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welcome...

...to our bumper September issue. This month we highlight the many reasons to visit UK Construction Week (18-20 October, NEC Birmingham), including Civils Expo (P. 26), the Build Show (P. 30) and Timber Expo (P. 46). Now in its second year, the nine-show event promises to deliver a packed and informative seminar schedule alongside the chance to network with over 650 exhibitors.

Our Hot Topic tackles the sensitive issue of modern slavery within the construction industry and what can be done to prevent it (P. 22) and on page 38, Tim Armitt looks at the ever-developing world of commercial interior design.

This month's Roofing, Cladding & Insulation feature (P. 58) discusses the complications and consequences of poorly-designed and installed roofline products, while on page 77, Mike Gosling offers a practical guide to the different types of air conditioning diffuser available.

from all at ABC+D

+product focus

VELUX rewards installers

+product focus

New VOC barrier provides protection

+hot topic

A call to tackle modern slavery within the construction industry

+100% Design

100% Design talks programme

+interior design

Seating and furniture the heroes of interior design

+kitchens, bathrooms & washrooms

Accessible luxury

+roofing, cladding & insulation

Roofline & rainwater systems crucial elements in housing construction

+doors, windows & architectural hardware

The clean appeal of copper alloys

+heating, ventilation & energy efficiency

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This year's UK Construction Week takes place on 18-20 October at Birmingham's NEC. The event brings together nine shows under one roof and boasts George Clarke as a seminar host. To register to attend visit

www.ukconstructionweek.com For more information,

see page 24.



next issue...

fire, safety & security hotels & leisure facilities urban design & landscaping floors, walls & ceilings (inc. acoustic solutions) focus on education stairs. lifts & balustrades



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tin house provides respite from London's hustle and bustle

A newly-constructed residence in London has been named as a finalist for the RIBA National Award. The home and office residence has been dubbed the Tin House and was designed by award-winning architect, **Henning Stummel**. ABC+D discovers more...

The Tin House is one of only 20 other buildings to be named a finalist for the RIBA National Award and will be featured on Channel 4's *Grand Designs: House of the Year* programme. The winners will be announced later in the autumn.

The Shepherds Bush site is set away from the street with the surrounding properties overlooking it, therefore ensuring privacy was most critical. Henning Stummel Architects' response was to work with a low and inward looking courtyard arrangement which presented the greatest privacy, both visually and acoustically.

Comprising six interconnected pyramidal pods, the roof and façades of the Tin House were constructed using colour coated steel. All the pavilions are finished in an earth-coloured standing seam metal cladding which creates a modest utilitarian finish that highlights and accentuates the monolithic, sculptural quality of the design.

The design is a composition of mainly single-storey pavilions which allowed the architect to respond to the differing conditions around the perimeter, creating an ensemble that looks onto a secluded and serene courtyard. Each pavilion accommodates a room and has a roof that slopes on all four sides with a top light over the centre. This shape reduces the contour, while maximizing the volume. The top light also

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balance of delight and is obviously an uplifting and practical place to live...

RIBA





room. The roof-lights can be opened and, on warm days, the stack-effect ensures that fresh cool air is drawn in from above the pool. The Pantheon and the work of James Turrell have influenced the design of the top lit pavilions.

Secondary spaces such as toilets and stairs are hidden within the capacious double walls of the links between pavilions, so that the final design reads as an enfilade of generous top lit spaces. The pavilions are gently moulded to make efficient use of the site.

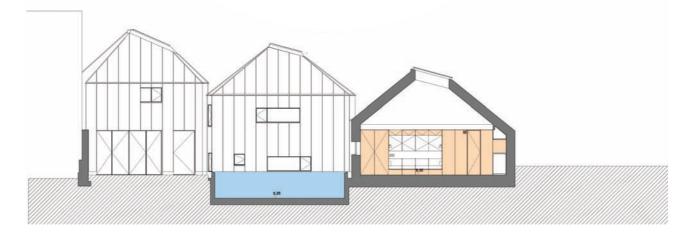
A rectangular pool of water allows for condensation cooling and the sun's reflections from the water bring the façades to life.

As you move through the building the layout provides ever

changing vistas and views, the geometric forms accentuated by the simple utilitarian finishes. The brick fireplace mirrors the entrance gateway in its scale and texture and acts as a touch stone at the heart of the composition, grounding the house around the hearth.

The pavilions are super-insulated (250mm of PU foam) and relatively airtight and a heat-recovery air system ensures energy efficient ventilation throughout the colder months. Full of inventiveness, the cleverly detailed thick walls incorporates the services.

According to the RIBA panel: "The house has a beautiful balance of delight and is obviously an uplifting and practical place to live. The judges were all equally moved, delighted and inspired by this unexpected back-land jewel."





VELUX roof windows

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centre for medicine university of leicester

The University of Leicester commissioned Associated Architects to design a building that would allow it to bring together the schools of medicine, health sciences and psychology under one roof. Its aim was also to create a building with very low carbon emissions which would enable the university to achieve its ambition to be recognised for environmental and sustainability excellence. In doing so, it has become the largest Passivhous-certified building in the UK. ABC+D takes a look...

> Passivhaus is one of the most stringent energy performance standards in the world and something that is incredibly challenging to achieve - but it is expected to reduce the university's energy bill for this cutting-edge teaching and learning facility by six times thanks to its excellent thermal performance. This comes after the university committed to reducing its carbon emissions by 2020.

Associated Architects, along with Willmott Dixon, Bidwells, Gleeds, Ramboll and mechanical and electrical consultant Couch Perry Wilkes, worked side-by-side with the university throughout the challenging build process to develop what is not only an incredibly eco-friendly building, but one that is led by good design principles – something that it is often said to be stifled by striving to attain Passivhaus standards.

The University of Leicester appointed Associated Architects to design the new Centre for Medicine on the University Road campus at the corner of Lancaster Road and University Road, adjoining the locally listed Regent College.

The new building provides a new home for the Medical Education, Biological Sciences and Psychology departments providing approximately 12,000m² of teaching rooms, academic offices, dry lab research

facilities and support spaces capable of accommodating more than 2,350 staff and students.

This much needed facility replaces the existing compromised space within the adjacent 1970s Maurice Shock Building.

The PHPP spreadsheet was key to achieving Passivhaus certification. The tool proved invaluable in exploring alternative design solutions... CIBSE Journal







The project will allow the university to continue and enhance its excellent reputation for medical teaching and research.

The scheme comprises a two-storey podium structure which houses the main teaching spaces, a 300-seat and smaller 150-seat lecture theatre and informal learning spaces.

Three linked towers rise up from this podium; these contain a mixture of research laboratories, teaching spaces and cellular offices. Impressively, the scheme has an annual space heating demand of just 15kWh.m² and a total annual primary energy use of 116kWh.m² as defined by Passivhaus Planning Package (PHPP) – quite an achievement for a large academic building with variable occupancy that accommodates up to 2,000 students and 400 staff.

The PHPP spreadsheet was key to the scheme achieving Passivhaus certification. The tool proved invaluable in exploring alternative design solutions and enabling the design team to assess the outcomes of enhancing the performance of some construction elements. It could then offset this against less well-performing elements, to arrive at a design that optimised both performance and cost. In fact, one of the benefits of using Passivhaus on a large project such as this is that it increases the number of opportunities for construction variations, when compared to a small-scale Passivhaus scheme.

The new building is arranged in two parts: the two-storey teaching podium base and three linear wings of academic and research office towers. The towers run at 90° to Lancaster Road and step down in height to reduce overall massing and

impact on the setting of Regent College, while maximising passive, low energy opportunities for the internal environmental conditions. The configuration of narrow floor plates in the towers provides a high level of daylight penetration and supports a natural ventilation strategy. External solar shading devices protect the building from overheating.

The podium base is organised around two atria which are top lit between the upper office towers. These spaces provide important social learning areas with IT facilities, a café and break-out furniture, encouraging interaction between the various student and research subject groupings. Current outof-date facilities do not offer a sense of place or home for the college to develop an identity. Resolving this was a firm aspiration of the university's brief and one that the physical arrangement of the building aims to address.

The building design is derived from a strong sustainability agenda resulting in an EPC A-rated scheme, with Passivhaus levels of air-tightness and thermal performance, high levels of natural light, high thermal mass and mixed-mode ventilation which use a fraction of the energy of conventional air-conditioning. Renewable technologies include PV panels and CHP and there will also be a planted wall and green roof on the side nearest Regent College to increase the ecological contribution.

In February 2016, the Centre for Medicine officially became Passivhaus accredited and is currently the largest Passivhaus building in the UK and one of the largest in Europe.





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fortius clinic expands its london presence with new city premises

Fortius Clinic, the UK's leading orthopaedic and sports injury clinic has opened new facilities on King William Street. Designed by **tp bennett**, the clinic is Fortius' second premises in London and will cater for those living and working in the City and beyond...



Since opening in 2011, Fortius Clinic has already established an international reputation, attracting many of the UK's elite sports professionals to its Marylebone clinic, an Outpatient Diagnostic and Treatment Centre (ODTC) and FIFA Medical Centre of Excellence. The new premises will enable Fortius Clinic to lead the way in specialist orthopaedics for a more city-based audience.

The vision for the facilities on King William Street was to create a new aesthetic in private healthcare; a space for the diagnosis and treatment of musculoskeletal conditions, both surgical and nonsurgical. The aim was to healthcare

create an environment that truly represented and complemented a state-of-the-art facility and includes nine consulting rooms, treatment rooms, an X-ray suite, ultrasound facilities and a 3T MRI scanner.

tp bennett's architectural concept for the clinic was to move away from a traditional medical blueprint and draw on the more welcoming and accessible design models associated with the hospitality sector.

Patients enter the clinic through a prominent entrance and attractive period façade where they are greeted by the main reception and directed downstairs to the lower ground floor welcome point.

The circulation and waiting areas are located in the centre of the accommodation with a central pod helping to orientate the patient and add geometry to the space. The various departments, such as consulting, treatment rooms, imaging and procedure rooms are located around the perimeter to optimise the use of space and also retain the various relationships and adjacencies between the departments while simplifying patient flows.

The brief was for a light, spacious and welcoming design that created an impression of solidity and wellness for both patients and visitors. With the clinic located on the lower ground floor, the design seeks to utilise the minimal natural light sources available on offer, using bright open spaces, ambient lighting, reflective surfaces and clean, simple lines.

The space has a sense of gravitas and efficiency, but is also far removed from a healthcare environment...

Jonathan Darke tp bennett



The new generous circulation waiting space on the lower ground level has been designed with a contemporary but clinical feel to create a relaxing experience for the patient.

The spaces are curved and organic, eliminating the constricted feelings associated with narrow corridors and making the space fluid and articulated. Incorporating tp bennett's cross sector expertise, the design offers a reassuring clinical feel with finishes reminiscent of a boutique hotel.

The reception at street level outwardly communicates the ethos of the clinic; world class, excellence, personalised care, with its clean simple lines and bright white aesthetic designed in a crisp architectural style.

When patients enter the main body of the clinic at lower ground floor, with its soft organic forms, green wall and ambient lighting design, it provides a welcome, relaxing retreat from the noisy and hard urban environment above.

The open circulation and waiting spaces are partitioned by curved walls that create fluidity across the space and remove any resemblance to the harsh lines and corridors often associated with hospitals and healthcare facilities.

tp bennett has created an environment that is both stylish and confident while providing the necessary clinical reassurance for both patients and staff. Jonathan Darke, tp bennett, principal director, said: "The Fortius Clinic is a strong brand with a diverse audience. We wanted to develop an individual style for the King William Street clinic to demonstrate the company's reach and understanding of its clients. The space has a sense of gravitas and efficiency, but is also far removed from a healthcare environment. Clients need to feel at ease and confident in their surroundings but they also want their journey to be as pleasant an experience as possible within a welcoming and stylish setting."

tp bennett is an architecture and design practice based in London and Manchester with affiliate offices in more than 20 countries. The practice has three core divisions, architecture, interiors and town planning, supported by specialist areas in strategy, research and graphics.







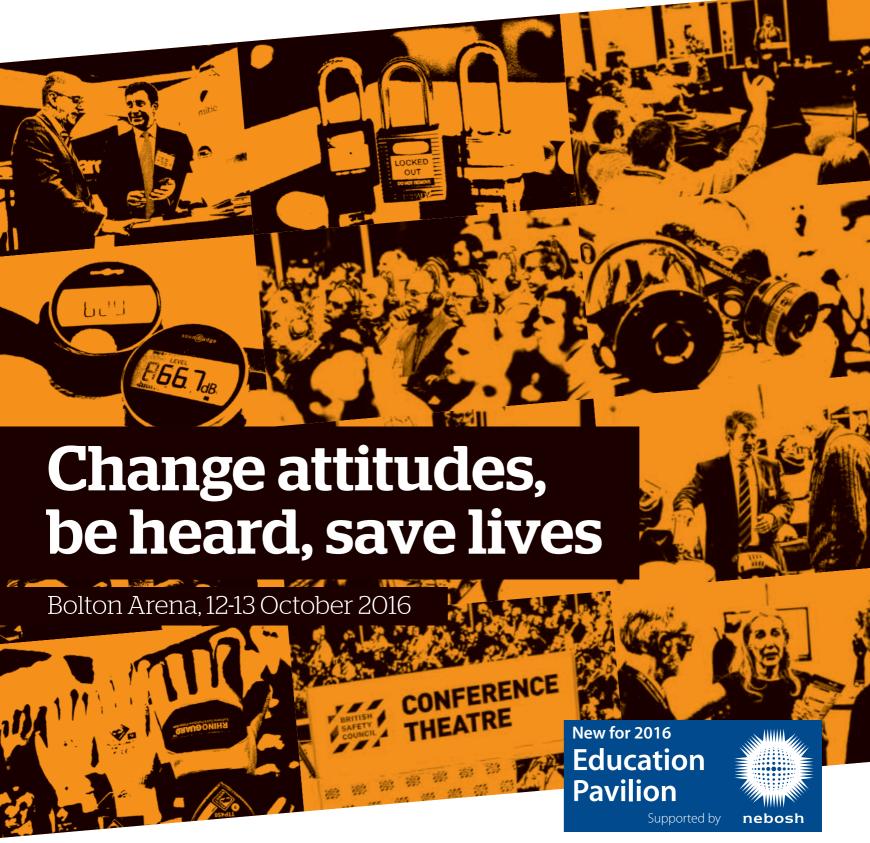
270 staff work across the practice with projects covering a range of sectors including corporate, datacentres, education, health, hotels, bars and restaurants, offices, public/civic use, residential, retail & leisure, student residential, and transportation.

Founded in 1921 by Sir Thomas Bennett, today tp bennett is led by a young, dynamic, fourth generation of directors who are passionately committed to design and providing a firstrate professional service tailored to each client's needs.

Architect: tp bennett Main contractor: Paragon Interserve MRI/X-ray specialist contractor: Apollo Building **Services Engineer: Hoare Lea Structural Engineer: Conisbee**







More information at: www.healthandsafetyevents.co.uk

















VELUX rewards installers for choosing daylight

Window installers across the UK and Ireland can claim £100 worth of rewards, redeemable at top brand retailers and restaurants, every time they buy a VELUX INTEGRA solar or electric roof window in September and October....

The latest installer offer from VELUX rewards customers with £100 for each VELUX INTEGRA solar or electric roof window purchased – suitable for out-of-reach spots and flat roof extensions. The rewards can be redeemed at M&S, Argos, Pizza Express, Thomas Cook and Ticketmaster.

The offer coincides with the latest campaign from window manufacturer, VELUX, to inspire and support homeowners with practical tips, advice and tools to help them create their dream, single-storey extension with VELUX roof windows, which bring twice the daylight to extensions as vertical windows.

Grant Sneddon, product manager at VELUX said: "We're urging installers and homeowners to take advantage of the fantastic rewards available to them when buying VELUX INTEGRA roof windows. With a busy period of home improvement over the next six months, there are thousands of UK homeowners who will be considering adding more daylight to their existing or new extensions.

"With upwards of 20,000 existing extensions without roof windows across the UK and Ireland, it is never too late to add daylight and ventilation to an existing space.

"There is a growing trend for homeowners to extend rather than move and the market for extensions and roof windows is only set to grow, with many homeowners looking to spend big in the next six months."

There is a growing trend for homeowners to extend rather than move and the market for extensions and roof windows is only set to grow

Grant Sneddon

VELUX

Nearly half (47%) of the UK's home owners taking part in a survey by VELUX are planning to carry out home improvements over the next six months. For the vast majority of home improvers (59%), the main reason for renovating is to either update their interior décor or modernise their homes. However, one out of every ten home improvers is embarking on a project to create or improve space so that they can spend more time together as a family.

For this particular group of family-time seekers, they are willing to spend big to make their dream a reality, with a planned average spend of £15,589. This is more than double the planned average spend of £6,444 for all home improvers.

Grant added: "Through our new extensions campaign, we aim to educate and inspire homeowners to consider the benefits of adding more daylight to their homes by utilising VELUX roof windows to accompany vertical and bi-fold doors. For window installers across the UK and Ireland, there has never been a better time to take advantage of this growing market."



Red Sky Thinking from BAL for fail safe external tiling

BAL – market-leaders in full tiling solutions – has launched a new problem-solving external tiling system for balconies, roof terraces and ground terraces.

Gutjahr System Technology from BAL offers designers and contractors innovative drainage, ventilating and uncoupling solutions to protect outdoor coverings against the unpredictable British weather and extremes such as rain, frost and heat.

Alex Underwood, Head of Marketing at BAL, said: "External tiling is a fast-growth segment in the UK as the trend for inside / outside living thrives. BAL are excited to confirm our new range of products for a proven system-solution in this sector are now available to the market.

"The new products represent a complete new range of solutions for the BAL portfolio and work as a system with current BAL preparation, adhesive, grout and sealant products to provide architects, designers and contractors with a true 'one-stop-shop' for balconies, terraces and external ground floors.

"Beyond 'blue-sky' thinking, the new solution provides a proven and trusted system to avoid frost damage, staining and water damage when using tiles externally. The system can also reduce the weight loading on a balcony by utilising thinner assemblies, lighter materials and limiting water absorption and retention, which in turn reduces water loading."

A sister company of BAL with a proven track record of delivering trouble-free coverings across Europe from prestigious projects including Amsterdam Library, The Palace of Hambach, and the Weimar National Theatre to smaller domestic projects, Gutjahr are the inventors of the passive capillary AquaDrain® surface drainage system. Complete with ProFin® edge profiles, AquaDrain® drain grates and ProRin® guttering, the patented systems are simple to install and provide rapid, immediate and high volume drainage of water.



By removing the water, you are taking away the biggest threat to the tiled assembly and protecting the long term integrity of the floor assembly and covering. Problems such as cracking due to the freeze/thaw cycle, staining, warping, efflorescence and even weed growth on loosely laid tiles or slabs is inevitable if surface water is able to penetrate below the tiled surface and is unable to be drained effectively.

Among the systems on offer from BAL include Thin Drainage Assembly for direct point adhesion for break-proof coverings, Standard Drainage Screed Assembly for the solid bed fixing of ceramic, porcelain and natural stone and concrete paving, and a Thin, Lighter Weight Drainage Screed Assembly with an epoxy screed for a strong but comparatively lightweight build-up compared to conventional systems. Both the Standard Drainage and Thin

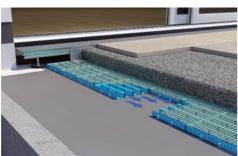
assemblies include the AquaDrain® passive capillary drainage mat which has a unique permeable mesh, raising the complete surface and offering a higher drainage volume compared to other drainage mortar and mat systems.

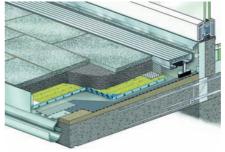
With a collective 80 years of commercial tiling experience, incorporation of the Gutjahr range within the BAL portfolio ensures a guaranteed, full-system solution for external installations from the UK market-leader.

BAL is introducing a number of Gutjahr products to its portfolio, which combined with its full range of tiles adhesives, grouts and sealants, makes BAL the ONLY full system provider in the UK.

Now available to order or specify, Gutjahr System Technology represents new, innovative ideas – a vision shared by BAL.









To find out more about BAL's new external tiling system, see project case studies, explore Gutjahr products, request a demonstration or specification visit www.bal-adhesives.com, call their Specification Team on 01782 591120 or email info@building-adhesives.com

Calderpeel Architects nets trio of luxury homes schemes



Cheshire-based Calderpeel Architects has been appointed to design a trio of luxury housing schemes in the region worth around £14.5m.

The practice has been appointed by high-end developer, Altin Homes, to design 24 contemporary four and five-bedroom properties in Sale to be known as The Place. It has also designed a scheme on behalf of Regency Residential that is set to revitalise the site of a former nightclub in Alderley Edge.

Meanwhile, construction work is already underway on another scheme designed by Calderpeel, the Residenza development on George Leigh Street, Ancoats, on behalf of Hillcrest Homes.

The Altrincham-based practice has also secured a host of superhome commissions on behalf of private clients, including new builds commencing in Windermere, Bowdon and Hale.

Ewen Miller, managing director of Calderpeel Architects, said: "Activity in the luxury residential market remains steady and we continue to receive a flux of enquiries for these high-quality developments, as well as projects in the superhome category.

"It's credit to the team we've built at Calderpeel that we continue to be appointed by some of the most respected names in residential development in the region."

The Place, on a two-acre site in Northenden Road, Sale, is one of Altin Homes' Bijou Collection developments where architectural design features and items of internal specification more typically seen in the company's multi-million pound homes are built into a property of more modest proportions.

Apprenticeship levy – take time and care

BSRIA says that due time and care should be taken on the delivery and details of the Government's apprenticeship levy.

Employers in any sector will have to pay the levy if they have a pay bill over £3m a year. Firms will have to begin paying the levy from 6 April 2017 and will be able to start claiming funding from the following month.

Types of apprenticeship will now come under 15 different funding bands, ranging from £1,500 to £27,000 per apprentice.

The Government confirmed that industries where a levy is already imposed – including construction through the CITB – will have to pay both levies as required.

Julia Evans, chief executive, BSRIA, said: "We welcome the Government's emphasis on increasing investment in apprenticeships. However, there is a concern that the apprenticeship levy could run the risk of being compromised by hasty deadlines. Government must take time to get this right."

Is the construction industry in limbo as we await Brexit details?

The latest Markit/CIPS UK Construction PMI figures reveal that the construction industry appears to moving towards stability.

Peter Vinden, managing director of The Vinden Partnership – a multi-disciplinary consultant company to the built environment said: "This move towards more stability in the construction industry is a step in the right direction but we are a long way from the kind of performance we want to see.

"The uncertainty stemming from Brexit still hangs over the industry. We have heard that the Prime Minister is trying to firm up the Brexit strategy and I would encourage the Government to do this as swiftly as possible.

"Until we get this, the best the construction industry can hope for is stagnation. To see the kind of growth and activity that enables the industry to thrive, we need clear direction from the Government. If we are forced to wait until the Autumn Statement, we can expect a downturn in performance for months to come.

"Once it becomes clear that trade will continue with EU member states and other trade deals are struck with new territories, we will hopefully start to see the industry return to normality."





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new VOC barrier provides flexible protection

The A. Proctor Group has extended its range of ground gas protection products to include Protech VOC Flex, a new solution in membrane technology, specifically designed to make the development of brownfield sites safer and easier...

> Protech VOC Flex is a high performance, six layer, flexible proprietary reinforced VOC barrier suitable for use on brownfield sites that require protection from dangerous contaminants such as hydrocarbons.

