The Building Envelope Authority

Metal Matters

Issue 8: Summer 2013

All change at Stoke bus station

Kalzip's aluminium standing seam system was specified for the impressive new Stoke-on-Trent City Centre Bus Station by architect, Grimshaw. VINCI Construction UK was the main contractor and experienced Teamkal contractor, Lakesmere Ltd installed the Kalzip roofing system which included all the revolutionary double curvature XT profiled sheets and a bespoke Kalzip rainscreen specially designed for use on the bus drivers' accommodation block.

Located near the heart of the city, the new bus station with its 22 departure bays makes extremely efficient use of its site for the movement of buses and people. The main building is elliptical on plan with a complex outer facing roof canopy that sweeps and curves both on plan and in elevation - this is where the double curvature Kalzip XT profiled sheets are installed.

An additional element of complexity was accommodated in the roof's design as the Kalzip XT sheets were required to have non-planar seams for practical and aesthetic purposes. This aspect is particularly apparent where the wave-like eaves of the canopy rise and fall to indicate the location of entrances and passenger facilities. A shadow gap has been cleverly employed at ridge level where the double curved roof butts up to the mono pitched inner facing canopy which comprises a combination of straight and tapered Kalzip sheets.

Richard Blackwell, Associate at Grimshaw in charge of the Stoke-on-Trent City Centre Bus Station project said, "We held a number of preliminary design meetings with Kalzip and Lakesmere which led to the development of a 3D surface model. Kalzip proved to us at an early stage that their system was able to accommodate the complex geometry required to achieve the smooth, double curvature roof desired for this landmark building."

The flexibility of Kalzip XT profiled sheets combined with the company's extensive design experience and state-of-the-art roll-forming technology makes it possible to produce technically perfect, free-flowing, weathertight envelopes using a standing seam system - thereby enabling complex computer generated 3D designs to be transformed into building reality as exemplified by this iconic structure.

As well as supplying over 3,300 square metres of Kalzip standing seam roofing complete with all the liner and decking sheets used on the project, the company's Fabrications Department designed and manufactured the bespoke Kalzip rainscreen used to clad the existing drivers' accommodation block. This bespoke rainscreen cladding was specially devised to maintain aesthetic continuity throughout the project, visually linking the refurbished old block in with the appearance of the new bus station.

Kalzip's Fabrications Department also manufactured a range of complex bespoke items produced from order details that were supplied in three dimensional CAD form. These complex fabricated items included facetted flashings to the eaves, tapered closures for the shadow gap detail at the ridge, facetted fascia soffits and the bonded panels that sit between the fascia soffits and the bus station's vertical glazing and walls.

Energy saving at Morrisons

High durability, long life performance and thermal insulation were central to the specification of 10,000 square metres of Brett Martin Daylight Systems' Energysaver composite panel rooflights which have been installed in the Morrisons Regional Distribution Centre (RDC), near Bridgwater in Somerset.

As the UK's fourth largest supermarket retailer with over 500 stores, Morrisons is continuing to expand across the whole of England, Scotland and Wales with a particular emphasis on London and the South of England. To cope with the expansion the 800,000 square feet RDC has been built to serve 63 stores across the region with more stores planned in the next three years.

The £95 million RDC is an exemplar of low carbon, sustainable design. The Energysavers, installed in the bulk warehouse and other spaces and equating to 12 per cent roof area, introduce natural daylight into the facility and reduce the need for artificial lighting. The standard Energysaver factory assembled rooflight has a patented thermal membrane and has a U-value of 1.9kW/m2K with options as low as 0.9W/m2K, well-exceeding the Part L requirements.

Architects DLA Design took their inspiration for the RDC design concept from the iconic Willow Man, a 12 metre high figure consisting of willow woven over a steel frame and located near to the site on the M5. The brief was to create a landmark building which was in keeping with the surrounding landscape. An unusual 'willow weave' of green cladding panels have been installed to capture the spirit of Willow Man and keeps synergy with the surrounding landscape.

Working closely with the client the architect looked at the design through the whole life cycle of the building and the rooflights satisfied the project requirements - Energysaver's weather sheet, made from Trilite GRP, is supplied with 'Superlife' UV protection and offers a life expectancy in excess of 25 years.

A specification check list

The current economic climate makes it increasingly tempting to cut business costs. In an effort to achieve the cheapest price, less reputable cladding contractors will source materials and associated components from different manufacturers and then assemble them as a cladding system when it is nothing of the sort.

