

building construction design

APRIL/MAY 2020

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Cover image: SE Controls
See page 06 for details

The big cover up: Casings for social housing

The ongoing process of routine maintenance, heating system upgrades and new boiler installations, together with the retro-fitting of fire sprinkler systems in high-rise social housing, all demand that the pipework is covered to give a decorative and consistent finish.

Pre-formed plywood casings are acknowledged as the preferred solution for social housing RMI and with more than 30 years manufacturing experience in the sector, Encasement Ltd estimates that more than 100,000 kilometres of its pipe-boxing have already been installed in social housing sites throughout the UK.

In any property, whether it's a new build or a refurbishment project, there will inevitably be exposed pipework that will need covering for reasons of safety, aesthetics or as a deterrent from tampering, accidental damage or potential vandalism in the case of exterior pipework.

However, for housing associations and local authorities that often deal with older housing stock requiring heating system upgrades, retro-fitted fire sprinkler systems and annual maintenance, the large amounts of exposed pipework can present a number of challenges.

Due to the age of the properties and the nature of their construction, which predominantly uses concrete and brickwork, mechanical and electrical services, as well as pipework need to be surface mounted, as they can't realistically be concealed during installation. This is particularly relevant for fire sprinkler systems.

As sprinklers need to be located within individual flats and communal areas to suppress fires and aid escape, incorporating them in new builds is comparatively simple, as they can be integrated at the building design stage and pipework can be hidden within risers and ceiling



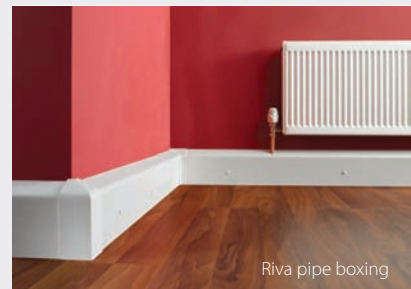
Versa fire sprinkler boxing

voids. However, for retro-fitted solutions, this is not an option and in most cases surface mounting is the only practical option.

One of the main advantages of surface mounted interior pipework, whether its for sprinklers, heating systems or boiler pipework, for example, is the simplicity and comparative speed with which it can be installed by skilled contractors, helping to keep costs under control.

As a result, it makes sense that the pipe boxing method chosen to conceal pipework is also quick and easy to install, as the time taken on site and the associated costs are essential considerations on any project of this type.

Consequently, these are key reasons why pre-formed and pre-finished casings, such as Encasement's pipe and fire sprinkler boxing, have



Riva pipe boxing

become the preferred solution for many social housing landlords.

Encasement's range of pipe boxing and casing solutions continues to be in high demand with fire sprinkler installation, central heating upgrades and

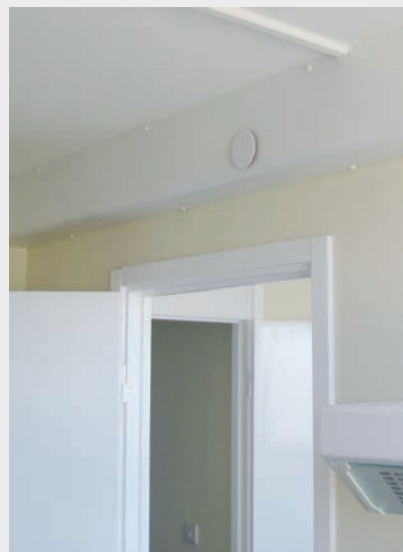
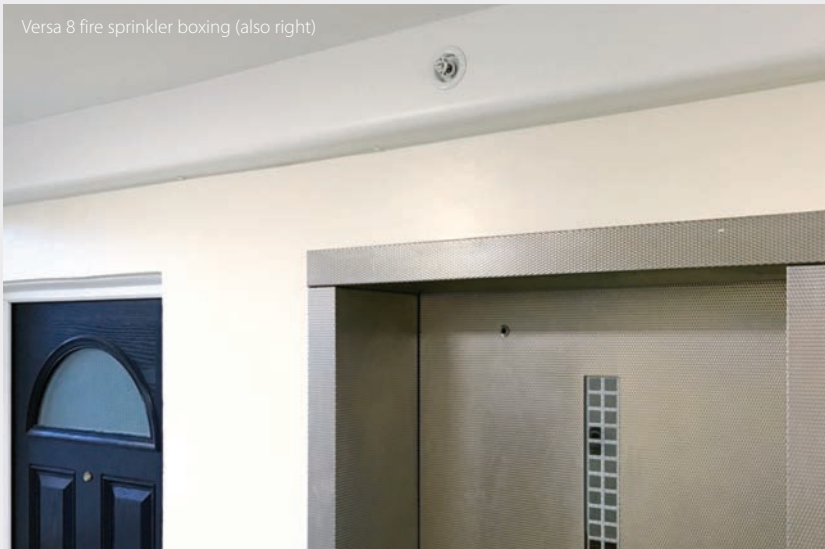


Pre-formed and pre-finished boiler pipework casing



Arma – aluminium pipe protection

Versa 8 fire sprinkler boxing (also right)



distributed heating system refurbishment projects all using its specialised products.

The company's products are continually specified by HAs, LAs and their contractors to conceal interior pipework, while its 'Arma' range of tough, lightweight aluminium casings are used to cover and protect exterior services, such as gas supply pipes, electrical cabling and distributed heating pipework.

The plywood casings range, which includes Riva; Versa 5 and Versa 8 pipe and fire sprinkler boxing products, alongside its boiler pipe work casings, are all pre-finished in white melamine, which removes the need for on-site painting and helps save time and money on site.

Encasement was one of the first manufacturers and suppliers of decorative casings to achieve the

FSC® Chain of Custody Certification from the Forestry Stewardship Council in 2010 and since then, the company has offered an FSC® certified option on its full range of pre-formed plywood casings to comply with customers' sustainable procurement policies.

Martin Taylor, Encasement's Managing Director, explained: "From our experience of working with contractors on countless social housing projects where pipework needs to be concealed, we know that pipe and fire sprinkler boxing can be fitted in less than half the time of site made alternatives."

For housing associations, local authorities and their contractors, this time saving provides a number of benefits. It helps ensure that heating systems, boilers and fire safety upgrades can be completed within shorter timescales. This minimises disruption for tenants and can also have a positive impact on improving maintenance and tenant satisfaction KPI's.

Potentially the most important advantage is that the time taken to complete the projects can be reduced without compromising the quality or integrity of the installation, which can also help reduce costs.

While the ability to save money on-site by using pipe boxing and casing solutions that are quicker to

install than site made alternatives is already attractive, pre-formed casings also enable further savings to be made. The 'whole life' costs for site made casings escalate significantly, when routine maintenance visits are factored in to the equation.