> Aubrey Machin, ground protection national technical sales for the group explains the need for the new membrane: "with the emphasis that is being placed on brownfield development, more is required from the systems that have traditionally been used for ground gas protection. We wanted to develop a new membrane that is designed specifically to meet the needs of these sites. Protech VOC Flex was designed as a hydrocarbon and VOC membrane as, in our experience, these are typical of the type of contaminates present on many brownfield developments. However, continual testing enables us to provide not simply yet another hydrocarbon membrane but a chemical barrier, which should be suitable against a whole range of contaminates.

"Previously, the membranes which were recommended to provide protection for buildings were derived from landfill and industrial solutions, typically HDPEs of various thicknesses. The main problem with these membranes is that

The main objective was to produce a new membrane, which is highly resistant to hydrocarbon and chemical attack... Aubrey Machin The A. Proctor Group

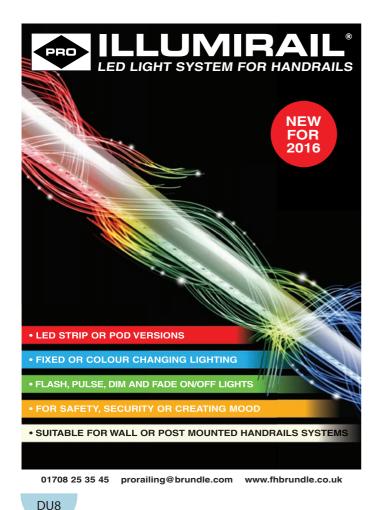
they are incredibly difficult to work with and detail, plus the misconception that HDPEs



to VOCs when, in reality, the permeation rates are quite high as indicated in CIRIA C748. Therefore, the main objective was to produce a new membrane, which is highly resistant to hydrocarbon and chemical attack, plus strong and robust enough to survive the build process highlighted in BS 8485 2015* and, more importantly, flexible enough to detail and install quickly and easily. Our initial projections are that it should be four times faster to install against traditional HDPEs."

*BS 8485 2015 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. DU205

offer complete protection



Designing Effective Thermal Breaks

- free Workshop - keynote speaker Maxwell Hutchinson

As the topic of thermal bridging becomes more prevalent, understanding how to calculate an effective structural thermal break has never been more essential.

A workshop, which brings the latest principles of thermal break design to Structural Engineers, Architects and Technicians, is being hosted by Schöck Ltd at the Institution of Structural Engineers in London.



The sessions will cover topics such as -

achieving optimum thermal break solutions at cantilever connections / deflection calculation using current market software and services / how deflection can be reduced / an introduction to the latest Schöck software / a demonstration of how other FEM software can be used.

The keynote speaker is Maxwell Hutchinson, President of the Royal Institute of British Architects from 1989 to 1991; and broadcaster on the BBC, where he covers architecture, lifestyle and London life.

Workshop Details

The workshop is free and accrues CPD points. Early booking is recommended

Venue: The Institution of Structural Engineers, 47-58 Bastwick Street, London EC1V 3PS

Timing: 9th November 2016; 9.00 am – 1.00 pm, with a buffet lunch immediately after.

For full details and /or to register, please go to: www.schoeck.co.uk/industry-workshop Contact Chirag Patel at Schöck on 07824 848 090 for any

additional information

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SBP16NB

a call to tackle modern slavery within the construction industry

The Chartered Institute of Building (CIOB) is calling for greater industry collaboration to eradicate unfair labour practices. Clients and tier one organisations need to take greater responsibility for their supply chains. Priority should be given to tackling illegal recruitment fees, according to the new

CIOB report – Building a fairer system: Tackling modern slavery in construction supply chains. ABC+D finds out more...



The report, produced in consultation with a number of businesses and NGOs, including Amnesty International, Verité, Engineers Against Poverty and the Institute for Human Rights and Business, examines the root causes of slavery and sets out priority actions for moving the industry towards greater transparency.

Slavery remains a problem hidden within many sectors. The International Labour Organization estimates that there are 21 million people in forced labour around the world, generating profits in the private economy of \$150bn. Interpol estimates that only 5-10% of cases are ever reported.

With its fragmented supply chains, opaque procurement processes and high demand for migrant labour, the construction sector faces a unique set of challenges in tackling human rights abuse. It is a priority area for the UK's first Anti-Slavery

Commissioner, Kevin Hyland OBE, has written a foreword for the report.

Building a fairer system examines how workers from developing countries become tricked or coerced into paying illegal and extortionate recruitment fees and, once in debt, become vulnerable to exploitation in their place of work. Abuse ranges from forced or bonded labour, late payment, unsanitary living conditions, unfair deductions from wages, withheld passports and loss of freedom of movement, lack of representation, violence, intimidation and physical abuse.

The report also examines how faults in the procurement process allow exploitative practices to remain hidden in building materials supply chains. It includes a series of case studies and recommendations from organisations that are working to shift cultural practices and norms:

- How ethical recruitment firm FSI Worldwide's integrated cross-border operations are eradicating illegal recruitment fees
- The steps that CH2M has taken to implement a new global worker welfare policy
- Hewlett Packard's move to direct labour
- Qatar Rail's worker welfare strategy
- Marshalls' ten-year initiative to protect vulnerable children
- Bechtel's bottom-up approach to tackle exploitation in metal mining

Organisations need to become proactive, holding subcontractors and suppliers to account through more stringent clauses and penalties

Chris Rhythe

Chris Blythe
CIOB

Building a Fairer System is part of CIOB's ongoing campaign responding to changing legislation and international protocols. The UK Modern Slavery Act, which came into force in 2015, requires UK organisations with a turnover of more than £36m to report on how they are dealing with human rights issues in their supply chains. Other forces reshaping the industry include the California Transparency in Supply Chains Act of 2010, the EU Non Financial Reporting Directive and the UN's Sustainable Development Goals for 2015.

In parallel to the report, CIOB is collaborating with specialist providers on a series of training packages and is preparing an industry toolkit, to be launched later in the year. The CIOB is making the case that ethical innovation will be a powerful differentiator for businesses and essential for future-proofing brands as well as improving the global reputation of the sector.

Anti-Slavery commissioner, Kevin Hyland, OBE said: "With the culture of transparency becoming the norm in the era of globalised communication, having and showcasing sustainable and ethical practices is the only way forward and, indeed, an excellent market opportunity. Companies who opt for a model of secrecy will find they are no longer viable, as NGOs, journalists and consumers are increasingly able to hold them to account. Instead, those who lead the way with transparent, ethical and slavery-free supply chains will become the companies of choice and the new market leaders."

CIOB chief executive Chris Blythe said: "CIOB's core values are founded on the principles of ethical business behaviour. We are calling on our thousands of members and partners to ask more searching questions of their colleagues, suppliers and clients. Strong leadership is required, as is the willingness to take more responsibility, both individually and at corporate level.

"Ethical procurement processes should be embedded into the heart of operations. Organisations need to become proactive, holding subcontractors and suppliers to account through more stringent clauses and penalties and the eradication of illegal recruitment fees must be our priority.

"Our journey towards the eradication of slavery will take decades and demands collective action, as is reflected by the multiple contributors to this report. Professional and private organisations need to come together to solve these complex problems and to make a lasting difference."

The report makes a series of recommendations for the construction supply chain:

Recommendations for tier one organisations:

1. Map out supply chains and identify areas of highest risk, geographically and by activity. Tackle these areas first

- 2. Lead policy from the top of an organisation, at CEO and COO level
- **3.** Provide tailored training and education to staff at all levels of the business
- **4.** Work directly with labour supply agents and/or increase the proportion of directly employed labour on a project
- 5. Take more responsibility for shifting the culture in lower tiers of the supply chain: provide support and training for SMEs
- **6.** Collaborate with NGOs that can provide support and understanding of the complex challenges of different regions
- 7. Set a long-term strategy by following international guidance produced by organisations such as the UN Global Compact, the Ethical Trading Initiative, the Institute for Human Rights and Business, OECD or the International Labour Organization

Recommendations for procurement teams and materials producers:

- 8. Educate procurement teams and improve communication between the professions designers, engineers and architects and project managers to ensure that boardroom policy is translated to site and subcontractor levels
- **9.** Embed robust checking procedures that do not default to box ticking exercises or ineffective audits
- **10.** Work directly with suppliers to help them improve their practices

Recommendations for industry:

- 11. Participate in cross industry initiatives, sharing best practice and drawing on expertise from other sectors
- **12.** Encourage and support the development of ethical recruitment companies
- 13. Influence and lobby clients and governments to accelerate change
- **14.** Encourage widespread adoption of ethical standards







UK Construction Week nine shows under one roof

Organised by Media 10, the award-winning UK Construction Week is back following its successful launch in 2015. Bringing together nine shows under one roof to form the most comprehensive industry event in decades, UK Construction Week will return to the Birmingham NEC on 18-20 October 2016. ABC+D gets a sneak preview...

With some of the industry's biggest names already signed up, visitors will not want to miss UK Construction Week 2016. In 2015, the show attracted more than 24,000 trade visitors and 650 exhibitors and this year's show is set to be even bigger, building upon the solid platform of the inaugural event.

Not only will the show provide visitors with the chance to benefit from exclusive deals from leading brands but it will also give them the first opportunity to network with fellow professionals since the EU referendum, learn more about the latest legislation and the future of the construction industry, see the latest innovations first-hand and progress their careers through learning new skills.

For exhibitors, the event provides an opportunity to interact with decision makers and purchasers from across the industry as 70% of the UK's top house building firms, 60 of the UK's top architectural firms and all of the UK's top construction companies attended the show last year. This unique mix of visitors is why so many exhibitors have rebooked from last year's event and is the key behind UK Construction Week's success as it brings the whole industry together.

In addition to its prestigious
exhibitors, UK Construction Week
will also benefit from the support
of industry-leading trade
associations such as the Royal
Institute of British Architects
(RIBA), the Timber Research
and Development Association

(TRADA), the Builders Merchants Federation (BMF), the Construction Products Association (CPA) and the Chartered Institute of Building (CIOB) to name but a few.

Seminar content

UK Construction Week will benefit from the most comprehensive seminar schedule of any UK trade event. The Main Stage, which will be hosted by some of the biggest names in broadcasting and beyond including George Clarke, Steph McGovern and Victoria Fritz, will tackle top-level challenges and opportunities faced by the construction industry, while the individual shows will delve into sector specific issues.

Who's exhibiting at the show?

With the show just around the corner, more and more industry leaders continue to sign up to exhibit at this year's event.

One of the most reputable names exhibiting this year is JCB, showcasing its products at the Build Show. Also joining JCB will be the UK's largest multi-channel supplier of trade tools Screwfix, plus Caterpillar, Festool, Milwaukee and Manthorpe Building Products.

How to register

Registering to attend UK Construction Week is quick, easy and free and can be completed by visiting www.ukconstructionweek.com





extremely professional and helpful, and we've thoroughly enjoyed meeting so many customers face-to-face...

Alan Siggins

Airflow Developments

Everybody at UKCW was

UK Construction Week 2016



Framery, Theben, Savant and Voltimum all on show

Smart Buildings 2016 is the UK's only show dedicated to integrated building technology and October's event has already attracted a wealth of exhibitors. One of the most exciting is Finnish acoustics specialist Framery. The company creates soundproof booths designed to increase productivity in offices and will be launching its Q Booth at this year's event. Another forward-thinking company, Theben, will be bringing its collection of motion detectors and building systems technology to the show. As a recognised leader in the field of home control and automation, Savant will exhibit its range of connected home technology and launch its new Savant Pro app and Savant Remote. As well as exhibiting, Voltimum,



one of the leading portals for the electrical industry, will provide support at this year's event. It will use Smart Buildings 2016 to promote smart connected technologies that can be integrated into the Internet of Things.

Screwfix expands its stand

UK multi-channel supplier of Trade Tools for construction, Screwfix has recently expanded its stand space from six to 110m² at this year's Build Show, as part of UK Construction Week. Screwfix has started making arrangements to build a new custom-made exhibition stand dedicated to the space. B2B manager, Stephen Henagulph, saw the benefits from



exhibiting at the Build Show the previous year and was keen to enhance the brand's presence this year as UK Construction Week continues to grow from its launch. "We noticed the Build Show was growing in size, so we wanted to see first-hand who would be attending and how useful it would be for Screwfix to have a presence at the show as an exhibitor. With that in mind, we dipped a toe in the water and took a small shell scheme stand at the 2015 Build Show. It proved really valuable in terms of business contacts made and, as a result, we decided we would take a much larger stand and play a far bigger role in the Build Show this year."



Tiling technology

UK manufacturer and importer of ceramic and porcelain tiles, Johnson Tiles, has returned to the Surface & Materials Show for 2016 after a successful inaugural show. Natural materials are the latest trends to be transformed by tiling technology with the creation

of ceramic and porcelain tiles that mimic exposed bricks, woodgrain and stone. The new organic themed ranges use the very latest in manufacturing and design technology to replicate every tiny detail found in these earthy materials - from irregularities in shade and tone to texture and size. Darren Clanford, creative director of Johnson Tiles, said: "Good replications of brick work or natural effects in a tile have already been achieved but these new collections take it to an entirely new level. The detailing is so perfect that there really is no need to use natural materials on walls and floors now." Johnson Tiles has added a total of eight brand new ranges, across the three collections - Absolute, Select and Intro.



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Civils Expo - dedicated to civil engineering

As the UK's only event dedicated to civil engineering and construction, Civils Expo will form a crucial part of the award-winning UK Construction Week taking place at the Birmingham NEC on 18-20 October. ABC+D reports...

> **Growing** from last years' event, where it formed a section of Build Show, Civils Expo is now its own dedicated show backed by industry leaders including the Institution of Civil Engineers (ICE) and the Association for Consultancy and Engineering (ACE).

Catering specifically for civil engineers, contractors, local authority developers, landscape architects, commercial home builders, site managers and central Government, Civils Expo will host a selection of the industry's top names.

In addition, visitors will be able to take in the wonder of construction with representatives from some of the country's largest and most iconic infrastructure projects in attendance. Seminars will focus in on major live projects and visitors can see the products and technologies first-hand that are making them a reality. The event will also host the Infrastructure Awards in partnership with World Architecture News.

Visitors to Civils Expo will also benefit from the event's co-location alongside eight other trade events being held at UK Construction Week. Offering an opportunity to network with individuals and companies from across the entire construction industry, visitors can explore five halls of the NEC, all packed with relevant products, services, features and businesses. Visitors will also benefit from a host of extra-curricular activities on offer such as a beer festival, casino night and awards ceremonies.

What's on at the show?

Central to the exhibition space will be the Infrastructure Hub. Supported by ICE, Transport for London, BRE, Morgan Sindall and BAM Nuttall, the programme of content will cover the hottest topics in the sector including physical, personnel and cyber security

We have chosen to exhibit at on actual and virtual construction sites, the affects of the Modern Slavery Act on the construction industry and how the sector is developing to stay one step ahead. Experts from across the field will discuss how the industry will cope with the challenges ahead and visitors will be able to take part in debates, practical workshops and networking events to further both their personal and business development.

On day one of the event, Civils Expo will be hosting the prestigious WAN INFRASTRUCTURE AWARDS 2016. As part of World Architecture News' Excellence in Design series for 2016, the awards seek to identify and reward ideas that bring elegant solutions to vital infrastructure schemes. Panellists include: Neill McClements, partner at Grimshaw Architects; Bridget Roswell, commissioner at the National Infrastructure Commission and Huw Thomas, partner at Foster + Partners.

Registering to attend Civils Expo is guick, easy and free and can be completed by visiting www.civilexpo.co.uk What's more, by completing the form, trade visitors can access all nine shows taking place at UK Construction Week.



Civils Expo as we see it as a great opportunity to raise our profile in the civil sector...

> Hans Garbutt Clark Drain



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Renowned brand added to concrete portfolio

Aggregate Industries has enhanced its product portfolio with the addition of Agilia – a highly fluid, self-compacting concrete. Widely considered as revolutionary technology, backed 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 of Aggregate Industries said: "The addition of Agilia strengthens our portfolio of solutions. The range

comes with benefits including quick pours, high aesthetic finishes and a considerable improvement to conditions on the building site – thanks to the elimination of vibration and, as a result, worksite noise."

Get wired for safety with KeeLine

Fall protection specialist, **Kee Safety**, has redesigned its KeeLine Horizontal Lifeline system to allow easier installation on bitumen membrane roofs and provide an enhanced weathering solution. KeeLine is a wire-based horizontal lifeline system that has been designed to provide continuous fall protection. Fit for use in areas where guardrails are not



suitable, the system allows roofers and contractors to safely work on the roof and provides a virtually invisible solution to carry out repairs, maintenance or inspection work. Installed as a permanent lifeline system, it offers uninterrupted access for up to three users across the whole roof, allowing them to freely move around the surface. KeeLine incorporates a redesigned post and base plate for use on bitumen membrane roofs, as well as being suitable for metal profile, standing seam and composite panel roofs. The system comprises enhanced safety features including new toggle fixings, a slimline corner design, stronger rivets, improved swage and reduced height intermediate uprights.



Phone home for smart control

Heating controls specialist, **SALUS**, has taken its expertise and technology to a whole new level with the unveiling of a Smart Home range of connected products that will enable homeowners to run their home simply from their phone. At the centre of the SALUS Smart Home system is the Universal Gateway UG600 and Smartphone App that are required to control and monitor the system. Once up and running, users can quickly and easily connect a variety of devices that feature in the range, such as smart plugs, door and window sensors and an electric monitor that provides data on any particular product. A new iT530 thermostat, smoke Alarm, CO2 alarm, camera, smart switch and smart button are also set to join the range. Products in the Smart Home range can operate independently, as a group of similar products or with other products in the range.



Four-day emergency response from Portakabin

When the Royal High School of Edinburgh had to be closed for urgent remedial building works, modular building specialist, Portakabin, responded with 16 classrooms to enable 480 children to resume their studies - all 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.

Ancon Teplo reaches new heights

Following recent fire tests at BRE Global, **Ancon** has announced that its basalt-fibre, low thermal conductivity wall ties – Teplo-BF and Teplo-L – offer 120-minute fire resistance, making them suitable for buildings of any height (subject to structural performance), in line with Building Regulations Approved Document B. Officially accepting the BRE's findings, the BBA has confirmed that the fire resistance of these ties will be updated from 60 to 120 minutes in



the next issue of Ancon's Agrément Certificate (14/5160, PS2 and PS3). This extended fire testing brings to an end the previous 18m building height restriction on these Teplo ties. Teplo-BF and Teplo-L ties are now fully comparable with the fire resistance of stainless steel wall ties which, being non-combustible, are also suitable for buildings of any height.



Advancements in access control

SmartSecure, an electronic door locking and smart access control brand launched by **Carl F Groupco**, incorporates state-of-the-art technology which provides strong security and safety features. With aesthetic, practical and technical benefits, the solution is designed to have widespread appeal for architectural, construction and building management professionals across wide-ranging installations including housing associations, the growing retirement-living sector and care homes. Phil Rice of SmartSecure said: "The FUHR multitronic 881 locking technology at the heart of the solution automatically locks all points securely and reliably by a patented twin motor in just seconds after closing the door, this ensures effective locking and increased protection. Feedback from housing associations has told us that some

elderly people can be overly trusting, or they may forget to lift a lever handle – which is a requirement of conventional multipoint door locks: these issues are addressed with SmartSecure technology."





Make your project safe as houses

It's an all too familiar tale when you hear about unscrupulous rogue traders taking countless customers for their hard earned savings. On the flipside there's no shortage of stories of honest tradespeople impacted financially - sometimes to the point of going out of business - as customers stumble over paying project costs. Now, both tradespeople and customers have been given a weapon

in the fight against rogue traders and problem customers. BuildGuard offers a straightforward and effective solution to this two-sided problem, bringing a simplistic management process using tried and tested techniques that have protected both customers and tradesmen for many years in the form of Payment Milestone Plans. BuildGuard's founder, Ross Barrett commented: "Having a simplistic, easy-touse and understand tool that allows you to create a payment plan between customer and tradespeople on the go builds trust and reputation for not only those undertaking the work but it also protects the customer from losing their project investment to the rogue traders that, unfortunately, still exist today."

The complete solution

Improved installation of ISO-CHEMIE's humidity variable window and façade sealing foils is provided following the introduction of new full surface self-adhesive variants - COMPLETE and COMPLETE DUO. The ISO-CONNECT VARIO SD humidity regulating foil provides rapid and effective year-round high performance sealing of window and door frame connecting joints, while ISO-CONNECT VARIO XD offers improved UV resistance for curtain walling situations when sealing inner and outer window



and façade connecting joints. The extension of the range of adhesive alternatives for ISO-CHEMIE's window membrane and airtight foils means that the application of additional gun applied paste-type adhesive is not required during fenestration sealing work. The COMPLETE and COMPLETE DUO variants enable the sealing foils to be located in place and repositioned if necessary after initial application before the full strength of the adhesive develops and takes effect.



Raising the standard of façades

Sto has launched StoColor Dryonic paint which allows water from rain, dew and fog to run off building façades almost instantly. This new paint uses a technology borrowed from nature which allows it to both repel water and channel it away at the same time. It is suitable for both new build and refurbishment projects and offers many advantages including rapid drying, great resistance to the growth of unsightly algae plus the scope to create eye-catching façades. Inspired by special micro-textures found on the shell of the fog-basking beetle, StoColor Dryonic paint uses a special composition of binding agents and filler material to create a hydrophilic-hydrophobic micro-textured surface which instantly repels water.

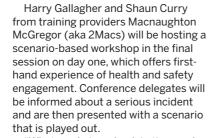


Speakers inspire positive health and safety behaviour and build resilience at Health and Safety North 2016

becomes interactive."



Visitors to this year's Health & Safety North 2016 will be able to participate in two interactive sessions, which have been designed to inspire positive health and safety behaviour and help build resilience by successfully managing stressful situations. The sessions, which are part of a free-to-attend conference curated by the British Safety Council, will take place at Bolton Arena on 12th-13th October.



"What we do is go back in time and we witness a conversation between the two key players who could have stopped the accident but didn't due to various pressures," said Harry Gallagher. "We halt it at the point where the audience can see what is going to happen next. From then on, the whole process

Through a highly enjoyable and memorable process, the audience will get the opportunity to question both individuals, challenge their behaviours and ultimately influence what should have happened, rather than what did happen. Designed to inspire positive health and safety behaviour, the interactive session will enable delegates to develop tips and techniques that they can take back and successfully implement in the workplace to improve health and safety management.

In a second interactive session on day two, Mark Davies, managing director at consultancy 7Futures, draws on his extensive experience of working with elite performers, sports personalities and the military to offer practical advice on resilience building so that delegates can learn how to successfully manage stressful situations.

Mark will consider how to work with resilience to proactively manage performance without compromising people's health and wellbeing. Outlining a model, he will then show how delegates can treat stress as an

adaptive force to strengthen and grow resilience and protect long-term wellbeing.

In a final interactive session, the British Safety Council will also be running a one-day health and safety training course for directors, senior managers, board members and human resource professionals, which covers legal requirements, risk management and individual as well as corporate responsibilities. Participants will be asked to assume the role of company directors and through practical exercises they will gain a firm understanding of positive health and safety management. The course has been designed to give attendees the confidence and skills to implement best practice in their organisation.

"This year's programme offers people an opportunity to get involved and experience new ways of engaging with health and safety," said Louise Ward, Policy and Standards Director at the British Safety Council.

The full seminar programme for the event can be viewed online at: www.healthandsafetyevents.co.uk





build show – building on success

The UK's build community will once again come together for this year's Build Show, being held as part of the award-winning UK Construction Week from 18-20 October at the Birmingham NEC. ABC+D takes a look...