Unfortunately this results in a system that has no approved design, no U value calculation confirmation and no tested fire boundary rating. This raises serious issues for the structural integrity, thermal performance, fire performance and lifespan of the materials and has serious implications for the building owner; in the event of a problem there is no recourse from a sole manufacturer and there is no system warranty.

Below is a checklist of the factors that need to be considered to ensure a fully functioning building:

- Correct selection of coil or sheet
- Correct selection of fixings and fasteners
- Spacers
- Flashings
- Fire safety
- Thermal performance
- Acoustic performance

Every item of the roof or wall from the supporting steelwork to a seal can have a massive impact on the success of or failure of a project. Any one choice of a material type or component does not exist in isolation and has potentially far reaching implications on other aspects of the performance of the completed building envelope.

You can download the full article on correct specification at
http://www.mcrma.co.uk/articles/article_06.htm

New low carbon building leads the way

The new Energy Technologies Building (ETB) at Nottingham University's Innovation Park on the Jubilee Campus features an exceptional application of AshTech™ rainscreen cladding by Ash & Lacy Building Systems.

With a BREEAM 'Outstanding' rating, ETB is a new showcase low carbon building, leading the way towards meeting the Government's target for all new public buildings to be 'zero carbon' by 2018.

The building is dedicated to research, development and demonstration (RD&D) in sustainable energy technologies. It incorporates energy efficient materials and is designed to minimise its demands for heating, cooling, lighting and ventilation. It actually produces more energy than it requires, heating the neighbouring Institute of Mental Health Building.

The ETB comprises office, event and exhibition space to house staff, hold workshops and information events and showcase the building and its facilities. Equipped laboratory space enables a variety of energy RD&D activities. There is also a Prototyping Hall and an external compound for constructing and testing full scale prototypes of façades and building fabrics.

Approximately 1000 square metres of AshTech™ was specified on the building's two main elevations in the Freedom 1 configuration. Freedom 1 is a concealed-fix, baffle-jointed cassette rainscreen with a fully adjustable support system, primarily used for horizontal application on walls and for soffits.

Designed to fit in with the high tech building design and to appear to exude their own energy, the AshTech™ panels have been manufactured in Alucobond Spectra Sacura ACM finish. This provides a stunning two-tone iridescent effect that shows ever changing hues of pink and silver that constantly vary as the angle of view or illumination changes.

Ash & Lacy also supplied AshFab™ flashings, cill and window integration detailing and AshFix™ fixings to complete a precise, seamless and prestigious overall façade effect.

Because there is no plan B

Approximately 40 per cent of the UK's energy demand results from the heating of offices, factories and warehouse facilities, according to figures from the Department for Energy and Climate Change (DECC). With increasing pressure on businesses to become more energy efficient – financially and environmentally – effectively addressing this 'space heating' requirement through the use of renewable technologies, has become a priority.

To that end many companies are looking towards highly efficient, holistic heating solutions which incorporate established renewable technologies, as part of their sustainable building strategy.

When retail giant Marks & Spencer, was planning its newly opened distribution centre in Castle Donington, the company's Plan A initiative was the driving force in determining how the building would run with maximum efficiency.

The 80,000 square metre carbon-neutral facility which is set to become the UK's largest dedicated e-commerce warehouse – distributing two million clothing and home products a week direct to customers – features an enormous south facing elevation. This fact made it a prime candidate for the SolarWall®, Transpired Solar Collector (TSC) technology from building envelope specialist, CA Group Limited.

Designed for the specific purpose of heating large spaces, active solar technologies such as the Transpired Solar Collector (TSC) can transform the fabric of a building's southerly elevation into a giant solar collector by capturing the sun's energy which is then used to pre-heat fresh, outside air before it is drawn into the building's heating system, considerably reducing the building's reliance on fossil fuels.

The SolarWall® which CA Group has installed for Marks & Spencer in Castle Donington, is the largest example on a single building in the world. Measuring almost 4,500 square metres – the equivalent of more than 16 tennis courts – it is expected to reduce the building's heating requirement by somewhere in the region of 30 per cent by generating more than 1,135,000kWh and saving over 256 tonnes of CO_2 per annum.

Solar air heating is easy to install, 100 per cent renewable and has the effect of dramatically reducing a building's overall heating requirement, providing significant savings in energy consumption and carbon emissions.

In addition to the use of CA Group's TSC technology, a number of other sustainable measures were adopted in the delivery of the project for Marks & Spencer.

