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## BS News January/February

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# Building Services news



**Surveillance on Lighting Sector**



**BIFM Ireland Awards Night**



**AC, Air Quality and WELL Building**



**CIBSE Ireland Celebrations**



## SEAI Energy Show 2019

**RDS Dublin**

**March 27-28 2019**

# Comfort is...

Building Services News, Vol. 58 [2019], Iss. 1, Art. 1



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<https://arrow.tudublin.ie/bsn/vol58/iss1/1>

Air Conditioning

Heating

Ventilation

Controls



# Stand up to Brexit

There is no denying the possible poor outcomes the Brexit fiasco represents. Even now, with the Brexit deadline imminent, the only certainty is uncertainty. Every business sector is affected with no one insulated. For instance, what transpires in the agriculture/food sector will impact others, including construction and building services. We're all part of the one economy.

However, let's not lose sight of our strengths, our ability to meet the likely challenges head on. We have proven ourselves resilient, determined and focussed in times of adversity in the past. While we're still dealing with the appalling fall-out of the most recent downturn, we've picked ourselves up to such an extent that we have skills shortages across all industry sectors.

So, while we have to be realistic and acknowledge the serious downsides of the Brexit fiasco, let's focus on tackling as best we can the challenges that arise instead of wilting under them.

## Building Services news

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A new mandatory product registration database for products covered by the EU Energy Labelling Regulations has been launched.

## NEWS AND PRODUCTS

### Brexit to impact F-Gases rules

If Brexit takes place on 30 March 2019 (if no later date is agreed), the UK will be a “third country” and, as such, the EU rules on fluorinated gases, and in particular Regulation (EU) No 517/2014, will no longer apply to the UK. A notice to affected industry stakeholders was published by the EU Commission in December 2018. This sets out the consequences of Brexit which need to be considered by companies affected by F-Gas Regulations. It can be viewed at [https://ec.europa.eu/info/sites/info/files/fluorinated-gases\\_en.pdf](https://ec.europa.eu/info/sites/info/files/fluorinated-gases_en.pdf)

Among other things, the notice states that as of the withdrawal date, certificates and training attestations issued in the UK will no longer be recognised for activities carried out in the EU-27 (which includes the Republic of Ireland) from 30 March 2019. This will create issues for:

- Personnel who hold training certificates or attestations issued by UK bodies such as City & Guilds;
- Companies and undertakings registered in the UK with certification bodies such as Refcom and Quidos.

The Irish authorities are working on solutions to these Brexit consequences, including working to ensure that all persons holding UK F-Gas certification obtained prior to 29 March 2019 will remain certified in Ireland and the EU post-Brexit. Updates will be posted in due course. The UK authorities have informed the EU authorities that, post-Brexit, they will automatically recognise EU27 certificates.

### Merchant Sales Traineeship

Twenty trainees have been accepted onto Ireland’s first Builder’s Merchants Sales Traineeship programme. The QQI-accredited programme, which is run by Grafton Merchanting ROI in conjunction with the Dublin and Dún Laoghaire Education and Training Board (DDLETB), aims to create a pipeline of skilled entry-level trade sales advisors within Grafton Merchanting ROI group. The programme is being piloted in Dublin with a view to nationwide roll out in 2019.

The inaugural class of trainees consists of 17 men and three women. Throughout the 26-week programme trainees will receive training in customer service, retail sales, IT skills, health and safety, and stock control. They will also receive a Safe Pass Card and a Manual Handling Certificate.

On-the-job learning will take up the remainder of the course time with participants assigned to mentors in their chosen branch. Trainees will be offered interviews with Grafton Merchanting ROI at the end of the programme.

Right: Patrick Atkinson, CEO of Grafton Merchanting (right) with Wayne Gilmore and Lauren Doyle, two of the group’s first trainees.



### Brogan joins Flaktgroup

Aaron Brogan has been appointed Project Manager for Flaktgroup Ireland. Aaron has been working in the building services industry for a number of years and the knowledge and experience gained over that time will support both contractors and consultants in his new role.



Aaron will engage in project management and support from initial design concept right through to handover and commissioning, as well as managing turnkey projects and maintenance procedures, and helping clients realise smart, energy efficient indoor and critical air solutions.

Contact: Aaron Brogan, Flaktgroup. Tel: 086 – 861 1484; [aaron.brogan@flaktgroup.com](mailto:aaron.brogan@flaktgroup.com)

### AECOM Review

AECOM’s 2018 annual construction review for Ireland points to industry growth of 20% in 2019, but says that there are very real fears over the looming talent shortage crisis.

While 77% of those involved in construction are positive about the future outlook for the sector, only 15% believe we are equipped to deal with the skills shortage.

See the full report at [www.aecom.com/ie/](http://www.aecom.com/ie/)



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for more information

## NEWS AND PRODUCTS

### Jones Eng gets BIM Level 2 BSI Kitemark™

Jones Engineering has received the BSI Kitemark™ for BIM Level 2 in accordance with PAS 1192-2:2013 (Design and Construction) certification from BSI (British Standards Institution). This builds on the Verification Scheme that Jones Engineering successfully obtained at the end of 2017 for BIM Level 2 covering PAS 1192-2:2013 (Specification for information management for the capital/delivery phase of construction projects using building information modelling).



Jason Leigh, BIM Interface Manager, JEG with Mick Downes, BIM Manger, Fire Protection Division, JEG; Mike Bailey, Professional Services Director, BSI; John O'Brien, BIM Manger, Mechanical Division, JEG; and Paul Lawrence, BIM Manager, Electrical Division, JEG.

This now means that Jones Engineering's BIM processes, procedures and management systems on completed projects are fully in compliance with the standards set out within PAS 1192-2:2013, which also includes meeting the requirements of BS 1192:2007+A2:16 and BS 1192-4:2014.

It will also have a direct association with the new ISO Standards of BS EN ISO 19650-1 and BS EN ISO 19650-2 which were published on 18 January 2019. This means that the transition from PAS1192-2 over to the ISO 19650 standards should be a seamless transition, with minimum impact on Jones Engineering aligning to these new ISO standards.

Jim Curley, Group Chief Executive, Jones Engineering said: "The BSI Kitemark is an acknowledgement of our commitment to consistent and demonstrable workflows for BIM. The focus BSI places on continuous improvement and engagement ties in with our core values and reflects our belief in added value for our clients. Relationships are the lifeblood of our company and strengthening these throughout the project delivery process is of utmost importance."

<https://arrow.tudublin.ie/bsn/vol58/iss1/1>

### Seán Finan now CEO of IrBEA

Chartered engineer Seán Finan has been appointed CEO of the Irish Bioenergy Association (IrBEA). Commenting on his new position Seán Finan said: "IrBEA has an invaluable and key strategic role to play in representing and advocating for the bioenergy sector in Ireland, and dealing with challenges such as climate change, emissions reduction and the provision of more renewable energy sources into the future. I will work with all stakeholders to ensure a sustainable future in bioenergy and to strategically position bioenergy to play a significant role in Ireland's sustainability renewable energy roadmap".

IrBEA has a diverse membership covering many professions and also includes research organisations, local authorities, education and advisory bodies.

Contact: Seán Finan, Chief Executive Officer, IrBEA. Tel: 087 – 414 6480; email: seanfinan@irbea.org



### EI 'access pathway' with UK

Engineers Ireland has signed an Access Pathways Agreement with the UK Engineering Council to ensure the continued recognition of professional titles held by registered engineers following the UK's exit from the European Union in March 2019. The Engineering Council is the UK regulatory body for the engineering profession and holds the national registers of 222,000 Engineering Technicians (EngTech), Incorporated Engineers (IEng), Chartered Engineers (CEng) and Information and Communications Technology Technicians (ICTTech).

Given the existing integration of the Island of Ireland's energy systems", says David Sutton (below), Chairman, Energy & Environment Division, "as well as the increasing integration between the Island and Britain, this agreement is particularly relevant to engineers working in the energy and utilities sector. It facilitates the continuation and expansion of multiple recognition agreements whereby the two statutory bodies will recognise the professional engineering titles awarded by professional engineering organisations both in Ireland and in the UK".

The Agreement recognises the equivalent holders of professional registered titles in both jurisdictions, including: (1) Chartered Engineer (CEng); (2) Engineering technician (EngTech); (3) Associate Engineer (Ireland)/ Incorporated Engineers (UK); (4) Information and Communications Technology Technicians (ICTTech).

The Agreement, put simply, ensures that engineers who apply, are assessed and achieve a registered professional title from Engineers Ireland, will continue to have that registered title recognised if they seek work in the UK post-Brexit. Correspondingly, engineers in the UK, who receive a professional title from one of their 35 professional engineering institutions, will have that title recognised if they wish to come to work in the Republic of Ireland.

