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New approval makes leading electrochlorination system ideally suited to facilities management applications

Gaffey Technical Services

One of the UK’s leading manufacturers of industrial and commercial water treatment solutions has announced that its electrochlorination system has been approved for use on UK public water supplies. Gaffey Technical Services, which is internationally recognised for its technical expertise and innovative product development, has revealed that its Hyprolyser® 280-2200 system is now approved under Regulation 31 of the Water Supply (Water Quality) Regulations 2000. This further acknowledges the quality of the Hyprolyser® system, and makes it an even more attractive proposition for the wide range of building and facilities management, water, and general processing applications where it has already found considerable success.

The Gaffey Hyprolyser® system has been widely proven in commercial and municipal waste-water, swimming pool and private drinking water supply applications. It uses market-leading technology to generate sodium hypochlorite by applying an electrical current to a water and salt solution. This eliminates the need for chlorine to be stored on site, and so offers a reliable, low-risk and environmentally-friendly solution for disinfecting water.

“This latest recognition marks a significant achievement and is another step forward in the progress we have been making with the Hyprolyser® product range,” comments technical director, Andrew Gaffey. “There are over 300 Hyprolyser® systems in use on major water treatment applications around the world. These include theme parks, wastewater treatment plants, industrial and food preparation processes, plus high-profile installations such as the Edinburgh Royal Commonwealth Pool, Center Parcs in Woburn Forest and the Logan Solar Water Treatment project in Queensland, Australia.

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High Court ruling means Govt should pay back 2.4 Billion to public sector workers immediately

GMB

Ministers should be ashamed of themselves taking money from people who keep our health service, councils and government running says GMB union

A high court ruling in a landmark pensions case means the Government should pay back an estimated 2.4 billion it owes to public sector workers immediately, says GMB Union.

The court today [1] denied the Government leave to appeal against an earlier ruling that pension reforms in 2015 discriminated against younger workers - known as the McCloud judgment. [2]

Ministers had been using the legal challenge as an excuse not to pay back an estimated £2.4 billion it owes to more than four million public sector workers for over charging their pension contributions.

Under a deal negotiated by unions including GMB on how to draw benefits due to the cost cap mechanism the £2 billion was going to be paid back to the workers by reducing their future pension contributions and/or improving benefits.

“The Government had paused paying back the pension contributions pending the aftermath of the McCloud judgement. Following today’s ruling GMB says they must not delay any further.

George Georgiou, GMB National Pensions Organiser, said:

“Ministers have been doing everything they can to avoid paying back an estimated £2.4 billion they owe dedicated public sector workers’ pension pots.

“They should be ashamed of themselves – they are taking money from the people who keep our health service, councils and government running.

“The Government should take today’s ruling as an opportunity to do the right thing and pay up what they owe.”

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Evolution sponsored JCW Mini, currently racing in this year's Mini Challenge, will feature on PlayStation game Gran Turismo Sport as part of a new update.

The new update will see the introduction of 11 new rounds added to the GT league mode, including the Mini Challenge event and a host of new features including the addition of the historic Goodwood Motor Circuit.

The Evolution branded Mini Challenge race car is currently being driven by 19-year old student Josh Stanton, who most recently competed in the third round of eight in this year's challenge at Silverstone.

Richard Lambert, Managing Director of Evolution, said: “Being part of the Mini Challenge is so exciting and we’re proud to be involved. Knowing that our car will now feature and be able to race on PlayStation is quite hard to believe!'
FM workers display higher levels of hygiene

New research suggests that FM workers are more likely than others to blame colleagues for spreading illness, and also tend to take cleaning into their own hands to maintain hygiene levels.

The report commissioned by London-based cleaning firm, Cleanology, looked into behaviour around illness and work, and attitudes towards workplace hygiene. Interestingly, it found that 80 per cent of FM workers believe sick colleagues are responsible for passing on germs, compared to just 66 per cent of employees in other sectors.

Graph (Right) showing percentage of things/places at work behind people becoming ill.

FM staff also appear to be more hygiene-conscious than their counterparts in other industries, with just over half being likely to carry sanitising spray at work – 16 per cent more than across wider industry.

The survey found that, compared with a year ago, almost two-thirds of workers feel under more pressure to go to work when they are ill, even though it impedes their productivity.

Dominic Ponniah, CEO at Cleanology said the research showed an interesting perspective on cleanliness and ways in which pressure to attend, even when, under the weather, has an impact on effective working. He said: “Our findings raise important questions about standard work practices and whether businesses would benefit from encouraging people to work from home. More than half of those surveyed had caught a cold from a colleague, while 62 agreed that they are not able to work to the best of their abilities when they are sick. Respondents felt guilty for coming to work coughing and sneezing, and 57 per cent of FMs felt that they were likely to make mistakes.

“While only a quarter of people blamed a dirty workplace for catching an illness, two out of five carry cleaning wipes. For us, as cleaners, this is a telling insight into the standard of cleaning in many workplaces. For employers and FMs, it must also raise questions about the link between cleanliness in the workplace and productivity.”

The survey was conducted by Sapio Research, which questioned 1,056 respondents. Of these, 51 were facilities managers.

Gender differences were highlighted, with one third of men taking sick days, compared with just under a quarter of women. Men are also more likely to work from home when they are sick. However, the odds are not all stacked in the favour of men – 25 per cent of male workers reported having to take matters into their own hands by cleaning the workplace toilet, compared with just 17 per cent of women!

Research highlighted that 25 per cent of male workers have cleaned the workplace toilet.

Robertson secures Carbon Neutral business status on World Environment Day

26% reduction in carbon emission in the last four years

Led by the United Nations since 1974, World Environment Day encourages awareness and action to protect the environment and is celebrated in 100 countries around the globe. Today (5 June) marks the announcement that Robertson joins leading companies including DHL, Macmillan and Hiscox as a carbon neutral business and one of the first in the built environment sector.

Robertson has implemented a wide range of carbon reduction initiatives, including offering electric or hybrid electric company cars at every level, undertaking operational reviews and upgrades for our offices building services and embedding energy efficiency measures within our site processes – from eco-cabins to strategic planning to secure earlier grid connections. Each of which is designed to reduce the company’s environmental impact and carbon footprint and cumulatively they have contributed to the 12.4% reduction in carbon intensity in the last year and 26% since we first baseline performance in 2014/15. The decision to become a carbon neutral business sees the company continuing its commitment to reducing its carbon footprint by offsetting all of its 2018/19 emissions.

By achieving carbon neutrality Robertson has offset over 10,500 tonnes of carbon dioxide equivalent by supporting Verified Carbon Standard (VCS) and Gold Standard Verified Emission Reduction (GS VER) certified carbon offsetting projects around the world. These initiatives include projects which help to generate clean energy internationally, prevent the deforestation of the Amazon rainforest in Brazil and closer to home working with local schools to plant 250 trees in projects across the UK.

