual use and also public safety to consider."

The next generation, Continuous Geared Hinge, from Intastop addresses all these issues and more! Unlike other hinges it works by two full length, paired and geared levers. Each geared leaf rotates evenly from top to bottom riding on Delrin-Teflon bearings which generate a low operating force delivering easy opening and automatic closing. Users enjoy increased security, safety and privacy and typical problems in high usage doors such as alignment issues and stress distribution is alleviated through its innovative design.

The Intastop continuous hinge decreases maintenance, allowing heavy doors to be safely fitted as weight is distributed across the entirety of the hinge preventing buckling which can result in doors becoming faulty. It also eliminates any gap between door and frame, providing privacy and added security and, is ideal in mental health facilities as it removes potential ligature risks at the top of the door.

"Our continuous door hinge provides a real and measurable solution to problems that public buildings such as hospitals including mental health, schools and leisure facilities experience. In fact, in some instances it has the potential to save up to £30,000 on maintenance costs!" said Sarah.

She concluded: "The key to any successful door hung product is quality and we can confidently assure estate and maintenance managers as to the high level of performance and longevity our continuous hinges provide."

In addition to its quality manufacture the hinge is backed by a plethora of certifications such as Fire tested to BS476:Part 20 & 22 for 30 and 60 minutes, exceeds life cycle requirements of BS7532:1990 (tested to 1.5 million cycles) and is Grade 1 Abuse tested.

For further detailed information about Intastop's lifetime guaranteed continuous geared hinges visit:

www.intastop.com | Tel: 01302 364 666



Continuous Geared Hinges – Protecting doors, protecting people, protecting places.

Enquiry Number [QE28](#)



Brexit: How will it affect affordable and social housing

Following the British electorate's decision to leave the EU, the UK is full of uncertainty and unanswered questions, yet the housing crisis continues to trouble the nation thanks to the lack of decent, affordable homes. Radian discusses...

Brexit has propelled the Government into uncharted territory, causing a great deal of political and economic instability, making the job of predicting its impact on the affordable housing sector virtually impossible. Until Article 50 is triggered, housing associations will remain in a state of limbo. The UK and the EU will begin the process of negotiating the terms of a new relationship – but not until the new trading model is chosen can the affordable housing sector begin to form any business models for the future.

Radian, one of the south's leading housing associations remains positive. Lindsay Todd, chief executive of Radian Group,

said: "The Government is still attempting to pick up the pieces post Brexit and it is the current uncertainty that is causing many to panic, especially in the affordable housing sector. "Even so, I don't believe leaving the EU will reduce the demand for high quality new homes for PRS [private rented sector], shared ownership or affordable rent, particularly given the high demand in the south of the country where we operate.

"Housing associations have a commitment to the people they support which cannot just be stopped. Here at Radian, we have a vision to deliver more homes for social housing and PRS under our SMART brand and we're still determined to deliver that. As long

as we can source and fund viable schemes and are satisfied there is a demand for the homes we produce, based on what we currently know, there is no need to slow down."

Funding and its impact on construction

The vote to leave the EU presents challenges in terms of securing public funding, as many housing associations in England currently rely on a number of sources providing funding from the EU. EU Structural and Investment (ESI) funds include the European Regional Development Fund (which housing associations benefit from – particularly in relation to regeneration in deprived areas) and the European Social Fund which fuels the

employment and skills work across the sector.

There are concerns across the sector that, subject to the new trading model between the UK and Europe, future funding from these parties once the UK formally leaves the EU could be lost.

It seems concerns around funding is already affecting construction of new homes following figures recently released by the Royal Institute of Chartered Surveyors and the Office for National Statistics.

The figures show Brexit is starting to have an impact on the building industry as construction output from new housing fell by 1.1% from the first quarter of 2016 to the second.

Via a statement on the National

Housing Federation website, David Orr, the chief executive of the NHF stated in a blog that: "We (the NHF) know that an uncertain economic environment will cause builders to put the brakes on. Our country's prosperity and thousands of citizens' livelihoods depend on a strong building sector - we cannot let a slowdown take hold.

"Housing associations have a track record of building through tough times, having upped their output through the last recession when private developers could not. With the right flexibility from Government and at no extra cost to the taxpayer, housing associations can keep the nation building."

Radian's activities certainly back up Mr Orr's statement: The housing association plans to deliver 600 new homes per year in the South East and South West regions across a mixture of tenures, having recently further

committed to its PRS portfolio, creating over 100 homes in Bournemouth, following a £27m development investment.

Lindsay Todd added that he's confident Radian has established a strong position in the market place, ensuring the company is in the best possible shape to deal with adverse conditions, whatever they may be, if they ever arise. "There may, in fact, be some good opportunities available because of Brexit so we are keeping a close eye on political progress and are operating a fluid strategy to ensure we are able to adapt when we consider it's sensible to do so."

What can the Government do?

Once Article 50 is triggered and the Government takes a firm hold of the Brexit reins, the UK's housing associations can begin to form their business models for the future of Britain's affordable housing sector.

Support from the Government is needed to ensure the affordable housing sector will continue to provide high-quality homes. The NHF recently pointed out that housing associations increased their output by 22% during the last recession, as private development dropped 37%. The increase was only possible because central Government provided grant support for social and affordable housing: this needs to happen again to ensure homes continue to be available for those in need.

Money for housing from the Government is currently focused almost exclusively on homes for sale, with billions allocated to private developers to offer discounted starter homes for first-time buyers but if we're to see an end to our housing crisis, the Government needs to make a positive investment in affordable housing, regardless of the uncertainty Brexit holds over our nation.



 Enquire about Radian **QE265**



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Precast Concrete Off-Site Solutions

Enquiry Number QE29

Schöck Isokorb specified for major housing estate redevelopment

Kings Crescent Estate, in Stoke Newington, North London is undergoing a five-year redevelopment project as part of the London Borough of Hackney's wider Estate Regeneration programme. It is claimed to be the only scheme in London to combine new build council homes with the refurbishment of existing council stock. Three new buildings between five and twelve storeys high are under construction, with some of the 1960s and 1970s stock being retained and refurbished. The plan is to recreate a neighbourhood of high quality housing, and tree-lined streets in keeping with the surrounding Victorian townscape. There will be up to 765 new homes, intended to offer at least a one-for-one replacement for the current housing.



To counter the risk of thermal bridging at the many cantilever balcony connections throughout the development, two types of structural break units from the extensive Schöck Isokorb range are incorporated. First the Isokorb type KS, a concrete-to-steel connectivity module that sits between the outer and inner structural connection points, blocking the outflow of heat through the use of high-quality polystyrene insulation core. This sits inside a

compression module which has stainless steel bars passing through it. These take the tension and shear forces between the building frame and the balconies. Second there is the Isokorb type QS module, which in principle has the same functionality as the KS. However, it does not transfer bending moment. Therefore where steel inset balconies are supported along the back edge by external columns, which is a

shear load only, the type QS offers a more economic solution.

The diverse range of Schöck Isokorb load-bearing thermal insulation solutions guarantees totally verifiable performance standards, meets full compliance with the relevant UK building regulations and offers BBA Certification and LABC Registration. There is even a maintenance free alternative to wrapped parapets.



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Enquiry Number QE30

Senior secures its largest PURe order to date

Senior Architectural Systems has secured its largest order to date for its thermally-efficient PURe aluminium window system after being selected by main

contractor, John Sisk & Son and fabricator Elite Aluminium Systems, to deliver the full fenestration package as part of a £1.8m contract for a major new residential scheme in Manchester. Senior's patented PURe aluminium windows, which offer some of the lowest U-values available on the UK market, will become a key feature of developer Manchester Life's latest phase of 302 new rental homes on New Union Street. Senior's patented PURe aluminium window system is the first on the UK market to benefit from an enhanced thermal barrier manufactured from expanded polyurethane foam (PUR). Traditionally used in cladding and insulation products, the use of PUR as a thermal barrier in windows and doors gives the PURe range the potential to achieve U-values as low as 0.71W/m²K when calculated as a commercial CEN standard window.



Aico heads to Scotland

North Lanarkshire Council, the largest local authority housing owner in Scotland, has begun a programme to replace its Carbon Monoxide (CO) alarms with **Aico AudioLINK Ei208** Lithium battery powered CO alarms. The council, which is the fourth largest Scottish local authority, owns over 37,000 houses. A forward-thinking body, it was an early adopter of CO alarms, understanding the potential dangers a CO leak can bring to tenants. As these alarms were coming to the end of their lives, the council made the decision to switch to Aico Ei208 alarms for their superior build quality, ten year life and AudioLINK technology. Aico's multiple award-winning AudioLINK technology allows for invaluable real time data to be extracted via the alarm's sounder – all you need is an Aico AudioLINK enabled CO alarm, a tablet or smartphone and the free AudioLINK App.



Hampshire County Council appoints Actavo



Actavo | Building Solutions has been appointed by Hampshire County Council to its southern modular building framework. Strengthening its foothold across the south and south-west of England, Actavo | Building Solutions will be working with the council for the next four years, providing permanent and temporary accommodation requirements, from public sector buildings to educational facilities. As one of the UK's largest off-site construction frameworks, it will be available to public sector bodies in the South West and South East of England and London. Matthew Goff, UK operations director at Actavo | Building Solutions, said: "Through working with Hampshire County Council over the next four years, we will be working to create off-site-constructed, public sector buildings designed with flair to stand the test of time."

Actavo | Building Solutions has been appointed by Hampshire County Council to

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Enquiry Number **QE31**



The world of thermal breaking

For architects, spending money on a hidden design element isn't usually at the top of the priority list. However, investing in efficient thermal breaking can be one of the best decisions that you can make. Jonathan Shaw, managing director of thermal break specialist, Armadillo, discusses how thermal bridging in cladding structures, roof-to-wall transitions and parapet locations improves building envelope performance, offers continuous insulation and supports structural loads...

Although cladding is imperative to protecting buildings from outside elements and offering structural support, the impact that cladded structures can have on the overall energy efficiency of a building is often overlooked. This comes down to how the cladding is attached to the building and whether it is correctly isolated from the building's interior walls. In most cases, the steel framework has cladding girts attached to the structure to support the outer cladding. Insulation is then installed

between the girts, allowing heat to be conducted straight through the insulation and along the Z girt. This results in substantial energy loss, decreasing the building's overall efficiency.