Building on the success of last year's show, which attracted visitors with a combined purchasing power of £36bn, Build Show will return with many of the industry's biggest names in attendance. The show provides the industry with a space to network, develop and grow – bringing together the right people, in the right place, at the right time. This year's event promises to be the most comprehensive exhibition in decades with hundreds of exhibitors and several unique feature areas.

As well as forging new business opportunities and sourcing new products, Build Show plays an important role in cultivating debates and solutions to issues holding the industry back. The discussion will be further amplified through the support of industry-leading trade associations such as the Royal Institute of British Architects (RIBA), TRADA, the Builders Merchants Federation (BMF), the Construction Products Association (CPA) and the Chartered Institute of Builders (CIOB) who will all be in attendance.

What's on at the show?

From SMEs to national house builders, the Build Show promises to have something for everyone. Already signed up to exhibit are some of the biggest names in construction with leading sector organisations entering into exciting new partnerships to further facilitate business and learning at the show as well.

One such partnership can be seen with the announcement of the Builders Merchant Federation (BMF) Pavilion. Designed to offer a specific platform for merchants and suppliers to meet and do business, the BMF Pavilion is not

As a result of (last year's) success, we decided we would take a much larger stand and play a far bigger role in the Build Show this year...

Stephen Henagulph
Screwfix

to be missed by those wanting to make the most of the show.

As a result of the strong support of the show by leading associations, its comprehensive seminar programme is full of high quality content that will make visiting well worthwhile. The Home Building Theatre will provide an opportunity to get a heads-up on the latest developments in the industry and represents the first major event in the industry following the EU referendum.

Day one focuses on challenges and opportunities for housebuilders covering funding, exciting new approaches such as 3D printing and off-site construction with insight from the likes of John O'Brien, associate director – Construction Innovation at BRE.

Registering to attend the Build Show is quick, easy and free and can be completed by visiting www.buildshow.co.uk What's more, by completing the form, trade visitors can access all nine shows taking place at UK Construction Week.



Put an end to pressing jobs with a combined tool kit

As the rise of more modern jointing techniques such as push and press continues, Pegler Yorkshire has launched a combined toolkit that gives installers the right equipment to speed up installations. Phill Jackson, marketing and business development director said: "Each installation brings its own challenges but the key is being able to adapt. Our newly-launched toolkit provides all the essential equipment for installers to be able to adapt their installation as the job dictates whether that is via push, press or a combined approach." The Pegler Yorkshire Toolkit includes everything an installer needs for a push or press system installation – a REMS 3-35mm pipe cutter suitable for copper, carbon and stainless steel; 15, 22 and 28mm Jaws; 15-108mm XPress Copper Depth Gauge; Tectite Sprint and Tectite Classic Depth Gauge and Deburrer; 15mm Multi-layer Tube Straightener and 10-28mm tube cutter for use with PEX and Multi-layer tube. In addition, there are demount clips, a mini press tool, spare battery and dri-slide. Phill continued: "Today's installers are in tune with alternating their methods depending on the job. Both push and press methods provide excellent sealing, as you would expect from quality fittings."





New e-learning modules for the landscaping sector

ACO has extended its training offering for the Urban + Landscape range with the addition of two new modules to its online ACO Academy training portal. The site already offers an Introduction to Channel Drainage, as well as a course that looks specifically at A 15 - B 125 applications. With surface water management identified as one of the most pressing issues for the construction industry, as evidenced by the severe flooding in recent years, the new modules will keep customers up-to-speed with all the latest developments, products and installation best practice. Aimed at individuals working on residential and commercial developments, the new courses include Channel Drainage C 250 and Landscaping Systems. Each module is tailored towards ACO's Urban + Landscape range of drainage systems, which can be applied to drives, patios and level doorway thresholds, as well as permeable ground reinforcement systems. When planning domestic and commercial developments it is crucial that surface water and its collection process is considered. The C 250 module addresses channel drainage products suitable for light-to-medium duty traffic applications, referencing products such as ACO's HexDrain Pro and CivicDrain. The Landscaping Systems course identifies products and installation practice for grass and gravel stabilisation applications.





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innovation & technology in the built environment

Digital Construction Week 2016 will return to the Business Design Centre on 26-27 October. The show provides an opportunity to get to grips with the digital technologies and processes changing the face of architecture, construction and engineering, from design all the way through to operation...



The two-day Digital Construction Week conference features the biggest names in architecture, engineering and construction, including Paul Morrell, Sadie Morgan (dRMM), Anne Kemp (Atkins), John Pelton (Crossrail), David Hancock (Cabinet Office), James Pellatt (Great Portland Estates) and many more, giving their take on the future of innovation and technology in our industry.

The Digital Construction

Week exhibition and seminar

series is completely free to attend. The exhibition will feature more than 80 of the most forward-thinking exhibitors in the built environment and beyond. You'll get the chance to get hands-on with a host of new technologies and solutions including the latest in mixed reality, 3D printing and additive manufacturing; robotics; IT solutions and hardware; BIM software and tools; UAV's and laser scanners; wearable tech and much more.

In addition to the ground-breaking digital tools on show, there will be access to over 40 hours of entirely free seminar content. Getting to grips with BIM Level 2? Check out our dedicated BIM seminar stream in partnership with the UK BIM Alliance. Interested in the latest technologies? Visit our Innovation Theatre and hear about the disruptive technologies set to change the way you work. Looking to understand how you can become more efficient and profitable? Look no further than the Digital in Action theatre.

We also have a host of features including the Innovation Village in partnership with KTN and Innovate UK showcasing the latest start-ups. Plus the exclusive HS2 Pavilion, featuring workshops and demos exploring the next 30 years of procurement and the role innovation will play on the biggest project in UK history.

Register now at www.digitalconstructionweek.com

In addition to the groundbreaking digital tools on show, there will be access to over 40 hours of entirely free seminar content...



DIGITAL CONSTRUCTION WEEK LONDON 26 - 27 OCTOBER 2016 INNOVATION IN THE BUILT ENVIRONMENT



Big Wipes – so powerful they need a cage!

With the new Big Wipes Cage you will never again need to search for your powerful set of Big Wipes products. 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. Big Wipes 4x4 wipes and Power Spray contain four powerful cleaning agents and four dermatologically tested skin conditioners to quickly shift all modern construction sealants, adhesives, paints, coatings and grime in an instant. So, when your skin, tools and surfaces need cleaning, reach for the Big Wipes – now even easier to store and find.



Supporting the Safety-**Critical Fixings message**

Recently appointed as a full member of the Construction Fixings Association, **EJOT UK** is helping to promote its work by alerting those involved in specification and installation of safety critical fixings, to the serious consequences of getting it wrong. Brian Mack is technical business development manager for EJOT in the UK: "The selection, installation and certification of construction fixings on any project is comparatively small in terms of time and resource when taking the overall project into consideration. Yet, at EJOT we have seen the results of wrongly specified fixings, and the many mistakes that have presented a serious threat to life, on countless occasions. The Code of practice for the selection and installation of post-installed anchors in concrete and masonry, BS 8539:2012, underpins the process from design and testing, through to installation. The CFA is also providing advice, training and technical support throughout the industry. Here at EJOT UK, we are delighted to be involved with this process."



100% design talks programme

100% Design (21-24 September, Olympia London) has announced its talks programme, which is curated by the Design Museum. Presented in a specially-commissioned auditorium, sponsored by LG Display and designed by Miska Miller-Lovegrove, the show will be opened by architect, Asif Khan, recently selected alongside Stanton Williams to design the new Museum of London...

Focusing on quality and depth, the talks present agendasetting keynotes from thought leaders in the industry including Ron Arad, Assemble co-founder Paloma Strelitz and Afroditi Krassa, as well as panel discussions exploring trends in contemporary practice and the future of design.

A look ahead to Design Museum

There is an opportunity to engage with the Design Museum's programme ahead of its opening in Kensington on 24 November. *Designer, Maker, User* presents the three distinct yet overlapping roles which create every product in the world, as explored in the Design Museum's new permanent collection. The design team behind the new Design Museum – Jan Hobel of John Pawson Architects

and Allies and Morrison's Simon Fraser – share their experiences of designing a new cultural institution for the twenty first century. London Design Guide founder and editor, Max Fraser, introduces a selection of nominees for the Design Museum's annual Designs of the Year exhibition and awards.

Trends

Research partners, WGSN, The Future Laboratory and Steelcase present and discuss

the findings at daily trend reports, focusing on interior, retail and office design respectively. Steelcase's research focuses on different ways companies can create workplaces to inspire employees and facilitate better engagement,

with OnOffice editor, Helen
Parton, discussing alongside
Rebecca Ruggles of Airbnb.
WGSN highlights key colour
and texture trends for
Spring/Summer 2018,

the findings at daily tren retail and office desi focuses cre

The show will be opened by architect Asif Khan, recently selected alongside Stanton Williams to design the new Museum of London while The Future Laboratory delves into retail developments ranging from the role of big data customer feedback to the rise of a new sustainability-inspired aesthetic for fashion retailers.

Design Futures

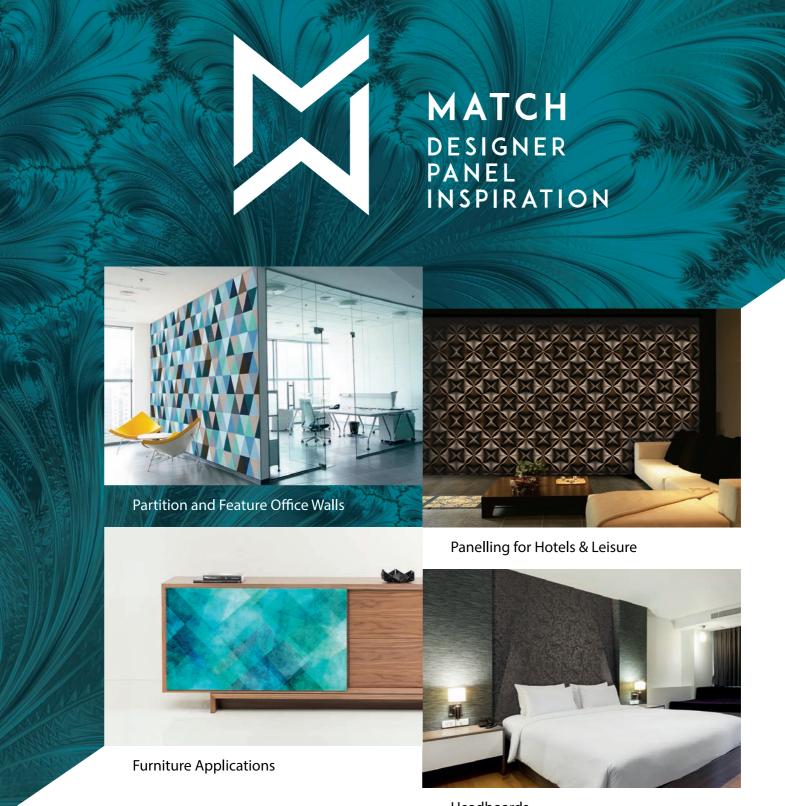
The programme brings together thought leaders to look at design futures. Mikael Ydholm of Ikea, Shumi Bose, curator of the British Pavilion at the current Venice Architecture Biennale and Justin McGuirk, Design Museum chief curator, predict what the homes of the future might look like and discuss the wider societal implications of the changing domestic landscape. Meanwhile, players in everything from heritage to transport are creating entirely new consumer experiences, including Martijn van der Heijden, digital strategist at Fabrique and Tom Hares, CEO and founder of Buzzbike, who discuss new customer models, social networks, the future of VR and some of the other developments that will be changing lives in the not-too-distant future.

Design for change

Jeremy Myerson explores the role of design in social, demographic and technological change in *Putting human experience at the centre of design*. Also interested in the capacity of design to transform our experiences is *The new office experience*; this panel discussion with Daniel Gava, director of Arper UK, Mark Catchlove, director of Herman Miller's Knowledge and Insight Group and Tom Lloyd of PearsonLloyd and chaired by Oli Stratford, editor of *Disegno*, explores how designers are responding to the demand for more flexible, smarter working experiences such as co-working spaces, digital nomads and hot-desking.

Brexit and design

Confronting one of the biggest issues facing the industry at this year's London Design Festival, *Design and Brexit* looks at the implications of the UK's departure from the European Union for a historically international and outward-looking industry. Ben Evans, director of the London Design Festival, Louise Jury of the Creative Industries Federation and Marcus



Headboards

Match from Vicaima presents a new type of decorative panel to inspire innovation and enable professionals from the world of interior design to set their imagination free.

These designer panels use new technology that enables both graphics and pictorial imagery to be reproduced directly onto veneer or a board layer to stunning effect.

Select a finish from one of our on-trend and contemporary collections or show us your idea and together we will ensure your project makes a lasting impression.





community protect its culture and how can we provide leadership and hope?

100% Design has London at its heart, a megacity, a global capital for culture and commerce and a home to millions of people. A panel discussion including Ben Rogers, director of the Centre for London and Peter Murray, chairman of New London Architecture looks at how designers contribute to a city that is both liveable and lovable. Also, as London's areas develop and change their cultural identity, Futurecity, Argent and the Design Museum discuss the ways in which design can help foster a sense of place. To mark late opening on Thursday night, a special 100% Design PechaKucha brings together Gravity Road, Beautiful Meme, Phillips' Damien Whitmore and Special Projects for fast-paced, fun presentations.

Consumer Day

Saturday 24 September is Consumer Day, when 100% Design welcomes the public for its final day. Daniel Hopwood, past president of the British Institute of Interior Designers and presenter of BBC TV's Great Interior Design Challenge Jordan

Cluroe and Russell Whitehead aka 2 Lovely Gays and Meriel Scott, director of Precious McBane, present Interior Design Masterclass, with top tips on how to combine beauty and practicality in the home. There is also a discussion presented by Kukka founder, Rona Meychus Koblenz, examining the experience of designing from or in the Middle East and how the region's craft, heritage, daily life and political and industrial reality influence the work and lives of its designers.

A separate programme will be hosted in the forum, sponsored by RIBA Appointments, focusing on professional development.

To register to attend 100% Design visit https://registration.n200.com/survey/2tsnvdq4zojsq

For more information on 100% Design visit 100percentdesign.co.uk



Let your imagination run free to design remarkable ceilings.

From solid wood to authentic veneers our wood ceilings are big on style with outstanding acoustic performance. Complete design freedom for interior and exterior applications with concave, convex and undulating forms easily created with our specially engineered suspension system.

Take control of your next ceiling project with Hunter Douglas Architectural Projects

HunterDouglas

CEILINGS

seating and furniture – the heroes of interior design

Tim Armitt, managing director at Lyndon Design, discusses how seating and furniture play a key role in today's ever-changing landscape of commercial interior design...

It's an exciting time in the world of commercial interior design. Gone are the boundaries between corporate and hospitality designs. Now there is no normal. Thanks to the rise in collaborative workspaces and an evolution of how people spend their leisure time, interior design in the commercial arena now has to create environments that cater to multiple activities and uses.

The knock-on effect for seating and furniture has been colossal. While always a key part of the design brief, seating and furniture can no longer be specified purely on comfort, practicality, colour, texture or shape alone. Today, it has to meet the needs of the space it occupies and create a balance that fulfills both functional and aesthetic requirements.

Seating and furniture design has had to adapt dramatically in the corporate sector, as it continues its transformation from a harsh and functional environment into one that offers a softer and more relaxed feel. Open-plan offices lined with cubicles, desks and computers are now a thing of the past, while less formal environments that include break-out spaces, idea walls, chill-out zones, phone booths and touchdown space have become the new norm. Hence, breakout seating and furniture that provide ergonomically sound alternatives to sitting at a desk or table are now common fixtures. An eclectic approach to furniture specification further increases this informality, while colour mixing adds a further dynamic.

Breakout seating and furniture that provide ergonomically sound alternatives to sitting at a desk or table are now common fixtures...

Tim Armitt Lyndon Design As communication and collaboration continue to be two of the key driving forces behind the design of seating and furniture in the workplace today, workstations are

becoming smaller to enable larger common spaces and soft office seating has grown to accommodate this trend. High backed meeting booths and standalone personal highback seating solutions are hugely popular and great for







breaking up large, open-plan spaces. These freestanding pieces also come fully equipped to meet every technological need.

Modular, soft seating in the workplace offers unrivalled levels of flexibility and practicality, providing specifiers and interior designers with significant freedom in creating office receptions, corporate and executive meeting areas to match exact criteria. This seating is particularly popular in lobbies and receptions that are now designed to feel much softer and more intimate – almost like a hotel environment.

Flexibility and functionality are the key requirements for seating and furniture in the hospitality sector too. As hotels and other hospitality venues increasingly seek to fulfill the needs of their corporate clients and refine the guest experience, work lounges, phone booths, meeting booths and touchdown spaces are now a common sight throughout the lobby area. Equally, as guests spend less time in their hotel room and more time in public spaces, furniture and seating has to balance functionality with an easy and relaxed style.

Seating designs are also being heavily influenced by technology. The reception area and other public spaces are now places where guests and visitors need to use their smart phones, tablets and laptops, and where meetings can be conducted in a relaxed environment. Hence, upholstered

seating that boasts integral charging points for mobiles and laptops is a clear winner.

Specifying the right seating and furniture can create a design statement in its own right. The need to stand out from the crowd is as relevant to the corporate sector, as it is to the hospitality sector, and nowhere is this need greater than in the reception area. Bespoke handcrafted upholstery, especially pieces made using quality timber and featuring timber detailing, not only combine luxury and decadence with comfort, flexibility and practicality, they can often be the hero of the design scheme.

There is still a strong trend towards wood tones combined with diverse colours and fabrics. Soft seating in bold colours can help break up the uniformity and functionality of the workspace, or create a striking centrepiece within the hospitality environment. When combined with classic, elegant, handcrafted furniture designs, the results can be stunning and provide enduring appeal for years to come.

Driven by technological advances, our lifestyles today directly relate to the way in which we occupy and utilise spaces. Now, more than ever before, seating and furniture needs to be multi-functional and able to meet the demands of its surrounding environment. Getting the right balance is the key to successful interior design.

40 *products* interior design (inc 100% Design)



The latest surface trends on show

Meeting current and upcoming trends, Surface Styling by IDS is showcasing the latest designs in laminates, solid surface, decorative panels, wall panelling, flooring and worktops at 100% Design on stand E370. On show and exclusive is Fenix NTM, utilising nanotechnology to create an ultra matt, hardwearing and thermoformable surfacing solution. Hanex solid surface will preview 34 new colours in the 80-strong range offering a toolbox of creativity. The design-led Infinity Collection from Showerwall features bold colours, metallics and graphic prints for a trendier,

urban look demonstrating the versatility of the 100% waterproof wall panelling system. A subtle new sparkle-effect called Stardust is enhancing the Milano High Gloss melamine-faced MDF panel range. For high-end commercial and domestic applications, Malmo is a new range of stick-down luxury vinyl flooring with stylish wood effects including classic oak and on-trend greys, in a fashionably matt finish.

Linear open ceiling creates a stunning entrance

The showpiece £16m leisure and community centre at Ashington in Northumberland includes two stunning ceiling systems manufactured by **Hunter Douglas.** The first – a visually striking 640m² wood linear open ceiling - stretches across the entire entrance and main atrium. Finished in American red oak, it was made to a 111mm module, with each plank measuring 92 x 15mm. Hunter Douglas' special demountable clips, which allow up to 50% demountability, were used, while the 19mm gaps between the linear wood panels are visually closed by an acoustic fleece to improve interior sound absorption. Hunter Douglas also manufactured and supplied expanded metal acoustic rafts beneath an exposed soffit in the gymnasium. Made to a 1,000 x 1,000mm module, they have regular edges to fit a standard 24mm ceiling grid and include the Hunter Douglas LS10 stretch metal pattern.





Expona flooring makes a splash

Expona Commercial PUR luxury vinyl tiles from **Polyflor**, were recently installed inside the visitor centre at the world's first inland surfing lagoon, Surf Snowdonia Adventure Parc. Approximately 700m² of Expona Commercial luxury vinyl tile flooring in the Weathered Country Plank design was installed by Manchester-based contractor, JDP Flooring in the Surf Side Café and shop inside the centre's HUB Building. This rustic design features highlighted knots and emphasised grain detailing for an authentic timber effect. Peter Hinde, general manager at Surf Snowdonia commented: "The Expona flooring fits perfectly with the natural, outdoorsinspired interior design scheme we wanted to achieve. In practical terms, the floor is also coping extremely well with the high number of visitors we are attracting every day."

Stretch your imagination with new MATCH panels from Vicaima

Making its first appearance at the **Independent** Hotel Show, stand 199 this year, the new designer panel range from Vicaima removes limitations experienced with more commonly used decorative finishes and allows limitless design possibilities with multiple applications ranging from wall panels to furniture.

MATCH is a revolutionary decorative panel that uses innovative H2P technology and advanced production processes to create tailor-made graphic or pictorial solutions directly onto veneered and other base layers. In this way a collection of décor elements can be brought together to create synergy to a theme or chosen style, such as wall panels, integrated door systems, displays and furniture, untethering creative flair and removing the boundaries to realising unique concepts.

Depending upon the desired application, Vicaima MATCH is available in a selection of panel types with differing physical and mechanical properties. The combination between the composition of the product and the advanced manufacturing technology used with the surface materials, allows Vicaima to achieve unparalleled results. This is perhaps particularly

illustrated in the use of surfaces utilizing natural veneers, where the product is able to reproduce colours and original and unique designs to spectacular effect.

These new MATCH panels have been designed to provide a flexible answer to a broad scope of commercial project requirements and the ability to create a truly unique space. MATCH is the ideal inspiration for offices and hotel applications, schools and public places, industry display and exhibitions together with so much more.

For specifiers needing a little steer to spark their imagination and who may not wish to create a totally bespoke design, MATCH also provides a wealth of stimulus with some truly creative collections. Containing 36 individual patterns within 6 contemporary and inventive themes, these include the opulence of Black Marble, the optically challenging Origami through to the traditional and authentic Portuguese Tile.

For further details about MATCH come along to our stand, alternatively visit the Vicaima Match website today www.vicaimamatch.com









interior design (inc 100% Design) *products* 41

A total solution for hospital re-fit

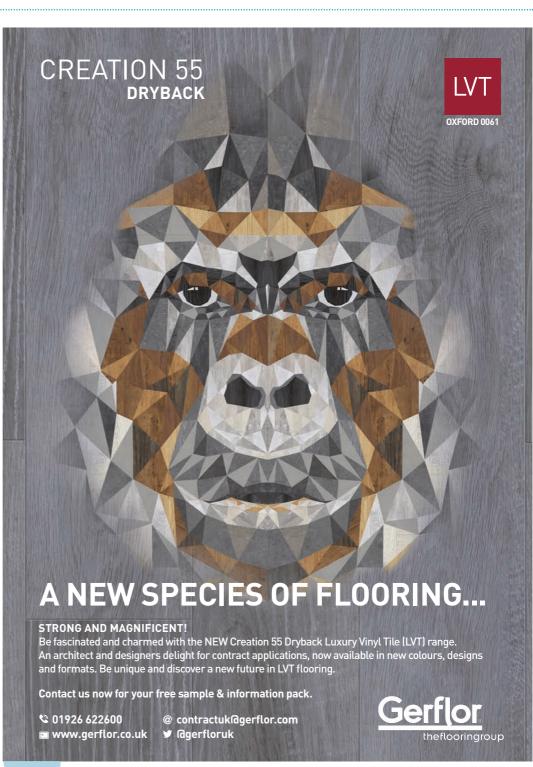
Floor preparation products from **F. Ball and Co.** have been used to create a perfect floor finish at The Willows Children, Young People and Families Unit at the Dumfries and Galloway Royal Infirmary. Contractors from A&H Floor Covering Specialists were called in to install new floorcoverings throughout the building. By using a combination of Stopgap 1200 Pro, Stopgap 600 Base and Stopgap 700 Superflex smoothing underlayments, along with specialist F. Ball adhesives, the contractors were able to refurbish the 2,000m² area and install 1,200m² of vinyl floorcoverings in record time, leaving a smooth, aesthetically appealing floor, ready for the opening of the ward. Roy Henderson, MD of A&H Floor Covering Specialists, commented: "We use F. Ball products regularly. Their adhesives bond well; you just don't get any failures, which makes them really good value for money. It's the same with the smoothing underlayments."