Holders of Professional Titles will still have to apply to the professional engineering organisation in the host country and adhere to their rules and fee structures. However, the administrative process of doing so will be streamlined.



## NEWS AND PRODUCTS

### Grant at ISH 2019

**Grant is set** to make its return to the ISH exhibition in March of this year, following a successful first appearance at the event in 2017. Taking place between 11 and 15 March in Messe Frankfurt, the exhibition will see Grant showcase its diverse selection of innovative heating technologies.

Among the product line-up on display will be Grant's



range of Vortex condensing oil boilers, hybrid heating technologies and, one of its latest offerings, the Grant Solo fan convector radiator range.

ISH brings together companies from across the globe to share their latest solutions for the conservation of resources and use of renewable energy. The five-day exhibition attracts

thousands of exhibitors and visitors who share an interest in the latest product innovations in the energy and water sectors. If you are attending ISH in March, make sure to visit the Grant team on Stand E31 in Hall 11.

### RACGS 2019 outings

RACGS has announced the following golf outings for the 2019 season:

- 18 April:** Captain's Drive-in, Mount Juliet;
- 23 May:** President's Day, Luttrellstown Castle Resort;
- 20 June:** Rathallagh Golf Club;
- 15 August:** Ryder Cup RACGS v. NRGs, Knightsbrook Resort, UK (TBC);
- 20 September:** Captain's Day, Druids Glen Golf Club;
- 18 September:** Charity outing, Seapoint Golf Club.

#### 2019 COMMITTEE

- President:** Martin Buggy;
- Captain:** Fergus Daly;
- Handicap Secretary:** Michael Clancy;
- Secretary:** David Killalea/Mark Kiely.



## Do you remember? ...

# 1968

In 1968, Ireland was in the grip of a recession, a gas strike and 3,000 Dublin Corporation workers went on strike. The workers were striking for a pay rise similar to a recently-agreed ESB pay deal. During their 3-week strike, vast amounts of rubbish accumulated on the streets of Dublin. The strike ended with a pay rise for the corporation workers, who then had to do Dublin's biggest clean-up ever



According to the ESRI, 60% of undergraduates in



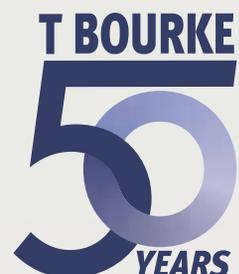
Ireland will emigrate on graduation. The Wanderly Wagon was broadcasting on Irish television and the Taoiseach was Jack Lynch.

Also, 1968 was the year that Ted Bourke left HA O'Neills (now Jones Engineering) to pursue his own venture, setting up

T Bourke & Co Ltd with offices in Ontario Terrace, Rathmines, Dublin 6. The company's primary focus was mechanical contracting and one of the first large projects secured was the Royal Dublin Hotel on O'Connell St, Dublin 1.

**Established in 1968, today T Bourke is one of Ireland's leading mechanical and electrical contractors. The company has a reputation for high-quality installations with experience across all industry sectors including commercial, process and pharmaceutical.**

[www.tbourke.com](http://www.tbourke.com)





## NEWS AND PRODUCTS

### Lidl goes solar

**Lidl has completed** the installation of energy-saving solar panels at its recently-opened Nenagh store, adding a further investment of €130,000 in renewable energy. The newly-installed solar panels will produce 120,000 kilowatt hours of energy from a sustainable resource and reduce the store's

carbon output by some 40 tonnes annually.

The investment in Nenagh is part of an ongoing €1 million commitment by Lidl to install solar panels at eight new and reconstructed stores which are due to open by the end of 2019.

The focus on sustainable energy at Lidl's Nenagh store has ensured that it

complies with a best-practice international energy efficiency standard, ISO50001, which is independently audited, along with all its 158 stores nationwide.

Other initiatives include the high-performance glass-fronted façade to maximise natural daylight entering the building; sensor-controlled exterior sun blinds to reduce unwanted heat; waste heat recovery ventilation systems; LED lighting; high insulation with external cladding, and lighting sensors.

**Photo shows Miroslav Kokot, Lidl Store Manager, Nenagh with Ger Higgins, Sales Director, Kingspan.**



### Panoramic Power at Glanbia

**Bord Gáis Energy** has used its unique understanding of Glanbia's energy usage and consumption trends to advise on the installation of Panoramic Power sensors at its Kilkenny facility. The sensors were installed following a detailed site survey facilitated by Bord Gáis Energy and which highlighted the site's main energy users.

Commenting on the introduction of Panoramic Power to Glanbia, Paul Grant, Glanbia's Procurement Manager said: "Bord Gáis Energy worked with us to install Panoramic Power at one of our Kilkenny sites in March of this year, and already we have identified areas around the site where we can take action to reduce our energy usage. The live reporting and alerts available allows greater insight into our business energy usage."

Deirdre Threadgold, I/C and Energy Services Category Manager at Bord Gáis Energy said: "We brought Centrica Business Solutions to the Irish market earlier last year and can now offer an unrivalled suite of end-to-end energy management solutions that will help businesses remain in control of their energy and turn their energy footprint into a source of competitive advantage."



**Paul Grant, Procurement Manager, Glanbia with Deirdre Threadgold, I/C and Energy Services Category Manager at Bord Gáis Energy.**

### Stelrad BIM commitment

**Stelrad Radiators has** embraced BIM since 2014 and has now added the new Concord range of radiators to its portfolio. The company aims to provide shared knowledge resources for architects, contractors, designers and engineers to support decision-making about projects, from the earliest conceptual stages through to design and construction, over its operational life, and eventual demolition.

Architects and building designers can now select the product they want to use from BIMStore, "drag" it into their design document, and "drop" it in place. It allows those planning a project to visualise and utilise real components at the planning stage. Stelrad's radiator products will be hosted at [www.bimstore.co.uk](http://www.bimstore.co.uk) and [www.stelrad.com](http://www.stelrad.com) and are available for subscribers to download and utilise in projects.

"We're stepping up our BIM involvement and broadening the range of products available," says Stelrad's Head of Marketing Manager, Chris Harvey. "Architects can utilise accurate 3D images of real products that provide an extremely accurate rendering of how that building will really appear. We feel this is an exciting move for us as a business and we look forward to expanding the range of options available still further in the months ahead."

Full details of the products featuring on [www.bimstore.co.uk](http://www.bimstore.co.uk), along with the wider range of products for domestic and commercial, use can be found at [www.stelrad.com](http://www.stelrad.com)

Contact: Stelrad. Tel: 0844 543 6200; email: [marketing@stelrad.com](mailto:marketing@stelrad.com)

## NEWS AND PRODUCTS

### BTU update

On the **second** attempt the BTU enjoyed a great day at St Margaret's GC, the first one falling victim to torrential rain. Michael McCarthy represented sponsor Versatile on the day and the results were as follows:

**Overall winner** – Stephen Costelloe, 36pts;

**Class 1:** First – G Hutchinson, 34pts; Second – M Morrissey, 34pts.

**Class 2:** First – M Bready, 35pts; Second – M Kelly, 30pts.

**Class 3:** First – D Daly, 31pts; Second – D Lambert, 29pts.

#### 2019 outings

26 April, Luttrellstown; 24 May, Forrest Little; 28 June, Hermitage (Captain's); 16 August, Woodbrook; 20 September, Newlands (President's); 11 October, Old Conna; 6 December, Castleknock.



**Right: Captain Martin Keogh with Class 1 winner Gerry Hutchinson and Michael McCarthy, Versatile.**

### CIT awards night

**Photo shows Ballinlough Refrigeration** apprentice engineer Darren Dempsey, who won the Apprentice of the Year 2017/18 in CIT

recently, being presented with his award by Richard Sherlock, Mitsubishi Electric (sponsor) at an exciting awards night held in the Institute. Also in the picture are Matt Cotterell, Head of School of Engineering with Michael Hourihan, Head of Centre of Craft Studies; Richard Sherlock, Mitsubishi Electric; Darren Dempsey; and Dr Barry O'Connor, CIT President.



### Do you have refrigeration, air conditioning, heat pump and fire suppressant equipment?

Then it is most likely reliant on HFC refrigerant gases for its ongoing operation.

EU regulation is having a strong impact by increasing the cost and reducing the availability of HFC's and some common HFC refrigerants such as R404A and R507A will also be restricted from 2020.

#### Don't wait, act now to provide for the continued operation of this equipment

- ✓ Review the gas types in your equipment
- ✓ Make a plan to transition to alternative refrigerants
- ✓ Avoid installing new equipment which uses R-404A / R-507A
- ✓ Retrofit existing equipment by switching from R-404A / R-507A to less damaging refrigerants
- ✓ Minimise refrigerant leakage by ensuring equipment is well maintained
- ✓ Recover HFCs for reuse in existing equipment pending a longer-term solution

For more information go to [www.fgases.ie](http://www.fgases.ie) and speak to your refrigerant contractor.