While the consequences of not using a thermal break are evident, it can be hard for architects to justify spend on an item that a building can essentially live without. However, the reality is that implementing a thermal solution can cut energy loss considerably, making massive savings on a building's running

costs. While developers continue to come under pressure to create sustainable buildings that are energy efficient, including a thermal break as standard is an easily implemented and cost-effective solution with a resulting payback in energy savings. To put this into perspective, inserting a non-metallic thermal break where the cladding connects with the internal building structure can eliminate heat transfer by up to 80%, with the additional benefit

[Continued on page 36...](#)

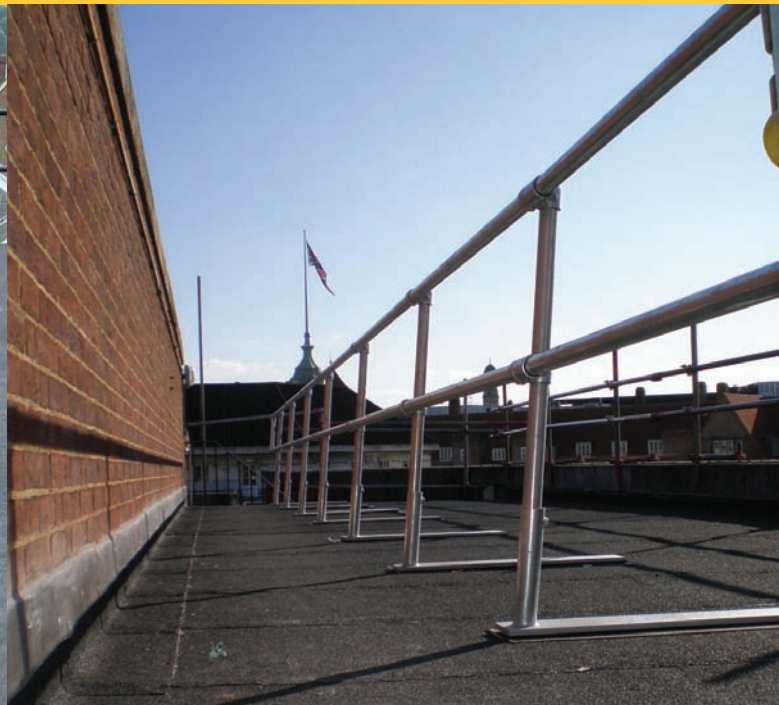


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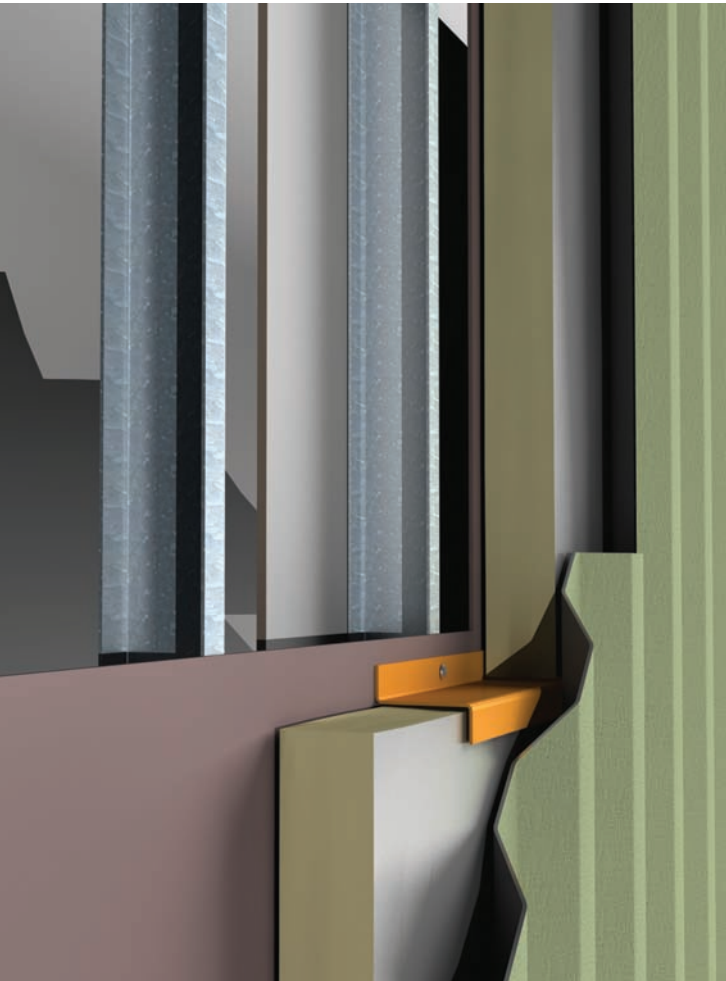
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...Continued from page 34



of preventing condensation on interior walls and temperature changes when extending into the building envelope.

It is not only cladding structures that can benefit from an effective thermal solution, a break can be installed anywhere a transition exists to bridge the building envelope. Roof-to-wall transitions and parapet locations are a good example. To provide the necessary

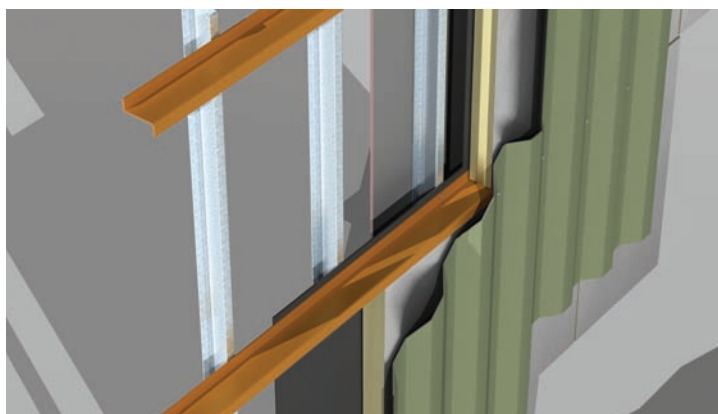
support to the overall roofing structure, both of these locations require structural framing, to support the weight of the roof and equipment such as fall arrest anchors and building maintenance unit rails. As the framing needs to be load bearing, steel is often specified but this again penetrates the low-density roof insulation causing heat and energy loss. This is where a thermal bridging solution can be implemented, to provide structural hard points with thermal insulation performance that is comparable to the existing roof.

Before Armadillo's solutions were developed, the energy lost through poorly isolated transitions would have been an unavoidable issue, as identifying a material strong enough to support the roofing structure and roof-mounted equipment while effectively isolating varying temperatures was difficult to achieve. With regard to the insulation properties needed for an effective thermal break, strength and insulation do not usually go hand-in-hand. A material such as polystyrene would be ideal to isolate temperatures but could not provide the strength required to support heavy loads, whereas steel is excellent for load bearing but is highly conductive, allowing for energy transfer. For this reason, hardwoods such as Iroko timber were often specified as they hold both the thermal and strength properties required for a thermal break solution. Although

hardwoods tick these boxes, they are not water resistant and absorbing moisture reduces the material's thermal performance, which makes them ineffective in construction projects.

This is where Armadillo's solutions come into it their own, as they offer an informed approach to thermal breaking and utilise a range of materials to achieve the best thermal performance for a variety of buildings. The polymers developed by the team are inert, ultra-high density with a closed-cell structure. This profile makes the material strong, insulating and water resistant, which together provides all of the requirements needed for a range of construction projects from cladding and roofing to cold store and foundation works.

As architects continue to work with developers to create sustainable, energy efficient buildings, understanding the latest technologies available on the market has never been more important. Structural elements that cannot necessarily be seen are often crucial to a building's design and can offer a massive payback when it comes to energy saving costs. Surprisingly to some, a simple yet effective thermal break can save hundreds of thousands on the overall energy costs of a building, making thermal solutions one of the most important elements an architect can invest in when working on major construction projects.



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Armadillo Q&A 275

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Mapei's general purpose render, **Mapewall GPR**, is suitable for rendering and levelling internal and external masonry substrates up to 15mm per layer, to an overall maximum thickness of 40mm.

Ideal for smoothing walls, dubbing out mortar, render only with sponge finish and also as a render basecoat to receive a silicone and mineral finish; **Mapewall GPR** acts as a base for surfaces to be finished in Mapei's decorative and/ or protective coatings.



Mapewall GPR can be easily applied either with a trowel or rendering spray machine. The grey powder is composed of cement, selected aggregates and special synthetic resins.

Simply mix 1 x 25kg bag of **Mapewall GPR** with 5 / 5.5 litres of clean water to provide a render for application on suitably prepared masonry substrates. Uneven substrates may require a first coat to build thickness and the system can be reinforced with **Mapei Mapetherm Net** to help prevent cracking. Once mixed, the product remains useable for 1 to 3 hours.

One 25kg bag of **Mapewall GPR** will cover an average of 1.5m² at 10mm thick. The recommended temperature for application is between 5°C - 30°C.

For more information on Mapei products and training days, please visit www.mapei.co.uk, email info@mapei.co.uk or tel. +44 (0)121 508 6970.

Enquiry Number QE33

PAREX

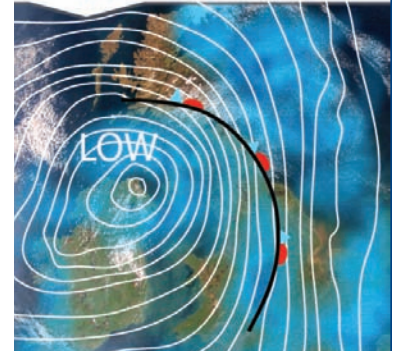
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Enquiry Number QE34

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.

The panels are used to improve acoustics in many different projects, such as schools, leisure centres, pools, commercial and public buildings. Available in various sizes and in three grades from ultrafine to coarse, they can be left untreated or painted in virtually any RAL colour. **For samples and comprehensive technical information tel 01978 664255 or visit www@troldekt.co.uk**

Enquiry Number QE35

QE280



Combatting pollution

Combining the durability and lightweight design of the popular Decra Classic tile with the depolluting technology of the Noxite membrane, **Icopal** now offers the best of both worlds with its new Decra Noxite tile. This enables the roofs of buildings to benefit from the aesthetics of Decra roof tiles, which have been developed to resemble traditional roof tiles, while at the same time making a positive difference to the surrounding environment. Since its introduction in 2010, Icopal's Noxite has been installed on many sites and continues to convert NOx pollution into harmless nitrates, as validated by the BBA (British Board of Agrément).