Robertson has been working with Carbon Footprint Ltd to assess and verify the carbon footprint of its business using the Greenhouse Gas (GHG) protocol and ISO 14064:3 methodology as part of our Responsible Business strategy and has set targets to reduce its carbon intensity by a further 10% over the next five years recognising there is always new innovation and more that can still be done.
New Study: Dry Air is Flu’s best friend

A recently published scientific study by Yale University has shown that breathing air with a low humidity reduces our immune system’s capability to fight off flu infections. The research results showed that using humidifiers in the winter to increase the moisture content of air in occupied buildings, such as offices, schools and hospitals, is a potential strategy to reduce the seasonal impact of flu on society.

It is estimated that in the UK influenza causes six million working days to be lost every year, accounts for 400,000 GP consultations, 600 deaths directly and an estimated 10,000 further deaths from flu-related causes. Even though many scientific studies, such as the recent one from Yale, have shown the importance of humidity in relation to combatting flu, no legal requirement exists in the UK for public or commercial buildings to maintain a minimum indoor humidity level for health.

The Yale study, carried out in the laboratory of Dr Akiko Iwasaki, used mice that respond to flu in a similar way to humans. The mice were infected with flu and kept in either low humidity or mid-level humidity conditions. Their physical reactions to the flu virus were then examined, including weight loss, temperature changes, their ability to clear the virus from their respiratory system and heal resultant inflammation, and ultimately their mortality rate.

The scientists found that the mice kept in low humidity (10-20%RH) suffered a much worse disease course than the mice kept in mid-level humidity (50%RH). They suffered more rapid and greater weight loss, were unable to maintain a normal body temperature and experienced a higher mortality rate.

Dr Iwasaki commented, “What we found was that low humidity impairs the ability of the respiratory tract, lung and nose to get rid of the flu virus. In the airway cells, hair-like projections called cilia, are constantly moving inhaled particles along to get rid of them. However, in low humidity we found that this cilia movement, as well as particle removal, was impaired. This is particularly important for people who are very susceptible such as the very young infant or the older person over 65, as mortality from flu mostly occurs in this age group.”

The researchers also observed that low humidity reduces the ability of cells in the lungs, damaged by flu, to repair themselves. A third effect of low humidity identified in this study, was that infected cells stopped signalling for help from neighbouring cells. The ability to recruit additional immune cells to fight invading viruses or bacteria is an essential part of the body’s natural defence system, and is key to limiting disease from infections.

Commenting on the study, Dave Marshall-George, (pic right), UK Sales Manager at humidity control specialist, Condair, said, “This study is yet further evidence for a regulatory minimum humidity level to be set for public places to reduce the impact of seasonal flu. It is relatively simple to maintain a healthy indoor humidity of 40-60%RH in public buildings using commercial humidification systems. However, unlike temperature, humidity is not easily perceivable by occupants. This results in building operators saving money by not installing, or even turning off, their humidifiers and allowing indoor humidity to drop dangerously low in the winter.”

Dave continues, “The problem is compounded by legislation that requires building operators to reduce energy consumption. Building owners and designers are forced to minimise building services to become more efficient. However, the result is necessary services, such as humidity control, are being sacrificed at the expense of occupant health. Given the massive impact that flu has on society, both on the economy and the health service, it is time the governing bodies took notice of the science and introduced minimum indoor humidity levels.”

Commenting on the results of the study, Dr Stephanie Taylor, (pic left), Infection Control Consultant at Harvard Medical School and an ASHRAE Distinguished Lecturer, said, “Dr. Iwasaki’s research shows that balanced humidification increases our overall immune defences and therefore can be applied to both viral and bacterial diseases, not limited to seasonal influenza. This study clearly shows the need to maintain indoor relative humidity at 40-60% in homes, schools, offices, hospitals, aeroplanes and all other occupied spaces.

“ASHRAE must recognize this excellent study as evidence to support a minimum RH level in occupied commercial buildings. Dr Stephanie Taylor concludes.

The Condair Group is the world’s leading specialist in humidification and evaporative cooling, with energy efficient, hygienic and innovative technologies for commercial, industrial and heritage applications. Condair is represented in the UK by Condair plc, which offers system design, manufacture, supply, installation, commissioning, maintenance and spares. You can find out more by visiting the company’s website at www.condair.co.uk.

e-mail your news to shirley@qubeonline.co.uk
Leading Housing Association’s £10,000 fund to support local causes

Local charities, clubs and good causes across the country are being invited to apply for their share of a £10,000 funding pot launched by Cairn Housing Association.

The Cairn Community Fund aims to provide support for a wide range of organisations and projects. Since it was launched in 2013 it has committed more than £60,000 to good causes.

The fund enables people to improve their local communities by providing the funding to get ideas and project plans off the ground.

The money has been used to fund a host of projects including girls and boys football teams, rooftop gardens to combat loneliness and meals on wheels initiatives.

Jason MacGilp, Chief Executive of Cairn Housing Association, said: “We’re totally committed to investing in communities across Scotland and helping to make them better places.

“We recognise that each community we work in across Scotland in unique which is why the funding is open to a host of different initiatives.

“If you have an idea of how the Cairn Community fund could help you or your organisation, I would urge you to get in touch with us as we’re always proud to play our part in getting projects off the ground.”

In order to be eligible for funding, projects must enhance the quality of life in areas where Cairn tenants live.

This can be through environmental benefits or by encouraging community cohesion to help improve the lives of local people.

Other projects to have benefitted from the funding include an art project to create memory books at a retirement housing project as well as a photography project in Stirling to capture places of local interest.

Since its inception, the Cairn Community Fund has helped to fund projects across Scotland.

Grants of up to £1000 are available and can be spent on a number of things including the buying or hiring of equipment, training courses and paying for venues or catering at community events.

Office Space in Nottingham
Southside given go-ahead

Crocus Place, a seven storey, 125,000 sq ft Grade-A office block in the Southside area of Nottingham, has been granted planning consent.

Perfect Circle is delivering project management, cost management, health & safety advisory, BREEAM services, M&E consultancy and is acting as NEC supervisor via a selection of specialist teams and supply chain partners. This work was procured via the Scape National Built Environment Consultancy Services (BECS) framework.

As part of the redevelopment of the city’s Southside, Crocus Place will transform currently derelict land next to Nottingham Train Station to a prime office location with more than 1,000 desk spaces, providing a new commercial destination alongside neighbouring Unity Square, Station Street and City Buildings.