## NEWS AND PRODUCTS

### Lindab and Koolair form strategic alliance

**Lindab (Irl) Ltd** has formed a strategic alliance with Koolair SA, Europe's leading air diffusion manufacturer, to further strengthen its commitment to providing sustainable air distribution solutions.

Lindab (Irl) Ltd is part of the international Lindab Group that develops, manufactures, markets and distributes products and systems' solutions for simplified construction and improved indoor climate. With an extensive portfolio of products, Lindab (Irl) Ltd also represents other well-known brands such as Vent-Axia, Sodeca and Caice fan coil units.

and diffusers to sophisticated high-tech products (thermally adjustable diffusers, variable geometry diffusers, displacement ventilation units). Its production facilities in Madrid are highly automated with robotics, and it also has a very robust quality assurance system.

Koolair's exclusive and original user-friendly selection software "KomfortAir 3D" for air diffusion product selection is unrivalled among competitors.

Some large projects recently completed by Lindab (Irl) with Koolair air distribution products include the prestigious Avolon fit-out at the



Michael O'Herlihy has been promoted to National Sales Manager, Wilo Ireland. Michael has a wealth of experience and knowledge of all building services applications, and the pump sector in particular. He has worked in the industry for over 20 years, the last 10 of which he has spent with Wilo Ireland, where he held various regional sales management roles before taking up his new position.

Contact: Michael O'Herlihy, National Sales Manager, Wilo Ireland. Tel: 01 – 426 0000; Mobile: 086 – 381 9276; email: michael.oharlihy@wilo.ie



Des O'Brien, Technical Sales Manager, Lindab (Irl) picture with Patrick Boland, Managing Director, Lindab (Irl); Jose Susatre, Managing Director, Koolair SA and Jose Maria Munoz, Export Sales Director, Koolair SA.

In addition, Lindab has a network of factories around Europe for the manufacture of its own branded products which include a market-leading range of fire protection products, as well as innovative low-leakage ducting solutions.

Koolair, founded in Madrid, Spain in 1968, is one of the leading producers of air distribution equipment in Europe with project references throughout the continent and beyond. It is regarded as the industry leader in the area of air diffusion, with products from grilles

Number 1 Building, Ballsbridge in Dublin 4; International House in the Irish Financial Services Centre; The Atrium Building in Sandyford Industrial Estate; and the Grant Thornton Building on Dublin's City Quay.

Commenting on the partnership, Des O'Brien, Technical Sales Manager for Lindab (Irl) Ltd, said: "We see great opportunities in the market for both companies. This alliance will help strengthen our market position, and we look forward to a long and successful relationship".

### CIBSE WELL Building tool

As the WELL Building Standard originated in the US, a number of its requirements refer to US codes and standards which may be unfamiliar or not relevant in an Ireland context. Consequently, the CIBSE WELL Building Tool produced by CIBSE summarises the existing framework which engineers can refer to in order to position the WELL requirements in the Ireland context in terms of World Health Organisation (WHO) guidelines, CIBSE and SLL guidance, British Standards, Building Research Establishment Environmental Assessment Method (BREEAM), and a selection of other key industry sources. Worth perusing.

# Something Sirius-ly good from Baxi Potterton Myson

The new Sirius 3 range of Potterton Commercial boilers offers a solution for any project, whatever its size, as Paul Clancy, Managing Director of Baxi Potterton Myson, explains.

“**Sirius 3** is our most extensive range of boilers ever and includes eight floor-standing and seven wall-hung boilers. They are ideally suited for major public sector projects and larger, high-end developments.

“As well as smart new aesthetics and lightweight stainless steel heat exchangers, the boilers are supplied with state-of-the-art Siemens controls with simple descriptive display and easy-to-use programming functions. The integrated cascade function means that up to 16 boilers can be managed by the controller”, says Paul.

Boilers from the Sirius 3 Series have a wide modulation range of up to 9:1, which reduces constant on/off cycling, improving efficiency and boiler longevity. In addition, the low NOx (under 24.7 mg/kW) minimises the impact of the boilers on the environment. The floor-standing boilers have a gross seasonal efficiency of up to 97.5% and the wall-hung models of up to 97.3%, making them highly-efficient and cost-effective to run.

The wall-hung range is available in outputs of 50kW, 60kW, 70kW,

90kW, 110kW, 130kW and 150kW. The boilers are very compact, with the powerful 130kW and 150kW models having the same footprint as the 110kW.

The floor-standing models – available in sizes of 50kW, 70kW, 90kW, 110kW, 130kW, 150kW, 200kW and 250kW – have been designed to pass through 700mm wide doorways, making them easier to position when space is at a premium. The larger outputs have casters on the bottom, making them easier to move.

Sirius 3 boilers can be integrated with solar thermal, biomass and buffer tanks for sustainable solutions that improve efficiencies and reduce carbon emissions in line with Government targets.

Sirius 3 boilers are supplied with a five-year parts and labour warranty and Baxi Potterton Myson engineers are available to commission them where requested.

Contact: Richard Louth, Commercial Sales Specification Manager, Baxi Potterton Myson. Tel: 01 – 459 0870; 086 – 257 5241; e: richard.louth@potterton-myson.ie; w.pottertoncommercial.co.uk/getsirius



Potterton Sirius 3FS model

“ Sirius 3 boilers can be integrated with solar thermal, biomass and buffer tanks for sustainable solutions



Potterton Sirius 3 model

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## WILO-STRATOS MAXO: THE WORLD'S FIRST INTUITIVE SMART-PUMP\*.

The Wilo-Stratos MAXO delivers the easiest solution for complex market demands. It is the first pump which has a self-explanatory user interface – and already holds suitable setting of the control mode ready for various applications. In terms of system efficiency too, Wilo-Stratos MAXO is setting new standards with optimised and innovative energy saving features.

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For more information contact:

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27 - 28 MARCH 2019  
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<https://arrow.tudublin.ie/bsn/vol58/iss1/1>

**ISH**

HALL 9 E06/12  
11 - 15 MARCH 2019  
FRANKFURT

## WILO-YONOS PICO



A visible symbol of the new generation of high-efficiency pumps for heating and air-conditioning systems in residential dwellings is the green operating button, which together with new functions provides maximum convenience in commissioning and maintenance. Defaults for radiators or underfloor heating – symbolised by pictograms – save time during commissioning. The energy efficiency was improved once more and the power consumption is thus even lower and always in view. And thanks to the more compact construction, pump replacement is now even easier



IE5

## WILO-STRATOS GIGA

The Wilo-Stratos GIGA is the ideal high-efficiency pump for use in heating, air conditioning and cooling applications in buildings where large volumes of water have to be pumped to great delivery heights.

- f* Innovative high-efficiency pump for maximum overall efficiency levels
- f* High-efficiency EC motor with efficiency class IE5 according to IEC 60034-30-2
- f* Optional interfaces for connection to building automation using insertable IF modules



IE5

## WILO-HELIX EXCEL

Non-self-priming, highly efficient fully stainless-steel high-pressure multistage centrifugal pump with EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2, in vertical design with integrated high-efficiency drive and in-line connections.

- f* Highly efficient EC motor of energy efficiency class IE5 in accordance with IEC 60034-30-2
- f* Integrated electronic control “High-Efficiency Drive”
- f* Simple operation thanks to tried-and-tested Green Button Technology and a clearly arranged display
- f* User-friendly “X-Seal” cartridge mechanical seal and spacer coupling (from 5.5 kW) for fast and easy maintenance

wilo

## PRODUCT REVIEW

Given that heating and hot water accounts for around 62% of a typical domestic energy bill in a year, the heating system – and how it is controlled – can have a significant impact on fuel costs. Fitting better controls not only puts homeowners in charge of their energy consumption, but also their comfort levels. Increased awareness of this fact, along with the availability of grant aid and Energy Saving Credits, presents a significant business opportunity for installers, writes *Graham Doyle, Product Manager, Heat Merchants*. Here he pinpoints the critical factors influencing homeowner decision-making, and details for installers the key features and benefits to highlight.

# DEMAND FOR CONTROLS IS INSTALLER OPPORTUNITY

## Building Regulations

The Building Regulations specify that space and water heating systems should be effectively controlled. As a minimum, this requires automatic time and temperature control of space heating and stored hot water. Provision should be made to control heat input on the basis of temperature within the heated space, e.g. by the use of room thermostats, thermostatic radiator valves, or other equivalent forms of sensing devices.