Health centre's flooring issue cured

A range of subfloor preparation and adhesive products from **Bostik** have been chosen by OSS Commercial Flooring for the development of a new health centre, which serves the communities of Hope and Caergwrle in Flintshire, North-West Wales. Castlemead Group was taken on as the main contractor for the centre's two-storey development, which then sub-contracted the 1,300m² of flooring required. Following a technical survey by Bostik, OSS Commercial Flooring selected the company's Screedmaster One Coat Membrane to protect the new floorcoverings from subfloor moisture. Bostik's Screedmaster Universal Primer was then applied to the surface membrane, before the Screedmaster Flow and Ultimate smoothing compounds were floated out to a 3mm thickness in various areas of the development. Bostik's Laybond Pressure Sensitive adhesive was then used to adhere the vinyl floorcoverings.

QE281



QE282



Relaxing with Norbord

Strong, practical, cost-effective and environmentally-conscious, **Norbord's** SterlingOSB is suitable for walling stylish spaces. It is a good-looking timber product which is made from layering strands of wood in specific orientations and then bonding the layers with a resin. The board's strength and durability makes it suitable for use as sports or restaurant walls. Urban Zen Yoga Studio & Café in Swansea loved the product so much that it has covered the studio and café to create a stunning, urban feel. Owner, Emily Cole explained: "We chose SterlingOSB because I particularly liked the pattern and finish of the boards. It gave the industrial look I was after but also had continuity in the design. The colour gave the right amount of light in the room and it is a product my carpenter was happy to work with."



Colour your thinking



Cembrit's new range of fibre-cement rainscreen claddings is available in 61 colours. From their new factory, this next generation of fibre-cement claddings is highly engineered, high performance and cost-effective.



QE283

Safe access and egress

Safetyworks and Solutions has dealt with most, if not all, issues surrounding safe access to high level areas since 1999. The majority of its works have involved public sector buildings ranging from town halls, hospitals, schools and municipal housing. Originally established to install roof top safety systems, such as free-standing handrails and horizontal wire-based restraint systems; Safetyworks soon moved into providing steel access equipment, such as caged access ladders, staircases and step units. All access equipment is manufactured in house and to CE accreditation.

Creating a safer school

Decorative safety flooring from commercial vinyl flooring manufacturer, **Polyflor**, was recently installed at the new home of Ysgol Dafydd Llwyd, a Welsh language primary school in Newtown, Wales. Flooring from the Polysafe Wood fx PUR and Polysafe Vogue Ultra PUR ranges was fitted to the £8m new build project managed by main contractor Willmott Dixon Construction and funded by Powys County Council and the Welsh Government. Polysafe Vogue Ultra PUR safety flooring in Woodland Grey was installed in the school's classrooms and toilet areas. Polysafe Vogue Ultra is a high durability safety floor with a multi-chip design which features safety particles through its performance layer to provide increased traction underfoot, ensuring sustainable wet slip-resistance throughout the guaranteed lifetime of the product.



QE284



QE285

Sika arrests leaks at Paisley Police HQ

Sika Liquid Plastics' Decothane cold applied liquid membrane has been used to overlay a 1,000m² police custody suite at Paisley Police's divisional headquarters. The building was partially overlaid using Sika's Decothane liquid system when polyurethane membranes were in their infancy 30 years ago and the previous Decothane surface was still intact. However, two thirds of the roof still had an asphalt surface and, as this was failing, the decision was taken to overlay the entire 1,000m² roof with Decothane 20-year single point guarantee system in slate grey. Decothane was specified as a cold-applied liquid system that requires no hot works, providing a suitable solution for a building in which full occupation and security are business critical.

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Enquiry Number QE36

CENBRIT



QE286

Exhibition debut

Specialist building board manufacturer, **Fermacell**, will debut its schools offer for new build and refurbishment projects at this year's Education Estates event. Its stand (E17) will demonstrate the many ways in which German-engineered Fermacell partitions are suitable for the education environment, being particularly robust and damage resistant. Even if they are damaged, they are easy to repair. Fermacell is using the exhibition to launch its new lifetime Impact Warranty which guarantees Fermacell will supply repair materials or replacement boards in the extremely unlikely event of damage.

Organic timber for natural setting

Canjaere timber cladding from the **A. Proctor Group** has been selected by WCP Architects to complement the graceful design of the new Baldarroch Chapel and Crematorium. The contemporary building is sheltered by Station Wood on the edge of the Crathes, chosen for its beautiful countryside setting and proximity to key transport links. Canjaere Classic Timber Cladding in the golden colourway was specified by the architect and installed by the principal contractor Bancon Construction. High quality sustainable materials and colours were chosen for low maintenance and longevity. Canjaere timber is treated with a process which improves its performance, protects the wood against moisture and preserves the finished look. Backed by a 30-year maintenance warranty against rot and decay, Canjaere provides the architect and client with total confidence in the longevity of the product.



QE287

QE288



Flooring solutions for busy builders

As the housing market continues to grow strongly, tradesmen are obliged to look for methods of completing projects faster and more efficiently. Consequently, more of them are looking beyond the standard CaberFloor P5 panel and choosing **Norbord's** advanced CaberDek and CaberShieldPlus products. Both CaberDek and CaberShieldPlus use the same P5 moisture-resistant particleboard but also feature further benefits, meaning the floor can be laid even before the roof is installed. CaberDek has a non-slip protective film to prevent damage to the board from following wet trades. The film takes all the dirt and damage away with it, leaving a pristine floor surface ready to accept carpet or another finish.

QE289

Extended liquid applied waterproofing range

Triton has extended its range of liquid applied waterproofing products to offer a wider choice of systems for the reliable waterproofing of roofs and podium decks. Each of the three new systems provides Type A barrier protection waterproofing as defined in BS 8102 (2009). They are quick and easy to apply, very fast curing and suitable for application in cooler temperatures – therefore extending the season for application and reducing the downtime of areas treated. TWS-Poly H produces a totally seamless

waterproof surface on prepared concrete and can be applied by squeegee, brush, trowel or roller. TWS-Poly S is another fast curing, two-component polyuria formulation which is designed for application by a twin nozzle, heated spray unit. Single component TWS Fastcoat cures as an elastic and seamless layer that offers excellent weather resistance.

QE290



No boundaries for Parex

International co-operation between two **Parex Group** companies continents apart led to the securing of a waterfront contract named in honour of Queen Elizabeth which has opened in her 90th birthday year. Elizabeth Quay in Perth, Western Australia features British Standard hard landscaping mortars developed by Parex UK, with technical support and training provided on site by sales and technical teams from Parex Group Australia and the UK. Spanning an area of approximately ten acres of prime riverfront land adjacent to the Swan River, the project includes 36,000m² of natural stone paving units, making it one of the largest paving construction projects in Australia.

Solid colour flooring for creative interiors

Polyflor has announced the launch of Bloc PUR, a vibrant collection of solid colour sheet flooring in a broad spectrum of 16 enticing colours. Designed to provide either a subtle backdrop or a bold, modern statement in the retail, leisure and commercial sectors, UK manufactured Bloc PUR is a high performance heterogeneous sheet floorcovering with a textured matt finish. Developed after feedback from the marketplace revealed a desire for a much sought after plain decoration flooring, Bloc features a fully pigmented, homogeneous 0.7mm wear layer of pure colour. The new range can be used to create tonal, complementary or harmonious interior design schemes through the availability of greys, neutrals, pastels and brights in its colour palette.



QE291

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Accommodating arthritis sufferers in social housing

Arthritis is a major problem for UK residents and it looks set to only get worse in the coming years. James Dadd, marketing director at AKW, looks at how local authorities can introduce adaptations to bathrooms in social housing to help meet the changing mobility and support requirements of a large proportion of today's tenants...

Arthritis is the number one cause of disability in the UK and the most common condition among people claiming Disability Living Allowance. In fact, there are some half a million people aged under 65 receiving the benefit as a result of the musculoskeletal problem, as many are left unable to work because of severe pain and restricted mobility. The subsequent low income often means those with arthritis are more likely to live in public sector housing, with disabled people

twice as likely as their non-disabled counterparts to be renting from social landlords.

However, new research was recently released to shed light on the state of housing for disabled people across the country and the situation is not looking good. In particular, the report, by leading disability charity The Papworth Trust, highlighted a significant deficit in housing that is specifically designed to meet the needs of those with a disability.

Another alarming study revealed that just 4% of people with mobility impairments looking for accessible homes said they were easy to find.

More worrying still is the fact that arthritis is not going to go away. There is no single cure for the condition, only drugs that are prescribed to ease the symptoms and experts are warning that the number of people suffering from arthritis will hit epidemic proportions within two decades.

Indeed, one in ten people are expected to develop arthritis in the near future because of the increasingly ageing population and a greater prevalence of poor lifestyles with little activity.

The number of disabled people on council housing waiting lists has already increased by more than 17% in the last five years, so what can be done to tackle this massive national issue immediately? The most critical factor is to ensure there is enough housing that is appropriate for people with arthritis and the resulting disability. In reality, thousands of specially developed houses are not going to be able to be built for this segment of society, instead work must be done to improve existing properties and other new builds to ensure they are accessible, safe and comfortable for those with mobility problems.



In its recent study, The Papworth Trust identified the most common home adaptations needed to make daily life a little less challenging for people with a disability, such as arthritis and the majority of the alterations recommended were in the bathroom. For example, it suggested the installation

of a shower to replace traditional baths to make washing easier. The inclusion of a level access wet room here would give the look and feel of a standard shower but without the trip hazard that an enclosed cubicle would present.

In addition, it is advisable to include a shower seat to support those who may be in pain or unsteady while taking a shower. As social housing will provide a home to multiple users with varying degrees of ability, it is important to select a shower chair that can either be folded up or adjusted to suit different people. Equally, a freestanding device that can be moved out of the shower area once used will be just as helpful.

The shower itself also requires careful thought as some user interfaces can be difficult to operate for people with dexterity issues. Electric models with large buttons for power, temperature and flow are ideal as small controls or dials can be too fiddly. Big push buttons that work with minimal force no matter what part of them is pressed, mean that even a slight nudge with the side of a hand or fist will be sufficient.

Hand control problems can also cause issues in other areas of the bathroom, such as when operating basin taps and toilet flushes. To help overcome these challenges it is advisable to install taps that are turned on and off with long lever handles that can be pushed with an arm or the back of a hand. WC flushes, meanwhile, also work well as levers with a soft touch mechanism that does not rely on a strong grip.