True versatility

Series A sinks from stainless steel specialist, GEC Anderson, are now available individually. Series A sinks are available in an unrivalled range of standard sizes and are suitable for all installation types, including inset, undermount and flushmount fixing. Their distinctive 15mm corner radius and 20mm flat flange provide a neat and contemporary appearance while ensuring they are easy to clean and maintain. This makes them suitable for all situations where high quality and practical sinks are required. There are eight single sizes, ranging from 180-700mm as well as nine double and combination sizes. There are currently 18 models in the range. Plans already exist to further enhance the range through the introduction of models with drainers and others with tap holes. With their superb aesthetics and practicality, Series A sinks are of the very finest quality and finish and are made using EN 1.4301 grade bright satin stainless steel. The Series A sinks are competitively priced - for example, the A50 (500 \times 400 \times 200mm), sells at £450, including VAT. Martin Tye, MD of GEC Anderson, said: "Series A sinks provide a great combination of unmatched quality, beautiful appearance, a tremendous range of sizes and real value for money. We have actually been waiting a long time for this series, which provides a number of true benefits to specifiers and users. The fact that Series A sinks are available with the full range of fixing options offers real versatility."



42 *products* interior design (inc 100% Design)



Scolmore is in control in the North Downs

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 staggeringly 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 throughout to control the lighting both inside

and outside. Ease of installation and minimum disruption to the fabric of the building were the key drivers behind the decision to use 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."

Flooring is a diner's delight

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. Situated at Gateshead College's Baltic campus,



Enfields Kitchen is a contemporary restaurant where all the food is made and served by students enrolled in the college's hospitality and catering courses to give them experience of running a real restaurant as part of their training. 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."



Saracen fast tracks office fit-out

Saracen Interiors has started work for vehicle registration search and technical data supplier, Carweb, at the company's new offices in Tonbridge, Kent. The full fit-out follows on from a project that the company completed for sister company and motor claims processing expert, Audatex, at the beginning of this year and is

expected to take just six weeks to complete. Valued at £200,000 and covering approximately 4,000ft2 of commercial space, the fit-out started in August and has been undertaken as a fast track project to enable Carweb's team to move into the offices as soon as possible. The full project includes the installation of 6m partitioning and LED lighting; the relocation of air conditioning systems to complement the new layout; alterations to power and data; the fitting of new flooring and a suspended ceiling; the construction of a new toilet block to accommodate all staff and to allow for future team expansion; the supply of all furniture and the installation of electric vehicle charge points.



Multi-function seating

Designed to capture the essence of a modern city, Arthur Cityscape is a stylish and vibrant addition to Lyndon Design's flagship Arthur seating collection. Fusing high back and low back seating into one striking piece, this latest modular design offers a seating solution that combines both collaborative and privacy features. Arthur Cityscape is available in both compact and large sizes from the current collection, along with new linkable armless sofas and corner units to produce a total of 25 configurations. From these, a flexible seating arrangement can be created to suit a variety of interior spaces. It is the distinct shape and adaptability of Arthur Cityscape that sets it apart and provides interior designers with fresh inspiration for their projects. More enclosed and inclusive layouts can be created courtesy of the high back option, which offers a more private and intimate feel if needed. Meanwhile, the low back option proposes a more relaxed environment, suitable for breakout spaces and more informal meetings. Additional modular pieces further aid Arthur Cityscape's design flexibility. A bold handcrafted beech under frame, available in a range of stained finishes, together with horizontal panelling, lumbar cushions and contrasting fabrics and colours, help Arthur Cityscape make a dramatic design statement in its own right.







Gerflor have developed a stunning new range of LVT products

There's no doubt that 2016 has seen a Luxury Vinyl Tile and Plank (LVT) resurgence leading to a much higher demand for this most ubiquitous of flooring products. For Gerflor it's been a journey of discovery, passion and innovation leading to a zealous encounter with the creativity of old and new materials.

All vinyl seems to be trending this year and it now appears to be the 'big dog on the block'. Original, well thought-out vinyl designs are on a march, becoming one of the most popular and sought-after floors on the market, and this is in large part due to the newest luxury vinyl designs. It's a situation perfectly suited to Gerflor's spectacular new Creation 55 range.

Tel: 01926 622600 Email: contractuk@gerflor.com Website: www.gerflor.co.uk





A 21st Century upgrade

The all new, fully refreshed Ebbw Vale Library has been reopened to the public following its transformation by **Innova Design Solutions** and Blaenau Gwent Council's architecture and contracting team. After winning a competitive tender, interior specialist Innova set to work on the refurbishment of the facility based in the classical, stone-built Bethcar Methodist Chapel. By working with architects and librarians,

the upgrade of the late Victorian building has seen cutting-edge technology, IT systems and engaging, modern, bespoke furniture incorporated into the traditional space, while remaining sensitive to the building's history. Managing director, Anthony Hughes said: "The refurbishment will transform service delivery at Ebbw Vale, enabling greater community involvement, improved IT facilities and providing an opportunity to increase our partnership work with a range of organisations. A fully refurbished library at Ebbw Vale will play a vital role in supporting the community."

Parisian kitchen launched at 100% Design

Luxury interiors company, Krieder, will exhibit its daring new Parisian kitchen range at 100% Design, showcasing its exciting use of avantgarde materials and finishes. Krieder's brave use of metallic and concrete finishes will instantly captivate visitors to the show with its understated glamour. The blend of finishes is typical for Krieder which is well versed in bringing together interesting solutions for bespoke projects. Shimmering in the light, the kitchen features an alluring wall of sleek, handle-less tall units with a mottled gold metallic finish. This special finish was produced by creating a base layer with a bronze lacquer which is sprayed with a gold metallic finish and distressed by hand with a steeple effect, followed by three layers of high gloss lacquer. Adjacent to the tall units, the display features a large and impressive kitchen island with a striking use of concrete.





Kalsi unveils new Kladding range

Kalsi Group, a specialist in the manufacture of low maintenance building products, has launched Kladding, a new, decorative internal cladding panel system. A stylish alternative to tiles, Kladding is simple to install and easy to maintain. It is available in a range of sizes, colours and finishes from approved Kalsi stockists. Fitted with minimum fuss and without the need for grout. Kladding is an efficient and cost-effective alternative to traditional tiles. Designed to be used on walls and ceilings, the waterproof panels are suitable for showers, bathrooms, wetrooms and splashbacks. Providing a wipe-clean surface, the decorative wall panels can be used in any room of the house, office or workplace, including food preparation areas.



Hunter Douglas showcases expertise at £16m leisure centre





The showpiece £16 million leisure and community centre at Ashington in Northumberland includes two stunning ceiling systems, manufactured by Hunter Douglas.

The first – a visually striking 640m² wood linear open ceiling – stretches across the entire entrance and main atrium. Finished in American red oak, it was made to 111mm module, with each plank measuring 92mm x 15mm.

Hunter Douglas' special demountable clips, which allow up to 50% demountability, were used, while the 19mm gaps between the linear wood panels are visually closed by an acoustic fleece to improve interior sound absorption.

Hunter Douglas also manufactured and supplied expanded metal acoustic rafts beneath an exposed soffit in the gymnasium. Made to a 1000 x1000 module, they have regular edges to fit a standard 24mm ceiling grid and include the Hunter Douglas LS10 stretch metal pattern.

Black acoustic pads, which provide high levels of acoustic absorption to offset the noise generated by the fitness equipment, were fitted to the rear of the ceiling panels.

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44 feature

achieving high conservation standards with reliable heating

When it comes to preserving our heritage, heating plays an essential role in protecting both our historic buildings and their priceless artefacts. **James Porter**, sales director at Remeha, reports on simple, effective solutions that not only achieve the highest environmental and conservation standards but significantly reduce energy demand...

Conjure up a mental image of Britain and our historic buildings are sure to figure. These living symbols of our rich cultural heritage are central to our national identity and, as such, need to be protected.

However, while these buildings score high in terms of historic and architectural interest, they often fall short when it comes to energy efficiency. Of all the services in a building, heating is the greatest user of energy. Efficient heating provision is a desirable requirement in all our buildings, but for the many historic buildings that today house priceless artefacts and artwork, a reliable service is essential to ensure long-term preservation.

Achieving high conservation standards

Achieving the best environment in which to experience and conserve historic exhibits can present a challenge due to the nature of the building fabric and structure.

For Northumberland's Durham Cathedral, which this summer saw the opening of its new £10m visitor exhibition, Open Treasure, refurbishing the heating was an important part of the complex development project. To meet the greater heat demand and achieve the required closely-controlled conditions, the existing system was extended from one to three high output condensing boilers. For the Cathedral, it has proved an extremely successful solution that will ensure the

preservation of its internationally renowned collections for generations to come.

Condensing boilers have also provided an effective solution to reliable, consistent heating at the National Library of Wales (NLW) in Aberystwyth. As Wales' primary research library and archive, it contains 6.5 million books in addition to an

Upgrading to high efficiency condensing boilers and adding controls has the potential to reduce energy costs and emissions by as much as 50%...

James Porter Remeha impressive collection of portraits, maps, photographic images, paintings and manuscripts. When its previous boilers failed, the NLW chose to replace them with high-efficiency condensing boilers to achieve the stringent environmental and conservation standards needed to protect its valuable artefacts. The new boilers have exceeded expectations, improving the resilience of the heating system and delivering a step change to the environmental performance of the NLW.

Practical solution

These are just two of many UK historic buildings relying on condensing boilers for a reliable, high-efficiency heating source to conserve their heritage and reduce energy demand. So why the popularity of condensing technology and what is the key to its success?

To answer this, it is important first to understand the nature of the buildings. Commercial boiler plant still provides the heating for a large proportion of the UK's older building stock. Typically, the plant room containing the boilers is located in





the basement of the building. This frequently brings the logistical challenge of restricted access, requiring any new equipment to be moved down narrow stairways or through windows before being positioned inside the plant room. Once inside, the tight space and irregular features of the room present further design obstacles, requiring a compact, versatile solution.

Easy installation

Modern condensing boilers are specially designed to overcome the hurdles of space constraints and awkward access. Compact and light, they are easier to move and handle. The smaller footprint also allows multiple boilers to be installed, making it easier to increase the heat demand in a fraction of the space required by previous boilers. This arrangement also improves the reliability, security and efficiency of the heating, enabling more accurate matching of output and reducing energy waste.

Floor-standing boilers are traditionally the boiler of choice for projects requiring high heat output. Some are delivered on wheels for easier manoeuvrability while others can be dismantled into parts for reassembly inside the plant room. Furthermore, with the arrival of wall-hung boilers offering outputs of 160kW, there is new opportunity to move equipment away from the floor and onto the wall. This brings still greater flexibility in plant room design, especially with the option for multiple and mixed output cascades.

One of the main barriers to heating refurbishments in historic buildings is often the budget. However, with operating costs accounting for 80% of a building's whole life costs, it is important that the heating system runs efficiently.

Condensing boilers offer the highest efficiency of all boilers – at around 98% gross efficiency. Depending on the boilers in place, upgrading to high efficiency condensing boilers and adding controls has the potential to reduce energy costs and emissions by as much as 50%. With a low initial outlay and rapid payback in around four years, retrofitting condensing boilers is a win-win approach to significant energy savings and effective conservation.

Minimum disruption

No one likes disruption, especially when it impacts on the day-to-day operation of a business. With condensing boilers, the hassle factor is removed as easy installation means minimal disruption. An added advantage of retrofitting condensing boilers is that it is unlikely to require any modifications or alterations to the building fabric – therefore removing the need for listed building consent.

When it comes to conserving our past through more reliable, efficient heating, a boiler upgrade is often the simplest, most affordable and, indeed, at times the only possible solution for the UK's historic buildings. Condensing boilers provide a means to achieving rapid reduction in energy demand while still respecting the heritage values of our historic buildings and their listed status protection. This is a high-efficiency solution that can transform the environmental performance of our older buildings, ensuring more sustainable operation and protecting our heritage for generations to come.



see it first at Timber Expo

The most important event in the timber industry's calendar, Timber Expo is back for 2016, returning as part of the award-winning UK Construction Week. Strengthening its roots in Birmingham, Timber Expo will take place on 18-20 October at the NEC. ABC+D finds out more...

> **Timber** Expo is free to attend and is the only dedicated UK event for the timber industry. Exhibitors will cover the breadth of timber applications from timber frame, sawmills, merchants, glulam, SIPs, CLT, fixings and fastenings, timber cladding, doors/windows, mouldings, skirtings and flooring. The show will also provide a platform for exhibitors and visitors to network, learn new skills, find new products and trade. In 2015, Timber Expo attracted more than 6,000 visitors, with 60% of the UK's top 100 architectural firms represented.

In what has been a hugely eventful year for the trade, the event will be brimming with the latest products and developments across the sector. An informative educational seminar programme, led by the Timber Research and Development Association (TRADA), will also be held, along with a discussion of the key issues currently facing the industry.

The show is also fully supported by the industry's leading trade groups and associations, some of which include TRADA, the Structural Timber Association (STA), the British Woodworking Federation (BWF), the Timber Trade Federation (TTF), the Confederation of Timber Industries (CTI), the Royal Institute of British Architects (RIBA) and the Construction Products Association (CPA).

What's on at the show?

As a result of the strong support of the show by leading associations, its comprehensive seminar programme is full of high quality content that will make visiting well worthwhile. The show will offer an

opportunity to get a heads-up on the latest developments in the industry and represents the first major event in the sector following the EU referendum.

It will be our third time exhibiting at the event and we're very excited to meet so many key players in the UK timber market....

> Thibaud Le Moign French Timber

TRADA will co-ordinate the Timber Focus Theatre, providing three days of

insightful seminar sessions across a broad spectrum of industry trends and issues. Offering opportunities for the audience to join the debate, the programme offers a chance to converse with influential speakers from across the timber industry.

Who's exhibiting at the show?

Full to the brim with the latest products and developments within the timber sector, this year's Timber Expo will bring together all the key players from an increasingly exciting and diverse international market.

One of the key merchants exhibiting this year will be the W. Howard Group. As an established timber merchant that has served building and construction industries in the North West of England for nearly 60 years, it is in a great place to offer insight and advice to those at Timber Expo 2016.

Registering to attend Timber Expo is quick, easy and free and can be completed by visiting www.timber-expo.co.uk What's more, by completing the form trade visitors can access all nine shows taking place at UK Construction Week.



building maintenance (inc. heritage conservation) products



Door closers help retain heritage features

Powermatic controlled, concealed door closers from Samuel Heath are suitable for use in heritage and historic buildings where modern fire safety and convenience features need to be introduced but where the retention of important, often historically significant, features and finishes is vital. Meeting all relevant fire and accessibility requirements, Powermatic door closers deliver many advantages over surface-mounted door closers and floor

springs. When it comes to aesthetics, Powermatic door closers are the preferred choice for many designers and specifiers, offering significant benefits over the unsightly mechanical boxes and control arms that are a feature of surface-mounted door closers. Fitting neatly between the door and frame, Powermatic door closers are totally concealed when the door is closed and particularly unobtrusive when the door is open, enabling the appearance of doors and interiors to be retained.

Knauf AMF adds a touch of luxury

Knauf AMF Thermatex acoustic ceiling planks have created a luxurious feel for an exclusive apartment development in Newcastle. One Jesmond Three Sixty has been transformed from a 1960s office block into a landmark building with striking architecture and contemporary interior design. Briefed to design a warm and chic interior, the architect selected Thermatex acoustic ceiling planks for the reception and circulation areas which set the tone for the rest of the building. The building's public spaces have a light, airy, open feel, thanks to the ceiling's high light reflection (85%) and low air permeability. The planks' surface resists dust which helps retain its bright appearance, reducing the level of artificial lighting required. Thermatex Acoustic ceilings offer excellent acoustic control and improve privacy for residents by ensuring unwanted noise does not travel from the external hallways to the apartments.





Top universities choose Novus

Novus Property Solutions went back to school this summer after winning two contracts and two frameworks to deliver upgrades at prestigious UK universities. A long history of success in the university refurbishment sector helped Novus to win frameworks with the University of Worcester and Birmingham City University and contracts with Leeds Beckett University and leading student accommodation provider, Unite Group. Novus has been appointed to the University of Worcester Construction Framework for a period of five years and a panel of contractors will deliver new build and refurbishment projects to teaching facilities, workshops, laboratories and leisure facilities, to help the university to attract new students. A similar agreement has seen Novus appointed to the Birmingham City University Construction Framework.











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Preserving the heritage of historic buildings with Roofshield

The incredible value of preserving our heritage is fundamental to the core of our society, in understanding the past, embracing the present, and securing the future for generations to come.

The cornerstone of this heritage is revealed in the very fabric and architecture of many of the buildings that surround our cities, towns, villages and countryside. The process of listing identifies and celebrates buildings, which are of special architectural and historic interest, highlighting them within the planning system, and protecting them for the future benefit of all.

Historic England estimates that there are around 500,000 listed buildings on the National Heritage List for England alone. In England and Wales, listed buildings are classified in three grades: Grade I, Grade II* and Grade II, whilst in Scotland, with its hugely rich historic landscape, buildings are put into one of three listing categories according to their relative importance, category A, B or C. In Northern Ireland a similar system of grading divides listed buildings into three grades A, B+ and B.

The listing process is not intended to prevent further development, but rather highlight special considerations to be taken into account during the planning process. In addition, local authorities may issue building preservation notices on behalf of unlisted buildings, which have been deemed of special architectural and historic interest.

Protection of listed and historic buildings: high performance protection for roofs

The A. Proctor Group developed Roofshield 20 years ago in response to problems caused by the requirements of the UK's demand for cold-pitched roof construction, and the drive towards ever increasing thermal performance requirements. Today, trusted by architects, developers and contractors, the Roofshield brand is synonymous with the highest quality, providing a pitched roof underlay, which is both air and vapour permeable.

The majority of vapour and air permeable underlays use an airtight VP film layer to achieve their performance, whilst Roofshield's patented SMS (Spunbond Meltblown Spunbond) structure allows high levels of airflow, in addition to the transport of moisture vapour, making the formation of condensation in the roof space virtually impossible.

The high performance of Roofshield, backed by two BBA Certificates, means it is a key element in preserving and protecting the fabric of historic and listed buildings. The very low vapour resistance, combined with high air permeability reduces the risk of interstitial condensation, and there is no requirement for a separate vapour control layer.

Roofshield has successfully been used in a wide range of refurbishment programmes resulting in the restoration and preservation of a number of significantly important heritage buildings covering applications such as local authority, education, recreation, housing, and worship including; Belfast City Hall, Derry Guildhall, Hamilton Hall – St. Andrews, Lynn Library Queens University Belfast.

Case study: Roofshield eliminates condensation at UN World Heritage site

Located on the former site of the Royal Infirmary of Edinburgh in the heart of the city, Quartermile is a mixed-use development comprising Grade A office buildings, retail and leisure space and luxury apartments. Alongside the new build apartment blocks lie the Lofts, two Grade B listed former hospital buildings, which were refurbished and converted into additional apartments.

Originally built in the 19th century, by noted architect Sidney Mitchell, and redesigned by Edinburgh based Comprehensive Design Architects, the impressive roof structures of these unique buildings required careful consideration of moisture management and condensation control. The scale and complexity of the turreted roofs, along with its historic appearance within a UN World Heritage Site made adding traditional ventilation to the roof highly undesirable, but also required a high performance and robust solution.

The architects specified Roofshield, the air and vapour permeable underlay supplied by the A. Proctor Group. By combining the highest available vapour permeability with an air open structure, which permits greater airflow than conventional ventilation, Roofshield ensures condensation problems are reduced or eliminated in even the most complex roof geometry.





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kitchens, bathrooms & washrooms **products** 49



Enhanced waterproof protection

Showerwall has launched Sureseal, a purpose-designed trim system that is fitted at the base of its bathroom panelling to enhance waterproof protection, provide long-term performance and facilitate easier cleaning in busy shower areas. It is easy and guick to fit and does not add time onto the overall installation speed, which is one of the key benefits of Showerwall compared to tiling. The new Sureseal system comprises a base trim and a cover trim, both in white. The system works by fitting the Sureseal base trim on to the

shower tray and adding sealant, before sliding a Showerwall panel into place. This envelopes the base of the panel to give a four-point seal before the cover trim is clipped on, providing a smooth and neat finish, while further enhancing the waterproof protection at the base of the panel. End caps are then pushed into place to protect the outer edge of the panel.

A premium portfolio from IDS

UK surface materials distributor, IDS, has extended its sink portfolio, introducing a premium Villeroy & Boch ceramic range of eight sinks to complement its existing Tuscan brand offer. The collection offers a variety of design and installation options and is now available for 24-48 hour delivery from all IDS branches nationwide. The traditionally styled Farmhouse, the sleek Subway and gently curved Cisterna sinks offer two Belfast, two undermount and four inset styles in single and 1.5 bowl options. The Subway undermount models come in a choice of two colours, the classic Alpine White and Fossil, to reflect the trend for organic colours in interiors. Hardwearing, impact and scratch resistant and easy-to-clean, the Villeroy & Boch ceramic sinks provide a hygienic surface designed to stand the test of time. Subway undermount models also include



CeramicPlus, a scratch-proof coating that gives enhanced resistance to extreme temperatures.



Commercial fireclay range

Shaws manufactures an extensive range of handcrafted sinks to the highest standards from its factory in Darwen, Lancashire and has vast experience in providing heavy-duty white glazed commercial fireclay for use in schools, universities, hospitals, laboratories, public buildings, hotels, restaurants, institutions and nursing homes, to name but a few. Fireclay is a traditional, robust material which can be used in many areas and is designed to withstand heavy use. Products within the range include heavyweight Butler sinks, eight sizes of Belfast sinks, four differing sizes of laboratory sinks, practical floor or wall-mounted cleaners' sinks with stainless steel bucket gratings, a shelf sink, plus many others.

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For the world's leading hotels, guests expect high standards,

with attention to detail at every turn. Spa trends have filtered

guests with experiences they may not get in their day-to-day

lives – whether for business or pleasure, a hotel should be a

break from the norm. The shower toilet is the icing on the

down to the domestic home, putting even more pressure

on these establishments to go the extra mile, providing

Guests at high-end hotels expect luxury in every element of their stay, from the food and facilities to the furniture and style. The bathroom is no exception, with spa elements and high-tech added extras being the biggest trends for the leisure sector. **Graham Aird**, product manager from Geberit, looks at how the WC in particular has been given a newly elevated status with the advancement of intelligent toilets...

> A stay in a five star hotel must have luxury at its core, with the bathroom no exception to added extras – deeper baths, spa functions in the shower and even WCs that do more than just flush - are what people expect from a highend stay. Cleanliness, wellness and technology have all combined to create the ultimate bathroom experience; one that is accessible as well as luxurious.