CA Group's Twin-Therm® built up roof and wall system was selected due to the fact that it provides a fully-walkable cost effective solution which offers a high degree of flexibility and exceptional air tightness levels. Twin-Therm® is delivered as a carbon neutral envelope and uses man-made mineral fibre insulation, which is non-flammable and complies with the United Nations Environmental Programme (UNEP) environmental recommendations against the use of CFCs, HFCs, HCFCs or VOCs.

The exterior of the building features pre-finished steel, which has been optimised to provide maximum corrosion resistance and comes with a 25-year guarantee.

Adopting a long-term view enabled the project team to ensure that the benefits would continue to resonate even after the building reaches the end of its useful life, through the use of materials which do not deliver any unforeseen disposal costs for the owner – a significant problem facing many building owners today.

The new distribution centre has been rated Excellent by BREEAM and recognised with an EPC A certification.

Every day savings

The ASDA philosophy 'saving you money every day' was equally applied by SpeedDeck Building Systems when it came to supplying the roof to the new ASDA store in Worthing, west Sussex.

SpeedDeck was able to supply ASDA with an exceptional roofing system thanks to a choice of three quality standing seam profiles enabling ASDA to drive down costs and save money. Information on the profiles was supplied together with the latest data regarding potential labour savings which resulted in SpeedDeck® aluminium standing seam profile being chosen as the ideal system for this project over the originally specified SpeedZip® 'Zip Up' standing seam profile. The SpeedDeck® and SpeedZip® profiles are both BBA approved and the client had access to all the relevant up to date benefits and information to enable the best system decision based on the project brief and building size and shape.

Progressive Systems Limited was appointed the roofing contractor to install the roofing system, and commented that the SpeedDeck secret-fix system was 30 per cent quicker to install than the standard 'zip-up' system due to less components in all the perimeter details, no requirement for zipping up of the roof sheet, and the systems simple installation procedure. Over 11,000 square metres of aluminium SpeedDeck® standing seam top sheet were installed in less than three weeks meeting the client's budget and programme whilst also minimising risk on site for the operatives.

Progressive Systems Limited welcomed SpeedDeck's wealth of experience from design through to prompt delivery of the roofing products to enable efficient installation and minimise deliveries to site. With over 40 years of supplying roofing systems into all sectors of the construction industry, SpeedDeck's knowledge in the construction of retail developments has driven down whole system roofing costs, and maximised installation efficiency, emphasising that just like ASDA, using SpeedDeck saves you money on every roof.

Tata Steel has factory extension boxed off

A new 40,000 square feet multi-million pound factory extension for cardboard box manufacturers Jaffabox Ltd in Bickenhill, Birmingham has enhanced the award winning company's manufacturing capabilities and increased warehousing capacity.

The project benefits from a complete building envelope solution by Tata Steel and features over 5,000 square metres of Trisomet® 333 System insulated roof panels and over 1,000 square metres of Trimapanel® System architectural wall panels, both in Colorcoat HPS200 Ultra® in Goosewing Grey.

Jaffabox Ltd is recognised within the packaging industry as being a progressive, forward thinking company with one of the most modern box manufacturing plants in the country. At the end of 2012, Jaffabox was awarded the very prestigious title of 'SME packaging company of the year' at the annual UK Packaging Awards.

Jaffabox's origins go back to 1946, when Louis Jaffa began selling boxes as a private trader. The current owners bought the business in 1978. Since then the company has continually expanded and, at the turn of the Millennium, moved to its present site at Bickenhill, Birmingham, on a five-acre green field site adjacent to Birmingham International Airport and the National Exhibition Centre.

Last year the company made a significant investment with the new building extension to its plant, including the installation of a fully automated printed die-cut production line. This investment further enhanced the company's manufacturing capabilities and increased warehousing capacity in order to expand the 'just in time' stockholding facilities offered to customers.

Building envelope installer Multi-Fab Construction Ltd also acted as main contractor and was also responsible for structural steelwork on the project.

Featuring a straightforward side-lapping detail, the Trisomet® 333 System affords faster installation and a broad-pan trapezoidal pre-finished steel external profile, providing optimised water drainage, strength and walkability.

Its autohesively-bonded polyisocyanurate (PIR) insulation uses the latest foam technology, providing exceptional thermal performance from a relatively shallow foam core, enhanced environmental benefits, together with fire performance approved by the Loss Prevention Certification Board (LPCB).