Finally, grab bars and rails may be an obvious inclusion but their role in keeping people with arthritis steady and safe should never be underestimated. They are suitable for anywhere in a home but are particularly useful in the bathroom, where the risk of slips or falls is particularly high.



The Papworth Trust report highlighted a significant deficit in housing that is specifically designed to meet the needs of those with a disability.

James Dadd

These types of adaptations can be quick and inexpensive to complete, yet the difference they make to users with arthritis and musculoskeletal complaints can be tremendous. It is now vital that local authorities and landlords start to take a serious look at how they can provide safe, comfortable and inclusive spaces to diminish the lamentable national shortage of suitable housing for people with disabilities.



 Enquire about AKW [QE295](#)



QE300

Infrared advancements

Recent years have seen infrared washroom technology propel as a much higher priority on the specification chain as an effective way to heighten hygiene standards and cut utility costs for commercial premises. **Bristan's** infrared range includes taps, an automatic flush and a soap dispenser, which means that washrooms can be specified to be as hands-free as possible. Not only does this dramatically reduce the risk of cross-contamination but it also cuts wastage, as the products will only use as much water or soap as is required. Most recently, Bristan has launched a new range of infrared products available in three architectural finishes, which means that there is an infrared solution for every environment.

Bespoke Wudu washing

Pland Stainless was delighted to be chosen to supply stainless steel products to a new Mosque that is being designed, built and paid for by the local Muslim community in Armley, Leeds. The specified product was a bespoke multi-faith foot wash trough, used for performing ablution (Wudu) washing before prayers. It was supplied with seating and taps for both the male and female areas in the Mosque.

The product planning and design team at Pland Stainless worked closely with the building project manager, Mr Ishtiaq Hussain, to create this bespoke product in stainless steel along with hand wash basins and drinking fountains. Established in 1919 Pland produces stainless steel products for the commercial market.



QE301

QE302



Affinity255 delights diners

Hardwearing luxury vinyl tiles from **Polyflor's** Affinity255 PUR collection of high design wood-effect flooring were recently chosen for the refurbishment of Enfields Kitchen, a student run restaurant at Gateshead College. Affinity255 PUR luxury vinyl tiles in the popular Huckleberry Oak design were installed by local flooring contractor Floorstyles-Direct in the restaurant's dining area. Tracy Ashcroft, assistant principal at Gateshead College commented: "We're so happy with the results of the refurbishment and Polyflor's Affinity255 flooring has helped us create a contemporary restaurant interior. It's the perfect setting to showcase the talents of our college's young chefs to the public." Suitable for use in heavy commercial environments such as busy restaurants, the Affinity255 collection of luxury vinyl tiles is available in 16 stunning wood effects. The range's cross linked and UV cured polyurethane reinforcement (PUR) also protects the floor and allows for a simple, polish-free cleaning regime in hygiene critical areas.

Rising to the challenge of 21st century learning

Pupils of all abilities are being given every opportunity to be equipped for life, even to personal care, as a result of strategic planning at a new flagship £20m+ super school. Ysgol Bro Dinfewr is part of the Welsh Government's Schools Challenge Cymru. The new campus

QE303



features a dedicated specialist resource for some 50 students with special educational needs. Whitehead Building Services has fitted out two rooms in the SEN unit and one in the main campus building with fixtures supplied by **Clos-o-Mat** to enable all pupils, regardless of their needs, to have access to appropriate toilet facilities, in compliance with current accessibility regulations. Thus, each of the hygiene suites features a wall-mounted, height-adjustable changing bench, height-adjustable washbasin, privacy screen and WC.

Urinal partitions from Roman

Roman has launched urinal partitions in 10 and 12mm thick toughened safety glass for the project market. The standard products come with an all over etch finish for privacy. The wall brackets are extremely durable stainless steel. Roman can design partitions to match any requirements and also utilises solid surface sheet, if required, in place of glass. The urinal partitions can be sized to the exact project specification and requirements. The glass finish can be frosted or printed glass, using Roman's digitally printed glass technology. This is an exclusive technology to Roman, which has been achieved due to a collaboration of technologies with digital print specialist Dimax.



QE305



QE304

New finish

InSinkErator has unveiled a sleek new finish to add to its range of 3N1 steaming hot water taps with filtered steaming hot, hot and cold water. The Satin Black finish of the 3N1 complements a number of consumer styles and décor ideas, making a statement as part of a modern monochrome kitchen, or adding a contemporary accent to oak or wooden worktops. Current trends have seen colour and minimalism leading appliance design, and InSinkErator has embraced this with its expanding range of colourful, statement 3N1 steaming hot water taps, by introducing the Satin Black 3N1, as part of the new Showroom Collection.

DELABIE launches new recessed shower for the care sector

DELABIE's new SECURITHERM recessed shower mixer is designed to reduce bacterial contamination, ideal for adapted showering in healthcare facilities. Fewer components are in contact with water providing fewer opportunities for bacteria to adhere. The sequential mechanism does not require non-return valves on the inlets and there is no risk of cross flow between the hot and cold water.

Anti-scalding safety

SECURITHERM thermostatic technology delivers a stable temperature regardless of pressure and flow rate variations. A maximum temperature limiter, set at 39°C, reduces the risk of scalding. It also features anti-scalding failsafe. If the cold water fails, the hot water shuts off instantly. Similarly, if the hot water supply fails, the cold water also shuts off, avoiding the risk of cold showers. The mechanism also withstands thermal shocks.

Waterproof housing

Housed in a waterproof box to prevent any water ingress, a small vent allows any condensation or leaks to drain away. The housing can be installed quickly and the finishing depth is adjustable. Connectors and stopcocks are included.

Easy to maintain

The mechanism assembly is integrated in an interchangeable cartridge which can be accessed without having to remove the mixer. Spare parts are also standardised and are easily changed by maintenance staff.



Thermostatic shower mixer in a waterproof recessed housing



Securitherm recessed shower meets DOC M requirements

The new SECURITHERM recessed shower mixer can be installed with a fixed, ROUND shower head, or alternatively a shower kit with riser rail for assisted washing.

Accessible showering

The TMV3 approved Securitherm shower features an ergonomic control lever that is ideal for people with reduced mobility. However, healthcare sector premises that provide accessible showering should also incorporate a wall-mounted shower seat and support rails to enable transfer to and from wheelchairs. DELABIE's DOC M recessed shower pack, featuring the Securitherm shower, riser rail and hand set, provides all the necessary elements for a self-contained shower room that complies with DOC M requirements.

DELABIE

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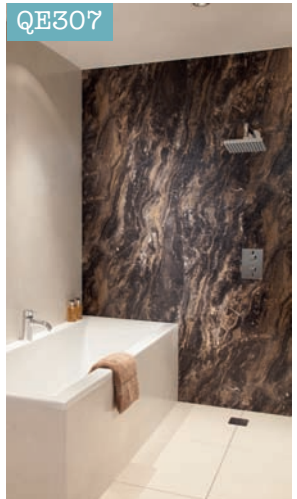
QE306

Lifeboat lifeline

Residents of and visitors to one of Lancashire's most popular resort towns can be sure all their needs are met at the new JD Wetherspoon pub in Formby. The Lifeboat opened its doors this summer and features the first Changing Places assisted accessible toilet in the town. Supplied and installed by **Clos-o-Mat**, the Changing Places toilet means children and adults who need a carer's help with their personal hygiene have the appropriate space and equipment to do so hygienically. Bigger than conventional wheelchair-accessible toilets, the Changing Places also has a hoist, adult-sized height-adjustable changing bench and privacy screen as standard. JD Wetherspoon has located it adjacent to The Lifeboat's other WC facilities.

Seven new decors for wall panelling range

Bushboard's award-winning Nuance bathroom wall panelling range has been upgraded with the launch of seven new decors responding to the mainline trends in woodgrains, industrial finishes and neutral stones. Available now, the Nuance range features a total of 25 panel designs complemented by worksurfaces. There are Concrete Formwood, Salvage Planked Elm, Weathered Beamwood and Natural Grey Stone for a modern, urban look, while the range's luxury granites have been augmented with the addition of Crema Mascarello, Pearl Marble and Marbled Cappuccino. Many designs feature the renowned True Scale printing technique where there is no pattern repeat in the panel amplifying the aesthetics. Nuance is the only range on market without extrusions, offering the streamlined design that is now prevalent in the mid-to-upper end of the market. Backed by a 15-year guarantee, Nuance is inherently 100% water impervious.



QE307



QE308

Wetroom tiling products from Norcros

Tile adhesive, grout and preparation products manufacturer **Norcros Adhesives** offers a range of solutions which can be used by builders to achieve a safe and long lasting wetroom. Manufactured from high density polystyrene, Norcros Pro Board comprises a rigid insulation core, with a specially formulated reinforced cementitious coating suitable for the application of tiles. Designed to create walk-in shower areas, Norcros showertrays are manufactured from a high density polystyrene core and have a reinforced cement coating that can receive a tiled finish. Norcros provides a number of options when it comes to tile adhesives suitable for wetrooms, such as Norcros Rapid Porcelain Grey Adhesive and Norcros One Part Flexible Grey. Norcros Stop Mould Flexible Wall Grout is a fine textured smooth finish grouting material for joints up to 5mm wide.



QE309

New and improved showering

Designed for those who need a bit of extra help showering, the Kinemagic Serenity walk-in shower cubicle from **Saniflo** is also suitable for the whole family. Spacious and practical, it has recently benefited from a range of upgrades to make life even easier for those who need care assisted showering. A new, improved fold down seat provides even more comfort than before and can take up to 150kgs, while the cool-touch thermostatic valve now features easy grip controls for customers that are experiencing diminished fine motor control and strength.

Complete shower floor system

On the Level has designed and manufactured a large, 12 x 5m complete floor system for a toilet and shower block for Sovereign Park & Leisure Homes, delivered within four working days from receipt of the order. Built on a transportable chassis, the complete floor system accommodated toilet and washroom floors, as well as sloping wetroom cubicles. James Clark, managing director at On The Level said: "The original drawing showed shower trays which were only a portion of the shower room – approx. 1,350 x 1,000mm. Producing a former the complete size of the shower room made more sense however, as then it wouldn't matter if water were to spray outside the showering zones, as the whole floor area would incorporate a gradient to the gully which could also be positioned to suit Sovereign's requirements."