The product that defines this integration of needs is the shower toilet, unifying luxury and accessibility, allowing users to experience the ultimate in hygiene, with a range of cleaning functions, all controlled with the touch of a button.

Bidet be-gone

The shower toilet must not be confused with the bidet, a product that was popular in the 1970s but has fallen out of favour in modern times. By combining the bidet function into the WC, less space is required and, with a variety of different washing functions, cleanliness and comfort have been elevated to create a trend that is well established in Japan and becoming increasingly popular in Europe.

An integrated shower arm washes the user at the touch of a button, with the latest varieties including heated toilet seats, orientation lights, air dryers and deodorisers. Some are operated by remote control and have programmable functions so the user can personalise their experience. Appearance has moved at a pace too, with sleek modern designs meaning the shower toilet fits seamlessly into any bathroom.

> Apart from the luxury element, shower toilets also help make bathrooms accessible for users with mobility issues, such as the elderly, allowing them to more easily maintain personal hygiene, independence and dignity.

The shower toilet unifies luxury and accessibility, allowing users to experience the ultimate in hygiene... Graham Aird

Geberit



Continued on page 52...



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the company responsible for the conversion.



Space, time, energy, money: now clean hands cost less

When space is at a premium, and energy-efficiency is a priority, this modular, touch-free, behind-mirror handwash system from Dolphin has got all the answers - quick to install, easy to replenish, and a pleasure to use.



Designed with input from architects, designers and clients, Dolphin Alavo uses the latest technology - including infra-red sensor taps, foam soap systems and high-speed low energy dryers - to save time, water, energy, soap, space and money. (To take just two examples from that list, the system can reduce water use by 70%, while hand-drying takes just 13 seconds.)

With everything fully integrated, Dolphin Alavo's radical "plug and play" design also minimises time spent on installation: it's a natural fit in any modern washroom. And exceptionally easy to maintain and service, too.

it's a Dolphin thing...



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Harmer helps local apprentices

Harmer Building Drainage has donated stainless steel shower drains to training provider, CP Assessments, for demonstrations when teaching students how to install grated drainage into wetrooms. "It's always nice to give a little something back," said Wayne Willmott, national sales manager for Harmer. "So when we were asked to supply drainage products to help teach future contractors and installers, we were more than happy to contribute." CP Assessments provides apprenticeships and NVQs for the flooring trade. "We want to thank Harmer and the team at AWMS for kindly donating the drains," said David Russell of CP Assessments. "It means we can continue providing the best training to our construction trainees on how to correctly fit and install drainage into flooring, while ensuring all standards are met."

Saniflo extends shower cubicle range

Saniflo has extended its range of prestigious Kinedo shower cubicles to include a quadrant version of its popular Moonlight model. Previously only available as a corner unit, the extremely versatile design can be fitted with any shower, allowing for complete customisation and integration into any bathroom, whether traditional or contemporary. With its understated elegance and neutral styling, the Moonlight features a brushed aluminium-effect panel that can be easily drilled for any fixings. Moonlight is suitable for those who want flexibility as well as great functionality. The sleek shower cubicle is easy to install and maintain, available in one size of 900 x 900mm and comes with a smooth sliding door. Offering excellent value for money, it is also a good choice for boutique hotels and guest houses.



DU289

See Roman at BCFA show

Roman is exhibiting at the first British Contract Furnishing Association's (BCFA) Open Exhibition in Manchester. Roman's stand will showcase the company's full range of capabilities, including bespoke showering solutions and bespoke Solid Surface across the bathroom. This event is for BCFA Members to showcase their latest products to architects and interior designers. BCFA Open is a two-day exhibition (26-27 October 2016) providing a Northern showcase of the very best UK contract furniture and furnishings. Roman's stand includes a solid surface fabricated sink and vanity unit which flows into a shower enclosure and stands as one complete unit. It showcases Roman's 8mm thick glass with outward opening doors, square chromed brass hinges and integrated finger pull handles.



solid stainless steel manufacture assures a robust tap that is built to last. The 328mm high Nyon is easily operated by a single side lever. It has a spout reach of 220mm and rotates a full 360° so is suitable for use with a double sink. The Nyon joins Franke's Portfolio 55 collection, with the company offering a five-year guarantee on the finish as well as parts due to these taps' particularly high quality and precision manufacture. The Nyon is available now and is one of the latest additions to the Franke Specialist Range tap portfolio.

A safe harbour for special needs

Portsmouth International Port has become the most accessible major sea hub in the UK with the opening of a life-changing toilet. The Space to Change toilet and changing facility delivers the space and equipment needed by a potential five million people with complex needs. Enhancing a conventional wheelchair-accessible toilet, the Space to Change supplied and installed by Clos-o-Mat - includes more space, plus an adult-sized height-adjustable changing



bench and ceiling tracking hoist. Kalvin Baugh, Ferry Port manager, said: "Because Space to Change enhances existing conventional wheelchair-accessible toilets, rather than being a stand-alone facility, we were able to complete the installation without the delay, cost and disruption of significant building work. To our knowledge, no other seaport in the UK can offer its travellers such fully-accessible facilities."



Saniflo strengthens its position in leisure market

Sanilfo UK has recently supplied Norfolk-based manufacturer of rustic shepherd huts, The English Shepherd Hut Co, with a series of Saniflo products making it possible for the hut manufacturer to offer a unique accommodation experience in the beautiful English countryside. The company specified the Sanicompact with integrated macerator from Saniflo. A suitable WC for compact spaces where mains drainage is unavailable, the Sanicompact has an automatic push-button flush connected directly to a water supply and needs no cistern. It also features a wash basin inlet so grey waste water can also be processed through the macerator if required. Waste is discharged via 32mm pipework either to a storage tank or to the nearest mains. The Aquarius – a portable toilet block – provides upmarket showering and WC facilities and is available for hire or sale and features Saniflo's Saniwall allowing for modern, wall-hung sanitaryware to be specified.



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New special finishes collection

Perrin & Rowe has heightened its already formidable product portfolio of British-made brassware with a collection of extra special finishes – 24K Gold, English Bronze, Satin Brass, Polished Brass and a new finish, Aged Brass – which form a collection of five. Introduced to work alongside the standard collection of Chrome, Nickel and Pewter offered by Perrin & Rowe, this new collection is sure to answer the latest trend for metallic interiors. Consisting of a range of luxurious, metallic warmtones, each high-quality finish brings a touch of class, sophistication and character to any kitchen or bathroom – whether traditional or contemporary in style. Polished Brass by Perrin & Rowe radiates a warm finish with more coppery undertones and is seen here in the Deco wall-mounted three hole basin mixer with authentically styled crosshead handles.

Flexible wetroom solutions

Good design, water-resistant background materials, high quality tiles, grouts and adhesives, as well as correct installation methods are all important to achieving a safe and long-lasting wetroom. Tile adhesive, grout and preparation products manufacturer, **Norcros Adhesives**, offers a range of solutions which can be used by builders to achieve a successful result. Manufactured from high density polystyrene, Norcros Pro Board comprises a rigid insulation core, coated with a specially-formulated reinforced cementitious coating which is sitable 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 will 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.

Clean hands cost less

When space is at a premium, and energyefficiency is a priority, this modular, touchfree, behind-mirror handwash system from **Dolphin** has got all the answers – quick to install, easy to replenish and a pleasure to use.



Designed with input from architects, designers and clients. Dolphin Alayo uses the latest technology including infra-red sensor taps, foam soap systems and high-speed low energy

dryers to save time, water, energy, soap, space and money. (To take just two examples from that list, the system can reduce water use by 70%, while hand-drying takes just 13 seconds.) With everything fully integrated, Dolphin Alavo's radical plug and play design also minimises time spent on installation.

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Energy efficient underfloor heating

How to specify a lasting, energy efficient underfloor heating system that is quick to install.

Underfloor heating systems that are considered the most energy efficient are water-fed systems such as Schlüter®-BEKOTEC-THERM as they have been found to use up to two-thirds less than the energy used by electrical systems. Water-fed systems work by pumping heated water via a property's established boiler, or other heat source, whilst a dedicated thermostat controls the room temperature.

Schlüter®-BEKOTEC-THERM is a low height, energy-efficient and quick-reacting modular underfloor heating assembly. This system can be used in new build and renovation projects, and it is a greener choice with economical, energy saving properties.

It's low supply temperature of approximately 30°C, compared to between 50-55°C in some traditional systems, means Schlüter®-BEKOTEC-THERM is extremely effective both with conventional heat generation methods and regenerative energy sources, such as ground and air source heat pumps. Since the thinner screed requires much less material, the final construction is lighter and lower than traditional screed installations, saving considerable construction time.

Furthermore, they can be easily integrated into an existing heating system to provide underfloor heating for some rooms and radiators for others. Another major advantage is that they can also be used to cool the floor down in the summer either via passive cooling of the unheated water or by pumping chilled water through the pipes. As well as its performance and ease of use, what makes Schlüter®-BEKOTEC-THERM really stand out from the crowd is its five year covering and assembly warranty or an extended warranty if installed by a member of the Schlüter Approved Installer Network (SAIN), when installed with their screed system.

The Schlüter Approved Installer Network is new for 2016 and allows approved installers, who have completed full training with Schlüter, to install the system. The network not only gives accreditation to the individual as an expert but also to the company as a certified organisation. This provides reassurance to you as the specifier or architect that the system will be installed to the manufacturer's standards and best practice and minimises installation risks, ensuring a quick and reliable installation.

Another introduction for 2016 is the new

range of thermostat and control modules introduced for Schlüter®-BEKOTEC-THERM. The new generation of room sensors and control modules for the system significantly increases the flexibility and convenience of regulating the temperature of the room. As the core of the system, the base module, can be connected to a timer module for energysaving temperature reduction. The connection modules for wired or wireless room sensors can be freely combined with the base module, which enables the flexible expansion of existing systems at any time. Modern wireless and wired room sensors allow for individual room temperature control to suit requirements. These new controls can also be integrated with Building Management Systems (BMS).

Schlüter-Systems have dedicated consultants on hand to help with any stage of your specification project. For more information, Tel: 01530 813396, Email: pr@schluter.co.uk or Visit: www.schluter.co.uk. Schlüter-Systems Ltd have NBS Clauses and BIM Objects available on NBS Plus, National BIM Library and at www.schluter.co.uk

roofline & rainwater systems – crucial elements in housing construction

David Osborne, technical services manager for Swish Building Products, takes a look at roofline products – crucial elements in the fabric of a building and ones which, if not designed, selected and installed correctly, can seriously affect their long-term structural viability...

> On average, this country receives almost 900mm (36 inches) of rain each year with some areas of Cumbria and North Wales experiencing as much as four times this amount.

> How we capture, manage and dispose of surface water from a building's roof and, at the same time stop it getting into those vulnerable areas around the eaves today, tomorrow and in 30 years' time, is possibly one of the most important and neglected considerations of house design in the UK.

> Every millimetre of rain falling on a roof has to be channelled and disposed of to prevent moisture ingress to the supporting structure. So the system of guttering, down pipes and the supporting fascia assembly needs careful planning

So what are the main considerations specifying roofline and guttering products?

First things first

Roofline – the awful truth: Timber is a lovely material but it doesn't cut it in the long-term as a roofline material. I like wood, especially in the form of the high quality, tactile material of my dining table – but I wouldn't trust it to survive more than a decade as a soft wood fascia board. Especially if I didn't get around to painting it at least once every three years.

Cellular PVC is probably the most cost-effective material for the roofline because it costs roughly the same as timber to install, requires no maintenance and so suits the exposed and inaccessible location at the eaves. Most importantly,

dwelling.

especially from any landlord's point of view, when it is installed correctly it will probably last the lifetime of the

> What are the technical considerations?

The roofline is a tricky area where two expanses of quite

different materials meet -

How we capture, manage and dispose of surface water from a building's roof ... is one of the most important and neglected considerations of house design in the UK...

> David Osbourne Swish

and wind ingress while allowing proper ventilation of the

the roof tiles and the brick wall. Each does its job well but

neither is satisfactory for covering the point of union.

Importantly, that point has to be defended against water roof void to take place. So why ventilate the roof void at all? Why not seal it all up and be done? The answer is rot.

Every day you and I generate a large amount of hot air which is full of water vapour. Baths, kettles, saucepans, boilers, washing machines and even breathing releases clouds of the stuff and, as we all know, hot air rises. In addition, moisture occurs naturally in the air outside the home and much of this wet air finds its way into the roof void.

Now consider that the average attic is a cold, uninviting place that encourages moisture to condense on its vulnerable timber surfaces and you have the perfect micro-world in which mould and rot can take hold if the moisture is not kept moving.



Continued on page 60...



area in Bristol into a thriving pocket park designed for storytelling.

The Accoya was used to create an eye-catching piece of sculpture in the form of a snaking bench which was designed by architecture students from UWE (University of the West of England) and was made by contemporary furniture makers Ooma Design of Corsham (oomadesign.com)

Through consultation with local residents in Bedminster, it was decided that sharing stories is a group activity that can be enjoyed by all ages and provide a platform for communication.

Dr Rachel Sara, Associate Professor in Architecture at UWE commented, "The team wanted to create a piece of sculpture, that when placed on site, transformed the area into a space tailored for storytelling. The sculpture

"It has been a really rewarding project and we are extremely grateful to James Latham at Yate for having supplied Accoya wood. Accoya is an extensively proven and high performance wood and because of the modification technique that is used, it is ideal for outdoor use and challenging applications. I know both the students and the team at Ooma Design have been really impressed with it."

Andy Duffin, Operations Director of Lathams Limited said, "By creating this park, the team has inspired the community to engage with and maintain a unique area of green space within the urban street scape of Bedminster which otherwise would have remained an overgrown, disused space that was being used to store building waste. We were delighted to help and to see how Accoya had been used in such and imaginative and original application."





feature roofing, cladding & insulation



PVC roofline systems, the broad, industry term to describe fascias, soffits, bargeboards and all the associated ventilation components, are rather good at the double trick of protecting the eaves while fully venting them.

The preferred method these days is to use a continuous venting unit that sits on top of the fascia board and supports the roofing felt and the lower row of tiles. This method does away with slots or ugly vent discs set into the soffit board.

PVC roofline systems are also good at providing both visual and physical support for the other essential components in rainwater management – guttering and downpipe systems.

Design and installation

To work out what our gutter system has to cope with we've got to calculate the quantity of rainwater that might run off the roof. We do this by deciding a: The rainfall intensity that the system must cope with (litres per hour per m²). Then b: calculating the roof area to be drained. Once that's done we must choose a gutter system with sufficient flow capacity (litres per second) and, finally, decide on the system layout including the fall of the gutter and the

number and position of outlets required to maximise the flow.

 Roof Pitch
 Pitch Factor

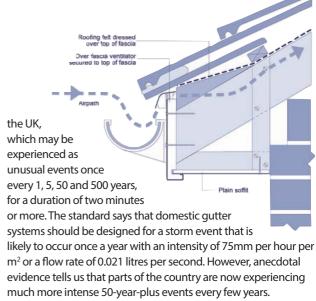
 10°
 1.088

 20°
 1.182

 30°
 1.288

 40°
 1.419

BS 12056:2000 sets out the method for calculating roof drainage. It gives likely rainfall intensities across



The area of roof that drains into any one gutter (effective roof area: m^2) can be calculated in two ways. Looking at the roof diagram and pitch factor table below, we can either use (H/2) + WxL or LxWxPitch Factor, whichever takes your fancy. The area of roof to be drained should now be compared with the maximum area that the manufacturer claims a given gutter type is able to drain.

If the figure for the chosen gutter is too low, the designer has a number of options: firstly to increase the fall of the gutter. With a longer gutter, this has its limitations, as water coming off the tiles is more likely to overshoot a tilted gutter at the lower end.

This may not even be an option where a shallow fascia is fitted. In addition, once the length of a gutter section exceeds 50 times the height of water that it can realistically hold, the flow efficiency starts to decline.

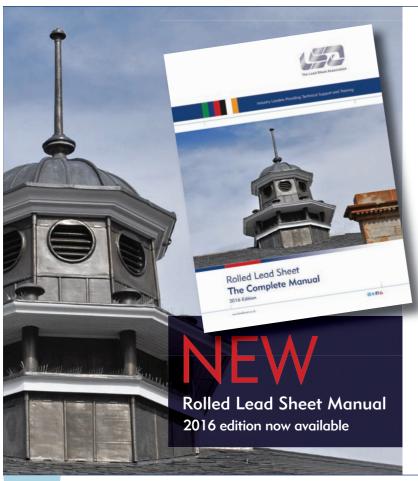
Alternatively, the outlet point can be moved to a central position. Generally speaking, down pipes have significantly more capacity than gutter units and a centrally placed outlet in most gutter runs will increase the gutter's drainage capacity.

The down side is that underground drain points are unlikely to be available directly below gutter outlet positions that are chosen late in the design process, eg after the footings have gone in; and running a drain pipe diagonally across a façade is not a pleasing option.

A case for over engineering?

Finally, the designer can select a system with a higher capacity. As I've suggested earlier, maybe we should think seriously about over specifying guttering in the future as previously infrequent events increasingly become the norm.

I have heard it said that once the heavens really open no one cares if the gutter copes or not because we will all be inside. True enough for us, but at the eaves there may be damage occurring that we can't see because of a poorly specified gutter. What is certain is the effort we put into roofline and guttering specification shouldn't be wasted for lack of an appreciation of the challenges posed at the eaves.





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TIMBER CLADDING ACHIEVES HARMONY BETWEEN TRADITIONAL AND CONTEMPORARY

Silverwood Inspire timber cladding from A. Proctor Group has been selected for an impressive waterside development in the pretty rural village of Marsworth in Buckinghamshire.

Leading developer for the project was H20 Urban. Working in close partnership with the Canal and RiverTrust, H20 Urban develops sites, which are adjacent to the Canal and RiverTrust network throughout the UK. The Marsworth Wharf project involved the creation of 12 new stunning dwellings and the sympathetic conversion of a historic workshop building on the site of a former concrete batching plant and waterways depot.

Designed by architects Stride Treglown in a contemporary style, the use of natural materials, such as the timber cladding, has created a stunning development that perfectly compliments the traditional historical workshop building, which has been shortlisted for the prestigious 2016 Housing Design Awards.

Contractors Hyatt Construction chose Silverwood Inspire timber cladding in an Onyx Black shiplap tongue and groove finish for a modern aesthetic look. Silverwood timber cladding is regularly specified by architects and contractors because of its proven performance, backed by a comprehensive 10 year paint finish guarantee, and its durability of up to 50 years as a result of the combined timber treatment and Silverwood factory applied paint finish. Silverwood Inspire combines the look and feel of traditional cladding with a planed and brushed finish and is available in a modern palette of colours.

The use of Silverwood Inspire and other natural materials at Marsworth Wharf has achieved the perfect harmony between the traditional heritage of the historic surroundings and the modern contemporary look for an impressive range of upmarket homes with stunning views over the canal and countryside.



Timber Cladding

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Timber cladding that provides the flexibility to create unique designs through the selection of wood, texture, colours and profiles.

* conditions apply



The A Proctor Group

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64 products roofing, cladding & insulation

DU300 Lower lambda products hit the market Kingspan Insulation has revolutionised rigid insulation technology with the launch of four new low lambda products for floor, wall and soffit applications, delivering premium thermal performance with a minimal

construction thickness. Products in the Kingspan Kooltherm lower lambda range have a thermal conductivity of just 0.018W/m.K across all available board thicknesses, the lowest for any rigid phenolic insulation board. The expanded range now includes Kingspan Kooltherm K103 Floorboard, K110 and K110 PLUS Soffit Board and K118 Insulated Plasterboard, along with K106 and K108 Cavity Wall Board launched earlier this year. The advanced composition of Kingspan Kooltherm lower lambda products ensures architects and builders now have even greater freedom to achieve spectacular designs, with inherently outstanding fabric performance, without having to compromise on internal living or working space.

Bespoke sizes now available

Styrocladeco, the weather resistant panel that is designed to insulate an upstand or parapet for new or refurbished roofing applications, is now available cut to be spoke sizes. Manufacturer, Panel Systems, has introduced this new service following demand from contractors, as part of making the product even quicker and easier to install on roofs. Danny Phelan, national sales manager at Panel Systems, said: "Styrocladeco is one of our most popular roof insulation products and the new bespoke sizing option should make it an even more popular choice for roofs. We are looking forward to demonstrating the benefits to even more roofers and contractors." The standard panel size of the Styrocladeco is 1,200 x 600 x 56mm (overall thickness) but other panel lengths and heights can be easily manufactured to order.



Striking façade for silver screen

DU302

In its design for the new Cineworld multiplex in Whiteley, Corstorphine + Wright Architects has created a technicolour façade utilising **ROCKPANEL** products. The front and rear elevations are primarily clad with ROCKPANEL Rockclad in Dark and Light Bronze, Fawn and Grey White and were supplied by Taylor Maxwell. ROCKPANEL Chameleon were intermixed within the facades and the iridescent boards were also installed on the eastern end of the cinema which faces the town. The colour of the ROCKPANEL Chameleon changes depending on the angle of view to create a lively and interesting effect. The multiplex has also achieved a BREEAM rating of Excellent which the ROCKPANEL products contributed towards.





A natural finish for ASDA

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 weeks. The site is now home to a large ASDA store, which has brought more than 100 jobs to

the local community in Ware, Hertfordshire. Bracknell Roofing was appointed as the roofing contractor for this project by main contractor, Mace Group. Working closely together, the two companies specified suitable roofing materials to meet the major criterion for this project - achieving a balance between cost and quality aesthetics. 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. 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.

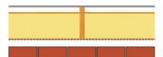
Conquering airtightness in Hastings

Wraptite-SA airtight membrane from the A. Proctor Group has been specified to achieve a highly efficient building fabric as part of a concept to create a terrace of five Zero Carbon homes in a site close to the historic Hastings Castle. The design, by awardwinning eco-architect, ZED factory and its partner the Zero Bills Home Company, has transformed a derelict site into a modern development combining high quality with highly efficient homes during the year, which coincides with the 950th anniversary of the famous 1066 battle. The homes are built from pre-fabricated



heavy-weight timber frame panels, with Wraptite-SA, self-adhering vapour permeable air barrier being applied on site. The use of Wraptite-SA makes a significant contribution to a building's thermal performance by preventing lateral air movement. It also provides high vapour permeability in a continuously sealed, self-adhered, airtight membrane.

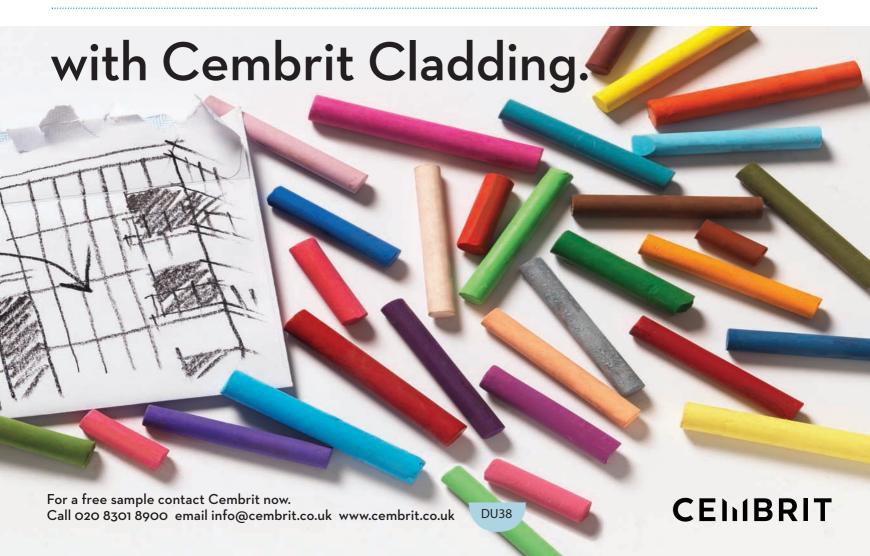
DU304





The Future of Insulation

In recent years, the construction industry has seen greater demand to not only meet Building Regulation insulation requirements but to exceed them. SuperFOIL produces the world's highest performing multi foil insulation and is able to offer solutions to meet any U-value requirement. Due to the vast range of building designs being used in the UK and an ever-growing desire to be more energy efficient, the need for versatile next generation insulations has never been more important. SuperFOIL insulation offers high performance, is lightweight and easily conforms to the varying shapes and sizes that are present in many of today's building designs. Stop looking at traditional insulation methods to provide a solution and instead look to SuperFOIL - the future of insulation. "The SuperFOIL team has been very attentive and suggested how best to use the product and, along with its prompt U-value calculations, it has made my job easier and saved my clients money," said architect, Graham.