In the majority of cases, site made casings are damaged or destroyed during their removal, as the screw heads are filled and painted over, making them impossible or extremely time consuming to dismantle. Also, if mastic sealant has been used around the edges, it will also need to be removed.

Often, the complexities of managing routine maintenance and inspection increases when site made casings are used. In some cases a joiner is required to remove site made boxing in advance of the maintenance work being carried out by a service engineer. The joiner then has to revisit the property after the maintenance is complete to refit the casing or construct a new one.

With preformed pipe boxing solutions, it is usually a simple process of removing the securing screws and then the individual lengths of boxing can be removed and replaced quickly and easily.

For boiler pipe casings, this process is even simpler. As pre-formed casings are self-supporting and have no screws to hold them together, they can be easily removed and replaced in just a matter of seconds, dramatically decreasing the time that maintenance engineers need to be on site, with a corresponding reduction in associated cost.

"From day one, we set out to manufacture and supply the most comprehensive range of pipe boxing and casing products for the social housing sector and we now offer more than 200 different products, profiles and sizes within our standard range," continued Martin Taylor.

He added: "Our Versa range of pre-formed pipe boxing has rapidly become a key solution for concealing retro-fitted fire sprinkler pipework in flats and communal areas, whilst the launch of our flame retardant Versa 'FR' boxing was a first for the market. Versa FR is also pre-finished in white, while our Arma aluminium casings can be specified and manufactured in any RAL colour."

01733 266 889 www.encasement.co.uk



Versa 5 pipe boxing



Concealing boiler pipework and flues

Encasement covers all the angles at Cardiff Bay's flagship Premier Inn



One of the latest hotels from the Premier Inn chain in Cardiff Bay is using bespoke 'Polyma' GRP column casings from Encasement to conceal diagonal structural steelwork that runs along the full length of the building, while adding a distinctive and colourful feature due to their bright yellow finish.

Although the successful regeneration and development of Cardiff Bay has attracted a wide range of businesses and stimulated tourism, it has also exposed a shortfall in quality hotel accommodation in the area, which the new Premier Inn is helping to address.

Designed by Holder Mathias Architects as part of the £40 million Cardiff Waterside development that also includes two office buildings, the eight-storey hotel has 210 double, twin and family rooms, together with a restaurant, bar and meeting facilities.

As Cardiff Bay includes an eclectic mix of building types and styles, ranging from ultra modern angular office buildings to mid-nineteenth century structures, the Premier Inn's unique exterior design reflects the area's characteristics with the use of 'punched hole' widows, brick style facade and Encasement's bright yellow casings.

An integral aspect of the building's steel frame construction is the use of diagonal

square section supports below a sharp cantilevered edge on the front elevation, which are joined at the top and base to create a continuous angular design.

To conceal the structural steelwork and enhance the building's aesthetics, Encasement's Polyma GRP range was used, as it is weather proof and resistant to damage, which makes it ideal for exterior use.

Encasement manufactured and installed 40 column casing sections, each measuring 400mm in diameter and 3860mm in length, together with 40 bespoke 'V' shaped casing sections and two single casings to conceal the fixing brackets at each end.

Due to the unique casing design, all the casings were manufactured from 10mm thick GRP, which was hand-laid in moulds to give a precise form, while ensuring the casings incorporated the specified high quality yellow RAL 1018 Gel-coat finish.

Each casing was designed to work as a two-part design, which enables the casing to be placed around the structural steelwork before being secured and the joint lines concealed using colour-matched polymer filler.

To ensure the system fitted perfectly over the steelwork, Encasement constructed a framework within the column casing, which is fixed to the steelwork and

provides a continuous support to each component. This also allows each casing to be secured to the frame and hold each element securely in place to provide a strong and rigid solution.

Encasement's Managing Director, Martin Taylor, explained: "We have been involved in a wide range of projects requiring casing solutions of all shapes, sizes and materials. Some are purely for aesthetic reasons; while others take advantage of a particular material's characteristics that overcome a specific technical challenge or meets a unique specification requirement.

"However, with this project, the casings were not only genuinely unique, to accommodate the layout of the building's steel support structure, but also had to have good damage resistance, excellent weather-proof performance and make a bold aesthetic statement for one of the UK's best known hotel brands."

He added: "The end result speaks for itself, as the finished project not only looks dramatic, but also meets all the client's technical and performance specifications. We're delighted to have played a part in this excellent project."



01733 266889 www.encasement.co.uk

Retail Therapy – Decorative casing solutions for retail

Decorative casings solutions, such as column casings and wall linings, are a fundamental part of contemporary retail design. In addition to providing a practical method of concealing interior and exterior structural steelwork they also add to a building's aesthetics, style and shopping experience.

This combination of practicality, versatility and decorative design has been at the centre of the wide range of retail projects that have been undertaken by Peterborough based casing solutions specialist, Encasement Ltd.

For almost 15 years, the company has been manufacturing and supplying column casing and wall lining solutions to a diverse range of retailers covering the grocery sector, home-ware, clothing, furniture stores, restaurants and automotive dealerships

As Encasement's range provides architects, specifiers and designers with a wide choice of materials and finishes to choose from, as well as bespoke shapes and dimensions, it's unsurprising that its products are used by many well known brands, including Debenhams, Porsche, Kia Motors, Tesco, ASDA, Oak Furnitureland and Greggs, as well as major retail parks and shopping centres across the UK.

Encasement's column casings range includes 'Circa' and 'Quadra', which are manufactured from pre-formed plywood, together with the metal 'Forma' range, 'Polyma' and 'Gypra' casings, which are moulded respectively from glass reinforced plastic (GRP) and glass reinforced gypsum (GRG).

In addition, the 'Metza' range is a specialised solution that provides up to 2



Tesco - Forma column casings and Vecta bulkhead

hours fire protection. Originally designed for mezzanine support columns, Metza is also used in food retail fitted with corner protectors to resist scuffing and damage caused by shopping trolleys.

While every Encasement column casing is suitable for interior use, its 'Polyma' and 'Forma' ranges are also widely used for exterior retail projects, due to their inherent weather resistance and durability.

Available in aluminium or stainless steel, 'Forma' casings offer a diverse range of options and can be specified as circles with diameters from 250mm up to 1000mm and in square, rectangular or hexagonal forms, as well as unique custom profiles. The choice of finishes is also very wide and in addition to PPC coating options in any RAL colour, various brushed, anodised, embossed and textured finishes are also available, including Rimex.

Strength, durability and colour choice are also features of the 'Polyma' GRP range. This manufacturing process allows a high degree of design flexibility with shape; size and colour options all open to specification to meet bespoke project requirements, as well as standard profile options.