QE311



QE310

Mereway collects award

British kitchen manufacturer, **Mereway**, has won a prestigious industry award from the trade organisation, The Kitchen Bathroom Bedroom Specialists Association – KBSA. Mereway Kitchens was awarded the KBSA Best Product Supplier at the awards dinner that followed the AGM and conference. Sales and marketing director Graham Jones said: "This is a special award for us because the votes come from the industry and not a panel of judges. As a family business we strive to deliver exceptional service and it is fantastic to have that recognised."

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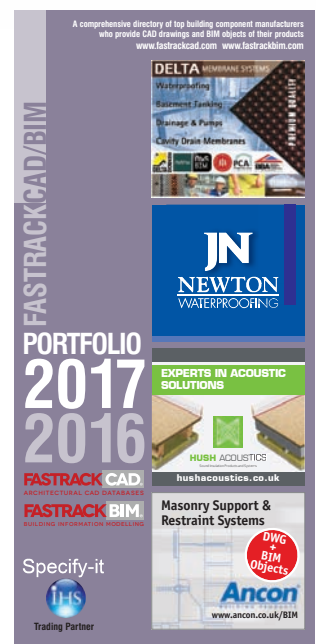
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Drainage and the importance of holistic procurement

Simon Marklew, sales director for New Build (Plumbing & Heating Division) at Drain Center discusses the benefits of sourcing drainage from one supplier and the importance of implementing robust stocking strategies to meet demand...



With the housebuilding sector recently coming under scrutiny for the slow pace of construction and speculation that some larger listed house-builders are overextending themselves,

developers are increasingly facing pressure to meet both quantity and quality targets.

It's no secret that there is a shortage of homes. It has been clear for some time that an aging population, levels of immigration and the number people living alone would have a knock on effect to our housing supply. It's easy to point the finger at the housebuilders and some might argue that they are overstretching themselves and not able to deliver on time, but it is just as much the responsibility of the supply chain.

I often get asked, what's the hottest trend in drainage?

especially with regards to new build homes. However, while many of our suppliers are constantly trying to develop their product offerings to create sustainable solutions for the homes of our future, the biggest advancement is happening in the supply network. Robust supplier relationships are ever more critical to the operation of a new build site. So how do we ensure that housebuilders can maintain momentum and meet demand when it comes to drainage?

Product availability

One of the most fundamental aspects is the importance

of implementing robust stocking strategies to meet demand. Product availability of complete drainage systems is paramount. This includes soil/waste/rain-water, flexible plumbing systems, aluminium and cast iron drainage, ABS/PVC water systems and floor/roof/shower drains.

Across a range of customers, whether it be ground-workers, M&E plumbing contractors or new build housing sub-contractors, there is always an expectation to stock a complete range of drainage products for immediate availability. Often this is for same day or next day delivery at the latest and most of the time, site delivery slots are timed.

Site security and the influence of just-in-time logistics

There have been a plethora of reports in the media over recent years highlighting the extortionate cost of site theft. One of the stand-out stats was a couple of years ago when insurer, Allianz Cornhill put a price tag

of £800m across the construction industry.

With regards to drainage, one of the most common items that falls victim to theft is copper, hence the reason that plastic systems are becoming more favourable to the client and contractor.

Whether it's the gradual cost of small items from opportunists passing the site or planned theft of larger, more valuable items – it is an expensive risk to take and an unnecessary one if you have the right supply chain partner.

Skills

A bold target was set by the Government at the start of the year to achieve 200,000 completed homes in 2016. While this creates a surge in demand for construction products, it also puts pressure on the skills available.

Unfortunately there is a disproportionate number of people joining the industry as apprentices compared to those

leaving for retirement of another sector. The latest stats say as 15,000 apprentices enter the industry, more than 60,000 are leaving at the same time. As a result, housebuilders simply cannot afford to have the workers that are still active sitting around on site waiting for their products to be delivered.

Consequently construction companies are relying more and more on their suppliers to implement logistical strategies to ensure that products are left on site for as little time as possible until they are used. Customers often want to hold a minimum value of product on site due to potential theft and also due to lack of site storage space when the site is operationally tight. Just-in-time and on-time-in-full deliveries have become a commonplace demand.

The impact on reputation

As we've seen, the industry continues to fall under the political spotlight and generate general concern throughout the mainstream media and general public around a) new homeowners getting on to the ladder and b) providing enough homes for our children's children.

We recognise this at Drain Center, and understand that providing the industry with a holistic approach to drainage products is a crucial ingredient in the delivery of a new build home to a buyer. One disgruntled customer can cause significant damage to a housebuilder's brand and if a whole site is behind schedule, that number instantly snowballs.

This is why the importance of readily available product is key to growing and maintaining customer confidence in the housebuilding market and, in turn, makes customers want to come back again and again.

The accuracy of picking customer orders and a commitment to delivering orders on-time and in-full does a lot to enhance credibility and reputation.



**Enquire about
Drain Center QE315**

Waterless Urinals - The Late

Waterless urinals can no longer be described as “new” technology. They have been around since the 1990s but perhaps can now be regarded as “accepted” technology. It does seem obvious that needlessly flushing away 150,000 litres of water every year for each and every urinal is a wasteful, indeed almost immoral practice in the modern world. Plus, of course, the additional saving of power to flush valves and the energy used in dealing with all that waste water.

The early pioneers had to overcome claims that waterless urinals were smelly, unhealthy and unreliable as well as resistance from plumbers, particularly in the USA. They were worried about lost work as it's obviously a lot quicker to fit just a waste pipe than to install complete water

supplies and flushing mechanisms. But as the products themselves have become more accepted, knowledge has increased considerably and this has led to product development that means the performance of today's products is streets ahead of their ancestors. To give an example, door and washroom hardware specialist Relcross supply products in the UK from US market leader Falcon Waterfree Technologies. They have just launched the new Falcon Velocity replacement cartridge which is a direct replacement for the earlier C1M2+ model.

Examining the new cartridge demonstrates not only how the waterless concept works but also how some of those earlier misgivings have been well and truly laid to rest.

THE VELOCITY

INDICATOR TECHNOLOGY

Our self-monitoring indicator provides you with a visual signal that helps you know when it is ready to be changed, making maintenance easier..

HELPS REDUCE RESTROOM ODOR

Patented cartridge features a reduced surface area, helping to eliminate room for bacteria growth and reduce restroom odor.

SMALLER FOOTPRINT

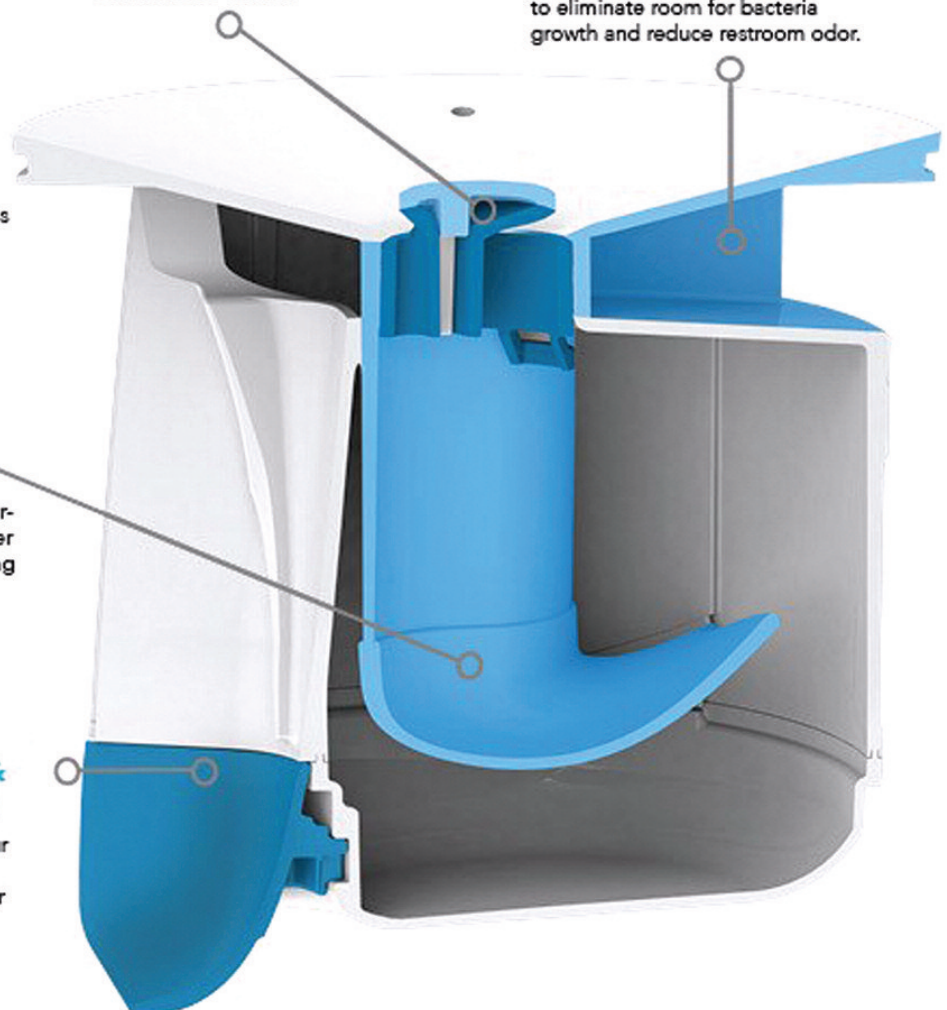
Velocity Cartridge uses 20% less material than previous models, making it even more environmentally friendly.

SEALANT RETENTION

Our interior baffle allows the cartridge to retain its sealant barrier even under the most challenging maintenance practices.

HELPS KEEP PIPES & HOUSING CLEANER

Patent pending anti-splash pour spout uses speed and direction to help ensure cleaner pipes and a cleaner housing.



Latest Developments

by Stuart McMaster, Relcross Ltd

The replaceable cartridge is at the heart of the whole technology. It begins full of liquid with a layer of proprietary biodegradable sealant that floats on the surface. Urine enters the cartridge and passes through the sealant which isolates foul odours from the washroom. Flowing urine is slowed by internal baffles that help retain the sealant and allows the uric sediment to settle. The urine then flows past an internal trap and exits the cartridge leaving some of the uric sediment behind.

So far, so good, but older style cartridges could allow the build up of a small volume of bacteria and distasteful odours to be trapped in some of the nooks and crannies of the cartridge which sometimes escaped into the washroom, particularly if the cartridges were not changed frequently enough. Also, the internal splashing in the waste pipe caused by the exiting urine could promote a build up of uric sediment over time potentially leading to blockages if the pipes were inadequately flushed during maintenance.