Anthony Cork, regional director for Perfect Circle, said: “In such a strategic location in Nottingham’s city centre, next to major transport links with the rest of the UK and Europe and the UK’s major distribution hubs on the doorstep, Crocus Place will provide prime office space for businesses.

“Crocus Place will play a major role in the vast regeneration projects happening across Nottingham. The scheme is set to attract new businesses, as well as provide jobs and enhance surrounding public realm for the local community.”

The proposed glass and brick designs of the building’s exterior will mirror the surrounding architecture. The scheme will use solar panels, air source heat pumps and electric car charging points to help minimise energy use and deliver strong sustainability credentials as the detailed construction design progresses.
VIDAR - a new security solution for the housebuilding and construction industries

Limitless Security has launched the VIDAR detector. This standalone, wire-free security system combines motion detection with integrated image verification to help reduce the cost of break-ins, theft and vandalism. VIDAR is a key part of Limitless Security’s new fixed cost, fully managed service which takes away the headaches and hassles involved in installing, managing and maintaining security equipment on building sites.

According to Adam Lees, Managing Director of Limitless Security: “Developed as a result of more than 30 years’ experience, VIDAR is an integrated, technology-led security solution that detects intruders and captures images for visual verification around the clock. It provides building sites with unparalleled flexibility in terms of deployment as it does not need to be connected to an external power supply, control panel, telephone line or internet service.”

VIDAR uses a high quality CMOS camera with automatic exposure, colour encoding and focus to capture images that clearly show when intruders are onsite. It works in colour during the day and black & white at night using four high powered infrared spotlights. Operating in conjunction with a PIR that uses a highly directional Fresnel lens, VIDAR has a day/night range of up to 30 metres – over double the distance of other market-leading solutions. When the PIR sensor detects motion, VIDAR’s embedded SIM automatically transmits images to a Monitoring Centre for visual verification before an agreed response plan is implemented.

Limitless Security installs VIDAR after completing a risk assessment and configures the units to auto-arm and disarm at times and days required by individual sites. Unique SmartArm technology is used to scan target locations for any activity at pre-set arming times. VIDAR will only arm itself when no movement has been detected for a continuous period configurable from 15-60 minutes to minimise false alarms and unnecessary call-outs. It can also be used in ‘Gate’ mode to monitor the routine entry and exit of people and vehicles at building sites.

“Our managed solution includes detection, monitoring and response using a SIA-licensed security guarding service. It covers everything from risk assessment, the supply, installation and management of all equipment and site security signage through to documentation of any events for evidential purposes and the provision of information to responding agencies,” continued Lees. “Importantly, we are focused on providing a complete security solution for a single, fixed monthly cost to make budgeting easier and eliminate any unexpected additional charges.”

VIDAR is IP65 rated with dimensions of 240mm (h) x 120mm (w) x 60mm (d). Each unit weighs 0.62Kg excluding batteries.

Openview achieves platinum status in Flir reseller partner programme

OpenView Security Solutions, the UK’S largest privately owned independent security company and a leading national supplier of fire, electrical and mechanical services, has been awarded Platinum Partner status by FLIR Security Systems UK. OpenView is one of the first UK companies to have achieved this level of accreditation, which is the highest in FLIR’s VAR Reseller Partner Programme. It recognises the company’s ability to sell, install and support FLIR’s full range of security solutions.

According to Chris Garden, Managing Director at FLIR Security Systems UK: “Having worked closely with OpenView over the past few years on a number of key public sector contracts, we are delighted that the company has made such a commitment to FLIR’s market leading security solutions. In addition, by ensuring that all relevant technical training courses have been successfully completed, OpenView has demonstrated that it has the expertise to deliver the highest level of support to users of FLIR systems.”

OpenView and FLIR have a track record of working together on a number of high profile public sector projects, the most recent being the current upgrade of the public space CCTV network for Telford and Wrekin Council which is being co-funded by West Mercia Police.

Andy Ward, Sales Director of OpenView Security Solutions, added: “We are pleased to be one of the only companies in the UK to achieve Platinum Partner status with FLIR. It confirms that our strategy of working with best-of-breed technology companies and making ongoing investments to build skill levels across the organisation are bearing fruit. It is helping to consolidate our leading position in the industry.”
Stanley Security makes Fire System requirements highly affordable for local business

Stanley Security has installed a wireless fire alarm system at Harvey’s Windows & Conservatories, meeting their insurance requirements whilst saving considerable expense.

Based in Leicester, Harvey’s Windows & Conservatories Ltd. operates from a large three storey building which it owns. Harvey’s itself works out of the bottom floor and the remaining building is subdivided into units which are rented out, with the two floors upstairs being dance studios that are mostly used in the evenings and weekends.

As part of its insurance policy, Harvey’s Windows & Conservatories conducted a Fire Risk Assessment, undertaken by a third party. The assessor stated that an L2 category Fire System was required throughout the building.

BS 5839-1:2017, the British Standard for fire detection and fire alarm systems in non-domestic premises, categorises systems based on their objectives. Category L is a system designed to protect life and ranges from minimal protection 5 to top protection 1. L2 requires Manual Call Points throughout and optical automatic fire detection (AFD) in escape routes and all rooms, corridors and compartments that open onto escape routes, plus further AFD in areas identified as high fire risk.

L2 systems therefore often come with a high price tag, especially in a large building such as that owned by Harvey’s Windows & Conservatories. After receiving several quotes that were out of the company’s reach, STANLEY Security provided the company with an affordable, effective alternative.

“One of the key costs in the previous quotes was cabling” states Ashley Hickling, Fire Sales Manager for STANLEY Security. “Other installers were looking to cable the entire system, or use a hybrid of hard wired and wireless equipment. With a large building, the amount of cabling pushed the price high. Furthermore, there were no cable routes, so a lot of containment would have been required for a hard wired solution, which is also expensive and not aesthetically pleasing - an issue for the dance studios." The cost of labour to fit the cabling also added to the budget.

STANLEY Security instead recommended a full EMS wireless system which negates the need for cabling and therefore reduces the costs significantly. Furthermore, the entire system is financed under STANLEY Assure, a finance solution for customers wishing to benefit from up to date security and fire technology without the risks of ownership and with evenly spread, manageable payment terms with no hidden extra costs. In the case of Harvey’s Windows & Conservatories, the cost of the system - including maintenance, replacement parts, call outs and labour on a wear and tear basis – is spread over five years with a monthly payment of just £393.80.

Harvey’s Windows & Conservatories now benefits from a modern analogue addressable L2 fire alarm system that meets its insurance obligations and protects the building’s inhabitants day and night. If a detector on the system should activate, it can be instantly pinpointed from the Fire Panel, confirming exactly which one it is and where, for appropriate, instant action to be taken.