Trimapanel® System achieves the very highest levels of flatness, thermal and environmental performance, airtightness and structural capabilities. Entirely manufactured in the UK using Colorcoat® pre-finished steel, Trimapanel® System provides the ultimate package of durability, fire performance, superior aesthetics, design flexibility and outstanding environmental credentials.

Trimapanel® System comprises a pre-finished steel liner profile, a Zero-ODP polyisocyanurate (PIR) insulation core and a micro-rib Colorcoat® pre-finished steel external weathering profile.

Made in the UK to ISO 14001, for a lower carbon footprint, Colorcoat HPS200 Ultra® is the most durable pre-finished steel on the market. It incorporates advanced coating technology, providing superior corrosion resistance, especially in challenging environments, with excellent colour and gloss retention and corrosion resistance.

Going solar with SFS intec

SFS intec's SOL-F anchor posts have been specified to secure 39,000 solar panels across ten IKEA UK stores, helping to significantly reduce its CO_2 consumption over the next 25 years.

IKEA worked with GS Solar UK Company Ltd which installed the solar panels to source high performance fastenings, capable of meeting the store's high wind exposure ratings. A total of 8,520 lightweight, thermally broken SOL-F anchor posts at 32mm in height, were mechanically fastened to the steel deck of the flat roof by Topek Southern Limited, over a nine month period.

James Cooney, Contracts Director at Topek Southern Ltd, commented on the installation: "The majority of the flat roof constructions were made up of a typical lightweight metal deck, vapour control layer (VCL), insulation board and single ply membranes, so it was clear that a sturdy fastening and mounting system was required to negate any unwanted stress to the roof, especially when under wind pressure.

"The high wind exposure rating of most stores meant that securing the system to the 1-2mm thick single ply membrane was not feasible as this would have transferred the wind load directly through the membrane layer, carrying huge risks. Due to the nature of the lightweight roof construction, ballasted systems were also ruled out.

"The specified SOL-F system from SFS intec was the ideal product for this type of installation. Taking us a speedy 15 minutes per post to fit, we were able to quickly core out the insulation layer without damaging the VCL layer to install the distance spacer, before fitting the upper clamping plate to make a weather tight seal.

"Given the high quantity of posts that we installed across each store, especially during some of the wettest recorded weather in recent years, it was testament to our team of installers and SFS intec's product that we were able to fit each one successfully and without delay or difficulty."

Do you know your guarantees from your warranties?

Roofing and cladding products for metal clad buildings have always been covered by a guarantee and over recent years the guarantee period has been extended to reflect the confidence shown in the product by the manufacturers through service and extensive R&D programmes. Increasingly popular, and more importantly for the industry is the introduction of complete system guarantees offered by the major manufacturers and suppliers. These system guarantees include liner, outer sheet, spacer, insulation, fasteners and many more of the associated components. The guarantee is offered as part of the contractual agreement between the manufacturer or supplier and the client.

MCRMA members issue written guarantees for their products or systems, which act in accordance with consumer law and these usually provide additional rights to the customer or client. However, to meet commercial targets the industry has seen an increase in the availability of 'third party' schemes, which in many cases are insurance-backed and therefore involve paying a premium. Many of these so called 'third party' guarantees include a number of caveats and experience has shown that some of these caveats may be difficult or impossible to comply with; they may be cost prohibitive or, in some cases, the small print excludes the product or system from being exposed to normal and perfectly acceptable service limits.

Clients and building owners should satisfy themselves that the policy document may include restrictions which fall outside of what is practical or achievable for their particular building and that some restrictions imposed within the wording of the documentation or accompanying paperwork may fall outside of what is regarded as clear and fair. As with all business obligations commercial schemes need careful consideration before commitment and clarity of wording should be checked to ensure the guarantee or warranty is based on the same criteria and provides the same backup in the event of unexpected failure.

The MCRMA and its member companies can provide advice about the various guarantees and warranties available from members and the industry but the onus is on the specifier, developer, client, customer or anyone else who may be involved in the acquisition of such a scheme to fully satisfy themselves that they are getting the product which meets their requirements. If in doubt about the caveats or small print contained within industry or company documentation then professional legal advice should be sought.