The new Velocity cartridge eliminates these problems and more besides. The design has been changed to reduce the total surface area which helps to eliminate room for bacteria to grow and to stop any build up of trapped odours while better retaining the sealant. A visual signal is provided to indicate when the cartridge needs changing. The new, patent pending anti-splash pour spout uses speed and direction to streamline urine through the pipes and help keep the housing and drain cleaner and reduce the build up of uric sediment in the waste pipe.

The new integrated diverter shield reduces splashing while helping prevent debris from entering the cartridge and the new design uses 20% less plastic (ABS) which is of course recyclable. Falcon products

are also compatible with Armitage Shanks Aridian waterless urinals.

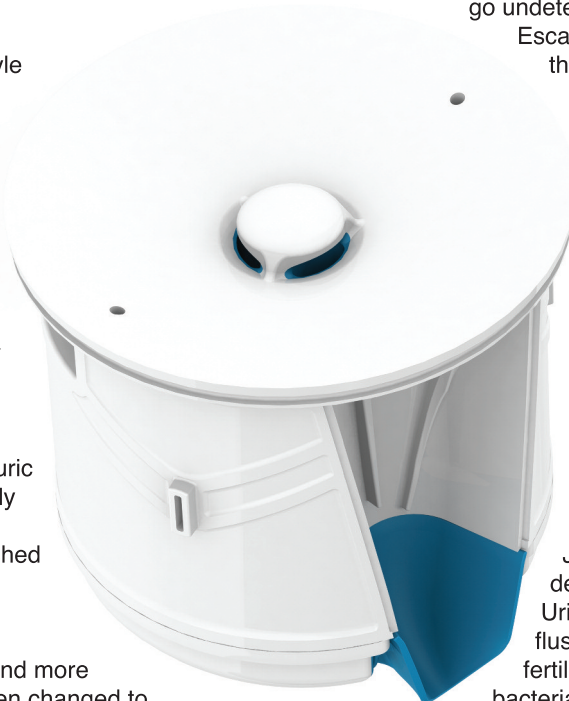
So waterless technology moves on but the fundamentals stay the same. Each waterless urinal can save up to 150,000 litres of water per annum from flushing alone and a waterless urinal will not leak. A small steady leak from a cistern could waste another 200,000 litres of water per year. Often, leaks go undetected in a flush urinal.

Escaping water spreads across the back of the bowl and is hard to see. A stuck urinal flush valve can waste over 6,000 litres per day!

To make matters worse it is the wet surfaces of traditional urinals that provide an ideal place for the growth of bacteria spread in most washrooms from the flush plumes created. A common misconception exists that water helps achieve better hygiene, but that's simply not true for urinal hygiene. Just like humans, bacteria depend on water for survival. Urinals that use no water for flushing actually create a less fertile breeding ground for bacteria. In fact, research shows that waterless urinals typically have up to 5 times less bacteria than flush urinals.

Finally, the only maintenance steps required for normal use are a routine spray-and-wipe cleaning of the fixture and an easy cartridge change about two or three times per year, depending on usage.

Now that waterless urinals have entered the main stream (no pun intended) with proven and developing technology, it's hard to see an argument for ever installing the traditional flushing versions.



For more information call Relcross on 01380 729600 or visit www.waterlesscartridges.co.uk or email sales@relcross.co.uk

The logo for Relcross, featuring the word 'Relcross' in a bold, white, sans-serif font. The 'R' is significantly larger and stylized, with a yellow and blue geometric shape behind it that resembles a stylized 'M' or a doorway.



QE320

Introducing Q-Bic Plus

Wavin has announced the UK launch of Q-Bic Plus, a modular system that offers significantly enhanced design freedom, installation speed and access for inspection and cleaning. Q-Bic Plus rewrites the rule book of geocellular stormwater management systems. Its formulation means that whatever the available area, a solution can be designed using Q-Bic Plus. In addition, its open tank design enables greater access for maintenance and, thanks to its integrated connectors, it can increase speed of installation by up to 50%, when compared to traditional plastic systems, helping to reduce costs.

Updating your water supply system can save money

By installing new, up-to-date equipment you can increase efficiency, have an improved system and save money. For the flats at Hammond House & Dickson House in Hanley, Stoke on Trent, **Aquatech Pressmain** visited the site, undertook a full survey, including checks of all existing plant rooms and produced a in-depth proposal including bespoke solutions for JPR Engineering, which installed Pressurisation Units, two Water Boosters and three Circulating Pumps, all designed and built for the project by Aquatech Pressmain. By using the knowledge and expertise of Aquatech Pressmain and JPR Engineering collectively, the owners of Hammond House & Dickson House, have a bespoke water supply and heating system which is more efficient, more energy-efficient and will save them and their tenants money.



QE321

QE322



Tackling storm water management

Aggregate Industries has added Hydromedia to its product portfolio – a fast draining concrete solution for surface and storm water management. Hydromedia combines the durability of concrete with advanced drainage technology, engineered to rapidly direct storm water from streets, parking surfaces, driveways and pavements. Unlike conventional concrete, Hydromedia has a high void content of 15-35%, allowing for surface water to drain through into the sub-base for storage and then dissipate slowly, reducing the risk of surface water flooding and watercourse contamination. The Hydromedia range is made up of Hydromedia pedestrian, Hydromedia car park and Hydromedia underlayer – suitable for a variety of different applications including footpaths, car parks and sports or recreational areas.

QE323



AXEDO speeds up drainage install

The use of Axedo plastic inspection chambers has significantly reduced the installation time of a highly efficient, integrated drainage solution for a new multi-storey car park at London Luton Airport (LLA). Buckingham Group approached water management specialist **JDP** to supply an effective drainage management solution to protect the new facility. The JDP technical team designed a system incorporating Axedo plastic inspection chambers as part of a fully-integrated underground drainage pipe system. As an alternative to the traditional concrete chamber, the use of Axedo plastic chambers can lead to savings in installation time of up to 50%, saving cost both in time and materials.

QE324



Deepstyle 170 delivers

When it came to the conversion of a timber framed Warwickshire riding stable into three contemporary homes, the builder required a system which would remove rainwater quickly and efficiently from the large cedar tile roof. **Brett Martin's** Deepstyle 170 Industrial Rainwater System was up for the challenge, offering long-term performance, ease of installation and increased drainage capacity. Brett Martin's super-sized Deepstyle 170 industrial rainwater system was specified in black and has a capacity of 11.54L/S. The robust and hard-wearing system requires fewer discharge points, reducing the number of downpipes.

A Mapress world-first

FSS and **Geberit** have worked together to create a bespoke version of Mapress pipe, a banded pressing solution for a data centre in London, which required new bulk tanks, polishing systems and pipework, fully linking with the existing single skin welded steel pipe systems. FSS worked with Geberit in Germany to develop a suitable pipe, complete with ten-year warranty. FSS is now the only company in the world that can offer a banded press-fit pipe of this type and the only company approved by Geberit to fit it. As Geberit Mapress requires no hot works, installation could be completed without the need to empty tanks and put in temporary storage facilities.



QE325



QE330

New technical director

Lift safety and communication specialist, **Avire**, has appointed Michael Stembridge as its new technical director. Michael will assume product development responsibility for the global Avire organisation. He has a first-class honours degree in Electronic Engineering from Bolton University and 25 years' experience in three major defence and communication organisations – Imtech Traffic and Infrastructure, Racal Acoustics and Ultra Electronics. Michael takes over from Karl Westhead, who has moved to fellow Halma company Apollo Fire Detectors.

A missed opportunity

The public sector should view the Environmental Audit Committee's new report on *Sustainability in the Department for Transport* with caution. The report is seriously flawed, according to **Fuel Card Services**. Steve Clarke, group marketing manager, said: "The select committee made some good long-term suggestions but has missed an opportunity. It could have recommended action that would bring immediate benefits for public sector fleet sustainability. In particular, it could have urged the introduction of measures compelling fleets to monitor and record emissions." The committee offered conclusions and recommendations in the areas of Government policy and policy making, governance and operations. Steve Clarke said: "The focus on ultra-low emission vehicles ignores the reality of current technology and infrastructure. Vehicle acquisition cost, in particular, is a deterrent for the public sector."

QE331



QE332



Jackpad expansion to Australasia

Jackpad has announced the completion of a distribution agreement with Jackpad Pty which will be taking the company's portable foundations for modular buildings to the Australasian market. Jackpad Pty directors, Rod and Ryan Chapman, have significant experience in the modular building industry in Australia and felt that the Jackpad system could fulfill a requirement for eco-friendly foundations across Australasia. Jackpad has already been specified for a major project for Kids under Cover in Victoria, Australia. Ryan Chapman of Jackpad

Pty said: "The way we see it, Jackpad not only provides tangible benefits to the user but also provides intangible benefits which make it an exceptional value for money solution. Following Jackpad's huge success and proven performance throughout the United Kingdom for over 15 years, we have a strong belief that the Jackpad product will fulfil the requirements for sustainable foundations in both the portable and modular building markets within Australasia."



QE333

Aggregate Industries joins the club

Aggregate Industries has become the first construction materials producer and supplier to achieve full national membership status of Constructing Excellence, the organisation charged with driving the change agenda in the construction industry. As a fully-fledged member, Aggregate Industries will play an important role in helping Constructing

Excellence achieve its aim of improving industry performance in order to create a better built environment. Members have the opportunity to participate in a number of steering groups, covering topics such as BIM, sustainability and asset management and input into policy consultations. In addition, members regularly represent Constructing Excellence on a number of high profile, strategic external groups.

QE334



New chief executive

The Brick Development Association has welcomed a new chief executive – Keith Aldis. Keith's experience includes serving as the chief executive of three different trade associations over the last 15 years, building on previous senior executive roles at the Construction Confederation and the Engineering Construction Industry Training Board. Commenting on his appointment Keith explained: "It is a great time to join knowing that political parties of every hue have pledged to ensure a significant increase in the number of new homes."

Strengthening UK sales team

A manufacturer of products to protect doors, people and places has strengthened its field sales team with the appointment of three new area sales managers. **Intastop** has appointed the new managers to enhance its regional presence in order to support existing and source new customers with its product range across a variety of industries including acute health, mental health, education and public buildings. Barry Hamer from Ironbridge will assume responsibility for the South West, Graham Llewellyn from Hartlepool for the North East and Joshua Lock from Whitstable is supporting existing area sales manager, Trevor Santer, in the South East of the country.