66 products roofing, cladding & insulation



Prater takes the principal roofing role

Three Lindner Group companies have secured contracts for Principal Place, a new mixed-use development in the City of London. Prater. Lindner Facades, and Lindner Interiors will be providing specialist design, manufacture and installation services to the Foster + Partners designed site. Principal Place comprises a 600,000ft² office building, 20,000ft² of retail space and Principal Tower – a 50-storey luxury residential building, set to be one of the tallest in central London. Prater and Lindner Interiors have been awarded contracts for work on the commercial area of the development.

Both companies are now on site with their work due to be completed in December 2016 and November 2016 respectively. Prater's £2m contract is for the complete roofing package, including standing seam roofing and waterproofing as well as the bronze anodised rainscreen cladding.

Making a Passivhaus a home

A stylish Passivhaus home in South Manchester has achieved exceptional levels of airtightness through a combination of careful detailing and a high performance structure, provided by the **Kingspan TEK** Building System. After considerable research, PHI Architects selected the Kingspan TEK Building System to form the walls and roof of the structure. The firm worked closely with Kingspan TEK Delivery Partners, Point1 Building Systems, to achieve an extraordinarily energy efficient



design. Architect, Sara Darwin, commented: "The Kingspan TEK Building System scored highly on thermal efficiency as the core insulation material has a lower thermal conductivity than other products. As a result, wall thicknesses could be minimised which was critical given the relatively tight plot. Minimising air leakage was also essential. A good airtightness result can reduce energy consumption by 1kwh/m²/a which can make all the difference between a pass and fail."



A starring role for Sika

Sika Liquid Plastics has been given a lead role in a roofing project at Pinewood Studios in Cardiff. The brand's Sikalastic 625 cold-applied liquid roofing membrane will be applied to the building's 16,000m² profiled metal roof deck as a replacement to the existing single-ply system which had become vulnerable due to standing water. With 6,500m² of shooting space,

the building is home to high profile TV series such as Sherlock. Roofing contractor, Central Roofing, has been tasked with the installation, which is expected to take 20 weeks to complete. The refurbishment programme will be delivered in sections, working around filming periods and will completely encapsulate the roof to protect it from future water ingress.



Timber-clad crematorium

Canjaere timber cladding from the A. Proctor Group has been selected by WCP Architects to complement the new, graceful design of the 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. The symbolism provided by the surrounding landscape is fitting for an organic timberclad crematorium building, with the form inspired by the leaves of the woodland. Canjaere Classic Timber Cladding, in the golden colourway, was specified by the architect and installed by 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 and protects the wood against moisture, preserving the finished look; it is backed by a 30-year maintenance warranty against rot and decay. The organic shape was a key element of the design and the use of timber cladding and an aluminium roof enabled the curves and fluidity of the building to be maintained, achieving the experience of total peace and harmony.



Rolled Lead Sheet Manual - 2016 edition launched

The Lead Sheet Association is pleased to announce the launch of a newly updated version of its Rolled Lead Sheet Manual - the biggest revamp in recent years.

The 2016 edition contains many improved drawings, a better layout and clearer tables to ensure all users get the best out of Rolled Lead Sheet. In particular, we have improved the section on ventilation, an area in which our technical team deal with many enquiries. We have created a better step-by-step approach to ensuring you get the ventilation correct in a range of circumstances – from flat and pitched roofs to dormers.

The new Manual is available online as an e-Book and also as a printed copy. The printed version is £45 plus postage and packing and gives you free access to the e-book. If you want to buy the online version only it is £35.

Don't forget, the LSA's technical team is also on hand to offer guidance and support to anyone in construction working with British Standard Rolled Lead Sheet. Services range from basic enquiries to more complex site visits and condition reports

Place your Manual order at www.leadsheet.co.uk/manuals or alternatively you can call the office on 01622 872 432.



Heating bills halved with Climatherm EWI

The installation of **Bostik's** Climatherm external wall insulation (EWI) system has helped homeowners in Ystradowen, South Wales, to halve their heating bills and increase the value of their property by £10,000 - all in less than two weeks. EWI specialist, Greener Installation Solutions, was approached by the owners of the threebedroom property, who were looking at ways of lowering their heating bills while improving the overall aesthetics of the house. The company specified the Bostik Climatherm system with grey EPS insulation and an Ashton Cream Spar dash finish. Fully-certified by the British Board of Agrément (BBA), the Climatherm system can be tailored to individual property requirements and comprises three key components insulation, a mesh reinforced base coat and finish.

A seamless waterproofing system

Triton has extended its range of liquid applied waterproofing products to offer a wider choice of systems, primarily 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. The two-component polyurea formulation is suitable for waterproofing pitched or flat roofs, decks and balconies and other areas where a degree of flexibility is required. The trafficable, cured surface also makes it suitable for waterproofing concrete floors in car parks, for example.



Self-supporting roof system

A next-generation, self-supporting, roomin-a-roof system for pitched roofs has been launched by PIR manufacturer, Recticel Insulation. The new product, L-Ments, comprises cable gap, breather membrane, counter battens and integral structural timber in one PIR insulation panel as a single, lightweight, cost-effective modular roofing element, making it exceptionally quick and easy to install. The underlay felt is pre-glued and vapour-permeable with self-adhesive overlaps; the counter battens are already fixed to the panel; the multi-layered facings act as a vapour and air barrier on the inside; the PIR insulation core performs thermally to 0.023W/mK and the timber stiffeners incorporated within the PIR core provide sufficient strength for self-support.



Long-standing preservative performance







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the clean appeal of copper alloys

Richard van den Bos, product manager at Allgood discusses how implementing antimicrobial copper touch surfaces can help create a safer, more hygienic and cost-effective working and care environment in medical facilities....

Healthcare associated infections are a serious issue with 300,000 patients a year in England acquiring an infection while in the care of the NHS. Inadvertently, buildings within a medical setting can sometimes act as a petri dish for microbes that can rapidly multiply and spread - putting staff and patients at risk while stretching already scant resources in the process.

Speaking about this alarming rate of contagion, Professor Gillian Leng of the National Institute for Health and Care Excellence (NICE) said: "It is unacceptable that infection rates are still so high. Infections are a costly and avoidable burden."

In order to counteract the threat of healthcare associated infections, hospitals and other medical facilities put in place stringent policies and practices designed to mitigate this risk. Good hand hygiene, regular cleaning and disinfection and the promotion of general sanitation practices are effective measures in reducing infections. However, these procedures will not fully eliminate the threat of healthcare associated infections.

> the agenda, prominent voices from within the medical profession are calling for procedural change and greater measures to control and reduce infection rates. Tom Sandford, director of the Royal College of

With infection prevention so high on

Nursing in England, said: "Infection prevention and control is key to patient safety and needs to be the priority of every health service organisation."

Consequently, in an effort to eradicate health associated infections, many medical facilities are specifying copper hightouch ironmongery items such as doorsets, cabinet and pull handles, WC turns, indicators and releases as well as push plates within their buildings.



Continued on page 70...

Infection prevention and control is key to patient safety and needs to be the priority of every health service organisation...

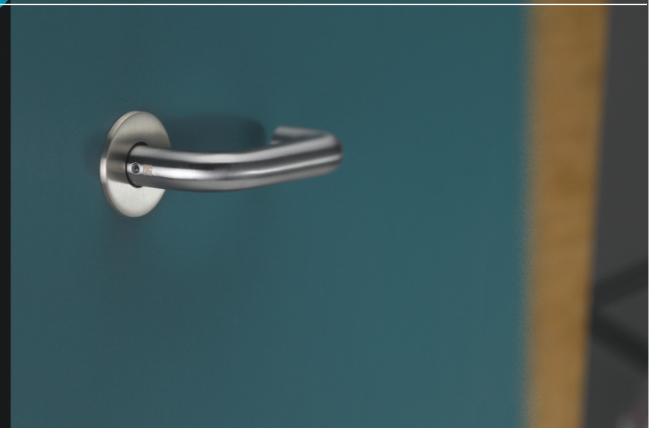
Tom Sandford Royal College of Nursing

CRITTALL STEEL The Hoover Building , Perivale, West London. Architect: Wallis, Gilbert and Partners

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DU315

... Continued from page 68

The use of copper dates back over 10,000 years and was first recognised by the ancient Egyptians for its health benefits. Copper chests would be used to store copper alloy medical instruments, which were used to perform operations.

Copper is a powerful antimicrobial with rapid, broad-spectrum efficacy against bacteria and viruses and has been shown to kill disease-causing pathogens, including MRSA, Influenza A and norovirus. It shares this benefit with a range of copper alloys collectively called antimicrobial copper. Laboratory research on the efficacy of antimicrobial copper has been carried out and verified at institutions around the world, including the UK. Testing has been conducted under typical indoor conditions, with results peer-reviewed and published.

Clinical trials have further tested antimicrobial copper in actual use conditions. These have taken place in many healthcare systems around the world, providing a variety of trial protocols and ward types. Results show that microbial contamination is consistently reduced by more than 80% on copper compared to standard surfaces. Furthermore, an associated 58% reduction in infections has been reported in ICU trials in the US where copper touch surfaces have been used.

Conventional materials such as stainless steel have no antimicrobial qualities. Despite this, many hospitals and medical facilities specify items such as doorsets and push plates based purely on design and aesthetic appeal. This could be attributed to the fact that pure copper's reddish-orange appearance does not always align with the aesthetics of modern medical interiors and stainless steel may give the (false) appearance of a more sterile environment.

To overcome this dilemma, some forward thinking manufacturers and suppliers are now offering copper alloy products, specifically for a medical setting, that appear almost identical to stainless steel while benefiting from the antimicrobial qualities of copper.

Although the initial financial investment of specifying copper products is usually higher than that of stainless steel alternatives, they offer long-term cost and health benefits. A study conducted by York Health Economics Consortium concluded that replacing six key touch surfaces in a 20-bed Intensive Care Unit (ICU) with antimicrobial copper would recoup the cost in less than two months, in terms of reduced infections and their associated costs.

In order to recognise copper alloy products of the highest quality and antimicrobial effectiveness, specifiers should check that they are manufactured from approved copper alloys in accordance with the International Copper Association's industry stewardship scheme. They must also bear the Antimicrobial Copper brand's Cu+ mark.

The spread of healthcare associated infections is a real and constant threat to hospitals and medical facilities, placing patients and staff at risk, significantly straining resources and, ultimately, leading to lower levels of welfare, efficiency and higher costs. Specifying antimicrobial copper fixtures, fittings and other touch surfaces can help reduce the risk posed by pathogens in the environment and, thus, the risk of acquiring an infection, creating a healthier, more efficient and effective environment for both staff and patients.



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CMS is set to make waves on the Isle of Arran

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 thermally insulating building envelope achieved by CMS through combining low U-value IGUs with 634m² of Metal Technology's System 17 curtain walling. 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.

Albany Court: It's all in the lintel

When full service building company, Randall Watts, required a range of bespoke lintels for Albany Court - a new housing development in Essex - the team turned to Catnic.

The trusted steel building component manufacturer had the expertise and capability to provide a vast amount of bespoke lintels that were fit for purpose and met the necessary performance requirements. The build programme presented significant challenges in its sheer



size and the vast range of bespoke solutions required. "From the outset, Catnic worked closely with the project architect and structural engineer to produce detailed technical drawings and structural load calculations - some of which were extremely complicated," said Mark Kirby, procurement manager at Randall Watts Construction. "This ensured that all lintels were manufactured and delivered to site in the correct length, width, depth and shape required for each specific application."



New lease of life for city fire stations

The UK branch of global supplier of aluminium window, door and façade systems, HUECK, has helped rebuild four London fire stations that were no longer fit for purpose. As part of a Private Finance Initiative project, the London Fire Brigade commissioned a rebuilding programme for some of its facilities that were in a poor condition and did not meet modern standards and requirements. Four of these - Mitcham. Plaistow, Orpington and Old Kent Road – have been

reconstructed using HUECK's high-performance, thermally insulated aluminium window and door suite, Lambda 77 L and its popular Trigon 50 curtain wall system. The project was delivered by Blue 3, a consortium led by construction group Kier and was finalised this year.



Getting a handle on design and performance

For high performance and exciting design for multiple settings, the renowned Orbis series from Laidlaw Architectural **Ironmongery** provides the solution. Now relaunched, renamed and supplemented with new products. the popular Orbis collection offers the same superlative quality that customers expect. The collection includes a complete range of handles, locks and closers. Furthermore, to assure safety and performance, every element is tested to the latest BE EN standards. Orbis 500 is suited to the contract market, while architects and specifiers can also choose from Orbis 600, 800 and 900, which are extensive ranges of architectural ironmongery suitable for a host of market applications. Laidlaw's technical staff, most of whom are qualified to the Guild of Architectural Ironmongers Diploma standard, provide an end-to-end service, while the firm also offers a bespoke service, providing design, prototyping and manufacturing of architectural ironmongery products specifically to meet a company's needs.



GET SPACED OUT WITH GARADOR SECTIONAL DOORS!

In modern buildings space is always at a premium inside and out, and driveways are noticeably shorter today. So it is no surprise that Garador's Sectional garage doors are now a top seller

These superbly engineered doors open vertically then horizontally on tracks back into the garage, eliminating the problem of losing driveway space through standard up and over doors which 'kick out' on opening. Cars can park close up to the garage door, a huge benefit in modern homes. There is also no loss of width in the garage, giving maximum parking space for wider vehicles such as 4 x 4s and MPVs.

Along with their great practicality, many choose Garador's Sectional garage doors to enhance the look and style of a property. The doors come in a wide variety of surface finishes, designs and colours, including ribbed and panelled versions, elegant Georgian style and even ultra modern large linear, plus a full range of size options, including standard and purpose made. So there really is a door for every requirement and every build.

Find out more about Garador's Sectional garage doors by calling 01935 443796 or visit www.garador.co.uk

The smarter way to hold open fire doors

Based in County Durham, the manufacturers of the Agrippa fire door holder and closer launched the wire-free range at the International Trade Show, Firex. Three years on, sales of the Agrippa devices have gone from strength to strength. Here we look at what makes them stand out from the rest. Until now, the reliability of wire-free fire door holding and closing devices has been questioned by fire safety professionals due to false activations and damage caused to soft furnishings. It was in response to these concerns that innovators of fire safety products, Geofire developed its unique 'listen and learn' technology. This pre-programing means that the devices pre-record the sound of the building's specific fire alarm and only release the fire door should they hear this particular sound.

Geofire's Agrippa range of wire-free fire door holders and closers have been very popular in environments where minimal disruption is desired such as care homes, schools and hotels. The cleverly designed battery-powered units mean that there is no need to re-wire a building's current fire door activation system. The devices can be fitted in a matter of minutes and are even complete with a handy, step-by-step installation video.

Both products are hygienically installed at the top of the door, ensuring there is no damage to floors/carpets or any warping of the fire door. It is often beneficial in such environments to hold open fire doors to ease access and increase ventilation during busy periods, where as many building facilities managers fall into the trap of wedging open fire doors without realising they could be prosecuted for doing so.

The Agrippa fire door holder is a simple solution to holding open internal fire doors. It is competitively priced and easy to install. The holder is particularly useful for holding open fire doors in corridors and there are many accessories available including chain keepers and extension brackets for non-standard installations.

The Agrippa fire door closer is a swing-free device which allows the fire door to be held open in any position. It will make the door resistance-free and so it will feel light and easy to move. The closer has been installed into care homes in the UK to reduce isolation for residents in their rooms.

The devices come supplied with two C-cell batteries, can be programmed for daily release, have a battery life indicator and both products are approved to EN1155 and CE marked.

For more information go to www.geofire.co.uk or call 01388 770 360











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London school selects GLASSOLUTIONS

High performance glass and an excellent value engineering approach from **GLASSOLUTIONS** have 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 architectural aluminium systems company, Metal Technology, to supply and install glazing in a contract valued at around $\pounds 2.5 \text{m}$. 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 while rooflights combined 8mm SGG SECURIT HST PLANITHERM ULTRA N II and 8.8mm SGG STADIP glass.

Ready for business – independently

Laidlaw - manufacturer of architectural ironmongery, balustrades and security systems - is now fully re-established, just six months after it was relaunched as an independent business. Chairman, Steve Lee, said it is now successfully providing a range of exceptional architectural ironmongery products through a number of partners: "This is an exciting new chapter for the business," he said. "Over the past 140 years, Laidlaw has always enjoyed a fantastic reputation and now, as new owners, we are single-mindedly focusing on our core strengths to ensure that our customers continue to receive the excellent service



and quality they rightly demand." Laidlaw has eight regional centres across the UK, with 130 highlyskilled staff who can provide an end-to-end service for all architectural ironmongery, balustrades that meet all the necessary Building Regulations and BS/EN recommendations for structural stability, safety and accessibility, plus all security system needs. It also offers a bespoke service to specifiers.



Phoenix rises to the occasion

Architectural ironmongery specialist, Cooke **Brothers,** is making a significant investment in the launch of a comprehensive modular stainless steel handrail and balustrade system - the Phoenix range. The Phoenix balustrading and handrail solution is undergoing testing to all relevant European standards and Building Regulations. The modular nature of the Phoenix system, with myriad tube and infill panel options, means that it can be adapted and bespoke manufactured for any design scheme with mix-and-match solutions. For instance, the Phoenix rail can be matched with high quality wood, composite or polymer handrail systems, or made with sleeved options to combine high strength with warm-to-touch railings.



Doors galore

Urban Front designs and makes hardwood contemporary front, internal feature and garage doors with steel reinforcement and high security locks with pivot or 3D hinges. The company has various designs and types of doors that might suit the project you are working on. Front doors are available as E80 hinged, E80 pivot and E98 Passiv with U-values as low as 0.89UV with steel reinforcement for stability, five-point locking as standard for security and double weather sealing for weathering. Urban Front garage doors come in various systems including side hung, counter balance, up and over and 2 by 2 folding with automation, all available to match the company's front door range.

Steel windows are key to extension

When Kim and John Potter bought their doublefronted Victorian terraced house in South London two years ago, they undertook a major renovation which included the construction of a large, single-storey rear extension. A 9m wide, floor-to-ceiling screen of steel double doors opening onto the garden is a now a spectacular feature, as are two further sets of steel doors which have been used internally to separate the extension from the rest of the house. All were supplied



and installed by Steel Window Association member, Steel Window Service & Supplies. Three sets of double doors form the external screen which has an overall height of 3m and includes fixed lights above and between the doors. Measuring 2.4m wide x 2.6 high, the first of the internal screens divides the extension from the living room and is composed of double doors with fixed lights either side and above.



Windows for the next generation

Integration is the key factor which underpins the latest product launch from Comar Architectural Aluminium **Systems**. The Comar 9P.i Framing system offers fast-track, semi unitised construction for floor-to-ceiling glazing, allowing tilt/turn or casement windows to hang direct from the Comar 9P.i frame as well as rebated doors. With the addition of thermal foam and triple glazing, Comar 9P.i offers U-values down to 0.77, creating a future-proof solution for its

architectural, contractor and fabricator partners. Comar has announced that it has incorporated the technology from its Comar 9P.i system into the Comar 5P.i window range and is now launching the Comar 5P.i Advanced Casement and Tilt/Turn window system which integrates seamlessly into Comar 9P.i creating the option for standalone high performance windows. The brief to Comar's design team was to meet specific architectural demands including low U-values, matching slim sight lines for both the casement and tilt/turn, large glazing pocket for acoustic glass, Secured by Design and large sizes.

Gilgen Automatic Doors BIM Ready

BIM (Building Information Modelling) files across a range of automatic sliding, folding and swing doors from Gilgen Door Systems are now available to download for easy integration into building designs. Available in Revit or ArchiCAD formats, the files are of high quality BIM level 2 standard allowing for collaborative sharing and delivering a true 3D representation of each model, combined with detailed information covering physical and functional performance.

Gilgen's new energyefficient PST automatic sliding door has been one of the most popular models downloaded so far. With its thermally insulated design delivering a solution which is both elegant in appearance and efficient in operation, the PST <green wings> system offers outstanding energy efficiency expressed as



U-values. Gilgen SLX-M drive, insulated door profiles and double glazing combine to form a single unit. With system 'U' values of 1.1 to 1.8, depending on the configuration, these automatic doors fulfil the exacting demands of architects and specifiers in a World where energy efficiency and sustainability are a growing concern.

Other download files include the Gilgen FD20 swing door drive and FFM automatic folding door system, with further models to come. Go to www.bimobject.com/gilgen to download the files.

DU47



GEZE UK's entrance for the Whitworth Gallery is a work of art

When the Whitworth, part of The University of Manchester, launched an architectural competition for its extension, it wanted a design that would make its important collection accessible to a wider range of visitors and reestablish the relationship with its grounds, home of England's first gallery in a park.

The winning design, by McInnes Usher McKnight Architects (MUMA), is both sensitive and inspirational – glass, stainless steel and brick have been married with the Grade II listed building to create an elegant exhibition space overlooking the park. And with over 440,000 people visiting each year, GEZE UK were chosen to create an automatic entrance to ensure that the building – and therefore the art - is accessible to all.

The new glass entrance connects the gallery to the surrounding park and features two sets of sliding glass doors powered by GEZE's Slimdrive SL NT automatic operators. The doors have been positioned directly opposite each other to create a lobby. This contributes to sustainability by ensuring heat loss and gain is minimised without limiting accessibility. It also helps to ensure a pleasant even temperature for visitors and staff without blasts of hot or cold air when the doors are opened.

Thanks to its slim design and a drive unit height of just 7cm, the Slimdrive SL NT operator has been discretely installed so it is barely noticeable to the user. The operators are finished







in the same brushed simulated stainless steel finish as the porch structure and two 130mm diameter stainless steel bollards with push pads have been installed to allow visitors to activate the doors. Pocket screens have been installed to ensure the safety of visitors to the gallery.

As with all GEZE's automatic operators the Slimdrive SL NT enables compliance to the Equality Act and BS 8300.

The Whitworth's £15m extension project has already been recognised by the architectural community scooping a RIBA National Award 2015, Building of the Year in the RIBA North West

Regional Awards and two AJ Retrofit Awards – Cultural & Public Buildings and Heritage & Listed Buildings. It has also been awarded the Art Fund Prize for Museum of the Year 2015 for 'redefining the way that it engages with its public, connecting the building and surrounding park'. It was also was shortlisted for the RIBA Stirling Prize.