The versatility of 'Forma' and 'Polyma' makes them a common choice for retail projects and the high degree of freedom they offer enables major brands to specify colours that not only adhere to their brand guidelines, but also add to the customer experience.

However, where casings are needed for

interior use only, the company's 'Circa' and 'Quadra' casings allow circular, square and rectangular profiles to be specified while also providing a wide range of finish options with the most popular being decorative laminated finishes. In addition to resisting damage, scuffs and scratches, they also provide the specifier with a diverse palette of finishes including plain colours, wood grains and metallics, as well as textured and real wood veneers.

Alongside the company's column casings, its 'Vecta' system provides a high quality solution for interior wall linings, bulkheads and reveals and is widely used in supermarkets, automotive retail, restaurant and food brands including Tesco, Prêt à Manger, Mini and Greggs.

Encasement's Managing Director, Martin Taylor, explained: "By offering six different column casing ranges and the 'Vecta' decorative wall linings system, specifiers are able to source a range of specialised interior finish products from a single company, supported by high levels of experience in this sector."

He added: "Column casings provide a perfect mix of practicality and aesthetics and we've taken a lot of care to ensure our range meets both of these key criteria. We also have our own contracting arm, which enables us to offer a full supply and install service to support contractors"



Debenhams - Forma column casing with display screen

01733 266 889 www.encasement.co.uk

SE Controls adds comfort and safety at prestigious Manchester residential development

An integrated smoke control and environmental ventilation solution from SE Controls is helping keep residents safe and comfortable at a prestigious 11-storey residential development in Manchester, which also incorporates the company's intelligent temperature monitoring and control system, SE Evello.

Designed by SimpsonHaugh architects, Burlington House comprises 91 luxury private rental apartments with one; two or three bedrooms and is located in the historic Piccadilly Basin area adjacent to the Rochdale Canal and a number of heritage buildings including the Grade II listed Jacksons warehouse.

The building's three-layered design combines the use of brickwork on its six lower levels with aluminium cladding and a glazed facade system on the upper two geometric structures to reflect the historic surroundings while creating a modern residential space.

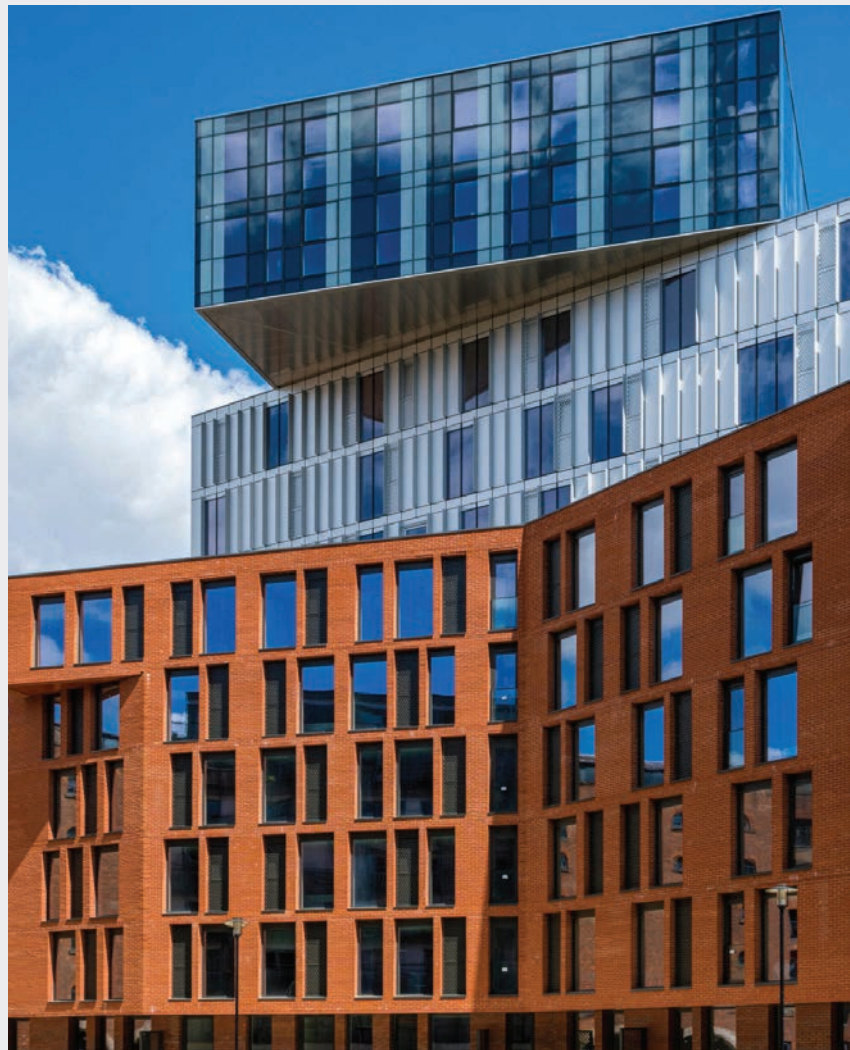
As regulations dictate that residential buildings higher than three storeys require a smoke control system to be installed, SE Controls was approached to design an effective solution that ensured escape routes are kept clear of smoke if a fire should occur.

Also, as the building's energy efficient design and use of large glazed areas has the potential for temperatures in corridors and circulation spaces to become elevated during summer months, SE Controls engineered the system to provide integral environmental ventilation and ensure temperatures are maintained at comfortable levels for residents.

To achieve this, the SE Controls solution utilises the system's smoke shafts and two dedicated environmental fans to provide day-to-day corridor and stairwell ventilation, which alleviates any issues with building overheating while preventing the build up of stale air.

The SE Evello system not only monitors the temperature, but also controls devices such as the ventilation fans and smoke shaft vents with a self-adapting control algorithm, which targets ventilation to the warmest corridors or areas of the building, where the heat increase is greatest, while also reducing ventilation to more temperate zones.

Developed using a combination of extensive building studies, CFD modelling and data derived from live test sites, SE Evello's algorithms constantly monitor temperature levels and provides predictive control over the opening of corridor ventilation louvres and the extract fan speed to ensure temperatures never reach excessive levels. The other main benefit is that stale air and odours that can build up in static air spaces are removed and replaced with fresh air.



While the environmental system improves comfort, it is the smoke control system that makes it possible. Burlington House uses two mechanical smoke extraction shafts and one air inlet shaft for make-up air for the lower six floors, while a single smoke shaft is used in the upper five levels with the addition of pressure sensors to prevent over-pressure on the escape door.

Two roof mounted duty and standby SHEVTEC fan sets serve the smoke shafts, which are actuated as soon as smoke is detected within the building. The smoke control system operates on a floor-by-floor basis to provide protection for corridors and lobbies adjacent to the escape stairs and ensure smoke is removed from the 'fire-floor'.