UK’s Care-Home Buildings Present Fire Risk to Our Ageing Population

Karen Trigg, business development manager at Allegion UK, discusses the importance of addressing fire safety in buildings that house elderly residents.

The topic of fire safety is one to be taken very seriously by those involved in both the construction and day-to-day running of resident-occupied care homes. Across the country we have seen the number of fire safety audits for group residential buildings rise.

Fire safety issues are particularly important for care homes that house vulnerable residents, with early 2019 reports uncovering a number of facilities that are failing to meet the necessary standards. In order for these facilities to address these issues, it’s important for the industry to find the heart of the problem, beginning with an understanding of the risks involved.

Although a general statement, our experience tells us that a number of privately owned UK care homes have been converted from older facilities that were originally constructed for a different purpose. When transitioning into a care home, not all buildings have been subject to an upgrade in fire safety procedures and solutions, with many using existing hardware or opting for the most cost-effective solutions. Building owners can also sometimes neglect to ensure that their building meets today’s fire safety regulations due to a lack of knowledge or understanding.

Care homes at risk

The first half of 2019 has been subject to some unfortunate reading surrounding the fire safety of care homes. Following a string of fires in care homes across the capital, the London Fire Brigade recently took action, inspecting 177 care homes in a mass audit, finding more than half were putting residents at risk after failing their inspections. Both public and privately owned care-home facilities have come under scrutiny, too, with similar news stemming from towns and cities across the UK.

In 2017, the Home Office conducted a report that found numerous trends between fire incidents and the UK’s ageing population, highlighting the safety of an ageing population as an ‘upward pressure’. The report essentially alludes to the fact that group residential buildings are housing older residents at an increased rate, putting pressure on those responsible for accommodating them. With most care-home residents classed as vulnerable, and with all the additional support elements that are needed for these residents, you can see why some building owners are feeling the strain.

Today, the growing number of care-home incidents poses a huge challenge for those responsible for ensuring compliance and reinforces the ‘upward pressure’ that was cited by the Home Office some two years ago.

See the complete article online at www.qubeonline.co.uk
Iconic Ibiza nightclub transforms its washrooms with island imagery

The world-famous Ibizan nightclub Pacha, that has seen the likes of legendary DJs such as Carl Cox and Erick Morillo take the decks, has been renovated to coincide with the brand’s 50th anniversary. The project was completed by the Capella García Arquitectura studio and incorporates the application of Younique® by Formica Group.

Founded in Ibiza in 1973 by Ricardo Urgell, Pacha is a household name in the nightlife industry. The club established itself by reinventing the concept of ‘disco’ and has remained a constant reference point ever since. Starting in a traditional farmhouse it conquered the hearts of the dancing public with its cozy simplicity. The brand now incorporates more than 80 venues worldwide.

The renovation, which covers more than 2,100 m2, had a double objective: on the one hand, to update and improve the building to meet current regulations and standards in acoustic insulation and facilities. On the other, it was crucial to revive the original spirit of Pacha, recovering the spatial power of the place and maintaining its initial magic.

As pointed out by Juli Capella of Capella García Arquitectura: “We wanted to go back to the beginning and remain faithful to the original concept and mood Urgell captured, while giving it a much-needed refresh.

“Pacha is the antithesis of the superclub. It may have given birth to the concept but the new design is the opposite of the big black tech box that the contemporary nightclub has become.

“We retained and highlighted the fragmentation of the space. We played with the richness and fluidity; the different interconnected platforms challenge our understanding of space while still leaving us in control of it.

“An intricate circulation pathway guides the party-goer around the club, discovering the beauty in each area, whether a calm corner or a vibrant dancefloor. Each clubber can find their own way and vary their experience every time they visit.

The zonal redesign is centred around the DJ booth in the middle of the dancefloor. The different entrance spaces have also been unified with a central platform, surrounded by interior terraces giving views over the dancefloor. The ceilings are inspired by the old whitewashed vaults, gifting each space with its individual atmosphere.

The new design is sympathetic to the rural iconography of the island, and echoes the typical architecture of rustic houses; there are no angles, no straight lines or stark geometry. Instead all shapes are curves, vaults, sloping walls or niches. The predominant colour is the familiar off-white of limewash, and the surfaces are uneven, showing their character in the light.

Another distinctive element of the renovation can be found in the washrooms; 64 panels of Younique® by Formica Group have been installed on the cubicle walls in a compact grade, reproducing digitally printed images of the island and the sea.

“With the toilets we allowed ourselves a touch more creative freedom. The three washroom areas all have distinct themes. The main one boasts imagery dedicated to the island of Ibiza itself, its beaches, villages, and the turquoise of the sea.

“The lifesize images, custom-printed on Younique panels, transport the viewer outdoors, allowing them to imagine for a moment they are cooling off in the surrounding sea,” concludes Capella.

Younique by Formica Group incorporates the most advanced technology to give designers complete creative freedom; any photograph, graphic motif, design or work of art can be reproduced as a high-resolution image in resistant and durable high pressure laminate. The result is an ideal material to customise interior and exterior spaces.

**DATA SHEET**

**PROJECT:** Pacha nightclub renovation  
**DESIGN:** Juli Capella, Miquel García - Capella García Arquitectura  
**LOCATION:** Ibiza  
**CLIENT:** Universo Pacha (Trilantic)  
**FORMICA GROUP MATERIAL USED:** Younique®, in compact grade and 2350x1300x6mm format  
**APPLICATION:** toilet cabinets and walls  
**DATE:** May 2018  
**PHOTOGRAPHY:** Aisha Bonet
Parking

New permit management solution transforms parking arrangements at city centre university

A fully integrated virtual permit system and managed service from Open Parking has transformed parking provision at the University of Bradford. Staff and students of the internationally renowned university are now benefitting from much simplified permit application and allocation. And, according to Simon Duarri, the university’s Head of Facilities, Open Parking’s concerted approach has provided significant efficiency gains and service improvements for managing all parking facilities on the city centre campus.

“Balancing the needs of staff and students with a finite parking resource in the heart of a city has always posed quite a challenge,” he says. “The introduction of virtual permits and a hosted permit management solution has made a huge difference in every respect. Not only is it now much easier for staff and students to apply for a permit, but the issues that previously caused so many administrative headaches and parking contraventions have been fully addressed.”

With nearly 9000 students and over 1,600 members of staff, it is little wonder that the university’s 6 car parks and 820 parking spaces have come under so much pressure. Abuse of the parking facilities has been a major cause of concern despite the efforts of Simon Duarri and his team to maximise fairness and fulfill the university’s sustainability policies.