To find out more about the differences between guarantees and warranties visit the MCRMA web site where you can download the guidance document at **http://www.mcrma.co.uk/pdf/mcrma_guidance_document.pdf**


November 2012

Guidance document

MCRMA ADVICE ON INDUSTRY GUARANTEES AND WARRANTIES

A product or system Guarantee can generally be defined as a promise or assurance, especially one in writing, that the product is of specified quality, content, benefit, etc., or that it will perform satisfactorily for a given length of time. In many cases the guarantee will give a formal promise or assurance, usually in writing, that certain conditions will be fulfilled, especially that a product will be repaired or replaced if not of a specified quality and durability. The Guarantee is offered as part of the contractual agreement between the manufacturer or supplier and the client. The terms of the formal Guarantee usually make reference to a set of caveats generally referred to as small print.

A Guarantee should not be confused with a Warranty and to clarify the difference please make reference to the descriptions below:

Guarantee

- Guarantees are usually free and form a promise about an item by the manufacturer or supplier
- Guarantees promise to resolve any problems with a product or service within a specific, fixed period of time
- A Guarantee must explain how to make a claim in the event of a problem with the goods or service
- A Guarantee is legally binding, whether it has been paid for or not
- A Guarantee provides the customer or client with additional rights under consumer law
- A Guarantee will take effect whether or not you have a warranty

Warranty

- A Warranty is sometimes called an 'Extended Guarantee' and it acts like an insurance policy for which you must pay a premium
- A Warranty may last longer than a Guarantee and cover a wider range of issues
- A Warranty is a legal contract
- A Warranty does not reduce your rights under consumer law
- The terms within the contract of the Warranty should be clear and fair
- A Warranty can supplement a Guarantee and it can be in place at the same time

MCRMA member issue written Guarantees for their products or systems, which act in accordance with consumer law. In many cases the Guarantees offered provide additional rights to the customer or client.

The MCRMA wishes to highlight that some industry Guarantees and 'third party' Guarantees, Extended Guarantees or Warranties, which in many cases are insurance backed and therefore involve paying a premium, may include some or all of the following caveats:

Healthy outlook for new hospital

Euroclad has manufactured and supplied a huge range of bespoke fabricated walls and features for Bristol Southmead Hospital, a new state-of-the-art hospital with 800 beds. The hospital is being developed by Carillion plc to provide a new acute hospital under a PFI scheme for the North Bristol NHS Trust.

Unique solutions were developed in conjunction with the customer and architect to meet their requirements. Internal and external bullnoses and soffits were created, some curved and some straight; there were even bullnoses that were curved in two dimensions which is a specialist manufacturing process that is very difficult to get right.

Triple-pass performance louvres were manufactured with three rows of blades to battle the elements and prevent water ingress, with a dummy louvre cladding system also manufactured to match the performance louvres. The entire insulated construction for the dummy louvre cladding system was supplied, from liner sheet to spacer system and insulation.

In addition, cassette panels for the interior and exterior of the building were also manufactured, acting as a rainscreen system outside and a design feature inside. And there were numerous complex corner and interface details that had to be formed precisely in order to finish off the installation perfectly.

All of the products were bespoke manufactured from aluminium and polyester powder coated in silver metallic.

The new £430 million hospital is due to open to patients in spring 2014.

Mineral water plant comes on stream

Materials made by leading one-stop-shop building products manufacturer Steadmans has enabled a new 15,750 square feet production facility to be constructed at the Radnor Hills Mineral Water Company site in Knighton, Powys.

The new building now contains a bottling line for the diverse range of mineral water, flavoured spring water, juices, school-compliant soft drinks and private label products Radnor Hills produces. Construction work followed the demolition of a disused poultry shed, which previously stood on the site.

The new building comprises approximately 1,600 linear metres of slate blue AS35 80mm insulated roof panels and approximately 450 metres of AS35 60mm wall cladding from Steadmans, who also provided zed purlins and sleeves, flashings, side rail struts, struts, wire and a fire escape door.

Comprising two outer steel skins with an integral PIR insulation core, Steadmans' AS35 insulated panels are available in a wide range of colours and complement their broad variety of pre-engineered construction products, such as gutters, roof lights and doors.

AS35 panels are manufactured in a quality process certified to ISO 9001:2008, using non-ozone depleting technology. This provides designers with an environmentally-responsible product, with excellent thermal performance and a predicted service life of 40 years. Available in a range of thicknesses, the panels can be specified to achieve insulation U-values, aiding compliance with the latest L2 regulations. The panels are also Loss Prevention Certification Board approved.

Paul Jones, of Knighton-based JA Francis & Sons Ltd, who fabricated and erected the Radnor Hills project, said: "We're long-standing Steadmans customers and specified the company's products on this occasion because we knew we could rely on the high quality of its composite panels. We've dealt with Steadmans for several years and have also always found their customer service to be very good and their people extremely helpful."