Once smoke or fire is detected, the environmental ventilation system is over-ridden automatically and smoke is extracted from the activated floor with all other automatic opening vents (AOV) locked out to maintain

compartmentalisation. Additional smoke vents at the head of the stairwell and roof remain open until they have been reset by fire-service personnel using the relevant tamperproof manual control point (MCP), which are located on every floor.

In addition to the wide range of specialised equipment installed on the project, including smoke control dampers, SHEVTEC grilles, MCPs and temperature sensors, the system is controlled by three OS2 SHEVTEC controllers with battery back up.

The system also uses SEcloudlink™ to provide round-the-clock smoke control system status information and reporting to enable monitoring and system adjustments to be made remotely, as well as enabling preventive and corrective maintenance to be performed by maintenance teams.

01543 443060
www.secontrols.com

Timber Frame Fire Safety In Use Guidance



With an objective to enhance quality and drive product innovation through technical guidance and research, the Structural Timber Association (STA), as part of their continual development programme, has been collaborating with the Construction Scotland Innovation Centre (CSIC), the University of Edinburgh and BRE to produce fire safety in use guidance for timber frame buildings.

Timber frame construction is a traditional method of building with a proven track record of mainstream compliance and longevity. It is widely recognised as the offsite construction system of choice, offering many benefits, including low carbon, cost effective, quality, speed and regulatory compliance.

Fire safety in use affects all forms of construction. All buildings must be designed to comply with the functional protocols of the Building Regulations for fire safety requirements, as a minimum standard. The STA has invested in an industry leading fire in use research project to test and prove commonly used timber frame wall, floor and roof make ups used in the UK marketplace.

The output of this research, a pattern book of EN tested systems, is believed to be the first of its kind in the UK timber frame sector. The

EN tested systems and best practice recommendations provide a comprehensive package of information, for the design, specification and construction of timber frame buildings. This research now forms part of the STA's library of fire in use best practice guidance. The STA library of documentation provides comprehensive guidance, information and recommendations on system specifications and good practice principles when using timber frame construction.

The project was organised into four distinct, but connected work packages, running in parallel to gather the relevant data required for the pattern book.

- The first stage was the completion of research into various aspects of timber fire safety and testing
- The second stage was the completion of a large programme of full-scale fire EN fire resistance testing, including collaboration with the Irish Timber Frame Manufacturers' Association (ITFMA), Engineered Wood Products Committee (EWPC) and Trussed Rafter Association (TRA) testing programmes
- The third stage was the collation of all research and test information, for analysis, peer review and validation by BRE, and the subsequent endorsement by verifiers and regulators

- The final stage was the creation of the pattern book.

In addition to the extensive fire in use research of timber frame systems, it has been identified by the STA that the installation of fire stops and cavity barriers are of equal importance when it comes to building safety, an issue which prevails regardless of the building methodology. The STA have responded by developing a new guidance document on cavity barriers to complement the existing information.

This research, which has been supported by Swedish Wood and the Scottish Forestry, has been endorsed by several industry and government stakeholders. The pattern book of systems provides a unique reference library of information for clients, specifiers and STA members to use with confidence.

The information will be regularly reviewed and updated by the STA Technical Committee and Board and the pattern book and guidance on fire stops and cavity barriers are free to download from the Structural Timber Association's document library which can be found by visiting:
www.structuraltimber.co.uk/links/research-documents

01259 272140 www.structuraltimber.co.uk

Knauf AMF is the place to find Armstrong metal products in the UK and Ireland

We are excited and proud to let you know that Knauf AMF is now the place to find ARMSTRONG Metal Ceilings, Metal Mesh Ceilings, Metal Canopies and Metal Baffles in the UK and Ireland.

This iconic, superbly engineered portfolio of products is available in the UK exclusively

from Knauf AMF for new and existing projects. Metal is versatile, durable, almost maintenance free and really packs a visual punch. It also works really well with our other ranges, including HERADESIGN and mineral tiles. We see it as a natural progression in our aim to offer the most innovative and comprehensive range of

aesthetically-led, acoustic ceiling and wall solutions for any interior.

"Until now our presence in metal ceilings has been modest. The addition of Armstrong's metal portfolio will enable us to grow in this exciting area. Customers will experience the specification expertise and project support they expect, but with the added integration and convenience of a single-stop solution provider. Knauf AMF with Armstrong metal promises to be a game-changer." Peter Symons, UK Commercial Director Knauf AMF.



Availability

It is business as usual for those looking to specify from the Armstrong metal portfolio. For more information or to discuss a new or on-going project, please contact the team by phone or visit the website.

0191 518 8600
portfolio.knaufamf.com



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Longfloor have launched game-changer



Longfloor has launched a game-changing development for the construction industry, a revolutionary approach in the way liquid cement screeds are applied, a

global first which will fundamentally enhance the way liquid cement screeds are used.

Darren Williams, Longfloor General Manager said: "The screed industry has witnessed a sea change in favour of cement-based liquid screeds but for many years has attempted to develop one which flows well, dries quickly and is as easy to install as possible. We are very excited to announce an industry first. The future is grey!"

01629 540 284 www.longfloor.co.uk

VORTICE sales team starts the year in Italy



January began with the VORTICE UK sales team's visit to the company's Italian headquarters where they previewed some of the brand's exciting new product development plans, with the environment being a key consideration. 2020 begins with the roll-out of the Vort Avel HR450D Passive House accredited ventilation system which was launched at the end of 2019. General Manager Kevin Hippey said: "The core business ethos in Italy is replicated in the UK, the desire to provide excellent indoor air quality to the domestic, commercial and industrial markets".

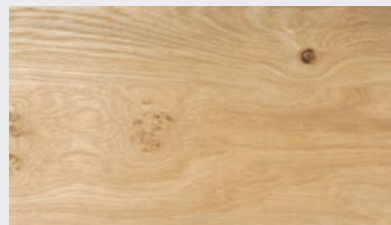
01283 492949 www.vortice.ltd.uk

Taking a leaf out of nature's book

Figurative knots and distinctive woodgrain configurations are both authentic and much loved wood characteristics, that are admired and sought after by specifiers everywhere. This desire for irregularity and a closer affinity with nature, has led leading interior timber door manufacturer, Vicaima to introduce the new Naturdor® Heritage Oak finish. With its open grain and randomly mixed real Oak veneer, it takes a leaf out of nature's book.

As a leading exponent in the use of trend-setting designs and with over 60 years' experience in the manufacture of real veneered products, Vicaima's Heritage Oak doors present figured oak veneer that entices the senses of true rustic wood lovers. This new wood veneer treatment has been inspired by authentic influences of nature and reflects a more recent market trend towards wooden doors that embody materials made from more genuine and under refined materials.