For larger dwellings, independent temperature control should generally be provided for separate zones that normally operate at different temperatures. Thermostats should be located in a position representative of the temperature in the area being controlled and which is not unduly influenced by draughts, direct sunlight or other factors which would directly affect performance. Depending on the design and layout of the dwelling, control on the basis of a single zone will generally be satisfactory for smaller dwellings. For larger dwellings, e.g. where

floor area exceeds 100sq m, independent temperature control on the basis of two independent zones will generally be appropriate. In certain cases, additional zone control may be desirable.

## Zoned heating controls

Zoned heating controls provide full control of different areas in the home, in addition to managing heating and hot water independently. This can dramatically reduce energy bills. TRVs provide an important extra control that allows the temperature to be set in individual rooms, preventing energy from being wasted on heating empty rooms. The concept is simple but highly effective.

## Smart controls

Upgrading to a smart control can save homeowners up to €120 a year (Source Bord Gáis Energy) on heating bills with knock-on benefits to the environment. In addition to the substantial cost saving, smart controls offer exceptional flexibility and ensure the highest level of comfort.

# LET'S BE YOUR TRUSTED PARTNER FOR ALL YOUR BUILDING SERVICES PROJECTS



Xylem's Lowara brand leads the way in providing long term economical solutions for pumping and circulating clean or contaminated water. Lowara pumps, drives and packaged solutions such as pressure booster sets and wastewater lifting stations are all developed with low life cycle cost in mind. That means robust, highly efficient, easy to install products with a long service life. To make it easy to work with Lowara products, we offer a package of tools, including pump selection software and applications, circulator replacement guides and CAD & BIM files online.





Although typically more expensive than installing basic load or weather compensators, a smart thermostat is likely to pay for itself through reduced heating bills faster than any other technology covered by the regulations. Smart programmable TRVs are also available and can be fitted either as a stand-alone solution or as part of a zoned heating control system.

Another development relatively new to the domestic heating market is the concept of a central controller which works by linking all the elements of a home's heating controls, including room sensors and electronic TRVs.

Ideal for larger homes or apartments, this type of system provides wireless,

programmable control of radiators throughout the property, either via the central controller or by using an app. The latest solutions mean that temperature can be controlled room-by-room and hour-by-hour, even when homeowners are away.

#### **SEAI Better Energy Homes grant**

According to SEAI, upgrading heating controls can reduce heating energy usage by 20%. The SEAI heating controls upgrade grant value

is €700 and all homeowners, including landlords whose homes were built and occupied before 2006, can apply. Homes built from 2006 onwards should have been constructed to the 2003 Building Regulations and should not need significant upgrades. This is defined as the date your electricity meter was installed.

#### **Energy Saving Credits**

Installers can claim Energy Saving Credits for the upgrade of heating system controls through an easy-to-use scheme administered by Heat Merchants. The value of credit, which is returned to the installer, ranges from €67 up to €276, depending on whether the controls are entry level, full multizone controls or smart controls. Energy Saving Credits are also available for full system upgrades which feature heating controls. ■



➤ Fitting better controls not only puts homeowners in charge of their energy consumption, but also their comfort levels.



**Gather with the energy experts.  
Your competitors are.**

**seai** SUSTAINABLE  
ENERGY AUTHORITY  
OF IRELAND

**ENERGY  
SHOW**

**Your Energy Matters**

The drive to improve energy efficiency for Irish businesses continues at the SEAI Energy Show at the RDS Dublin, March 27th and 28th. This is a free event for energy professionals and business leaders keen to learn about the latest energy saving solutions. It will also offer top class exhibits, seminars and technology demonstrations, along with important networking opportunities.

**This is a business only event. Register today at [SEAI.ie/energyshow](https://seai.ie/energyshow)**

  @seai\_ie #EnergyShow19



**Rialtas na hÉireann**  
Government of Ireland

# e-idos<sup>®</sup>

products

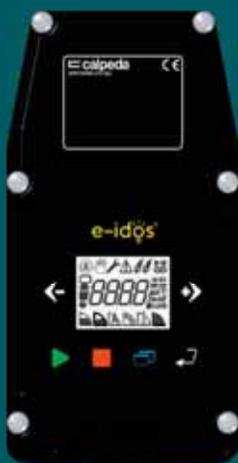
## PLUG AND PLAY SOLUTION

Easy to install and compact plug and play booster set.

Brand new asynchronous single-phase motor.

Equipped with pressure transducer, non-return valve, controlled starting current and temperature.

Includes programmable software and, thanks to the analogic pressure sensor, the re-start pressure can be set. An ideal solution that allows a reduction in size, or removal, of the expansion tank.



INTERFACE WITH LCD SCREEN



### FEATURES

- high efficiency asynchronous single-phase motor
- capacitor not stressed in voltage
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current
- elimination of water hammer
- built-in non-return check valve



water passion

# Pressurised system with integrated pressure control

Calpeda e-idos is a line of energy efficient pump solutions from Calpeda Ireland that are designed on a “platform” philosophy whereby the base and hydraulic part adapt to all pump models of the same family, and for all the three set versions (fixed-speed, variable-speed, mixed-speed).

These plug-and-play solutions have a compact design and use 24% less energy when compared to a standard pump.

A key element of the unique design is integration with the hydraulic part. The motor and the electronics are designed as a single unit to reach maximum performance. Not just a simple pump, this is more a booster system with integrated pressure control that is easy to install and is supplied ready to use.

## SAFETY AND PROTECTION

- dry-run protection
- air detection in the pump and in the filling cycle
- overload control and overheating motor control
- pump blockage
- overcurrent protection
- power supply control
- system leakage control
- high flow rate and piping failure detection



LESS ENERGY CONSUMPTION  
COMPARED TO A STANDARD PUMP



### Calpeda Pumps Ireland Ltd

Unit 5 Old Quarry Campus

Northwest Business Park

Phase 3

Blanchardstown, D15 Y4EK

Tel: 01- 861 2200; email: info@calpedaireland.com

# Celebrating excellence of Irish FM

The FM stage shone once again just before Christmas as the BIFM Ireland Awards – the final event under the British Institute of Facilities Management name as it is now known as the Institute of Workplace and Facilities Management (IWFM) – took place in Dublin at a glittering lunch-time ceremony.



**Impact on Customer Experience – CBRE at Holyhill, Cork:** Derek O’Boyle, MKF Property Services with CBRE Hollyhill, Cork team members Carrie Coleman, Facilities Coordinator; Eanna Kavanagh, Account Director; and David Caffrey, Business Unit Director.

**The Awards are** a true homage to the pedigree and long-standing quality of the facilities management sector in Ireland.

This year, 15 outstanding finalists across four categories were recognised for their excellence in professional facilities management delivery and practice. Once again, technology emerged as a resounding factor in delivering first-class FM services. The four category winners were as follows.

### Impact on Customer Experience

#### CBRE at Holyhill, Cork

CBRE’s winning entry demonstrated success in enhancing customer experience by creating an environment that fosters innovation through the encouragement and rewarding of employee ideas and technological software and equipment.