The administrative complexity of assessing applications and issuing paper-based permits also led to seasonal peaks in workload at busy times for the university, resulting in long waits for students and staff to receive their permits at the start of the academic term. With the security team having to absorb additional responsibilities following a reduction in dedicated car parking staff, there was also a clear need to streamline activities to enable easier and faster enforcement.

Such issues have been overcome since the introduction of Open Parking’s PermitSmarti system as it provides a convenient self-serve portal for staff and students. By automating the process, it has also enabled more effective, efficient and disciplined enforcement measures to be taken. And the administrative tasks at both ends of the enforcement process have been outsourced to Open Parking to provide further efficiency gains. Handling enquiries and reviewing permit applications from staff and students, the issue of virtual permits, online payments and PCN processing are all now undertaken by Open Parking’s Business Processing Unit in Northampton.

Every shift of the university’s 24 strong security workforce has also been trained and equipped with handheld terminals and printers featuring Open Parking’s Rialto management software to verify vehicle permits and issue Parking Charge Notices (PCNs) for any contraventions. The team is also benefitting from Open Parking’s ScanSmarti system. This enables vehicle registrations simply to be scanned for automatic permit verification during the patrols of the campus car parks.
The new system went live for student permits in August 2018 in advance of the standard permit renewal date at the start of the academic year and staff permits followed suit in January 2019, although the new system enables permit renewal at any time of the year. Now, any applicant simply needs to register and set up a personal account to obtain a virtual permit online, and automatic renewal notifications are sent in advance of the expiry date.

There are a large number of different permit types from full-time and part-time staff to car share and electric vehicles, as well as accessible parking permits for individuals with restrictive health conditions. Temporary parking vouchers are also issued to visitors and contractors working on the campus using Open Parking's VoucherSmarti system and senior staff have the option to reserve their own parking bay. Both salary-deductible and direct payment options are available for the £235 annual staff permits and eligibility criteria are applied if the volume of permit applications exceeds expectations.

The new approach for campus parking will prove particularly beneficial for patients and visitors in the university's Digital Health Enterprise Zone as a permit can linked to a designated visitor bay and issued in advance. Consequently, less mobile patients will no longer need to sign in and return to their car with a paper-based permit. Looking to capitalise on the versatility of Open Parking's solution, a pilot scheme is also underway to assess the viability of future partnerships with neighbouring businesses to maximise occupancy and generate income from campus parking spaces in the evenings and at weekends.

“Working with Open Parking has made the world of difference to our parking operations,” says the university's Campus Operations Manager, Sue Walters. “As the new system is hosted by Open Parking, the administrative peak workloads during September and January have been outsourced and will be spread out over a longer period. The database is also externally hosted and all software updates and upgrades are automatic. As a result, there is far less risk of any software issue and less internal staff time needed during upgrades, so the solution is far more resilient. And anyone receiving a Parking Charge can now view evidence, appeal or simply pay online on the Open Parking website.

As pressure on capacity grows, the new arrangements will enable us to address the inevitable conflicts that can arise between different groups of people who require parking, as the collected data will enable us to apply rationing criteria that reinforce our reputation as a progressive and green campus university.”

“Effective parking management must evolve to reflect the changing circumstances and priorities of organisations like the University of Bradford,” adds Open Parking's Sharon Silcock. “PermitSmarti provides the flexibility and responsiveness to do just that and our managed service takes away all of the administrative hassle from the university and ensures effective permit management and enforcement processing at all times. Such a comprehensive and disciplined solution will certainly help the university to manage the inevitable additional parking pressures that will arise when the university's internationally acclaimed School of Management relocates to the main city centre campus in the summer.”
According to the World Business Council for Sustainable Development (WBCSD), reducing energy use in buildings is not only a climate change imperative, but it also represents a sizable business opportunity. Alongside this, international laws and directives relating to energy use are becoming more stringent. And, as end-users become increasingly conscious of the role that they play in global energy consumption, there is a growing demand for greener buildings amongst tenants. Such buildings also provide more effective control of the internal comfort conditions, delivering other positive impacts such as increased employee productivity and wellbeing. Building owners and operators must therefore move beyond simple energy conservation efforts, towards practices that increase the efficiency of their energy usage and deliver utility savings.

Organisation-wide energy management systems offer the potential to substantially reduce consumption and increase efficiency, whilst improving productivity and driving profitability. More than just a tool for conserving energy, Building Energy Management Systems (BEMS) are therefore being used increasingly as a strategy to reduce both energy consumption and overall operational costs. The industry is now also focusing on performance in use, by seeking ways to close the gap between regulated/predicted/design energy consumption and what is actually been consumed.

Taking control

BEMS is a computer-based control system, consisting of a central user interface and a network of components, which include hardware (valves/dampers/actuators), controllers, meters and sensors. These communicate electronically to monitor, measure and control the active systems (heating, ventilation, cooling, hot water and lighting), as well as building performance. This centralised management system gives operators a real-time understanding of how the building is performing and plenty of options for improving energy efficiency. For example, they can set times when plant switches on and off, set temperatures within specific spaces, meter energy consumption, and receive alarms when failures occur.

BEMS delivers a direct benefit to the building operator in terms of reduced utility payments, as energy consumption can be monitored and understood, and therefore controlled effectively to make savings. For example, sub-meters can be used to troubleshoot and pinpoint problems, by detailing the consumption of each individual active system and identifying any high-end consumers. As part of the troubleshooting strategy, buildings can be divided into floors or departments, which allows for sub tenants to be charged accurately for their energy consumption. As the BEMS records historical energy data, this can also be used for longer term comparison and benchmarking purposes.

The optimal level of energy efficiency can be achieved by the BEMS continuously maintaining the correct balance between operating requirements, external and internal environmental conditions, and energy usage. To optimise these benefits, there should usually be a trained building manager who is the single point of responsibility for the operation and upkeep of the BEMS.

The BEMS will allow the building manager to more effectively respond to HVAC-related complaints, as well as optimise energy...
consumption and thermal comfort conditions. As remote monitoring and control is possible there is also potential for facilities management savings, as potentially fewer operatives will be required to run the building. Indeed, numerous councils are employing offsite third-party companies to test whether systems are needed, both inside and outside known hours of occupancy, and switch plant off to save energy when it is not required.

**Optimising benefits**

While BEMS delivers building operators precise control, and enables them to realise valuable cost savings, it is important to remember that it cannot compensate for an inherently inefficient building design. One size doesn't fit all, so if the design is poor then no amount of monitoring and control will result in significant energy savings. The same would also apply to thermal comfort, if this hasn't been integrated into the original design.