Naturdor® Heritage Oak reflects the unexpected harmony of nature, with veneer mixed randomly in a choice of either vertical



or horizontal designs. These can have either a matt or standard sheen surface depending on taste. Heritage Oak can be enhanced yet further by the potential collaboration of decorative face grooves, or the option of deep texturing. Introduced for 2020, Deep textured allows real veneer to take on a more rustic feel for an even greater tactile experience. Other combinations are afforded by a choice of available frame finishes, ranging from Naturdor® Oak and Stained Ash to Dekordor® foil or Laccdor paint, creating a unique style to the whole door assembly. This fusion between a rustic oak veneer appearance, optional face grooves

and choice of frame finishes, allows Heritage Oak to blend in and accentuate modern living and working space for a multitude of applications.

Emphasizing its commitment to the planet and to the sustainable use of natural resources, Vicaima Heritage Oak is covered by FSC® certification. Where performance criteria are demanded, Heritage Oak is also available in fire, acoustic and security solutions. In addition to door only and door and frame assemblies, matching wardrobes and wall panels can also be provided.

01793 532333 www.vicaima.com

AQUALAY

Heat Dispersing Thermally Insulating Overlay Panel
For use with waterbased underfloor heating systems

Aqualay is a high performance pipe carrier panel designed for use with water based underfloor heating systems. Aqualay panels are produced with pre-set pipe channels set 100mm, and 150mm centres and comprise of 3 different panel options; Aqualay Master Panel, Aqualay Universal Panel and Aqualay Multiflow Panel.

For more information visit www.pcsboard.com

The diagram illustrates the cross-section of the Aqualay system. It shows a grey Aqualay panel with red expansion strips. Below the panel is a layer of XPS insulation, followed by a cement adhesive bed, and then a cementitious fibre mesh reinforced face. A heat transfer core is also shown within the panel structure.

Bushboard Nuance Collection: Casablanca Classic

Bushboard's Nuance collection of luxury wall panels offer high design, excellent performance and easy maintenance; perfect for making a statement in any bathroom.

With wall panels becoming the go-to favourite over tiles in recent years, Nuance brings fresh new designs in Designer and Acrylic collections including weathered timbers and luxury stones, all designed to create a high-end look with less mess and less cost than tiling.

Moroccan in style, Bushboard's Casablanca Classic panel adds colour and character effortlessly to any shower area. Inspired by on trend Moroccan motifs, bathroom owners can achieve a warm, individualistic space with geometric prints and rich colour palettes. Pair with warm lighting and patterned towels to create a complete Moroccan escape which is sophisticated and ornate.

Also available in Vintage Grey for a subtle look and Casablanca Grey for a darker tone.

Pictured is the Nuance Casablanca Classic, 1220 x 2440 x 4mm, RRP £523.84.

www.Bushboard.co.uk



Wall hung WCs made easy with striking glass casing Vitrus

VitrA has pioneered easy, fuss free installation for wall hung sanitaryware with its extensive range of in wall frames and has now taken another step forward with the introduction of Vitrus, an elegant glass casing-control panel combination that means wall hung, or back to wall WC's can be retro fitted and new installations can be made without the need for a false wall.

Available in all VitrA collections, Vitrus comprises an in-wall-frame and cistern within a slimline glass case that seamlessly combines a modern dual-flush plate. The pan is attached to the casing which can be fixed to most types of wall. Available in either opaque white or opaque black, shatterproof glass, Vitrus has been designed with a large cover opening so that the cistern is easily accessible for maintenance.

"Vitrus solves a lot of installation problems, not just for those who want to upgrade to a wall hung WC or shower WC but also in new installations," says Marketing Manager Margaret Talbot. "Either black or white glass makes a striking stand-out addition to all bathroom settings; it works well with white or black sanitaryware and the fitting can be used with a selection of our wall-hung pans."

www.VitrA.co.uk



Deanestor wins £1.3m fit out contract



Deanestor has been awarded a £1.3m contract by Laing O'Rourke for the manufacture, supply and installation of furniture and fittings for the new £350m Grange University Hospital in South East Wales. Deanestor will manufacture

around 3,000 items of furniture for this 55,000m² hospital, including laboratory furniture, shelving, base and wall cabinets in compliance with all relevant HTMs. Its team will procure and fit more than 22,000 products for around 1,450 rooms – from mirrors and medi rails to drug cabinets and specialist catheter storage units.

www.deanestor.co.uk/healthcare

New tile mosaic range rolled out



Designers and developers, as well as specialist bathroom and wetroom contractors all stand to benefit from the introduction of the new Slicedstone mosaics range on a roll, launched by **Marmox (UK) Ltd.** The palette of colours available under the Slicedstone brand extends from Copper, Bronze, Beige and Graphite to Autumn Leaf, Mars Stone and Sea Stone. There are also three mosaic mixes: comprising Beige Stone, Copper Stone and Slate – Lava Stone and Lauze – then Slate, Lava Stone and Sea Stone. The laser cut 25 x 25mm or 50 x 50mm tiles provide a crisp and regular finish offering stunning visual impact.

01634 835290 www.marmox.co.uk

Render finish based on Magply performance



The Port of Chatham faces regular assault by storms, prompting the designers for an apartment development on an elevated site to specify a weather resistant render finish to the elevations, applied across **Magply** boards. For the upper storeys, the 12mm **Magply** boards are secured across the timber framework infilling the main structure, while concrete blockwork features right around the ground level podium. This will have timber battens secured to it to create a cavity behind the **Magply** boards, ready to carry the render treatment. **Magply** boards carry a variety of internationally recognised accreditations.

01621 776252 www.magply.co.uk

Magply boards offer safe support



A development of five stylish townhouses in East Sussex, three of which feature the traditional finish of slate hanging, fixed across **Magply** boards with horizontal battens, providing a substrate offering excellent weathering and fire resistance, as well as a secure fix. Pivotal to the specification was the need to create a wall zone which can resist the passage of fire from outside the structure. This is a role to which **Magply** is ideally suited: frequently being specified for flat developments and buildings in very close proximity to neighbouring properties.

01621 776252 www.magply.co.uk

Green-tech adds a touch of green to Edinburgh's McEwan Hall

Bristo Square sits on part of the estate of The University of Edinburgh, nestled against the southerly edge of Edinburgh's old town.

Officially opened in 1983, and bordered by the famous McEwan Hall, Reid Concert Hall and the Teviot Building; Bristo Square soon established itself as a communal place where all aspects of Edinburgh society could meet, making it amongst other things, an epicentre for the Edinburgh street skating scene.

In 2015 a £33m redevelopment project was undertaken to include a major refurbishment and expansion of McEwan Hall and to the front of Bristo Square, with the external works and landscaping to make it more accessible and safer, designed by Landscape Architects Ironside Farrar Ltd.