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

products doors, windows & architectural hardware



CMS aids Aberdeen Art Gallery redevelopment

Door and curtain walling designer, fabricator and installer, **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. A significant part of the project will be to alter the building envelope and create a new rooftop extension by removal of the existing pitched roofs and skylights, together

with a new build extension to the rear. CMS will provide the solutions for this part of the project. 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. The curtain walling features 32mm insulating glass units (IGUs) which incorporate a 6mm SECURIT glass outer skin, a 6mm PLANITHERM low e glass inner pane and a 20mm cavity with warm edge spacer bar, silicon sealed with a toggle glazing insert.





A four-star welcome

As part of a programme of extensive renovation, TORMAX was specified to install a four-wing automatic revolving door to the main entrance of the fourstar Grosvenor Pulford Hotel, Chester. Blending seamlessly with the eighteenth century building, the new revolving door successfully combines the elegance of a by-gone era with the convenience and welcome luxury of an automatic entrance. Driven by the technologically-superior TORMAX 5201 motor, reliability and smooth operation is assured for many years to come. With over 65 years of experience in the design, manufacture and installation of world-class automatic entrances, TORMAX was well placed for this prestigious job. "Our operators have been engineered for performance and reliability at our HQ in Switzerland," explained Simon Roberts, MD for TORMAX. "Incorporating a high-torque motor, the 5201 revolving door drive has been combined with our classic profile to create a high quality solution." The TORMAX 5201 operator incorporates a programmable logic circuit which allows hotel staff to adjust the door's operation to reflect weather conditions, as well as changing levels of foot traffic. This ensures the reception area is kept warm and welcoming at all times by minimising heat-loss from the building.

a quick guide to diffuser selection

Complaint-free air conditioning relies on effective selection of air terminal devices, but one style of diffuser does not fit all. Mike Gosling, product technical manager – grilles, diffusers and louvres, at TROX UK, gives us a practical guide to the different types of diffuser available...





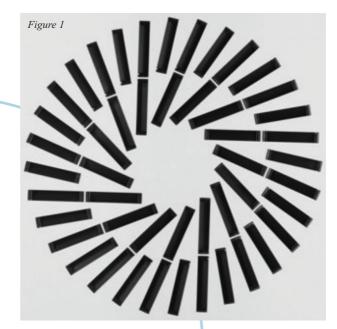
When selecting the optimum design for each application, factors such as the number of air changes, the distance the air needs to travel, and the height and style of the ceiling must all be taken into consideration. The aim of this article is to outline the pros and cons of the three key types of diffuser (swirl, slot and jet) to help you speed up the selection process.

Swirl diffusers

Swirl diffusers feature linear slots (aligned radially around the centre of the diffuser face) which divide the supply air into a number of high velocity jets. These enable the diffuser to induce large quantities of room air, because the supply jet surface area is greater and the cyclonic pattern of air discharge forces the air jets to travel in a rotating manner around the diffuser centre. This rapidly dissipates the velocity and temperature differentials between the jet and the ambient air, minimising the distance at which high velocities and/or draughts exist. In some designs, the discharge slots are subdivided along their length to further enhance the induction rate (Figure 1).

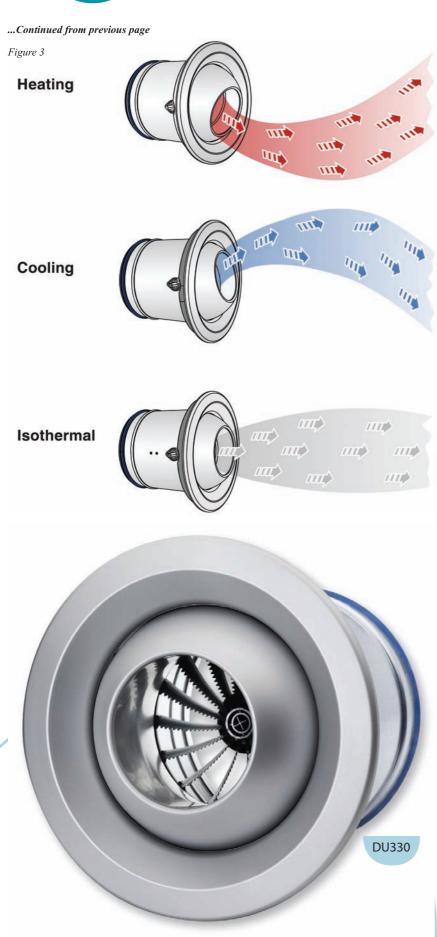
As a result of their design, swirl diffusers are particularly effective in high air change applications (up to 30 ACH) and for delivering large temperature differential air at

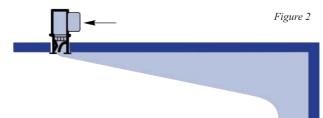
high volumes. They are also suitable for air extraction and are best installed in spaces with normal or low ceiling heights. For applications involving ceiling heights above 3.8m, or for exposed or free-hanging ceilings, then a different design of diffuser would be more suitable. Typical applications for swirl diffusers could include commercial offices, atriums, retail spaces and restaurants.



Continued overleaf...

feature heating, ventilation & energy efficiency





Slot diffusers

Slot diffusers utilise ceiling effect, providing horizontal diffusion in one or two directions across a flat ceiling surface. They feature elongated outlets consisting of single or multiple slots with an aspect ratio >25:1. As the supply jet entrains room air, it expands in the vertical plane (see *Figure 2*).

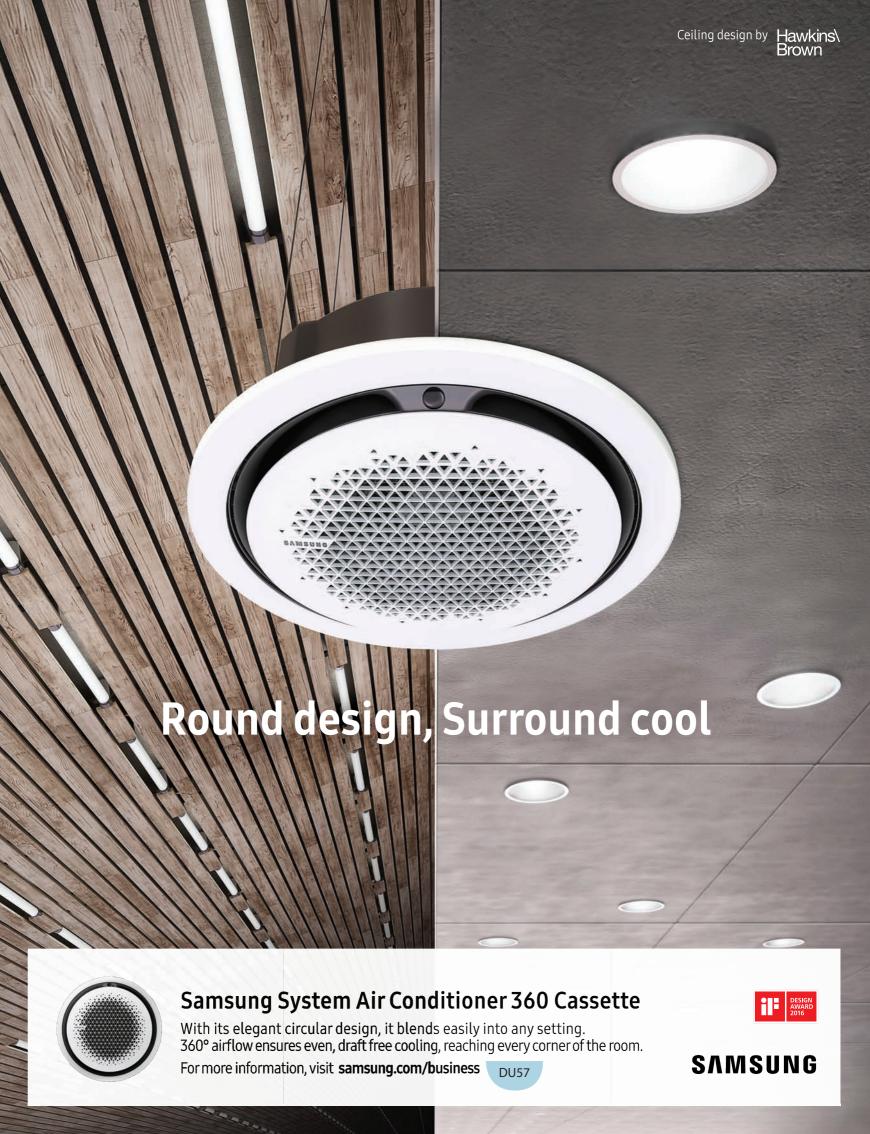
Ceiling height is an important factor when selecting a slot diffuser, as it must be sufficient to prevent conditioned air from entering the occupied zone prematurely. The discharge jet expands away from the ceiling at approximately 200-250mm per metre throw length. Therefore, for a 4.5m throw, the ceiling height should be a minimum of 2.8m to ensure the discharge jet remains outside of the occupied zone.

Slot diffusers can be used extremely effectively to offset solar gain, making them suitable for commercial buildings with glazed façades. Air direction can be altered on site, without recommissioning, giving the flexibility needed for spaces that are frequently reconfigured, such as offices. Slot diffusers have two main types of deflection devices (blade and barrel) which can be chosen to suit the application. Barrel-style models are recommended for greater induction potential.

Jet diffusers

Jet diffusers are particularly effective for handling large air volumes and long throws, where the supply air has to travel a large distance to the occupied zone and where the supply of air via ceiling diffusers is not possible. Suitable applications are buildings with high ceilings such as airport terminal buildings, hotel reception areas, atriums, shopping arcades, museums, sports centres and department stores.

Relatively low induction devices, jet diffusers maintain velocity and throw lengths of between 5 and 30m. When the temperature differential between the supply air and room air changes, the air stream is deflected upwards, (for cold air) downwards (for warm air) or horizontally (isothermal) – see Figure 3. As the direction of the air stream can be affected by other factors, such as local convection effects or draughts within the room, jet nozzles are designed so that they can be adjusted to meet requirements for both heating and cooling. The protected core of the air outlet retains its initial velocity to provide long, directional throws, enabling the supply air to be directed to a specific area. The discharge air also retains its temperature differential, hence its suitability for longer throw applications. Manual or electronic adjustment of the airstream angle provides control over temperature differential.



80 **products** heating, ventilation & energy efficiency



REHAU TABS at the heart of the Tate Modern

REHAU's Thermally Activated Building Structure (TABS) system is at the heart of the newly-opened £260m extension to Tate Modern on London's South Bank. In what is the highest profile TABS installation in the UK yet, REHAU's PE-Xa pipework has been embedded in the concrete slabs, which make up each floor of the new building to circulate cooled water and provide environmentally sustainable comfort cooling throughout. Work began on the project in 2012 when REHAU originally began supplying the pipework and fittings to Byrne Bros Formwork

which was producing all of the pre-cast concrete slabs for the ten-storey building off-site at its facility in East London. Loops of more than 24,000m of pipework were installed on the reinforcement before the concrete was cast, and REHAU's EVERLOC compression sleeve fittings were used to joint the embedded pipework when the slabs were delivered to site.

Zero repairs targets met with SystemCare

Irwell Valley Housing Association has taken a proactive approach to boiler care and heating system protection in all of its 7,000 homes, using Sentinel SystemCare to help meet its ambitious business goals of zero unnecessary repairs and zero customer dissatisfaction. The forward-thinking housing association deploys a treatment plan comprising Sentinel's high-quality cleaning chemicals, inhibitor and Eliminator Nano filter. As a result, avoidable boiler and heating system repairs have been eliminated, keeping heating maintenance costs at a minimum and ensuring that



its homes provide year-round efficient heating and hot water to some 17,000 residents. Comprising Sentinel X800 Cleaner, Sentinel X100 Inhibitor and the Sentinel Eliminator Nano Filter, Irwell Valley's SystemCare Pack is tailored to suit the housing association's requirements.



Air quality gold

Kingspan Industrial Insulation

has once again displayed its commitment to manufacturing excellence as products in its Kingspan Kooltherm FM Pipe Insulation range were awarded a best-in-class Eurofins Indoor Air Comfort Gold certificate. The Indoor Air Comfort certification programme was created to harmonise the criteria of mandatory and voluntary product regulations from across Europe which govern VOC (Volatile Organic Compounds) emissions. Following rigorous testing at its state-of-the-art facility, Eurofins awarded its Gold certification to Kingspan Kooltherm FM Pipe Insulation manufactured on Kingspan Industrial Insulation's continuous online production and CNC routing lines.

DU339



New 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-minutes boost with temperature control to provide the maximum comfort quickly. The CRX1 wireless controller works with all Consort RX heaters and can operate different products at the same time, allowing total heating systems to be effectively controlled; for example, in an apartment, plinth heaters and panel heaters could use the same controller. This modern design controller is supplied with a security wall bracket and a table top stand which allows it to be placed anywhere in a room.

Home ventilation for all

Airflow Developments has launched the latest addition to its successful Duplexvent MVHR range. The Duplexvent Entro utilises high performance heat recovery technology to provide optimum efficiency and protection against harmful indoor air contaminants. Available in DV250, 300 and 400 models, Airflow's latest product development offers a simple installation method as well as easy-to-use controls making it suitable for domestic properties. The Entro range consists of side entry supply and extract ventilation units, suitable for use in small, medium and large dwellings up to 220m². This powerful MVHR solution operates with minimal noise while achieving over 90% efficiency – with air capacity of up to 385m³/hr at 100 Pa. The Entro range has been independently tested to comply with SAP Appendix Q criteria enabling inclusion in an architect's SAP calculations for the specification of a high performance ventilation with heat recovery solution.



New BIM Library from Polypipe

Polypipe Ventilation, manufacturer of energy saving Domus ducting and Silavent mechanical ventilation appliances, has set up a BIM (Building Information Modelling) Library, available free of charge. The Polypipe Ventilation 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 its 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.





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A cost-effective installation

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, which were specified by loyal customer, New Forest District Council, were installed 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. New Forest District Council has implemented a programme of refurbishments across numerous council sites involving Evomax and other Ideal Commercial boilers. The council has found the combination of ease of installation and high efficiency readings to be very impressive, along with an attractive appearance. Ideal's introduction of the new Multiline cascade flue assembly allowed more of the work to be carried out by the council, thereby reducing the cost of the flue specialist's materials and labour.

The complete static valve offering

Valves are a key element to ensure heating and ventilation systems work to their optimum efficiency. Pegler Yorkshire, with its foundations held in the development and manufacturing of valves, is increasing its Static Valve offering which incorporates ultralow and medium flow static products to complement all flow variables. Within the Ballorex Commercial Valves range, the Pegler 1260 fixed commissioning double regulating valves incorporate a fixed plate orifice for accurate flow measurement and regulation. The design includes an oblique pattern body and easily-accessible test points for use during commissioning. The range includes combined commissioning, double regulating valves and metering stations. The key features offered by the fixed range of 1260, 1200 and 1250 DZR brass bodied valves include, a PN20 rating, a non-rising stem, a double regulating feature on spindle and a hand wheel incorporating position indicators 00-79 – all boasting full WRAS approval.



Rinnai on demand

Rinnai's Infinity Plus Cascade is a major move into bigger sites and applications which have a high demand for hot water and energy efficiency. The design parameters of the cascade systems mean that upgrading the traditional water heater to a technologically advanced continuous flow system is simple. Rinnai can now offer commercial hot water provision, which is virtually limitless in this custom-made solution, with a choice of either two-unit or three-unit modules of its awardwinning condensing continuous flow water heaters. Infinity Plus Cascade has been developed by Rinnai to guarantee high volumes of temperature-accurate hot water. The design parameters of the cascade systems offer ease of integration into new and existing buildings even when retrofitting from traditional storage systems.



Intelligent home air solutions

Polypipe Ventilation has announced its next generation of Mechanical Ventilation with Heat Recovery (MVHR) appliances, the Silavent HRX-aQ, which intelligently manages air conditions for maximum homeowner comfort, while also being easier to design-in. The HRX-aQ matches ventilation rates to the internal environment and occupants' requirements for maximum comfort; it is the quietest and most compact (just 199mm in depth) Silavent MVHR unit available. This is achieved through advanced AMIE (Air Management for Indoor Environments) technology, including features such as digital humidity control to automatically change extract speed from background to boost as the level of humidity increases, automated summer bypass control, programmable by occupants based on time or temperature, and accurate system balancing.

Gaia takes off at historic officers' mess

Gaia's low-temperature, wet underfloor heating has been installed as part of a project to turn a historic building into Cambridge's newest office space. Commercial property developer and investor, Mantle, has converted the former RAF Duxford Officers' Mess into modern office accommodation. Within the original Grade II listed structure, traditional wall-mounted radiators were retained, in keeping with the listed status. However, a contrasting modern structure has been



erected with underfloor heating instead of radiators. "It was really a given that we'd use underfloor heating here because it was important to maximise usable space," explained Simon Redman, partner at Cambridge-based Cowper Griffith Architects. "It was also important that the new structure provided a modern contrast to the historic part of the building."

DU343



High-efficiency fireplaces from CVO

UK manufacturing company, CVO Fire, has extended its range of high-efficiency gas fires to include models suitable for all properties, old and new. The range now includes balanced flue gas fires, power flue gas fires, flueless gas fires, high-efficiency chimney fires and space heaters. These energy saving gas fires are tested to the latest CE safety standards and have Class 1 efficiency ratings to comply with stricter building codes. All fires are operated by remote with thermostatic heat control, which reduces running costs. There are many design styles available in sizes up to 2,000mm wide. The CVO fire range

includes fireplaces for all fuel types - gas, electric, wood burning and bioethanol. The image shows the award-winning FIRELINE. This flueless gas fire requires no chimney and has 100% energy efficiency. Manufactured in the UK at the CVO factory in the North East, this product is the only open flame, no chimney gas fire available in Europe.



OMNIE SYSTEMS HELP SELF-BUILDER ACHIEVE LOW ENERGY PROFILE

Exeter based Omnie has provided a heating and ventilation solution for a self-builder to achieve his ambition of creating a new home, with a very low level of environmental impact and running costs. This results in a property with high standards of indoor air quality and comfort. The



dwelling has been constructed as a single storey, deep plan structure within a walled garden in the village of Bradninch in Devon. The ultrasustainable design features not just an Omnie 7kW Air Source Heat Pump (ASHP), delivering domestic hot water and warmth via the manufacturer's Omnie Foilboard Floating UFH System, but also an Omnie Compact 185 Heat Recovery Unit (HRU), supplying pre-warmed air throughout. Now with the rural retreat completed the Omnie equipment is fulfilling on all of the design intentions, as the owner of the property commented: "I wanted to build a home that was as low energy as possible and to take a responsible approach to the specification of its building services so that it would not only provide peace of mind for myself in terms of future running costs, but also make a positive contribution in respect of concerns over carbon reduction and our energy security." Timóleon supported its design & supply with technical assistance at the specification stage, plus full installation drawings & heating schematics identifying information such as ideal positions for the manifolds for the UFH and the location for the HRU distribution using 75 mm diameter air ducts Additional technical support is provided with every heat pump with final commissioning and the 1 year back up (Gold) support service, which includes remote access package making it easy to monitor the performance of the heat pump.

For more information about Timóleon please visit www.omnie.co.uk. email Alex.Chalk@timóleon.co.uk or tel. 01392 363605.





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A lecture in heating

Airbloc, part of AmbiRad, developer and manufacturer of energy efficient HVAC systems, has recently completed a project for The University of Cumbria. The university has benefited from a stylish new café building at its campus in Ambleside, which is a hub of activity providing access to services and resources as well as a café for students and lecturers. The problem that the university faced was finding a unit powerful enough to tackle the drafts of a westerly facing entrance in an exposed geographical location but suiting the artistic architecture of the building. AmbiRad provided an Airbloc air curtain over the entrance door, along with a battery back-lit exit sign to the new building to address the issue of drafts entering and keeping the existing heat in, no matter how often the doors are opened. AmbiRad worked together 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 theme 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.





Cost-effective energy

London has taken a further step forwards in the drive to be a sustainable city with the adoption of Veolia's latest combined heat and power (CHP) technology in the billion pound new Docklands development at Royal Wharf. Designed to supply low carbon energy, this latest application will power 20,000 Londoners in five years and contribute to reducing London's carbon emissions by 60% by 2025. Part of the giant Royal Docks vision, Royal Wharf is the biggest new Docklands neighbourhood since Canary Wharf was built. The energy needs of the people on the 40-acre site, with an energy centre from MEP contractor, Cilantro Engineering, will be supplied by a Veolia CHP unit that drives a modern district heating network. By delivering cost-effective energy it will help meet London's emission's targets, take pressure off the stretched UK electricity grid and reduce carbon emissions by 1,800 tonnes each year – equivalent to removing 1,400 cars from the road.

industry news products



Fuel Card Services challenges report

A report from the Institute for Public Policy Research offers seriously flawed conclusions, according to Fuel Card Services. The report, Lethal & Illegal - London's Air Pollution Crisis, has been published by the IPPR with the support of Greenpeace. Steve Clarke, group marketing manager, said: "Where the report sticks to current facts and figures, it is a respectable piece of analysis. Its proposals, however, are not rooted in reality." He continued: "Some of us at the heart of the transport sector are working every day to combat climate change, making a real difference on the front line in the rainforests. When academics look in from outside and suggest hugely increasing the use of petrol-powered vehicles, we do wonder whether they have thought this through properly."

Charcon appoints national specification manager

Charcon, the commercial hard landscaping division of Aggregate Industries, has appointed Clinton Young to the role of national specification manager. Clinton joins the business after 21 years with Marshalls, where he was pivotal in the growth of specifications in London and the South East, including project managing Marshalls' specification and supply of £10m of landscaping products to the London Olympics. In his new role, he will be responsible for growing the specification business, including building relationships with key customers, advising on and delivering best practice and further developing the experienced team. Commenting on his new appointment, Clinton said: "My extensive experience means I have a deep understanding of the procurement process, from conception through to completion, including how specifiers operate and what makes them tick."

DU353



Colleagues pay tribute

It is with great sadness that **HUECK UK**

has announced the passing of its sales director, Robert Bright. Robbie died in an accident in France, during a



charity cycle ride that was raising funds for PAPYRUS Prevention of Young Suicide, in memory of his beloved son, George. He was part of the senior management and business development team for the UK arm of HUECK and an industry veteran with many years experience. His professional leadership and personal friendship will be dearly missed by all those who knew him. His colleagues have released a message to clients, business partners and the industry at large about Robbie's career at HUECK. Crispin Jedrzejewski, HUECK UK technical director, commented: "Robbie was much more than a colleague to me. His personality and friendliness quickly led me to consider him a good friend and confidant – his tragic loss will be acutely felt by all who knew him."

Sadly missed

It is with great sadness that Mereway has announced the death of in-house designer and senior product development manager, lan Robinson, who died suddenly at home recently. A well known face in the industry, lan started his career with kitchen manufacturer Hygena Cabinet Co where he helped launch the



first flat-pack kitchen range in this country. lan was well liked because of his relaxed manner and jovial charm which he combined with a passion for design and a pursuit of excellence. His contribution to Mereway's

success was significant. It was his sharp eye and attention to detail that was responsible for the success of most of Mereway's bestselling ranges over the last 20 years. Joint Mereway MD Bob Norris said: "The industry has lost one of its best designers and he will be greatly missed by his many colleagues and friends."