The BEMS specification should therefore be well thought out at the design stage, and a clear functional specification created, which considers all the necessary requirements. This will ensure that there is capacity within the system to respond to all functionality, so that energy consumption can be effectively monitored and understood. For example, you don't want to get to the commissioning stage and realise that there aren't enough points to connect all of the meters that will be used to monitor energy consumption.

To benefit fully from BEMS, there must first be some level of investment to employ and train suitable staff to operate it. At the point of system commissioning, a clear and concise handover to the building manager and team must also be actioned. As these systems are complex, they may require further training, or a level of ongoing support, to give staff the confidence and understanding that is necessary to optimise use and maximise the benefits which BEMS delivers. The user-friendly nature of the system interface is also a very important consideration from the start - what will the programme look like and can users easily navigate through it?

The ability for the BEMS to integrate with other hardware and software should also be considered. Closed protocol systems must therefore be carefully considered and potentially avoided, so that the end-user is not tied to a single manufacturer and the system's components can communicate freely. This would be especially important on a campus where multiple buildings may be grouped, or where remote access is desired. The ability to interrogate local outstations should also be considered, to allow flexibility and local checking of functional integrity following maintenance action when out working within the building plantrooms.

**Long-term gain**

With the WBCSD estimating that buildings consume more than one-third of total end-use energy, and cause a fifth of total greenhouse gas emissions, there a global drive for improved energy-efficiency. At the same time, building price premiums, regulations and government incentives are spurring on the development of more sustainable buildings. The perception of energy-efficient buildings as a business opportunity is therefore growing.

While the implementation of a BEMS may require investment, it does deliver significant long-term payback by ensuring that a building operates at maximum levels of efficiency, removing uneconomical energy usage and associated costs. Quite simply, if you are not monitoring energy consumption, you cannot manage it effectively, with the result being spiralling building operating costs and decreased occupant comfort.
Water Saving

WhiffAway Group’s waterless urinal technology makes a major, measurable contribution to environmental sustainability, while improving the workplace experience.

WhiffAway Group technology has helped change an industry from conventional flushing to zero flushing. This has been driven by developing unique solutions that deliver commercial and environmental savings, with more than 120,000 systems installed across 35 countries – saving the planet over 350 litres of water per second – and rising.

The system – which is ideal for retrofitting – offers obvious water savings (its waterless!) as well as embedded energy savings – there is no need to pump the water in to flush the urinals and this offers an embedded energy/carbon saving. Moreover, on new builds there is no need to plumb in cold feeds to urinals, leading to an estimated 30% saving on project costs and the environmental savings to match. Finally, the system is non-hazardous and all cleaning materials are environmentally friendly.

WhiffAway’s patented solutions save money, overcome common problems such as urinal odours, frequent blockages and flooding, in conjunction with making washrooms a more hygienic and pleasant place to visit.

WhiffAway Group’s Water Warrior technology takes water flushing from its current levels to zero, so there are environmental savings achieved from day one. WhiffAway’s solutions do not require harmful chemicals and less waste needs to be treated further downstream. The technology is more environmentally friendly in every way compared to conventional flushing.

Sustainable from the start

The WhiffAway waterless urinal technology story is all about sustainability and starts way back in 1992. Company founder Valerie McLean was seeking a project which would make a BIG difference. Her preliminary findings demonstrated both institutions and organisations were actively exploring gas and electricity as a means of reducing costs and being more...
sustainable. It became increasingly evident that water was overlooked and this was due to the relatively low combined cost (water in and sewerage out) at the time. This lack of focus was the start of her passion for water conservation and helping others help the environment. Being ‘environmental’ was not on the top of the agenda at the time.

Through a consultancy project with John Forte, then Environmental Director of the Trust House Forte Group, Valerie conducted a study across a number of group properties, including Little Chef, Forte Post Houses, Welcome Break and Le Méridien. The findings of the study demonstrated that a staggering 42% of overall consumption was being flushed through urinals.

Having searched the market, there were little or no water saving solutions suitable to overcome common urinal problems, without increased cost and maintenance requirements, including the need for significant fabric changes. The idea for developing the retro-fit waterless urinal was born.

Following two years of R&D, field testing and significant private investment, the Dome & Disc Waterless Urinal was launched. The rest, as they say, is history.

“Valerie’s vision and determination has enabled hundreds of companies to save money, while measurably improving their environmental sustainability credentials,” said WhiffAway Group Operations Director Sebastian Marshall.

A worldwide solution

There are over 60 million urinals in the world and rising, and each standard flushing urinal wastes up to 157,000 litres of potable water every year at an approximate annual cost of £395.00 per urinal. In developed countries, urinal flushing accounts for up to 18% of total water consumption. This, alongside rising global populations, is simply too large a number to ignore when WhiffAway’s solution saves in every way, while also creating jobs.

Urinal flushing is one of the worst offenders when it comes to excessive water consumption. Not only is there huge wastage, but rising water charges mean that it is a problem every business simply cannot afford to ignore.

Switching to waterless urinals takes pressure off overstretched infrastructure. This can make a measurable contribution in drought ridden countries and save billions around the world in the process.

And beyond those numbers, the benefits of improving the washroom experience to positively enhance the well-being of employees is immeasurable.

WhiffAway Group’s waterless urinal technology has enabled hundreds of companies to save money, measurably improve their environmental sustainability credentials and has saved an estimated 750,000,000 cubic meters of water and £1.9 billion for industry.

Since the beginning that’s the equivalent of 300,000 Olympic sized swimming pools of drinking water.

Waste to energy

Through its partnership with Bristol UWE and supported by Oxfam and The Bill & Melinda Gates Foundation, WhiffAway has helped develop a revolutionary waste to energy solution for third world countries. The applications include generating power, conserving water, treating and recycling waste and inoculating soil in arid conditions.

WhiffAway is also a winner of the Waterwise Award and holds IAPMO and Watermark Certification, among others.

The sustainable future of washroom management

Using its experience as a market leader in waterless urinal technology, biological solutions and closed systems, WhiffAway Group has now developed and installed the world’s first fully connected smart washroom technology.

Rising washroom standards and customer expectations have driven Facilities Managers to find more innovative ways of monitoring performance. The emergence of the Internet of Things (IoT) has enabled service providers to collect data, track patterns and effectively manage resources to avoid run-to-breakdown scenarios.

Delivered as a turn-key solution, WhiffAway’s Smart Washroom uses IoT enabled sensors to collect data within the washroom. The application provides an interactive 3D washroom platform, while an easy to navigate user interface delivers data in a measurable way.

WhiffAway Smart Washrooms provide a scalable platform and delivery model which monitors usage patterns and generates reports, while helping to determine what drives the customer experience. Use of the data enables continuous improvements and drives efficiencies. WhiffAway’s Smart Portal captures real time data, providing a status of assets in the washroom and this is presented on a user-friendly dashboard which can be easily customised to present data in different formats and personalise alerts.