In 2017 a completely new outdoor festival arena was unveiled, in keeping with Edinburgh's reputation as a festival city. Bristo Square is now a customary location for sections of the Edinburgh International Fringe Festival. As part of the design, artist Susan Collis was commissioned to create a meandering sculpture of bronze drips running 68m across the square.

Works in Bristo Square included tree planting, creation of more social spaces and improved accessibility. It was designed to give a light, open space, with tiered seating steps around the central events area. Bordering this paved pedestrian area are ten semi-mature trees set in hard landscaping. These trees help to soften the cityscape and provide much needed shade during the summer months.

In order to protect the tree pit soil from compaction, Landscape Architect Ironside Farrar specified Green-tech's ArborRaft tree planting system which is widely used across the country in urban tree planting projects. The ArborRaft System combines nutrient-rich ArborRaft soil with exceptionally strong geocellular units. Together they create a healthy growing space for trees in areas subject to vehicle loadings and trafficking. Individual ArborRaft units are locked together to form a raft system that sits within the tree pit. The system works by spreading the load of any vehicle movements around the tree's rooting area which eliminates soil compaction within the pit and helps to create the ideal growing environment for the trees to establish and mature.



In conjunction with Landscaping and Forestry Contractors M W Groundworks, Green-tech supplied over 200 tonnes of Green-tree ArborRaft topsoil and subsoil. Both of these manufactured soils meet British Standards and are regularly tested to ensure quality of composition and consistency across deliveries.

Green-tech also supplied the gt Sleeper and Kerbstone tree anchoring systems, along with gt RootBarrier and Mona Relief tree irrigation pipes.

The gtSleeper and Kerbstone Anchoring system utilises heavy objects such as sleepers and kerbstones to weigh down the tree and act as anchor points. Well compacted subsoil

is then placed over the sleepers and kerbstones to provide added weight and security for the tree. This is a well tried and tested system that has been incorporated into many rail, utilities and urban projects throughout the UK.

gt RootBarrier was supplied to control and protect the tree roots, as well as protecting structures from the root system. This helps the tree to establish quickly and keep it healthy, especially in the first five years of life.

Lack of water at the tree's root ball can be detrimental to the lifespan and survival of the tree so the Green-tech Mona Relief irrigation system was supplied. Installed with a perforated pipe that surrounds the tree's root ball, the Mona Relief system delivers water straight to the tree roots at a consistent level.

Each tree pit was given a contemporary finish with the inclusion of Green-tech's Fortress tree grilles installed into the surrounding paved surface. These heavy-duty urban grilles enable paving to be laid almost up to the tree trunk, protecting the tree roots, whilst at the same time, allowing rainwater to percolate through. The Mona irrigation pipes are finished off with the aluminium Piazza filler cap, to match the Fortress grilles.

The Outcome

A couple of years' on and the latest visit to McEwan Hall showed that the tree pits are doing their job well, and the trees are thriving.

Ian Dooner – Ironside Farrar, Associate Project Manager commented, "It is always good to work on a project that seamlessly links historic buildings to the client's needs of today. The ArborRaft tree planting system from Green-tech does the job perfectly, allowing more rooting volume for the tree; and we were very pleased how the Fortress grilles blended in with the surrounding paving."

Mark Browne – Green-tech, Key Account Manager added, "This was a great project demonstrating the perfect tree pits. From the Green-tree ArboRaft soil, giving the trees the best chance of establishment, strong geocellular ArborRaft units, Mona irrigation, anchors and grilles; all coming together to form one simple yet stylish solution."

01423 332100 www.green-tech.co.uk

Houses of Parliament perfectly protected thanks to Newton Waterproofing

One of London's oldest and most historic buildings has been given the very best protection by Newton Waterproofing.

The leading independent supplier of structural waterproofing systems, which celebrated 170 years in the industry last year, provided the perfect waterproofing solution for the Houses of Parliament.

In fact, Newton's 170-year history, which is older than the current Palace of Westminster structure, is tied in with the Houses of Parliament, having provided materials and contractors on both damp proofing and waterproofing projects on the building on several occasions in its history.

When the original John Newton set up the company in 1848, one of his first major projects was supplying the plasterers' hair for the Palace of Westminster, which was still being rebuilt after burning down in 1934.

For the most recent project, Newton's Specialist Basement Contractor MacLennan Waterproofing was approached to specify a guaranteed waterproofing solution for the prestigious London landmark's new basement.

MacLennan decided to bring the job to Newton as the project required the design



and installation of an external waterproofing system, an internal cavity drain system and a polyurea roofing system – and Newton's product range was perfectly suited to the project requirements.

Externally, Newton's innovative 'Type A' 403 HydroBond membrane was applied extensively to ensure the necessary waterproofing around the basement.

Internally, Newton 508 and 520 membranes were both applied floor-to-ceiling as part of Newton's complete System 500 cavity drainage solution.

With the finished solution in place, the waterproofing was completed by the application of both a polyurea coating and further drainage membrane to the roof deck of the basement.

The result is a waterproof basement fully compliant with the requirements of BS 8102:2009, coupled with guaranteed protection against water ingress.

Newton Waterproofing's MD Warren Muschialli explained: "With many historic and listed buildings not benefiting from modern forms of protection, they are often subject to the detrimental effects of damp which must be treated with products that meet with the stringent Listed Building Requirements.

"For historic and listed buildings, cavity drainage systems are ideally suited for this application. When installed by qualified contractors, the systems depressurise and collect water that enters the structure, before removing it safely.

"Internal finishes are isolated from the water, leaving a dry and habitable space for the occupier even in the most demanding situations."

The Houses of Parliament is yet another project that shows the utilisation of multiple Newton Systems to great effect.

And Warren added: "We have a rich history with the Palace of Westminster and both Newton and MacLennan were privileged to be the companies chosen to share in securing its future."



01732 360 095
info@newtonwaterproofing.co.uk

Green-tech helps enhance biodiversity at Tottle Brook Watercourse in Nottingham



Tottle Brook is a small watercourse which flows in a south west to north east direction in Highfields Park, Nottingham. The project's goals were to enhance the biodiversity value of the Brook by creating a new wetland habitat and improve the form (shape) of the watercourse.

Nottingham City Council commissioned Dobson UK, a leading provider of landscaping, grounds maintenance and amenity weed control services to undertake the work.

Funded by a £50,000 grant from the European Regional Development Fund and Nottingham City Council, the aims were to make improvements to Tottle Brook which would create an enhanced environment for wildlife, improve biodiversity and create new habitats to attract new wildlife to the area.