Performance testing puts new products under the microscope

EJOT UK launched the new EJOFAST stitching fastener at Roofex, with a fanfare of performance advantages. So the phrase 'put your money etc.' is particularly appropriate when testing means your own product under the microscope. EJOT's Richard Bowhay explains the role of EJOT Applitec in such situations.

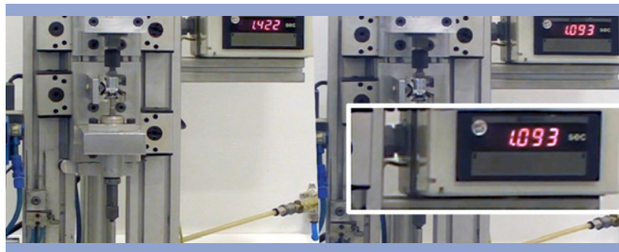
When the EJOT Group develops a new product, it is our Applitec centre's job to substantiate unique selling points – so procedures are far more critical than regular testing.

EJOFAST JF3 is a good example; a self-drilling, high grade A2 bi-metallic fastener developed for fixing thin sheets – perfect for the UK market as a stitcher of laps. By the time it came into our UK Applitec Centre, EJOFAST had already gained European Technical Approval 10/0200 – so its quality and suitability was verified.

It is the JF3's innovative pierce-point tip and double thread geometry that is key to its speed and strength. These performance advantages are clear to see but still need substantiation: EJOFAST's smoothness of installation is apparent from a visual perspective, and it leaves virtually no metal chipping swarf during operation. In practical terms, the first thing that the installer 'feels' is that the fastener goes where it is meant to go – no skating on the metal. Installation and pull up is equally precise and smooth. All of these properties can be attributed to the design of EJOFAST's thread and consequential drilling action, which combine to create a substantially improved joint. Applitec's task on this occasion was to determine a reasonable speed and strength comparison, which meant a programme of 'like for like' testing.

It seemed only right for JF3 to go head to head with EJOT's own JT3-2-6.3x25 fastener. Few would argue that the JT3 has earned a good reputation for being reliable and cost-effective over a long period of time. By subjecting both fasteners to multiple time tests at a drive speed of 1650 rpm with an end loading of 20kg, the results clearly showed EJOFAST to be on average 30 percent faster than the conventional JT3 stitcher – which in market terms equates to significant man-hours on any moderate to large metal roof installation.

JF3 provides a stronger, secure fix



Testing at the Applitec Centre

By displacing, rather than cutting, EJOFAST's thread creates no debris. Instead, displaced metal is forced forward - creating a tighter joint. Of course on site, the removal of swarf should mean simple 'good housekeeping'. In practice this creates more labour and can be 'overlooked' – hardly noticeable when a roof is freshly installed, but an eyesore when the elements have played their part and swarf has turned to rust.

Next, both fasteners were put through Applitec's extremely thorough machine-based procedures to assess drilling, tightening, stripping and pullout. Two 0.5mm metal sheets were used for Tensometer testing, and then the exercise was repeated using 0.7mm sheets. Results showed that the JF3 offered an improved pull-out resistance advantage of 30 percent over the JT3 stitcher.

The EJOT Applitec Centre has an unrivalled reputation for critical testing. So it stands to reason that we will challenge EJOT's own products with a more critical eye. In this instance the new EJOFAST stitcher got the unequivocal three yesses… faster, cleaner, stronger. Endorsed!

MCRMA presents architectural award

MCRMA presented the inaugural Clifford Dyer Memorial Award to a team of Year 4 students from the School of Architecture, the University of Liverpool at the Degree Show held in June.

The Award was presented to James Cook, Nathan Ireland and Tom Stoneham who were able to demonstrate the best response to the architectural and environmental needs of the building envelope using metal and showing how their chosen design concept could be translated into built form, i.e. show competency in structural, environmental, thermal, service distribution, material strategies and inhabited space.

The project required the students to design a housing development for an ageing population and the students were asked to critically engage with the chosen design with regard to questions addressing structural systems, construction materials/methods, building sustainability and human comfort.

The award winning design by James Cook, Nathan Ireland and Tom Stoneham

MCRMA established the Clifford Dyer Memorial Award to commemorate the life and work of Clifford Dyer who died last year. The award has been created in association with the School of Architecture at the University of Liverpool in recognition of Clifford Dyer's contribution to the metal cladding industry.