“WhiffAway’s Smart Washrooms Platform delivers a wide range of benefits for Facilities Managers,” said CEO James McLean. “By collecting data in real-time, trends can be identified to prompt routine maintenance of delivery systems and the replenishment of consumables. This, in turn helps avoid unnecessary breakdowns and increases customer satisfaction. The future of washroom management is here.”
When it comes to managing waste, there are specific complexities in the property management sector. With many stakeholders; from tenants to managing agents, building managers and landlords, the property management sector requires a unique approach to engage all key parties. Each stakeholder will have their own priorities and targets to meet.

Although there may be different internal goals for each tenant, it is critical that people are on board with the building objectives to ensure a plan can be put in place that works for everyone.

Despite these potential challenges, there are best practice steps, which can be implemented to ensure all stakeholders meet their targets and, more importantly, feel and see the value of an ironclad waste management solution.

Jo Gibbs, Corporate Sector Director at SWRnewstar, outlines the five key areas of best practices for property management.

**Understanding the building and the resources generated**

Particularly in city centre locations there are a number of properties with a mixture of tenants, typically including; office, retail, residential, restaurants and coffee shops. The types of waste being produced at these sites can vary significantly from high volume food waste to office shredding.

When designing solutions for property management, it is important to treat each building individually and understand exactly what waste is being produced at that location. Identifying the volume and type of waste the tenants are generating is the first step to ensure the correct services are in place to manage these waste streams most effectively and minimise costs.

Space is at a premium in many city centre buildings and prime retail locations. Ensuring the containers and waste areas are best utilised is not only best practice it's a commercial necessity.

Also, there is often a careful balance to strike to ensure the appropriate containers are available in the right places whilst minimising waste collection vehicle movements. Avoiding unnecessary vehicle movements is a key element in optimising the building’s overall carbon footprint and your waste management partner will be able to advise on the best solution.

**Optimise the route of materials through the building**

Sometimes when assessing an office floor, at first view it looks like they’re recycling 60-70 per cent of their waste; however, data can reveal that it is actually close to 30-40 per
Somewhere between the disposal point and collection by the driver, something goes wrong. This is often because of a lack of consistency about what goes where, and what is actually recyclable.

A super effective solution is to implement a colour coded scheme across the building to ensure consistency for the cleaning teams, tenants and building managers, so everyone understands which containers are for which waste streams. Using consistent colour coding across the floors and in the waste areas reduces any room for error.

Maximising segregation at source is the key to achieving sustainably high recycling rates. The challenge here is that recycling is not as black and white as many people think it is. For example, just because something is made of plastic, it isn’t automatically recyclable. A clear and simple system to label containers and communicate which bin items should go into is essential.

Engaging stakeholders

Consultations on each floor are an excellent way to engage with tenants, particularly when the messages are made specific and relevant for them. Actively looking inside peoples’ bins to ‘lift the lid’ and identify their most common waste streams is a very good place to start. For example, if a floor has high volumes of sandwich packaging from team lunches the educational process can be targeted to these particular items. The individual card and plastic components may be recyclable but when combined, they’re complex to reprocess. Also, food remnants can cause contamination.

As well as increasing recycling rates there are commercial benefits. Service charges are typically applied on square footage, resulting in tenants contributing the same to waste services regardless of the type or volume of waste actually being produced. This set up can lead to frustrations if not managed correctly. Food waste collections are a good place to start to address this situation. The building management team, supported by their waste management partner, can focus on engagement with food retailers to maximise segregation. Food is particularly heavy and when added into general waste collections it often results in overweight bins which push up the overall costs.

Data Driven Insights

Reporting and KPI tracking allows individual buildings to monitor progress and provides sustainability teams with headline results for the portfolio. The BBP best practice guidelines have set the standard for waste management reporting in the sector. Also, the quality of information available is improving as technological capabilities in the waste industry develop.

Data on its own is only numbers, it is the understanding about what the numbers mean which is really valuable. A good waste management partner will focus on providing insight to support the regular reports along with an action plan to implement changes. For example, identifying that dry mixed recycling collections are being rejected due to contamination should trigger a review of the building processes and engagement with all stakeholders.

On-Site Management

If recycling rates stagnate before reaching agreed targeted levels on-site management can generate powerful results.

Introducing a dedicated person to take responsibility for increasing segregation of resources, even for a few hours a week, is a significant step but the commitment is proven to deliver commercial and sustainability benefits.

On-site resource management is most effective with full support from the building managers. If materials arriving at the recycling area are too heavily contaminated on-site management can’t add much value. The process needs to start on each floor to ensure that all materials go into the right containers and help reduce contamination, particularly from food and liquids.

Fast feedback is one of the less obvious benefits of on-site resource management. If repeated contaminations are coming from certain areas of the building they can be highlighted to the tenants. Clear communication about what is going wrong combined with a solution which is monitored is proven to increase recycling rates.

Whilst Property Management presents particular challenges in balancing the requirements of all stakeholders following best practice steps helps embed behaviour change and achieve sustainable, long term results.
The EU is getting serious and tightening the thumbscrews. Buildings are required to be CO2-neutral by 2050, with interim goals set for 2030 and 2040. This is leading to a growing number of increasingly strict requirements in the coming years.

While up until now the focus has been on the building shell and optimizing the building physics (insulation, heat bridges, etc.), now the spotlight is on improving building automation. This implies that new buildings will require a high standard of energy control, ensuring that heat and light is directed at occupied areas and not wasted on unoccupied spaces. Existing buildings will also need to be modified to achieve the same standards.

The cost of installing and maintaining these automation systems can be significant – but is much more manageable if wireless sensors are used intelligently. These sensors themselves require power. This is best harvested from the environment rather than drawn from batteries which need replacing—adding cost and substituting one environmental issue with another. Fortunately, there is a solution to hand: there is an international standard for maintenance free energy harvesting wireless sensor solutions for smart buildings ISO/IEC 14543-3-10, which is managed by the EnOcean Alliance.

The latest EPBD (Energy Performance of Buildings Directive) agreed in May 2018, establishes requirements for buildings, which are to be implemented by EU member states under their national laws. These requirements are based on the view expressed in the EPBD that existing buildings in the EU are responsible for 36% of all CO2 emissions. Buildings thus play a key role in reaching the EU climate targets. The EPBD therefore requires the EU member states to establish guidelines, come up with measurable actions and provide subsidies. It also emphasizes that these measures apply to existing rental homes as well. The necessary legal and administrative regulations must be put into force by March 10, 2020.