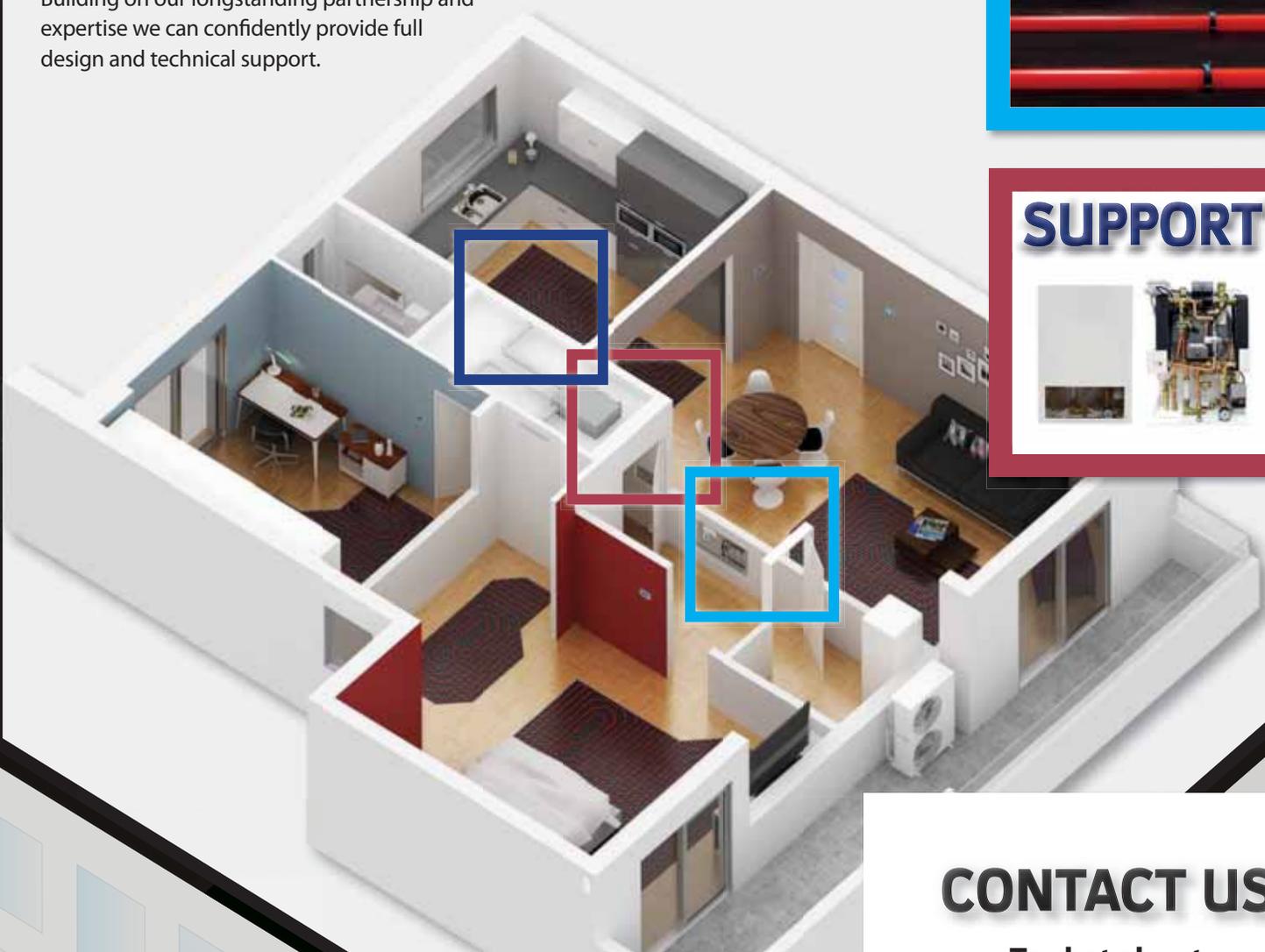
**Newcomer of the Year – Pierce McAllorum, JLL:** Renske Van Der Heide, EuroFM with Pierce McAllorum, EMEA Engineering & Sustainability Manager, JLL.

# INTEGRATED HEATING SYSTEMS AT *Davies*

*The systematic approach to communal heating.*

We take each specification seriously, configuring our heating packages to ensure you achieve complete client satisfaction with straightforward, carefully designed systems that are delivered on time and in budget.

Both our **COMMERCIAL UNDERFLOOR HEATING & HEAT INTERFACE UNIT PACKAGES** have been created in collaboration with HVAC manufacturer, **GIACOMINI**. Building on our longstanding partnership and expertise we can confidently provide full design and technical support.



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Published by ARROW@TU Dublin, 2019

**CONTACT US**

To chat about your project please contact:

**Davies Industrial**

Tel: 01-8511700  
Email: [info@davies.ie](mailto:info@davies.ie)  
Web: [www.davies.ie](http://www.davies.ie)



**Innovation in Products & Services – Robotics in Facilities Management, BAM FM:** David Martinez, EuroFM with Trish Sibley, Innovation and Robotics Lead for BAM FM; James Blaney, Facility Manager BAM FM; and Brian Millar, Regional Manager for BAM FM.

**Innovation in Products & Services Robotics in Facilities Management**

**BAM FM**

In this winning entry, BAM FM and its team offered an ingenious display of how technology and robotics can be used to enhance

the delivery of FM products and services, and to heighten and simplify user experience.

**Newcomer of the Year  
Pierce McAllorum, JLL**

Pierce was crowned this year's Newcomer of the Year for his exemplary career path at JLL,



**Team of the Year – Ervia FM Team, Ervia:** Des Maguire, Managing Director, Tech Skills Resources with Dermot Walsh, Energy & Systems Support Manager; Pat McAuliffe, Head of Facilities, Ervia; John Farrell, Head of Facilities & Property, Ervia; and Cormac O'Loughlin, Regional Facilities Manager, Ervia.

**About IWFM**

The Institute of Workplace and Facilities Management (IWFM), formerly known as the British Institute of Facilities Management, is the professional body for workplace and facilities practitioners. It was established to promote excellence among a worldwide community of over 17,000 and to demonstrate the value and contribution of workplace and facilities management more widely.

IWFM empowers professionals to upskill and reach their potential for a rewarding, impactful career. This is done by advancing professional standards, offering guidance and training, developing new insights and sharing best practice. The objective is to establish workplace and facilities management as a distinct profession, recognised beyond the built environment for its ability to enable people to transform organisations and their performance.

quickly cementing outstanding foundations as an EMEA Engineering and Sustainability Manager and overseeing the establishment of the new LinkedIn premises in Dublin.

**Team of the Year  
Ervia FM Team, Ervia**

The Ervia Facilities Management Team were awarded the Team of the Year trophy for their demonstration of strong leadership and achievement of outstanding results for their customers across Ireland through their innovative use of technology and systems. ■

# THE HEAT IS ON

## Tools and technologies to make HVAC systems smarter

Extreme seasonal changes are here to stay and modern heating systems need to keep up. Adding some “plug-and-play” technologies to the mix is now more essential than ever and here *Kevin Devine, Business Development Manager, Xylem Water Solutions Ireland*, explains the benefits of doing so.

**Managing heating and cooling** solutions within commercial and residential buildings is a delicate balancing act – a comfortable tenant and a comfortable bottom line are two of the facilities manager’s main concerns. Decades ago, this balancing act was achieved through a consistent heating schedule dictated by seasonal change.

However, such a heating “rota” can no longer cope with the complex demands of an increasingly unpredictable climate. The diversification of the workforce (ie ratio of men to women) is another factor in determining today’s heating/comfort solutions, as is the introduction of strict efficiency and emissions requirements.

The answer to climate change, diverse tenant expectations and strict legislation comes in the form of smart, scalable and modular heating and cooling technology. There are many technologies currently available that provide facilities managers and landlords with a relatively easy way of

delivering smart heating management systems to buildings, without requiring significant levels of up-front cost or intrusive installations. Some of those are detailed below.

### Zoned heating

Zoned heating systems allow facilities managers to control the level of energy used in a building by only heating rooms that are being used. Hydronic circulator controls, for example, use RJ-11 cables to connect systems of up to 18 circulators. Among other benefits, these controllers provide a domestic hot water priority and timer, pump exercise and a post-purge timer.

All of this functionality is integrated into the controller, which is also compatible with existing analogue and digital 24 VAC thermostats. The Lowara Ecocirc XL Plus intelligent circulator pumps provide state of the art technology in hydraulics, motors and controls. They are easy to install with no advanced programming necessary.

### Variable speed drives

Arguably one of the simplest ways to boost energy efficiency, the installation of variable speed drives into an existing system can lead to energy savings of around 50%. In most cases, you can install a variable speed drive by

**Left: Lowara EcoCirc XL small and medium commercial circulator.**

**Below: Hydrovar 5th generation variable speed pump controller.**



The answer to climate change, diverse tenant expectations and strict legislation comes in the form of smart, scalable and modular heating and cooling technology.

simply attaching it to the top of a pump such as a Lowara e-SV vertical multistage unit. The Hydrovar can be retro-fitted to any standard motor.

### Plate heat exchangers

Significant efficiency gains can be achieved through both brazed and gasketed plate heat exchanger designs. Compatible with both residential and light commercial hydronic systems, brazed plate heat exchangers offer increased heat transfer through a smaller surface area. Gasketed plate exchangers use a chevron pattern to create metal-to-metal contact points, offering superior heat transfer coefficients and “true” counter-current flow. This achieves the best-possible mean temperature difference between fluids. A full range of brazed and gasketed models is available from the Xylem Lowara portfolio.

Contact: Kevin Devine, Business Development Manager, Xylem Water Solutions Ireland.