Dobson UK turned to Green-tech for advice and supply of 120 metres of gt Coir pre-established Log Rolls to act as an additional flow director to the Brushwood Faggots and Gravel Beaches they also installed.

gt Coir Log Rolls help reduce and control erosion along water course edges, such as rivers and lakes. A cost-effective solution, the gt coir logs provide a barrier to be built up against in the water environments and allow

for vegetation, grasses or stone to fill in the river or lake bank that is eroding away. These were supplied pre-established with UK native species but can be supplied unplanted.

In addition, Green-tech supplied a large number of Biodegradable Sediment Entrapment Mats known as RiverMat. RiverMats are suitable for use in natural and artificial channels; they are secured to the bed of the water course and placed downstream of the disturbed area. They lie flat and trap sediment borne along the bed on the current. The effect of disturbing sediment can have a harmful effect on wildlife and plant habitats, smothering vegetation, insects and fish. It can also block drains, culverts and headwalls, and reduce the depth of pools. Sediment build up against structures can also be detrimental to the integrity of bridge and dock piers. Being flat, the RiverMat does not cause disruption of the water flow or affect the current but does effectively control the Downstream Sedimentation which is a common problem when civil engineering works for drainage, flood alleviation or other work on the watercourse is carried out.

Green-tech also supplied tree planting sundries and 14kg John Chambers Wildflower Seed for wet and damp soils which will cover an area of approximately 3000sqm.

John Chambers Heritage Wet and Damp Soils Wildflower Mix is from the Heritage Range. Renowned for the quality of its seed, the Heritage range retains the original recipes created by the business founder John Chambers. All seed supplied is of optimum quality, will provide exceptional germination and is cleaned by hand to ensure that only pure and uncontaminated seed arrives at a project. Every Heritage mix supplied is available with a certificate of authenticity, listing the species, origin and recipe for the mixture.

The main work at Tottle Brook was completed at the end of December 2019 with follow-up landscaping work scheduled in 2020.

Lauren Dobson, Business Development Manager for Dobson UK comments; "With access being an issue on this project, especially with the added difficulty of the extremely wet weather, Green-tech worked with us to overcome this. We were very happy, as always, with the quality of product and the service provided. Towards the end of the project we spotted a Little Egret which had not been seen in the area for a long time so we're delighted that the project is proving fruitful already."

01423 332100 www.green-tech.co.uk

Understanding the Dynamics of Fast-Track Construction

The adoption of offsite construction involves upfront capital costs – this is often where comparisons are made between factory-based and traditional building methods. If evaluated in isolation the traditional approach could appear a cheaper option, without taking into consideration the numerous cost saving advantages of factory-based methods. Steve Thompson, Managing Director for EOS discusses why fast-track construction is beneficial for developers.

Construction clients may not fully understand the dynamics of fast-track construction. Part of our role as a specialist steel framing manufacturer, is to help them get to grips with the cost model and determine where savings can be made without compromising on quality.

As a major project delivery strategy, factory-based construction methods reduce construction time, delivering an earlier return on investment. Offsite manufacture for onsite assembly provides a clear schedule for high outputs, with stringent systems to track schedules, milestones and enable the smooth collaboration between contractors and clients.

From less material waste onsite with vast reductions in associated disposal costs, to improved quality with less investment in snagging, reworking and delays – comparing cost models is complex. The greatest gain of fast-track construction is shorter construction times with reduced prelims and site management costs – bringing houses rapidly on-stream. The main benefit of these shorter schedules is improved cash flow. By generating faster rent or sales income, construction financing costs are reduced - delivering a better and faster return on investment.

Working in full compliance with all relevant building standards, including the new Building Regulations relating to residential builds over



18m – EOS manufacture robust steel frame panelised systems and volumetric modules for non-loadbearing and loadbearing applications. We deliver a consistently high quality of finish with fewer defects than traditional building methods as a result of our advanced lean manufacturing processes in a BSI compliant facility.

The future of design and construction is all about finding efficiencies – building faster, more cost effectively and delivering a better-quality product. Offsite manufactured non-combustible steel systems are considered one of the most efficient fast-track residential construction solutions.

SYSTEM APPROACH

Our latest product development, the revolutionary Thrubuild® range uses offsite manufacture

and the latest testing to deliver structures faster, with assured performance built in. Developed in collaboration with Etex brands – EOS, Siniat, and Promat – our Thrubuild® systems have been established as an integrated solution using the award-winning EOS range of light steel framing, Siniat Weather Defence external sheathing board, and Siniat Frameboard, an internal plasterboard. Comprehensively tested, the range of Thrubuild® systems meet building performance requirements for fire, thermal, weathering, acoustics and airtightness. Delivering an 'all in one' solution, Thrubuild® systems provide crucial time and cost benefits and are performance guaranteed for 30 years – ensuring peace of mind for clients, contractors and designers.

There is an imperative to improve industry productivity, with increasing requirements to design and construct in a more detailed manner and at a rapid pace. There is a massive opportunity to deliver the built environment differently. Offsite system manufacturers are operating in exciting times and there has never been a better time to capitalise on the raft of benefits that factory-based offsite technologies can deliver.

EOS PRODUCTS AND SERVICES

With a comprehensive spectrum of products and services, including the ground-breaking Thrubuild® systems, a fully tested load-bearing light steel solution, underpinned by a substantial investment in state-of-the-art technology. EOS has the capability and capacity to meet the exacting demands of the construction industry. For more details on products and services visit: www.eosframing.co.uk

01325 303030

www.eosframing.co.uk



Eurobrick make an impression on Borough High Street

Brick slip cladding specialists Eurobrick have been busy in South East London recently, with their approved installers working on two redevelopment projects on the same road, the busy Borough High Street.

At 218-220 Borough High Street, ML Brickwork (Southern) carried out refurbishment of the facade of a mid terraced 5-storey building that included both commercial and residential space. Eurobrick supplied 95m² of their 50mm thick X-Clad system, with EBS Sanded Red Stock slips and corners from their Classic Range and Zena White slips and corners, which were installed to the upper floors. The design of this project illustrates the versatility of X-Clad as brick slips were built out on different planes and areas of soldier courses to add depth to the facade. The 50mm thick X-Clad also helps to improve the thermal performance of the building.

Just along the road at 280 Borough High Street, LB&F Ltd installed 1190m² of Eurobrick's P-Clad system, along with specially sourced Pagus Grey and Con Mosso brick slips and corners. Eurobrick's specialist mortar Europoint in light grey and charcoal was used to create the final finish to this mixed-use new build development. The project occupies a prominent corner position where existing buildings were demolished to make way for the new 5-7 storey building that also includes commercial and residential space.

The different aesthetic styles achieved in these projects demonstrate the flexibility of Eurobrick's systems.

To find out more about Eurobrick and their products and systems go to the Eurobrick website.