Taking a firm line on safety

The MCRMA has formed the Safety Lines Group, a new special interest group within the Association to address industry concerns that the specific requirements for safe work at height that is, access, inspection and maintenance, is still not fully understood in certain sectors of the market place. The group comprises Latchways plc, Capital Safety Group and Roodsafe Limited.

As roofing technologies continue to develop alongside new trends in the market for example, the current growth in use of renewable energy technology systems such as photovoltaic panels (PVs) means that it is essential for specifiers and contractors to understand specific requirements for access and maintenance. With falls from height still accounting for 14 per cent of major injuries sustained in 2011/12 (cf The Health and Safety Executive Statistics 2011/12) it is often too apparent that safe work at height is not always considered from the outset.

The Construction (Design and Management) Regulations CDM 2007 cover all construction work including maintenance of buildings which places direct responsibility on building owners, as well as designers. This requirement links to the 2005 Work at Height Regulations (WAHR) which applies to all work at height where there is any risk of a fall liable to cause injury. It places duties on employers, the self-employed and any person who controls the work of others, such as facilities managers or building owners.

Members of the Safety Lines Group take an active role in the Advisory Committee for Roofsafety (ACR) and support the aim to make working on roofs safer through involvement on the ACR committee and endorsement of the recommendations contained within the Magenta Book.

Members of the Safety Lines Group have more than 35 years of experience in fall protection and provide a wide range of safety solutions.

Siemens gets the retrofit treatment

The Siemens building after the full retrofit refurbishment project

This extraordinary transformation of the old Siemens factory in Lincoln was made possible through the specification of Architectural Profiles Limited's external cladding products and systems by architects John Roberts Architects of Lincoln.

Architectural Profiles provided the Tritherm™ CPS Rainscreen panels produced in Alucobond™ in 'Smoke silver 501' colouring. In addition, the company provided the Half Round profile cladding (AP50HR), which abuts the rainscreen, coated in light silver, RAL 9006, to fully complement the colour scheme.

This was a full retrofit refurbishment project which had to meet specific performance criteria in terms of energy efficiency, project budgets and projected building life expectancy. The Siemens building was shortlisted for this year's RICS Award for Design and Innovation, having already won the 2012 NFRC Award for 'Best Vertical Cladding' for installers KGM Roofing.

Architectural Profiles has a comprehensive portfolio of products and systems encompassing the complete building envelope including StrongBak™ structural wall framing system, Energi® cladding systems for roofs and walls, long-span roof decking, and a wealth of different metal profiles and louvres to meet every possible cladding requirement.

Siemens factory in Lincoln before the transformation

MCRMA membership

Full members

A Steadman & Son
Architectural Profiles Ltd
Ash & Lacy Building Systems Ltd
C A Building Products
Euroclad Ltd
Kalzip Ltd
SpeedDeck Building Systems Ltd
Tata Steel Building Systems

Associate members

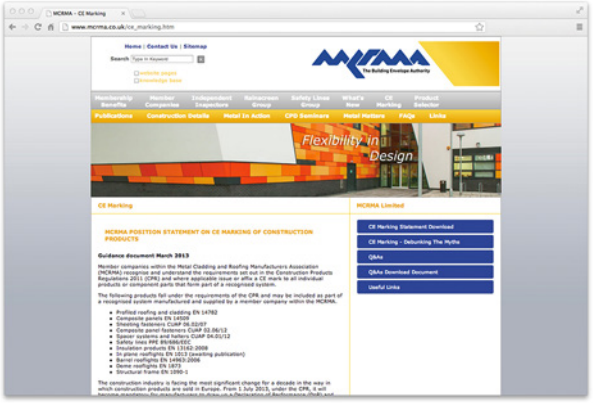
Brett Martin Daylight Systems Ltd
Capital Safety Group
EJOT UK Ltd
Filon Products Ltd
Fixing Point Ltd
Guttercrest Ltd
Hambleside Danelaw Ltd
HS Butyl Ltd
Knauf Insulation Ltd
Latchways plc
MR (Site Services) Ltd
Premier Sealant Systems Ltd
Rockwool Ltd
Roodsafe Ltd
SFS intec Ltd
Tata Steel

Independent consultants

A P Williamson Consultants Ltd
Barry Jackson Associates
Building Sciences Ltd
David Hicks Consultants
Keith Kendal Consultants
Michael Kilbey Associates Ltd
Roofconsult Ltd