QE335



QE336

Support from Naylor

Naylor Industries, a Barnsley-based manufacturer of construction products, has pledged its commitment to a new venture to help Barnsley's youth become better learners and better workers of the future. The Made In Ambassador programme is the brainchild of The Company of Cutlers Education Programme and began its life in Sheffield, successfully developing over 400 children to become ambassadors for the city. Bridie Warner-Adsetts, Naylor's chief operating officer said: "We can't wait to be part of this opportunity to develop the talent of the future and who knows what these young people could go on to deliver."

Designer Contracts is a recycling winner

Designer Contracts has been named Take Back Partner of the Year by Carpet Recycling UK (CRUK) for the second time at the annual awards and conference held at Leicester City Football Club. Graham Kempton, Designer Contracts' logistics director was also honoured with the Recycling Champion of the Year award, for an individual who has gone the extra mile to ensure as much carpet as possible is recycled at their organisation. Laurance Bird, director of Carpet Recycling UK said: "We are really pleased with all the hard work Designer Contracts has put into its recycling scheme and the results speak for themselves. The company deserves the two awards of Take Back Partner of the Year and Recycling Champion." The company initially trialed a recycling scheme, spearheaded by Louise Abbott, Designer Contracts' merchandise and marketing manager, in conjunction with CRUK, at its central region based in Chesterfield before rolling it out to all 12 regional offices.



QE337

QE338



People power results in silver award

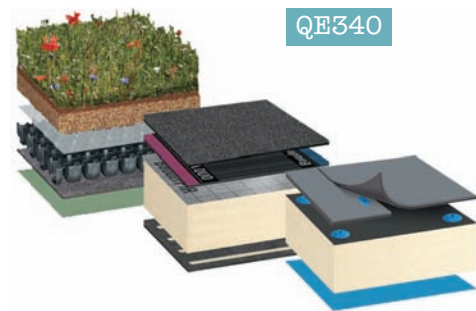
1994 was the year the Channel Tunnel opened, John Major was UK Prime Minister and leading door and wall protection manufacturer, **Intastop**, was one of the first UK small companies to receive the Investors in People standard. Fast forward 22 years and Intastop, based in Doncaster, has received an IIP Silver award after undergoing rigorous scrutiny with regard its staff, training and people policies. "We were very proud in 1994 to become one of the first small businesses to achieve this accolade and are now equally proud to receive a fantastic Silver award under its new accreditation programme," commented Sarah Barsby marketing director at Intastop. "We have a great team of people at Intastop and it is most pleasing to be recognised for the investment and commitment we make to them."



QE339

IKO acquires Pure Asphalt Company

Global waterproofing, roofing and insulation manufacturer, **IKO**, has completed its acquisition of Pure Asphalt Company, in Bolton, Lancashire, following regulatory clearance. The business is now being fully integrated into IKO. IKO UK Group managing director Andy Williamson commented: "A high standard of service will be maintained for Pure Asphalt Company customers, who will benefit from IKO's additional all-round service and project support. IKO is a family-run company with factories in Chesterfield, Matlock and Wigan and the acquisition is part of our continued expansion strategy and commitment to the UK construction industry."



QE340

New BIM objects

Flat roof manufacturer, **Bauder**, has extended its BIM offering with the creation of 19 new waterproofing system objects that are available now for free download on its website. The launch of Bauder's new generic BIM models means its comprehensive library now includes objects for its bituminous, single ply, cold liquid applied, hot melt and green roof system options, which can easily be dropped into 3D models and plans. All of these BIM objects are available in Revit format which, according to NBS' 2016 *National BIM Report*, is by far the most popular tool used for producing drawings.

Continued growth for Robertson Group

Robertson Group continues to experience growth in all of its companies and in its audited accounts (12 months to March 2016), delivering a record year of turnover of £453m and its strongest ever forward order book. The Stirling-based infrastructure, support services and construction group, has reported a PBT of £21.4m which has increased 81% on the prior year. This sustainable profit growth has added further value to its strong balance sheet, with net worth increasing by 17%. Robertson has seen continued and sustainable growth across its 19 diverse infrastructure-based businesses, most notably in its Construction (including major projects), house building and Partnership Homes businesses.



QE341



QE342

Keep colds and flu away

It's nearly that time of year again, when large numbers of the population are at increased risk of catching colds or the flu. With winter around the corner, companies in the construction sector can prevent the spread of germs and bacteria by taking hand hygiene seriously, says skin care expert **Deb**. Deb offers skin care solutions that have been designed to help employees integrate hand hygiene into their working day with as much ease as possible – from regular handwashing with soap to the use of hand sanitisers where access to running water is inconvenient. Deb's foam soap solutions require 36% less product for an effective hand wash compared with traditional liquid or lotion soaps. This makes them a cost-effective choice, especially where frequent handwashing is required.

Sustainable glazing solution

High performance glass and an excellent value engineering approach from **GLASSOLUTIONS** has played a major part in the delivery of the St John Bosco College and Wandsworth Residential Surrey Lane scheme, a sustainable college and Code level 4 and 5 housing development in the London Borough of Wandsworth. GLASSOLUTIONS worked with Metal Technology to supply and install glazing in a contract valued at around £2.5m. A stringent glazing specification saw standard glazing in the college buildings featuring argon gas filled 16mm double glazed units with black warm edge spacer between 6mm SGG SECURIT HST outer panes and 6.8mm SGG STADIP PLANITHERM ULTRA N inner panes. Solar control glazing units featured 6mm SGG SECURIT HST COOL-LITE SKN 174 II outer panes and 6.8mm SGG STADIP inner panes.

QE343

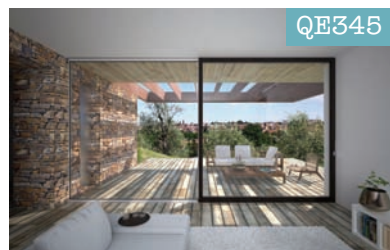


QE344



CMS is set to make waves

CMS Window Systems has secured the contract to provide glazing solutions for the redevelopment of the ferry terminal at Brodick Harbour on the Isle of Arran. CMS's contract comprises the fabrication and installation of over 600m² of Metal Technology curtain walling for the terminal building, along with doors and an internal screen system. CMS's glazing specification for the project prioritises environmental sustainability and energy efficiency. The terminal building will benefit from a highly thermally insulating building envelope achieved by CMS through combining low U-value IGUs with 634m² of Metal Technology's System 17 curtain walling system. The company's emphasis on energy saving and sustainability is also evident in the products chosen for the building's entrances and exits. Doors from Metal Technology's System 5 and System 9 will be installed internally and externally, in addition to a three-leaf manual revolving door at the building's main entrance.



QE345

Imagio affords spectacular views

The Imago Lift & Slide Door from **AGB** has been chosen for an ambitious hillside house in Italy. Its large glazed area and slimline frame maximises light and provides thermal insulation to meet the requirements of the development. Guido Longo of 3XL Architects said the Imago Lift & Slide Door plays its role in achieving the vision: "Many of the access points are reached by going downstairs which means we had to create wells to allow light to travel easily to each room. The next part of the challenge was finding the right doors to maximise the natural light. This is where Imago came in. Due to its large glazed area and minimal frame, the Imago Lift & Slide door fills up to 20% more floor space with daylight than the other doors we looked at, something which is vital to creating a comfortable naturally lit home."



QE346

Safe ranges steal the show

Securikey recently showcased its range of security products at the 2016 Lockex Exhibition at the Ricoh Arena in Coventry. As well as offering advice on a number of its physical security products, Securikey also launched updates and extensions to its Euro Vault range of safes. Now extended to five models, with the existing models updated to include new features such as a new locking system and interior light, the Euro Vault range now presents a comprehensive suite of products aimed at the lower retail price while still maintaining Securikey's excellent reputation for delivering quality and benefits to both the retailer and the end user.

CMS wins Aberdeen Art Gallery contract

CMS Window Systems has been appointed to work on a £30m project to redevelop the prestigious Aberdeen Art Gallery. Working for main contractor McLaughlin & Harvey, CMS is tasked with providing curtain walling as part of the two year project, designed by Hoskins Architects, which will transform the city's Art Gallery, Cowdray Hall and Memorial Hall. The company will fabricate and install nearly 150m² of curtain walling using Metal Technology's System 17 SP (Silicon Pointed). This structural glazing system's classic visual appearance provides a continuous and expansive external glass face to the façade in order to meet the contemporary design of the new building elements.



QE347



QE348

Fire safety showcase

FFE recently showcased the latest in smoke and flame detection at Security Essen. The company exhibited its Fireray optical beam smoke detectors and its Talentum specialist flame detectors. Fireray beam detectors are specifically designed to provide protection in large buildings with high ceilings, where conventional point smoke detectors are ineffective. With their modern design and minimal footprint, Fireray detectors are used in applications as varied as airports, railways stations and warehouses. Talentum flame detectors are used in sensitive or dangerous environments to detect fires even before smoke is produced, or where smokeless fires may occur. The Talentum range does not need smoke to detect a fire. It can even detect flames through steam, smoke and, with an Air Purge Kit, dust.

Gerflor assures quality

The MacGregor Flooring Company based in Hamilton, just outside Glasgow, is renowned as the one of the leading specialist commercial flooring companies in Scotland. Established back in 1985, this family-owned business now has over 30 years' experience within the contract flooring sector delivering a no-nonsense level of quality service with the products to match. It is a supply situation that suits the high levels of quality manufacturing and service that **Gerflor** excels at. Kenny Smith, contracts director at MacGregor Flooring commented: "Any flooring contract is only as good as the products being used. It is very hard for us to provide our clients with a Rolls Royce job if we're being asked to use Lada parts. Gerflor has made significant improvements in the past couple of years in relation to the overall customer experience and this has manifested itself in its overall performance improving. It's what you would expect of a global brand."



QE349

QE350



Romag has city centre tram stop covered

The latest phase of a multi-million-pound urban transport project will feature toughened architectural laminated coloured glass from specialist manufacturer **Romag**. The glass has been specified as a key aesthetic component of the new St. Peter's Square tram stop,

which is being completed as part of the Greater Manchester Metrolink tramway system. More than 370m² of 17.5mm thickness heat soaked laminated green-tinted glass, which has been drilled and shaped by Romag for the city centre scheme, will form four eye-catching canopies for passengers sheltering from the elements on two newly-built platforms. The stop also features new passenger safety balustrades constructed from 50m² of toughened laminated clear glass from Romag, which has also supplied the vertical central glass sections designed to support the canopies.