Tel: 01 – 452 4444;

Mobile: 087 – 757 7411;

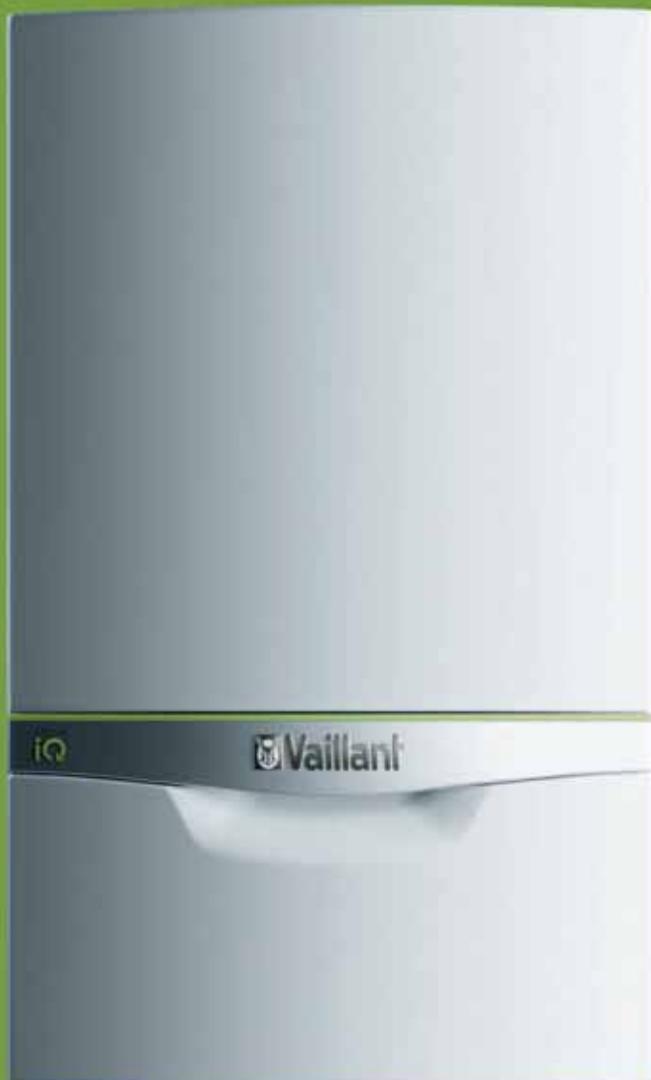
email: kevin.devine@xylem.com





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control on a smartphone app.

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As one of Europe's leading heating technology manufacturers, "thinking ahead" is a culture which is embraced throughout our business. Our products feature high energy efficiency ratings and low emissions, and come with an enviable reputation for performance, quality and reliability. We have introduced the smart Green iQ badge to denote this benchmark for outstanding quality and it is now featured on the new

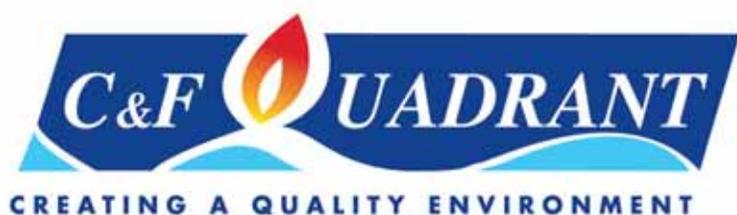
ecoTEC exclusive range which manages consumption and output to keep all its components running at peak performance for longer, and provide a low-maintenance solution. It consists of two large-output combination boilers (35kW, 43kW) with extra-condense technology, and a single-system boiler (27kW), which includes an integrated diverter valve with all delivering up to 94% efficiency.



Come see us at **PLUMBEX 2019 Cork**  
on 11 April at Clayton Hotel  
Silver Springs, Cork City



[www.cfquadrant.ie](http://www.cfquadrant.ie)



Vaillant and Glowworm domestic gas boilers – now with 5-year, 7-year and 10-year warranty options.



Contact C&F Quadrant for further details.

## Glow•worm

### The energy you need

The Glow-worm Energy System boiler from C&F Quadrant is a high-quality, high-efficiency boiler made from automotive grade aluminium that makes it very easy to handle and install.



Incorporating a high-quality aluminium heat exchanger, the Energy System boiler has a modern high-impact design suited to modern homes and comes with a bright, easy-to-read, LCD display, a smart timeless case design and super-quiet running.

Energy System boiler is ErP A rated and comes in an extensive range of outputs for various applications, including 12kW, 15kW, 18kW, 25kW and 30kW models.



The new generation Vaillant ecoTEC appliances are more efficient, and durable than ever before and are so compact that they fit in the smallest niche. They provide single and multi-family houses with central



heating and hot water at all times. Vaillant ecoTEC uses an electronic gas-air mix system and operates with optimum modulation. This reduces energy consumption and emissions, and also increases the efficiency of water heating. The integral condensation

heat exchanger and the new high-efficiency pumps provide additional energy savings. Output versions of 20/24kW, 25/30kW and 30/34kW as a mixed unit for heating and generation of domestic hot water are available, and of 16, 24kW and 38kW as a system boiler for heating only.



### C&F Quadrant Ltd.

Unit L40,  
Cherry Orchard Industrial Estate, Dublin 10  
Tel: +353-1-630 5757 Fax: +353-1-630 5715  
Email: [sales@cfquadrant.ie](mailto:sales@cfquadrant.ie)

# GEOHERMAL ENERGY AND GROUND SOURCE

## – The Importance of design and completion

**The change in Part L of the Building Energy Regulations and the introduction of the support scheme for renewable heat by SEAI is resulting in increased installations of heat pumps in both residential and commercial applications. Geothermal and ground source systems offer considerable benefits compared to some other heat pumps with increased year 'round efficiency, the potential for cooling, extremely low visual impact and reduced noise emissions. All of these benefits are now becoming more attractive in the context of building design and long-term delivery of heating and cooling.**

**The installation of** a geothermal system represents a major investment, both in the plant equipment on the surface but, more importantly, in the heat exchanger installed in the ground that determines the efficiency and operation of the system. The use of best practice in design and installation of the ground heat exchanger is critical to ensure the long-term efficiency of the system. This is often difficult to achieve as the completion of a collector falls on the remit of several specialists that need to interface at early project inception to achieve this. These include building designers, mechanical and electrical engineers, drillers and the heat pump installers. The lack of dedicated guidance on the installation of systems often leads

to the use of “rules of thumb” or other standards for sizing collector heat extraction and rejection rates from systems, without critical installation and operational challenges being addressed.

### Ground conditions

The performance of a closed-loop geothermal collector is critically influenced by the ground temperature, the presence of groundwater and the thermal conductivity of the rock or soil in which it is to operate. The importance of this is commonly overlooked and site specific conditions (especially in the case of residential systems) are not taken into account. Over the course of long-term operation of the system, these can result in significant loss of efficiency and increased running costs with many of these effects not obvious until several years of operation have elapsed. The presence of groundwater and the potential for long-term sustainable pumping is similarly essential when open-loop systems are envisaged.

### Collector design

To maximise efficiency over the operational lifetime of the system, the heating and cooling loads required from a geothermal system need to be considered in conjunction with base-

and peak-load requirement, as well as the heat pump COP and operational parameters. Combined with ground-specific characteristics and the consideration of the constructability of a collector, these should be carefully modelled and should influence the final collector selection and design best suited for a particular site.

### Drilling and installation

The drilling and installation process followed in the case of closed-loop collectors for brine-to-water heat pumps, or for open-loop water source heat pumps, is critical. With closed-loop systems the drilling method selected and the installation and grouting process of the probes must follow international best practice. They must also adhere to Irish and EU Standards (EN17628:2015) to ensure effective long-term performance. A critical part of this includes adequate testing following the drilling and the installation of surface pipework to the plant room.

### GeoServ turnkey service

“With many years of experience the GeoServ team has developed a turnkey shallow geothermal service designed to ensure that the highest performance of ground collectors is achieved”, says Riccardo Pasquali, Managing Director, GeoServ. “We work with our clients from early project inception and feasibility stage to critically assess the best geothermal options for their sites. This is achieved through early site assessment, the selection of adequate collector types (horizontal, vertical or open-loop), as well as implementing any early testing that will help demonstrate the best potential operation of a system in the long-term. We offer a full installation package including drilling, probe and collector completion, testing and surface pipework back to the plant room.

For more information on GeoServ's turnkey services contact: Riccardo Pasquali, GeoServ. Tel: 01 – 525 2023; email: [info@geoservsolutions.com](mailto:info@geoservsolutions.com); [www.geoservsolutions.com](http://www.geoservsolutions.com) ■

**Riccardo Pasquali,**  
Managing Director,  
GeoServ



# Siriusly impressive new range 50-250kW.

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15 wall-hung and floor-standing stainless steel boilers offering up to 9:1 modulation, with high gross seasonal efficiency and an upgraded controller. Plus, every boiler is backed by a 5 year warranty\*

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\*see terms and conditions at [pottertoncommercial.co.uk](http://pottertoncommercial.co.uk)



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**POTTERTON**  
COMMERCIAL

## EXHIBITION PREVIEW

# INNOVATIVE ENERGY SOLUTIONS AT ENERGY SHOW 2019

**Ireland's leading energy event – the SEAI Energy Show – returns to the RDS on Wednesday, 27 March and Thursday, 28 March 2019, and will feature 150 exhibitors of sustainable energy technologies and services, along with a comprehensive programme of seminars, conferences, skills demonstrations and product awards.**

**T**he annual two-day event is free to trade/business visitors and is a must for those who want to network, learn, build business opportunities and experience the latest innovative technologies in the energy sector. Last year almost 4,500 people

attended the SEAI Energy Show and, according to exhibitors, over €90 million worth of business was won at the event.