01179 717 117
www.eurobrick.co.uk



280 Borough High Street

A facade with an eye-catching cloud and sky motif made from perforated sheets

When designing their new headquarters, the Sun-Air Aviation Group wanted an innovative building constructed from sustainable materials.

Using RMIG ImagePerf, the facade depicts a cloud formation – a very appropriate motif for an airline office which also happens to

be located on Cumulusvej. The perforated sheets manufactured and supplied by RMIG, provide shade during the summer and diffuse, glare-free light during the winter months.

For further information or if you are interested in booking our CPD presentation 'Perforation in Architecture' or require further information, please contact wgw@rmig.com.

01925 839610 www.city-emotion.com



TECHNICAL CHARACTERISTICS

Raw material:

Aluminium EN 5754

Pattern: RMIG ImagePerf

Thickness: 4.0 mm

Surface treatment:

Powder coating RAL 9060



Comar launch ECO LT window & door systems

Comar profiles have thicker walls providing extra strength and durability for the British market, ensuring that Comar performs. Designed specifically for the British Market and offering a truly British engineered solution.

Comar ECO LT sightlines have been minimised whilst not sacrificing product performance.

With low U-values, energy ratings of A++ and Document Q compliance with Secured by Design status this is a feature rich system which guarantees a quality installation.

Comar ECO LT is a lightweight version of the ECO range, but the aluminium profiles wall thickness has not been sacrificed, ensuring guaranteed long-term performance. Due to Comar's robust British design the size and weight limitations surpass the competition on a size by size basis.

5P.i ECO LT - Aluminium Window System

Comar 5P.i ECO LT Aluminium Casement Window System has both internally and externally glazed options. With the resurgence of slim aluminium high security externally

beaded with sloped beads minimises the sight lines and maximises daylight. The square chamfered profiles are a distinctive feature of this system, keeping the square look of a truly aluminium solution.

For Ovolo feature the ECO range seamlessly suites in: No matter the situation Comar 5P.i ECO LT delivers.

7P.i ECO LT - Aluminium Door System

Comar 7P.i ECO LT Aluminium Door System has both inward and outward opening options in single or double door combinations. There are two thresholds available high weather performance and low-rise for seamless balcony terrace integration. Comar 7P.i ECO LT door has been designed to provide high performance solutions for today's specification demands. Utilising Comar's trademark P.i. (Polyamide Insulation) thermal break technology, it delivers superior thermal performance with an aesthetic edge.

Aesthetics come from its slim 55mm profiles, seamlessly integrating with the Comar 5P.i ECO LT casement window system. Comar



7P.i ECO LT has been tested to BS 6375 which ensures the door performs well against the rigours of the British weather, reducing draughts and providing excellent weather proofing.

Security concerns are alleviated with the Comar 7P.i ECO LT door exceeding the requirements of PAS 24:2016.

For further information, please email projects@parksidegroup.co.uk

020 8685 9685 www.comar-alu.co.uk

Latest Wembley success for the Schöck Isokorb

The massive Wembley Park regeneration project continues apace. And one of the latest completions is The Alameda. It comprises 10-storey and 15-storey, blocks providing 340 new residential apartments with cafes and restaurants planned at ground level. The slide-on balconies are a striking feature, but critical to their structural and long-term insulation performance is the incorporation of Schöck Isokorb structural break units. Early involvement was necessary to ensure that the connectors were accurately cast into the building during the mainframe construction phase. A stub bracket was attached to the Isokorb units and the balcony cantilever support arm attached. The fully pre-assembled balcony chassis was then slid on to the cantilever arm and locked in position.

THERMAL BRIDGING IS A CRITICAL ISSUE

If there is ineffective insulation at the connection points, there will be local heat loss, resulting in more energy being required to maintain the internal temperature of the building. This is a major consequence of thermal bridging, but there are other issues. Low internal surface temperatures around the thermal bridge can cause condensation, leading



not only to structural integrity problems with absorbent materials, but also mould growth. This can have serious health implications for residents in the form of asthma and allergies.

As the leading international supplier of structural thermal breaks, Schöck has almost limitless variants available in its main Isokorb range, offering planners complete construction dependability and enormous freedom of design. All products meet full compliance with

the relevant UK building regulations; have NHBC approval; offer LABC Registration and independent BBA Certification.

For a free copy of the Schöck Thermal Bridging Guide; the Schöck Specifiers Guide or to view the range of downloadable software, contact Schöck on...

01865 290 890
www.schoeck.co.uk

An education in multitasking and innovation



The iconic 8,500 square metre former Herman Miller factory on the banks of the Kennet and Avon Canal in Bath has been transformed into a new School of Art and Design for Bath Spa University with the help of some innovative thinking by **Structura UK**. Structura UK worked closely with main contractors Willmott Dixon on the complete building envelope from the entrances and glazing through to repairs, refinishing and creating a complete new glass top floor. This is the country's oldest GRP building. In order to renew the classic GRP panels, Structura installed two spraying booths on site to remove the panels then sand, recoat, respray and replace. The ability to set up dynamic on-site spraying booths complete with extraction venting saved time and money as well as minimising the risk of transporting and damage to these aged panels. The glazing throughout the building was also replaced by Structura. The result is a stunning series of spaces which are visually connected but also allow for privacy. The clean sharp steel and concrete interior is complemented by the flowing panels on the exterior while the new roof top extension is set back from edge of the building to avoid being obtrusive.

www.structura-uk.com

Neaco launches new plank systems



Neaco has launched two aluminium plank systems which are made-to-measure for fast supply and installation, outstanding performance and full compliance with Building Regulations. Neatlok and Neatwalk are designed to replicate the aesthetic of timber decking with the option of durable coating in any RAL colour or one of Neaco's standard finishes. Neatlok is a closed, interlocking plank

providing privacy and directional drainage. Neatwalk planks are laid with 5mm gaps for a free-draining solution. Providing an A1 or A2 Fire Rating, the systems are ideal for new build and refurbishment projects which are required by law to use non-combustible materials on balconies.

www.neaco.co.uk

Senior's fenestration systems make a stand



Complementary and high-performance aluminium fenestration solutions from **Senior Architectural Systems** have helped create harmony at The Strand Hub, a new award-winning mixed-used scheme in Rochdale. The glazing package includes Senior's SF52 aluminium curtain wall system and

SPW501 aluminium commercial doors, which were fabricated and installed by supply-chain partner Aire Valley Architectural Aluminium. Ideally suited to high-traffic applications, Senior's robust SPW501 aluminium commercial doors provide safe and secure access to the retail and community buildings, with the slim sightlines afforded by Senior's popular SF52 aluminium curtain wall system helping to maximise the use of daylighting.

www.seniorarchitecturalsystems.co.uk

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