In England and Wales, the Ministry for Housing, Communities and Local Government is responsible for this issue (it’s a devolved matter in Scotland and Northern Ireland). Its requirements are covered by the Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations. The latest revision to the EPBD will automatically apply in the UK even if Brexit proceeds on the planned timetable.

**Building automation is gaining ground**

The latest EPBD building directive’s emphasis on building automation underscores the need for smart implementation of smart buildings

By Graham Martin, Chairman, EnOcean Alliance
physical and electrical mounting of the sensors. Radio-based sensors can be planned and installed much more easily and if they are powered from harvested energy require no batteries either.

"Smartness indicator": Buildings need to become smart(er). The trend is toward recording far more measured values than before. To do this, sensor data supplies relevant information for IoT systems in real time. Even with the classic installation of pushbuttons, temperature sensors and motion detectors, chair sensors are already providing information on occupancy. Toilet stalls can be maintained and cleaned according to use, based on sensor data. Clear requirements on the type and position of these sensors do not yet exist. Flexibility and the ability to change locations are thus key criteria on the way to sustainably smart buildings.

Smart installations based on wireless and battery free sensors also retain maximum flexibility. Sensors can be added to or removed from the network in a heartbeat as the building's layout and use changes.

Smart solutions for smart homes and intelligent buildings

The EnOcean Alliance is a global network of more than 400 companies in the building sector. It develops innovative, main-

Conclusion

Fully addressing the latest EPBD is demanding but worth doing because it creates a better planet for all of us. Carried out in the right way, energy performing buildings of a high standard can be delivered cost effectively and without significant disruption, potentially delivering a worthwhile ROI for the building operator. The EnOcean energy harvesting based wireless standard is a key element in delivering such energy performing buildings and the Alliance and its 400 members are valuable partners, delivering an entire ecosystem of self-powered wireless sensor solutions. We know what the EPBD requirements mean and are fully ready to work with building operators to support them in pain-free delivery of EPBD creating future-oriented system solutions for efficient buildings.

The author is indebted to Prof. Dr. Michael Kroedel of the IGT - Institut für Gebäudetechnologie for his analysis of the EPBD on which this article is based.
Fastenings and fixings to fix construction crisis

The UK’s construction industry is seemingly on the cusp of crisis point, with many different factors causing projects to slow and impact efficiency. Vincent Matthews, Marketing Manager at SFS, discusses how fasteners and fixings can raise productivity once again and help keep construction work on track.

The challenges faced by the construction industry are widely acknowledged. Even though construction contributed £113 billion to the UK economy in 2017, according to research from Parliament UK, it is impacted by many different issues, and there could be even more difficult times ahead.

One of the biggest issues for construction is poor productivity. Common factors that lead into this are delays in equipment being delivered to site, poor weather, not ordering enough materials, and not specifying the right product from suppliers.

Further hampering productivity is the ongoing skills shortage. According to The Chartered Institute of Building (CIOB), the UK needs to find 157,000 new recruits by 2021 in order to keep up with demand. Brexit is set to compound this issue even more. With a lack of available labour to fulfil the work, projects are falling behind, and costs are going up.

Then there’s the digital transformation being imposed on all layers of construction, through the likes of government schemes like Digital Britain and the need to work smarter with new technology. The initiative aims to transform how construction comes together, placing more emphasis on BIM (building information modelling).

This isn’t a slow-moving beast either, and the use of BIM has progressed rapidly. From 3D BIM (sharing graphical and non-graphical information digitally), through to 4D BIM (which adds time-related scheduling data), 8D BIM is now emerging.

While the intention is for the greater good, implementation is far from perfect, with architects and specifiers relying on BIM-enabled manufacturers. Suppliers are also racing to provide BIM information to their entire back catalogue of products - a task that is much easier said than done.

While the future may sometimes seem unpromising, and the answers to these ‘big picture’ challenges are not immediately clear, there are different methods of speeding up construction. One key aspect is through the specification and use of fixings,
Fastenings and fixings are arguably seen by many as one of the most unremarkable components of a construction project. Most will view them as simply a means to an end of fixing down other larger materials, the fashionable products like floors, walls, ceilings, panels. The 'showpieces' of construction materials, so to speak.

Yet, with hundreds upon thousands used every day on construction sites around the nation, they really are the 'everyday hero'. Cleverly engineered fixings can yield efficiencies that are somewhat hidden to the naked eye and often aren't considered.

Take, for instance, the SXC5 fastener, one of the latest generations of self-drilling composite fasteners from SFS. The tip of the fixing itself has been re-engineered to have an optimised tip geometry that helps with easy setting, enabling installers to drive the fixing into the material they are fixing onto quicker.

Fixings are also commonly subjected to 'overdriving'. This is when the fixings are overtightened, causing damage to the substrate, as well as the fixing itself. Once this happens, it can compromise whole sections of the building fabric, and ultimately may need removal and replacement, adding on capital costs, labour time and money.

However, there are easy ways to prevent this scenario through the right fasteners. The SDK fastener, for example, is another self-drilling fastener that has a unique design. It features a square drive which is held in a special drive bar.

When the fastener reaches a pre-determined torque the peg snaps-off, ensuring the fastener is installed correctly.

Another innovative fastener from SFS is the TDBL. This self-threading fastener can be inserted into punched holes to fix thin to thick metal structures together, and is highly suitable for awkward areas such as box sections and ‘blind’ fixings. Until the TDBL, putting pre-drilled supports together was a time-consuming task, requiring standard bolts, washers and nuts, with accessibility required from both sides, which is not always possible. In extreme cases, this can lead to the project needing to be taken back to the structural engineering stage, incurring huge costs.

There are many more unique ways in which fasteners can speed up the process for installers when they are on site. Crucially, to get optimised fastener performance it is imperative that the industry at all levels are involved in new product development to help solve common challenges.

Less is more

It’s not just innovation in the way fixings are designed that can produce efficiencies. Building support frames, like cladding and rainscreen brackets, have also evolved to make installation more economical in time and labour, and are further supported by online tools such as NVELOPE’s Project Builder, which can help with project and material calculations for building envelopes.

Another great example is the flat roofing fixing solution for fall protection systems like the Soter® II Horizontal Lifeline system. When fixing these systems to roofs, gravity toggles have been the industry standard, but installation can sometimes be tricky. The toggles can sometimes become entangled in insulation or temperamental when deploying the anchor to secure the system to the flat roof. Now though, manufacturers are offering a sleeve fastener option. Indeed, the Soter® II system can be secured using just 8 sleeve fasteners, which is a much simpler and quicker method.

Fixings for every application

With fasteners, there should never be a ‘one size fits all’ approach. Each application will be different, and to realise efficiencies during the installation processes and to minimise failures, there needs to be careful selection of the materials used.
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