QE351



New landscape for Leicestershire school

Bituchem has recently been involved in the creation of a new primary school in Leicestershire. The construction of the new Fossebrook Primary School was completed in mid-July ready to open to Foundation, Year One and Year Two students in September. The school was designed by Cornwall-based Kast Architects and MeiLocci landscape architects, which specified Bituchem's specialist Natratex hard landscaping material in Cotswold and grey to create an informal demarcated area

for the playground. Natratex is Bituchem's flagship product and has been used for various applications in schools due to its modern aesthetics and safety benefits. The material provides a varied surface for the children to play on, with designated coloured areas adding to the fun of playtime.

Design solution for West Ham

European Springs & Pressings recently took on a project that hammered home the technological expertise of its workforce when it formed part of a design solution to West Ham's new 60,000 capacity football ground.

The London Stadium recently underwent an impressive renovation under the guidance of Fabric Architecture, international tensile fabric structure specialist. Tasked with designing, engineering and installing large-scale fabric canopies over the retractable seating voids inside the new London Stadium, Fabric Architecture looked to European Springs & Pressings to develop a spring solution that aligned with its engineering requirements. Recent investment in a new Fortuna coiling machine allowed European Springs & Pressings to design and deliver to specification.



QE353

A magical installation

Charcon has successfully completed the supply of StoneMaster block and flag paving to Hampton Court Palace's new Magic Garden. The project, which was opened by HRH The Duchess of Cambridge, has been



QE352

hailed as one of the most ambitious playgrounds at any historic property in Britain. Charcon provided a paving solution that would not only

offer flexible laying patterns but also complement the natural stone paving elsewhere in the Palace grounds. In total, 500m² of Charcon's StoneMaster flag and block paving was specified for the hard landscaping elements of the project.



QE354

SuperTrench strengthens portfolio

Aggregate Industries has strengthened its portfolio of asphalt reinstatement materials, thanks to the performance benefits of SuperTrench. Compliant with HAUC requirement, SuperTrench is a range of permanent hot mix surface course mixtures for use in the reinstatement of flexible footways, footpaths and cycle tracks. It is available in 6 and 10mm nominal sizes and was designed to meet the criteria set out by the *Specification for the Reinstatement of Openings in Highways (SR0H)*. The 6mm option is a suitable solution for the permanent reinstatement of flexible footways, footpaths and cycle tracks. SuperTrench 10mm, when laid with a minimum thickness of 40mm, is suitable for type two, three and four flexible roads.

21st Century living in Surrey

A rare, four-bay, pre-1750's timber-frame barn in Betchworth, Surrey, has been saved from complete dereliction by its present owners, who were keen to restore the 400 year old property for use as a home and business premises. Set in a beautiful location in Mole Valley in the North Downs, Potters Farm Barn has been brought back to life and into the 21st century and **Scolmore's** Click iNELS Wireless Control System has been installed both inside and outside to control the lighting of this impressive property. Ease of installation and minimum disruption to the fabric of the building were the key drivers behind the decision to go for the iNELS system, which was installed by contractor Leon Victor of Victor Construction & Development. Leon commented: "We were able to use the lighting controls to create different moods in different areas of the house and to simulate occupancy when they are away on holiday to add to the security of the property."



QE355



QE356

Following approval from East Herts Council, a disused estate has been regenerated to include a multi-million pound supermarket and maltings. The site is now home to a large ASDA store, which has brought more than 100 jobs to the local community in Ware, Hertfordshire. Due to their attractive appearance and cost-effective benefits, Cembrit Duquesa natural slates were specified. Approximately 40,000 500 x 250mm grey Duquesa slates were installed by Bracknell Roofing. The natural slates provide a striking design on the new 2,000m² mansard roof and the existing 800m² building, which now serves as the back of house for the main store.

Spanish natural slates fit supermarket bill

The attractive, durable and easy to handle properties of **Cembrit** Duquesa natural slates have meant that a large roofing project, spanning 3,200m², could be completed in just 14



QE357

AmbiRad delivers a lecture in heating

Airbloc, part of **AmbiRad**, has recently completed a project for The University of Cumbria. AmbiRad provided an Airbloc air curtain over the entrance door, along with a battery back-lit Exit sign, to the new café building to address the issue of drafts entering and keeping the existing heat in no matter how often the doors are opened. AmbiRad worked with PK Electrical to solve the ingress issue with a range of AC free-hanging air curtains. The unit was finished in brushed stainless steel, which continued the rhythm of natural metal and wood surfaces and textures across the café. The Airbloc unit used a 24kW coil fed from the existing LPHW wet system, reducing energy running costs by providing heating to the air stream from the air curtain.



QE358

Producing a Welsh wonder

A number of **Gerflor** products including Taraflex vinyl sports flooring, Tarasafe Ultra vinyl safety sheet flooring and homogenous Mipolam Symbioz vinyl flooring have been used at Abertillery Primary School in Wales. Taraflex has been used in many international and local sporting events and is available in 17 colours and two wood-effect designs. The Sport M Evolution product offers a P1 category shock absorbency 25% to 35% and meets the EN 14904 standard for indoor sports surfaces. Taraflex is also recognised for providing durability, safety and comfort without impairing performance.

Vinyl flooring creates safe environment

High performance commercial vinyl flooring from **Polyflor** was recently installed at Llwynrcrwn Primary School in Beddau, Wales to create a new junior block. CS Flooring Solutions fitted around 600m² of Polyflor vinyl flooring throughout the new school building as part of Rhondda Cynon Taf Council's £4m refurbishment project. Wood-effect vinyl flooring from Polyflor's Forest fx PUR range in the Classic Oak design was installed in the school hall and meeting rooms, while high design Polysafe Verona PUR safety flooring in the light blue Skyline shade was selected for the classrooms, cloakroom, kitchen and toilets. Ross Williams, project manager at Morgan Sindall said: "With the installation of Polyflor's vinyl flooring, we've created a sustainable, practical, safe and modern learning environment for the pupils and staff."



QE359

Fuel Card Services

The new e-book from The Green Journey offers benefits for any organisation running a vehicle fleet. The fifth edition in the free guidance series helps fleet managers and others to get straight to the heart of the latest sustainability news. Steve Clarke, Fuel Card Services group marketing manager, said: "Sustainability affects every size and type of fleet and the people responsible for managing them need to be up-to-date on the latest news. The Green Journey lets any fleet manager, MD, FD or business



QE600

owner see the most important recent developments immediately, along with advice on what to do about them."

Email: info@thefuelcardpeople.co.uk

Website: www.thefuelcardpeople.co.uk

Jet Aire

Jet Aire has announced the appointment of its new business development manager, Clark Williams. Clark joins with many years' of senior sales and managerial experience, as well as extensive drainage knowledge. Clark's main role within the company is to develop Jet Aire into new market sectors, helping to obtain new contracts and ensure that all communication and growth, along with commercial director Keith Ferris, is consistent with the company's five year plan. Clark will spend most of his time in the North East office (Middlesbrough), while traveling to the Leeds head office and covering the entire UK on larger accounts.

Email: enquiries@jetaire.co.uk

Website: www.jetaire.co.uk



QE601

Mapei

Mapei adhesive and grout products have been specified for the installation of ceramic tile and stone flooring in the reception and washroom areas of Freemasons' Hall, London. Avantgarde Tiling installed the new stone pattern in the reception area first using Mapei's Ultraplan Renovation Screed 3240. It was specified for its quick setting properties and the installation was completed using Limestone Ultracolor Plus grout (shade reference 299) which was applied to 70m². Large format wall tiles were installed in the washroom area using Kerapoxy white grout, ensuring that a stain resistant approach was installed in areas subject to heavy traffic.



QE602

Email: info@mapei.co.uk

Website: www.mapei.co.uk

EnviroVent

Specifiers and tradespeople can now see exactly how an extractor fan will look in a kitchen or bathroom, thanks to a new app from EnviroVent. A UK first for the ventilation industry, AugVent makes use of Augmented Reality to enable users to clearly visualise what an extract fan or other ventilation system will look like in a building. The App is now available to download in the Apple App Store and on Google Play. Available for Android and iPhone, the app brings the image to life in 3D with a 360° product view so that users can see the unit from a range of angles.

Email: innovation@envirovent.com

Website: www.augvent.com



QE603

Norbord

Highlighting the environmental issues associated with burning virgin wood for biomass, Norbord has launched its latest *Use Wood Wisely* campaign animation. The film features the Wise Owl's nightmare of senseless waste, loss of forests and habitats and the release of CO₂ into the atmosphere. You can enjoy the animation via the Better by Nature website – www.betterbynature.org.uk. Some 1.8 million tonnes of British grown wood are burnt by power generators every year. Norbord and the *Use Wood Wisely* campaign argue that this precious resource can be better used for building materials.

Website: www.norbord.co.uk

QE604



Mould Growth Consultants

Excessive moisture in dwellings inevitably leads to black mould on walls and ceilings and the contamination of clothes, furnishings and leather goods. Complaints from tenants are usually that the walls are damp, the ceiling is damp and the mere mention or suggestion that it might be condensation is normally met with a fairly strong reaction from the tenant. Mouldy is an animated DVD



QE605

with accompanying booklet which takes a much softer approach to dampness in an attempt to help tenants understand the problem and save the landlord time and money in having to deal with these ever-occurring complaints.

Email: info@mgcltd.co.uk

Website: www.mgcltd.co.uk

Minimise Water

Although water deregulation is just ten months away, it is evident that many businesses have not yet developed or put in place a strategy to benefit from the change. Minimise Water has extensive experience in delivering water and energy efficiencies and is a suitable partner for those that want to capitalise on the opportunities water deregulation offers. Minimise Water has developed a best practice approach which includes providing a detailed understanding of current water use and developing and implementing a comprehensive water management strategy.

Email: info@minimisegroup.com

Website: www.minimisegroup.com



QE606

Jet Aire

Staff members from Jet Aire have recently taken part in a charity team event based on the tv show *It's a Knockout*. Teams of ten battled it out against each other to raise funds for Hartlepool & District Hospice. The event was sponsored by Seymour Civil Engineering which Jet Aire has been working in conjunction with for just over one year. The day was a brilliant affair despite the



QE607

rain and it is expected that the event will bring in around £10,000 for Hospice care. To see pictures of the event, visit the Hospice's *Facebook* page.

Email: enquiries@jetaire.co.uk

Website: www.jetaire.co.uk

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