Visitors to this year's show will see everything from large-scale renewable energy solutions to smart energy

management systems and lighting technology innovations. Best practice demonstrations will be given on building fabric solutions with free test drives in the latest electric vehicles also available. To maximise their attendance at the show and help facilitate networking opportunities, visitors can download a custom app that is freely available.

This year a number of key seminars will be held over the two days. Of particular interest to those involved in building services is a session titled *Design Team Approach for New Builds and Retrofits*. This will look at risk mitigation strategies for the delivery of NZEB in new and existing homes.

The session titled *Delivering a Nearly Zero Energy Commercial Building* will bring professionals up to speed on the key success factors to achieve NZEB and the future implications on new builds and retrofits. Some sessions are CPD accredited and full details of how to register are available on [www.seai.ie/energyshow](http://www.seai.ie/energyshow)

A two-day ventilation event will be held in collaboration with the Air Infiltration and Ventilation Centre (AIVC) and CIBSE Ireland. Expert speakers from Europe will present papers and discuss the practical implications of future changes to building regulations in Europe, trends in ventilation systems, and the importance of indoor air quality on both health and wellbeing.



The live demonstration area is a key feature of the Energy Show with continuous presentations covering ventilation; heat pumps; airtightness; thermal bridging; dry lining; and cavity, external, internal, attic and foam insulation.

## EXHIBITION PREVIEW

Attendees can link up with other industry and professional associations, including the National Insulation Association of Ireland (NIAI), Engineers Ireland (EI), the Heat Pump Association (HPA), the Irish Solar Energy Association (ISEA), and the Association of Plumbers and Heating Contractors of Ireland (APHCI), among others. Many will be involved in the demonstration area which is anchored by NIAI and will showcase live demonstrations of best practice in the installation of insulation, ventilation, solar panels, airtightness, thermal bridging and heat pump technology.

Representatives from a host of worldwide embassies will be available to meet with Irish companies to discuss business opportunities in countries like Argentina, Brazil, France, Canada, Denmark and Romania.

The SEAI Energy Theatre will also return this year and will feature 45-minute talks with industry experts on the latest policy and market developments in energy efficiency and renewable energy. Of particular interest to engineers are:

- A session on the changing trends in Ireland's energy use and supply, and Ireland's recent progress towards its renewable energy targets. The session also aims to engage the audience to think about big ideas to address Ireland's goals to reduce carbon emissions;
- A session on the government's Support Scheme for Renewable Heat will give a review on the supports available, the technical criteria involved and how to avail of funding;
- A session presenting SEAI's Research, Development and Demonstration (RD&D) Funding Programme. This session is aimed at anyone interested in progressing business innovation and market development with grant funding. The talk will outline what supports are available and showcase

a number of innovative projects that have previously received funding support;

- A session on renewable energy progress in Ireland showing the latest energy figures for the use of wind, solar, biomass and other renewable sources for heat, electricity and transport.

The SEAI Energy Show is a free

business/trade event and will run from 10am – 7pm on Wednesday, 27 March and 9am to 4pm on Thursday, 28 March 2019.

For further details and to register, visit [www.seai.ie/energyshow](http://www.seai.ie/energyshow) ■

**Below: Frank Keohane and Martin Cross of Litho Circuits, winner of the 2018 Best Lighting Product, with Majella Kelleher, SEAI.**



**seai** SUSTAINABLE ENERGY AUTHORITY OF IRELAND  
**ENERGY SHOW**

**27–28 March 2019 | RDS, Dublin 4**

# KXZR 3-pipe system from Mitsubishi Heavy Industries

The Mitsubishi Heavy Industries KXZ VRF series delivers high performance in cooling and heating for all commercial applications, and incorporates the highest level of design flexibility, improved efficiency and enhanced operational functions.

**Features of the new series** include the following:

- Improved energy efficiency and in mixed mode;
- Expanded line-up from 8HP to 60HP;
- Additional Hi-COP combination 16HP to 36 HP for increased energy efficiencies;
- Improved EERs and COPs compared to the previous model;
- Improved heating capacity in low ambient temperature;
- Improved cooling capacity in low ambient temperature;
- Improved and newly-designed branch control boxes.

There is now a choice of different indoor units available, with connection capacities ranging from 50% to 200%, depending on the outdoor unit model. This ensures maximum feasibility and installation flexibility.

Similar to its 2-pipe sister model KXZ, the new 3-pipe KXZR's improved EERs and COPs are due to a new multi-discharge compressor that optimises the pressure control during operation. There is also a new concentrated winding motor. These have led to increased seasonal energy

efficiencies, especially in partial load conditions.

The newly-introduced "Continuous Heating Capacity Control (CHCC)" for the 3-pipe units increases the heating period of the outdoor unit and reduces the mandatory defrost operation to a minimum. This new control ensures, and dramatically increases, comfort for the user during defrost operation.

## **New software**

The new software on the outdoor unit PCB will now also automatically select the most energy-efficient modus during "mixed mode" (both heating and cooling demand at the same time), with maximum COPs of 9.0

The outdoor units feature a new divided heat exchanger which dramatically improves cooling capacity in low ambient temperatures.

This increases the operation without anti-frost operation down to -5°C.

Finally, the newly-designed branch control PFD-boxes now boast much lower noise levels, thanks to new insulation and external covers, with levels for the operation switch down to around 10db(A).

Contact: Michael Clancy (087 – 262 0701) or Graham McCann (087 – 950 9402), Diamond Air Conditioning. Tel: 01 – 636 3131; email: [info@diamondair.ie](mailto:info@diamondair.ie); [www.diamondair.ie](http://www.diamondair.ie) ■

» The KXZR 3-pipe system offers highest levels of design flexibility, improved efficiency and enhanced operational function.



Mitsubishi Heavy Industries' 3-pipe KXZ VRF series

et al.: BS News January/February

# Unique, Stylish and Innovative Design for Air Conditioning Indoor Units

## Samsung 360 Cassette



Tel: 01 286 4377

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# SAMSUNG

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# S&P Ireland for the complete range of grilles and ventilation accessories



## S&P Ireland Ventilation Systems

S&P Ireland Ventilation Systems Ltd is the Irish subsidiary of a group of companies, one of the world's market leaders in the ventilation industry. Established in 1972, S&P Ireland brings the vast experience and technical expertise of its parent group to bear when developing solutions for the Irish marketplace. Applications covered are commercial, industrial and process ventilation. The team at Soler and Palau has over 40 years of experience in the industry and provides professional and technical advice and support for a complete solution for all project applications. S&P ... companies deliver ventilation excellence.

ge of fans,

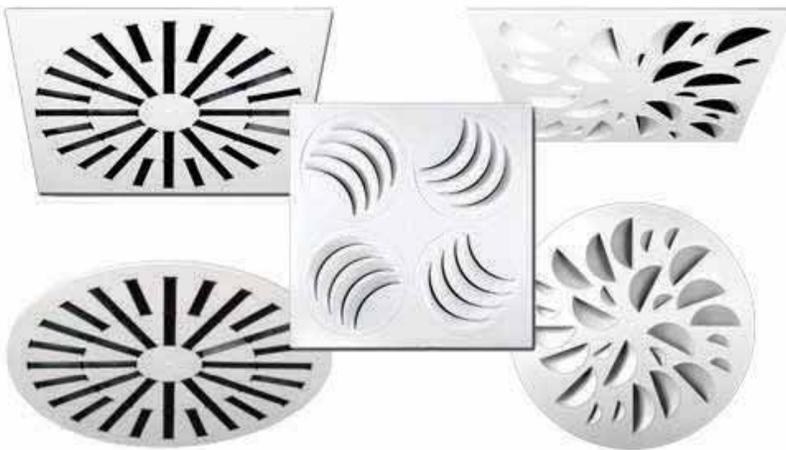
[www.solerpalau.ie](http://www.solerpalau.ie)



ish subsidiary of the Soler & Palau Group  
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st product portfolio and technical  
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mprehensive and include domestic,  
equipment.