The search for Britain's best cafe is on

DU354 Local cafes around the UK are vying for the title of Britain's Best Cafe, in a national competition where everyone will get the chance to vote for their favourite. The competition is being organised by SIG Roofing and its 120 local branches will be supporting the cafes in their bid to win the title. When votes are counted at the end of October, 14 regional winners will be announced. There, SIG Roofing managing director Andrew Wakelin, will announce the national title holder of Britain's Best Cafe and the winning cafe proprietor, together with their guest, will be heading for a four-day trip to New York City. SIG Roofing supplies more than 40,000 products across pitched, flat and industrial roofing and cladding and the competition is a sign



of commitment to its customers, along with its determination to preserve the relationship that SIG Roofing branches have built with them.



fire design solutions

Improving the image of construction

The **FDS Group** is pleased to announce that it is now an official partner of Construction United, a leading initiative aimed at improving public perceptions of the sector. Consisting of awardwinning smoke ventilation contractor, Fire Design Solutions and leading expert in fire engineering, FDS Consult, the FDS Group will work with Construction United on the initiative's three main objectives - improving the overall image of the sector, tackling the skills gap and raising awareness on mental health in the workplace. Over the coming months, the FDS Group will collaborate with a

number of Construction United's partners, including SIG, Morgan Sindall and the Construction Industry Council (CIC), as they look at some of the most pressing issues facing the industry today, while also raising money for its charity partners. Discussing the new partnership, Gerard Sheridan, chairman at the FDS Group said: "We strongly believe in the value of apprentices and graduates and we want to make sure that there are workers available to support the industry for years to come."



GLASSOLUTIONS invests in restructure

The contracting division of **GLASSOLUTIONS**, part of Saint-Gobain UK, has invested £5m and restructured its operating model to enhance its national UK business with a clear aim to become a market leader. The company, which operates in 67 countries and has over 180,000 employees, has consolidated all its functions under one business unit and invested in 20 new team members, plus additional new fabrication facilities. GLASSOLUTIONS' contracting division has over 200 directly

employed staff covering the UK, specialising in the conception, design and installation of glazed façades and building envelopes. It aspires to be the partner of choice for the delivery of exacting architectural requirements, as well as for its support, control and technical expertise of its service. GLASSOLUTIONS has established a strong reputation for delivering higher profile projects, working with the industry's leading architects and securing the trust of its best-known main contractors.

Rinnai responds to demand

Rinnai, manufacturing supplier of high efficiency continuous flow hot water heating and delivery units, has announced a major investment in London and the South East with the formation of a dedicated sales team covering the whole region. This major investment follows the opening of a London office also dedicated to serving the region. The new sales team will work in tandem with the Rinnai UK sales centre and technical support at the



company's Runcorn HQ. "The new premises have been set up in response to high demand for Rinnai product and expertise. Specifiers and installers in the London area now have a direct line to the Rinnai sales force which is ready to offer advice on the latest technologies and legislation and will be a vehicle to inform the industry of new developments and new technologies," said managing director, Tony Gittings.



A first for Aggregate Industries

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.



Share your research

Ecobuild 2017 has launched an industrywide call for research that highlights the latest UK built environment developments, to showcase at this year's exhibition, in partnership with the ARCC network a UK-wide platform to develop and exchange knowledge and evidence to inform policy and practice, funded by EPSRC. Submissions could include future materials and processes in early development stages, the improvement and innovation of more sustainable solutions for the construction industry, or insight into the application of materials used in other sectors for the future of the built environment. The call for entries will close on 19 September 2016 and a judging panel will shortlist the research. For more information and to register your interest, visit: http://ubm.ecobuild.co.uk/futurematerials-and-processes

New GEZE UK specification manager

Supporting customers by giving technical advice and specification guidance will be the focus for a new addition to **GEZE UK's** sales team. Steven Lees brings with him 18-years' experience, including working with customers at home and abroad. He has joined GEZE UK as specification manager and is responsible for the specification of all GEZE products delivered in Scotland and the North of



England. His role will involve working with architects and specifiers to identify requirements for new buildings and refurbishment projects, generating specification solutions that will meet aesthetic and functional requirements. This will include clients from a range of sectors including retail, manufacturing, education and arts and leisure. Steven has a BA in European Business Studies and a diploma from the Guild of Architectural Ironmongers.



New commercial sector managers

Sentinel Commercial's goal of raising water treatment standards in the commercial market through education, product development and client support is clearly working – the water treatment specialist has recently welcomed two new commercial sector managers to its team and is on the hunt for more. The appointments follow increasing demand for Sentinel Commercial's best practice water treatment solutions, which are helping to make lifetime boiler and hot water system protection a reality for commercial building owners. John Vicary (top) and Paul King now deliver technical sales services to clients in the London and Central regions respectively. Their roles involve the assessment of suitable water treatment solutions using Sentinel Commercial's chemical and KalGUARD applications, the creation of value propositions for end-user clients and liaising with boiler and component manufacturers to ensure end-to-end solutions.

fire, safety & security



Increase efficiency with new equipment

By installing new, up-to-date equipment you can increase efficiency, have an improved system and save money. For the flats at Hammond House and 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 a mechanical and electrical company in Stoke - JPR Engineering. The company 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 and Dickson House, have a bespoke water supply and heating system which is more energy and cost efficient.

Quality and value at Lockex 2016

Physical security supplier, Securikey, is exhibiting at the brand new Lockex exhibition - 16-18 September at Coventry's Ricoh Arena. At Lockex, the team will be available to share expertise and showcase the recently updated Euro Vault range of electronic and key locking safes. Now extended to five models, with the existing models updated to incorporate many new features, including a new locking system and interior light, the Euro



Vault range of safes is 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 DR 15 and DR 19 models extends the range by two options and presents 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.



Showcasing smoke detection

FFE is showing the latest in smoke and flame detection at Security Essen between 27-30 September. The company will be showcasing its Fireray optical beam smoke detectors and its Talentum specialist flame detectors in Hall 3, Booth 3A62. 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, railway stations and warehouses to shopping centres, sports arenas and places of worship. Talentum flame detectors are used in sensitive or dangerous environments to detect fires even before smoke is produced, or where smokeless fires may occur.



A snappy solution

Visitors to the UK's only crocodile zoo can walk all over one of the most dangerous creatures in the world thanks to some high performance anti-reflective safety glass, supplied by Romag. Two sections of 30mm thickness Romag toughened laminated low iron glass have been specified to provide a transparent safety floor for a new bridge spanning a Tomistoma crocodile enclosure at Crocodiles of the World in Brize Norton, Oxfordshire. The floor was designed specifically for the enclosure to combine anti-reflective properties with maximum strength together with high levels of safety and security. Paul Cruddace, a director at Romag, said: "This is an interesting commercial application, reflecting our ability to deliver technical solutions that provide long-term high performance and safety benefits."

Updated fire safety guidance

With an ever-increasing demand for affordable homes and commercial developments where space is limited, developers need to be able to build upwards, creating high-density communities in high-rise buildings. To ensure such purpose-built constructions adhere to complex fire safety regulations, as well as tackling misconceptions surrounding the use of insulation in rainscreen and masonry façades, Kingspan Insulation has released its second issue technical bulletin which focuses on buildings with habitable storeys 18m or more above ground level. The improved Routes to Compliance: Fire Safety bulletin features a general overview of the linear, performance-based and fire safety engineering routes, offering stakeholders an easy place to check if their desired build-up follows the best route to compliance. The full technical bulletin is available to download from Kingspan Insulation's website.





Trusted team provides key vaults

Securikey has been a trusted partner to many UK companies for over forty years and has recently teamed up with City Lock and Safe to supply products and expertise to Stockport-based manufacturer, Arden Dies and Tooling. In partnership with City Lock and Safe, Securikey supplied two 48 Capacity Key Vaults, two 100 Capacity Key Vaults and Two Size 2 Mini Vaults to Arden's purpose-built 3,000m² facility. George Clarke, managing director of City Lock

and Safe, said that the Securikey safes and key cabinets were chosen specifically for their high quality and durability. Built from a heavy-duty steel with a double walled construction, the Mini Vault Gold FR is durable and fire resistant and suitable for storing vital documents while the key vaults, also made from steel, feature locking by security deadlock and can be further secured by incorporating the cabinet into an existing suited system. Another important feature of the key vault is the five-pin Euro profile cylinder which can be easily changed in seconds should the integrity of the unit be breached; an important feature for a busy organisation like Arden Dies which runs 24 hours a day with over 120 members of staff.

product floors, walls & ceilings focus on CAD & BIM focus on health retail, commercial & industrial



Eye-catching design from Polyflor

Flooring from **Polyflor** was recently used to create a geometric floor design for a new STEM learning centre at Havering College of Further and Higher Education in Hornchurch, Greater London. High performance vinyl flooring from Polyflor's Classic Mystique PUR range was installed by local flooring contractor, Neil Handley, in the Havering Innovation in Science, Engineering and Technology Hub (Hi-SET Hub). Three complementary grey shades from this homogeneous vinyl flooring collection – Smokestone, Nocturne and

Quartz – were selected to produce this striking design which was paired with bright furniture from Rapid Office Systems. Polyflor's experienced in-house Design Service team used water jet technology to precisely cut the Classic Mystique sheet vinyl flooring into pieces so this design could be put together at Havering College. This technology can be used to produce virtually any shape, pattern or logo from Polyflor's high performance vinyl flooring.

Yorkon at Healthcare Estates 2016

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 about 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 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 the assurance of completion on time and on budget.



Rapid floor fix from Setcrete

Setcrete 2K Pro floor levelling compound was found to offer a suitable solution for builders working on a fast-track residential refurbishment in Acocks Green, Birmingham. Thanks to the levelling compound's specialist properties, builders at the property were able to apply it directly over old adhesive residue left on the bathroom subfloor, rather than having to first remove the residue as is normally required. As a result, the builders were able to return the bathroom to full use within 24 hours. Setcrete's 2K Pro levelling compound has been designed for use directly over old, well-bonded adhesive residues, including bitumen and carpet tile tackifiers. As a result of 2K Pro's 60 minute walk-on time, the bathroom was quickly brought back into use, as requested by the homeowner.

DU375



Showroom on solid ground

Knauf's GIFAfloor raised flooring system has been utilised in Domus Tiles' newly extended and refurbished London showroom in Battersea, creating a space where design meets practicality. Used as a dry screed flooring solution, contractors installed the GIFAfloor system knowing it would save them time while delivering Domus with the load-bearing solution required to support its very heavy stone displays and large visitor numbers. The engineered flooring panels, manufactured from over 50% recycled materials, are extremely dimensionally stable and robust, more than capable of tackling the heavy foot traffic expected. Immensely strong and versatile, the Knauf GIFAfloor system is manufactured from natural gypsum-based calcium sulphate.

Bauder extends BIM library

Following the arrival of the UK Government's BIM mandate back in April, which requires all centrally procured public sector building projects to be BIM Level 2 compliant, 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 from 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.

DU373



Cost-effective loading bays

Stertil Dock & Door Products has refurbished and upgraded an installation of loading bays for AAH Pharmaceuticals. The upgrade to the loading bays at the company's Tamworth distribution centre involved the transformation of 18 existing docks into 16 lorry docks and two van docks. This allows the site to efficiently handle a range of vehicles including articulated lorries, double deck trailers, container lorries and Sprinter vans. An important element of the upgrade was the replacement of existing swing lip dock levellers with more versatile

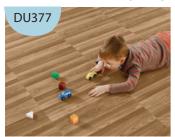
telescopic levellers. Importantly, the extension of the lip is infinitely variable which means that the leveller can be safely used to serve vehicles that have not reversed sufficiently far enough to make contact with the dock's bumpers. Also, the telescopic lip allows the loading of vehicles almost right up to the edge of their decks, thereby ensuring maximum space utilisation.

sustainability & eco solutions urban design & landscaping



Impressive sustainability performance

Polyflor has published a *Sustainability Report* which outlines the environmental milestones achieved and improvements made by the company in the past year. The 80-page annual report covers Polyflor's environmental credentials, explains how vinyl is a sustainable flooring option and highlights the company's charity work and involvement in the local community. Key achievements for 2015 include Polyflor gaining individual BRE assessments across eight additional products, with 33 ranges achieving an A+ rating. Polyflor launched a *Floor Cleaning and Maintenance Course* to promote sustainable cleaning processes and maximise its floorcoverings' longevity. The company received the prize



for Green/Sustainable Manufacturer of the Year at *Insider's* Made in the North West awards and, in line with its BES 6001 certification, it also achieved BS OHSAS 18001. Polyflor reports a record 508 tonnes of post-consumer waste vinyl flooring being collected in the past year, enough to cover 23 football pitches.

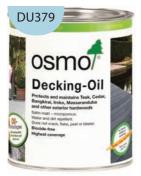
SuperTrench strengthens portfolio

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. Available in 6 and 10mm



nominal sizes, it has been designed to meet the criteria set out by the Specification for the Reinstatement of Openings in Highways (SROH). The 6mm option is a suitable solution for the permanent reinstatement of flexible

footways, footpaths and cycle tracks, laid with a minimum thickness of 30mm. SuperTrench 10mm, when laid with a minimum thickness of 40mm, is suitable for type two, three and four flexible roads.



OSMO UK meets decking demands

Osmo UK, the eco-friendly wood and finishes company, offers a range of Decking Oils to protect and maintain the beauty and quality of exterior decking. The product range provides resistance against water and dirt, while also offering an appealing satin oil-based protective finish. Made from natural plant oils, organic pigments and water-repellent additives, the micro-porous finish allows the wood

to breathe – a factor that is essential for exterior wood. The eco-friendly ingredients help to regulate the wood's moisture content, reducing swelling or shrinking, while enhancing its natural characteristics. The finish also prevents the wood from cracking, flaking, peeling or blistering. Available in range of ten different shades and one clear Teak-Oil, there is a Decking Oil to complement and protect a number of wood species, including Bangkirai, Cedar, Douglas Fir and Oak. To apply, simply brush the oil onto a clean, dry surface using a stiff bristle brush.

Saracen Interiors

Saracen Interiors has completed a contract to fit out corporate finance house, Clearwater International's offices on Chandos Place, in the City of London, based on designs submitted at the competitive tender stage. The work follows on from the successful handover of an earlier



redesign project, completed by the leading workplace consultant for Clearwater in 2015. Work started in March and included the reconfiguration of meeting rooms, including the creation of a centralised and circular meeting room built from curved glass partitions to reflect the company logo; the installation of new floors and ceilings; new furniture; the design and fit of an open-plan kitchen and breakout area and the installation of a new air conditioning system.

Email: enquiries@saraceninteriors.com Website: www.saraceninteriors.com

DU600

Midland Pallet Trucks

Midland Pallet Trucks has welcomed the news that one of the leading manufacturers and installers of temporary buildings in the UK has noted an increase in sales enquiries over the last couple of months. Midlands-based Smart-Space says that the pique in interest has come



since the Brexit referendum in May. The well-documented weakening of the pound against other currencies has improved the export potential for a host of UK industries. This means that manufacturing exporters and their suppliers are looking at different cost-effective methods of expanding their storage or manufacturing capacity quickly on their current sites so they can take advantage of the situation in order to grow their presence in both current and new markets.

Email: sales@midlandpallettrucks.com Website: www.midlandpallettrucks.com

DU601

Robertson

Robertson has underlined its commitment to responsible business practices by becoming a member of Business in the Community (BITC). The company, which operates across the UK, has a strong track-record of investing in communities, be it by working with local SMEs, education



partners, community stakeholders and supporting local charities, but says BITC membership provides greater focus for its efforts. Founder and executive chairman of Robertson, Bill Robertson CBE, said: "We believe strongly that we have a responsibility to help improve the communities we work in and it is a source of great pride to see the fruits of that throughout the country."

Website: www.robertson.co.uk

DU602

DU603

UK Plumber of the Year

Shaun Scott from Oyne, Aberdeenshire has been announced as the winner of the UK Plumber of the Year 2016 powered by bathroom companies JT, Bristan and Plumb Center.
Shaun, who has been a plumbing engineer for nine years, impressed the judging panel in the



final session of the competition with his determination, skill-set and his vision for the future. Shaun works for Derek Scott Plumbing in Insch. Shaun impressed the judges in a variety of ways, particularly demonstrating a recent bathroom restoration project, where he was able to refurbish a challenging 90-year old bathroom for a client who was told it wasn't worth the effort. Shaun's dedication to complete a challenge paid dividends despite obvious logistical problems and he managed to complete the project to the delight of a very happy client.

Website: www.ukplumberoftheyear.com

Levolux

The new £44m Cardiff University Brain Research Imaging Centre (CUBRIC) building at Cardiff University's Innovation Campus, which is equipped with an attractive timber fin screening solution from Levolux, is specially designed to facilitate brain research. IBI Group architects specified a Levolux external solar shading and screening solution incorporating vertical timber fins



in addition to ventilation and acoustic louvres. The most visual aspect of the solution is the timber fin screening structure that is located at the centre of the development, accommodating the main reception, a staircase and circulation areas. Inside the building, the timber fins form balustrading for the reception area and around circulation areas on first and second floors.

Email: info@levolux.com

Website: www.levolux.com



tremco illbruck

If you want to know what the tremco illbruck range of products can do – and see them being demonstrated – then visit the tremco illbruck YouTube channel at www.youtube.com/user/Tremcoillbruck and select North Europe. The channel consists of a whole catalogue of instructive



how-to videos and product demonstrations on sealants, adhesives and fire-protection products. As well as simple step-by-step demonstrations of individual products, there are also detailed videos explaining how different products can help meet the latest Building Regulations, such as those governing airtightness. Other videos provide invaluable how-to advice, such as how to install a window in a brick cavity wall.

Website: www.tremco-illbruck.com



Geberit

Geberit Mapress and HDPE have both played a part in the restoration of the iconic Hasting's Pier. Until recently, the pier had remained derelict for many years, withstanding a fire in 2010. Following a £14m renovation, the newly-



opened pier now boasts a stylish makeover, maintaining its rich history while bringing its looks and functionality into the 21st century. Installed by Commercial Hydronic Systems, all gas pipework is Geberit Mapress Stainless Steel, offering a versatile solution that is quick to install. The off-pier waste system utilises Geberit HDPE which is made from polyethylene. Environmentally friendly and completely recyclable, with no toxic emissions released during its processing or in the case of a fire, Geberit HDPE fitted in with one of the redevelopment's key remits of being sustainable.

Email: enquiries@geberit.co.uk

Website: www.geberit.co.uk

DU606

Gradus

Premier Inn is currently renovating several of its hotels and is choosing to install Gradus' RXT521 double channel PVC hardnose stair edging in its properties. RXT521 stair edging comprises a PVCu channel and riser, providing an all-round visual contrast for guests ascending and descending stairs. The insert extends around the leading edge of the profile to ensure that foot contact is always made with the slip-resistant element of the stair edging.



As such, the profile ensures one of the safest solutions available. Anthony Roberts, product marketing manager at Gradus, said: "Our RXT521 stair edging provides visual contrast for users ascending and descending stairs. The wrap around design also ensures maximum contact with the slip resistant insert. Combined, the profile provides a safe solution to all users."

Email: imail@gradusworld.com Website: www.gradusworld.com



Total Door Hardware

The latest in next-generation door closer technology, the new Ozone Plus (popularly known as the Hydraulic Patch) is now available at Total Door Hardware. Suitable for frameless tempered glass and wooden doors, this stylish



and easy-to-fit patch fitting has an in-built hydraulic system which can be installed with just four fasteners so there is no floor cutting, no digging and the coffin box rests in peace. Ozone is an internationally-renowned architectural hardware solution company which offers door control solutions along with an array of other products for commercial doors, shower rooms, structural façades and balustrade systems. The Hydraulic Patch comes in both a hold-open and non-hold-open function and is used for double action swing doors.

Email: sales@totaldoorhardware.co.uk

Website: www.totaldoorhardware.co.uk

DU608

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



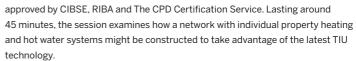
forests and habitats and the release of CO₂ into the atmosphere. You can enjoy the animation via the Better by Nature website – *http://betterbynature.org.uk*. Some 1.8 million tonnes of British-grown wood are burnt by power generators every year. Norbord and the Use Wood Wisely campaign argue that this precious resource can be better used for building materials and furniture making, ensuring CO₂ stays locked up for decades. Campaigners believe wood should only be incinerated at the end of its useful life.

Website: www.norbord.co.uk
Website: www.usewoodwisely.co.uk

DU609

Reliance Worldwide Corporation (UK)

Reliance Worldwide Corporation (UK) (RWC UK), manufacturer of water control systems and plumbing solutions, has launched a new CPD seminar focusing on the use of Thermal Interface Units (TIUs), approved by three professional bodies. The new seminar, Understanding the use of Thermal Interface Units within Community Heating Networks, has been specifically developed for consultants, specifiers and architects involved in designing heating and hot water systems in commercial or domestic premises and is



Email: marketing@rwc.co.uk Website: www.rwc.co.uk



Jet Aire

Staff members from Jet Aire have recently taken part in a charity team event based on the 1980's and 1990's tv hit show *It's a Knockout.* Teams of ten battled it out against each other to raise funds for Hartlepool and District Hospice.

The event was sponsored by Seymour Civil



Engineering with whom Jet Aire has been working for just over one year. The day was a brilliant affair despite the rain and it is expected that the event will bring in around £10,000 for hospice care. If you would like to see pictures from the event, you can view them on the hospice's Facebook page. Jet Aire would like to thank the colleagues, friends and clients who helped raise money for the event.

Email: enquiries@jetaire.co.uk

Website: www.jetaire.co.uk

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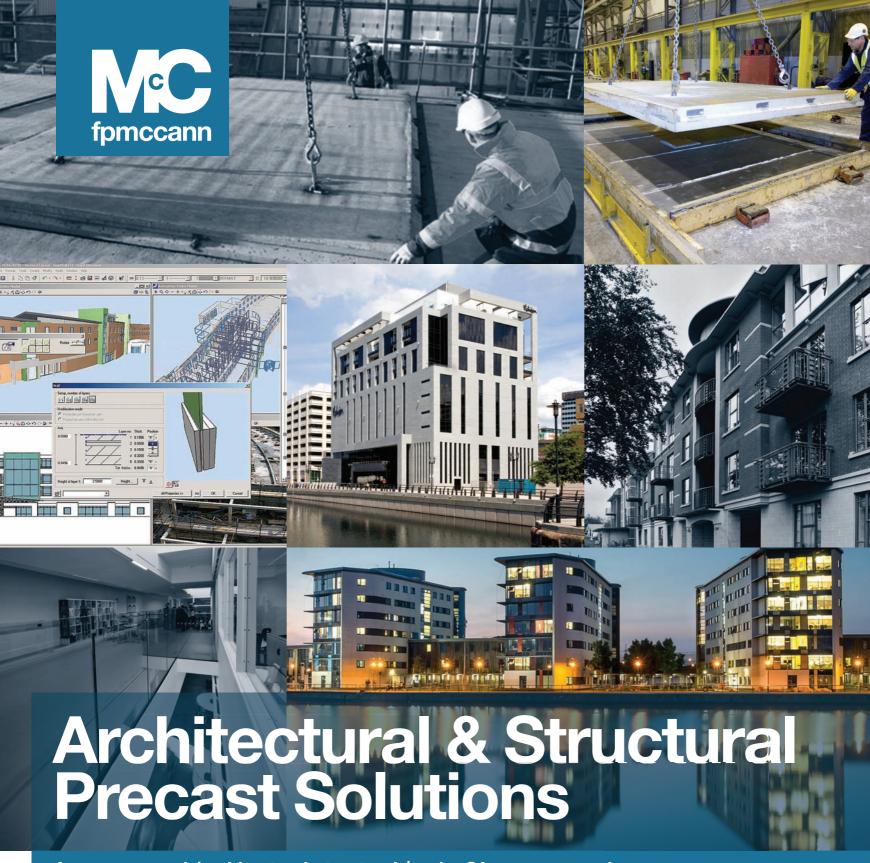
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