Webwise

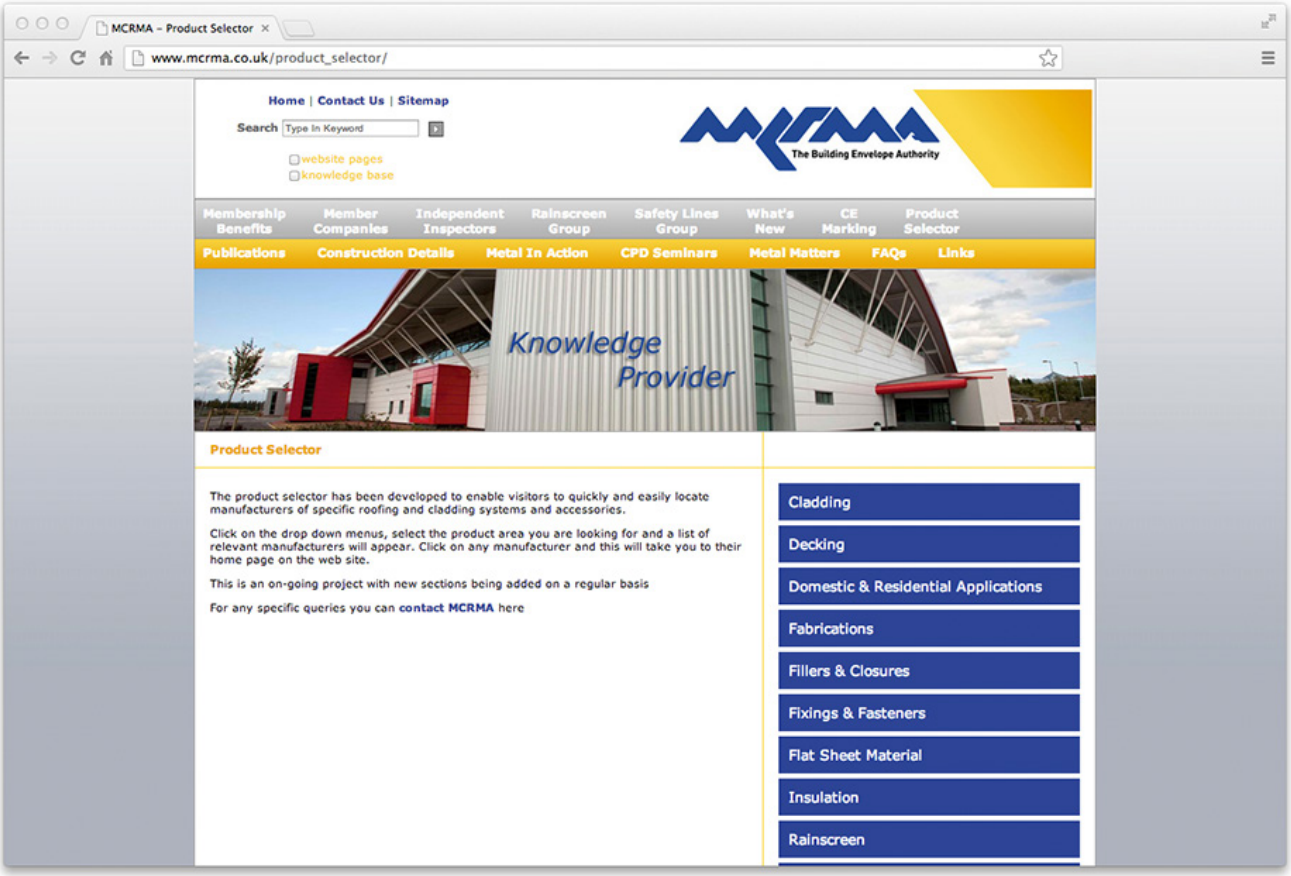
There is now a dedicated CE marking section on the web site which contains a CE Guidance Document, a CE marking article which separates the facts from the fiction to give you the definitive answer on CE marking. The site features an extensive list of Q&As which is also available as a download document. You can visit the CE marking section at **www.mcrma.co.uk/ce_marking.htm**



In addition, a product selector has been developed to enable visitors to quickly and easily locate manufacturers of specific roofing and cladding systems and accessories.

Click on the drop down menus, select the product area you are looking for and a list of relevant manufacturers will appear. Click on any manufacturer and this will take you to their home page on the web site. This is an on-going project with new sections being added all the time.

The product selector can be found at **www.mcrma.co.uk/product_selector/**



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The Building Envelope Authority