's experience in the ventilation business  
on choosing the optimum ventilation  
bining R&D, technology and design to



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# CONTINUOUS MONITORING FOR OPTIMAL INDOOR ENVIRONMENTS

## Air quality

Continuous monitoring of air quality is most prevalent in the external environment. For example, the Environmental Protection Agency (EPA) Ireland administers continuous monitoring of the external environment, with this monitoring including air quality of pollutants such as radon, particulate matter, ozone and nitrogen dioxide, all of which can be harmful to humans when exceeding certain thresholds.<sup>1</sup>

While the current practice of continuous monitoring in the external environment processes serves a strong purpose, we are missing a key opportunity: we spend approximately 90% of our time indoors. What is the quality of the indoor environments where we spend most of our time ... in our homes, offices, creches, schools, and universities? The answer is that most of the time we don't know.

The second wave of sustainability,<sup>2</sup> a movement that elevates human health and well-being in our buildings and communities, tackles this missing link. Building certification programmes such as the WELL Building Standard™ (WELL™) and RESET™ provide strategies and guidance for continuous monitoring (see panel for more information). Whereas RESET is fully focused on indoor air quality, WELL also proposes continuous monitoring for water quality and thermal comfort.

Taking a comprehensive approach, WELL requires third-party air quality testing every three years, and continuous air quality monitoring is



In this specially-commissioned article Mona Holtkötter (pictured right), Associate, Market Solutions, International WELL Building Institute (IWBI) and CIBSE Ireland Vice-Chair, examines the current state, and future trends, of continuous monitoring for air quality, water quality and thermal comfort.

Continuous monitoring of, or using sensors and other technology, to view and communicate air quality, water quality and thermal comfort is not common practice in most buildings. "Why is this the case" asks Mona, "and why is it important to integrate continuous monitoring into more buildings?" In answering the question, she starts with air quality.



Keep looking  
you'll never find me

## VRV IV heat pumps for indoor installation

You can install highly efficient, reliable Daikin air conditioning systems in the most demanding locations while remaining invisible from street level.

### Invisible

- ✓ Only the grilles are visible
- ✓ Seamless integration into surrounding architecture
- ✓ Low operation sound



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**patented**  
concept



### Intuitive

- ✓ Total flexibility as the outdoor unit is split up in 2 parts
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- ✓ Easy servcability, all components can be easily reached

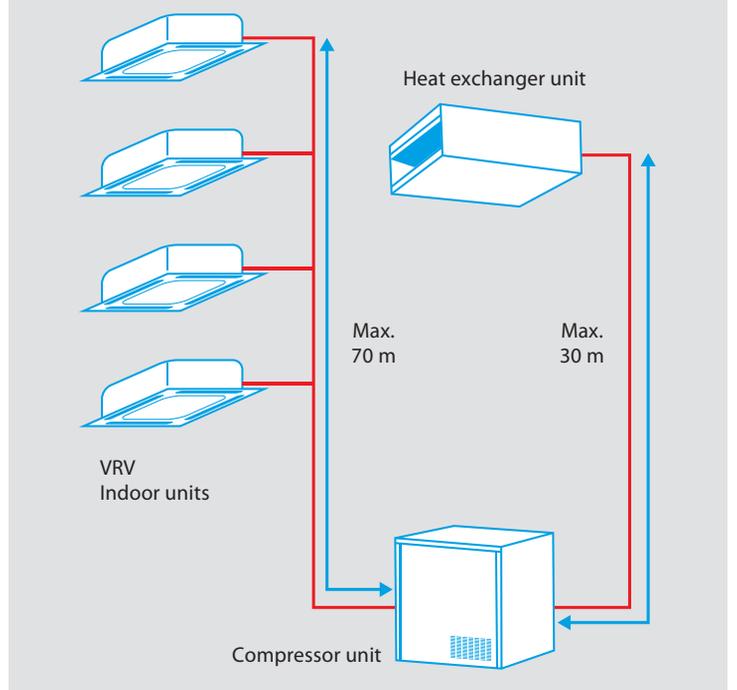


### Intelligent

- ✓ Patented V-shape heat exchanger for the most compact unit ever
- ✓ Connecatable to all VRV indoor units
- ✓ Total solution when combined with ventilation units, Biddle air curtains and controls



### System layout



an optional strategy projects can pursue. IWBI and GIGA, the organisations behind WELL and RESET, are collaborating to streamline the implementation process so that projects using RESET™ Air Version 2.0 will be able to leverage that involvement for the benefit of various WELL v2 features within the air concept.<sup>3</sup>

#### *Why is continuous air quality monitoring important?*

On average, humans breathe around 15,000 litres a day and the quality of air we breathe is inevitably important to our health. Health effects associated with exposure to indoor air pollutants can be short- and long-term, and can range in severity. Less severe symptoms of exposure can include headaches, dry throat, eye irritation or runny nose, while more severe outcomes can include asthma attacks, infection with Legionella bacteria, carbon monoxide poisoning and cancer.<sup>4,5</sup>

Exposure to air pollutants has also been shown to increase the risk of respiratory and cardiovascular diseases, myocardial ischemia, angina, high blood pressure and heart disease.<sup>6</sup> In the most recent global burden of disease study, household air pollution was rated as the third most important cause of ill health for the world's population.<sup>7</sup>

#### *What aspects should be considered?*

The most common indoor air contaminants are combustion sources – candles, tobacco products, stoves, furnaces, fireplaces, etc – that release pollutants such as carbon monoxide, nitrogen dioxide and small particles into the air.<sup>8</sup> Additionally, building materials, furnishings, fabrics, cleaning products, personal care products and air fresheners can all emit volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) into the indoor environment.<sup>9</sup> Outdoor air pollution can also influence indoor exposure when pollutants diffuse indoors through building envelope openings, so there is a need to simultaneously address outdoor air quality.

WELL's recommended approach to continuous air quality monitoring addresses all of these aspects by measuring the following:<sup>10</sup>

- Particulate matter (PM 2.5 and PM 10);
- Carbon dioxide;
- Carbon monoxide;
- Ozone;
- Nitrogen dioxide;
- Total VOCs;
- Formaldehyde.

#### **Water Quality**

Some aspects of water quality testing are captured during

the commissioning process, for example disinfection of pipework systems. However, common guidance documents for commissioning of pipework systems such as CIBSE Commissioning Code W: Water Distribution Systems, BSRIA Pre-commissioning Cleaning of Pipework Systems or BSRIA Commissioning Water Pipework Systems provide more detail for heating and air conditioning applications than for drinking water for human health.

#### *Why is continuous water quality monitoring important?*

Nearly two-thirds of the human body is composed of water; it is a major component of cells and the dominant component of fluid between the cells. Water is the medium for the transport of nutrients and waste throughout the body and helps to regulate the internal body temperature.<sup>11</sup>

While developed countries have experienced improvements in reducing pathogens related to infectious diseases, there has been increasing risk from industrial, agricultural and pharmaceutical sources. For example, water with high levels of nitrate can impair

» Everyone involved in building services engineering – be it the system designer, installer or manufacturer/distributor – has a role to play in realising the objectives of the WELL and RESET concepts.



# AIRSTREAM

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oxygen transport in infants and lead exposure can impair neurodevelopment in children.<sup>12</sup>

#### *What aspects should be considered?*

The quality of water is not a constant parameter; it can fluctuate based on weather and other factors. For example, where the soil in watersheds contains large amounts of silt and clay, the water's turbidity levels rise during periods of snowmelt and heavy rain.<sup>13</sup>

Water quality can also vary because of changes to infrastructure, particularly for contaminants introduced downstream of municipal water treatment. For example, lead and copper in older pipes can dissolve into the drinking water if anti-corrosion additives are not maintained, representing a particular risk when the source of a water supply changes.<sup>14</sup>

To help detect fluctuations in drinking water quality, testing

the following contaminants on a quarterly basis is recommended by WELL:<sup>15</sup>

- Lead;
- Copper;
- Turbidity;
- Coliforms.

#### **Thermal Comfort**

Continuous monitoring of thermal comfort is widely unknown within the industry. During the commissioning process, airflow rates and the dry-bulb temperature are typically tested, but air speed and mean radiant temperature, two important aspects influencing people's thermal comfort, are not usually included.<sup>16</sup>

#### *Why is continuous thermal comfort monitoring important?*

Unfavorable levels of heat, humidity and ventilation are associated with people's experience of itchy eyes, headache and throat irritation.<sup>17</sup> Outdoor weather, indoor occupancy and building

physics and performance, including ventilation rates, are highly variable and have a direct impact on how people perceive their thermal comfort levels. Continuously gathering data on thermal comfort parameters can help to maintain ideal performance metrics and inform remediation actions.

#### *What aspects should be considered?*

To help mitigate people's dissatisfaction around thermal comfort and help inform the building's facilities and operations teams, WELL recommends continuous monitoring of the following parameters:<sup>18</sup>

- Dry-bulb temperature;
- Relative humidity;
- Air speed;
- Mean radiant temperature.

#### **An industry example**

While the objectives of the WELL and RESET initiatives are in the early stages of acceptance, there are still plenty of examples of WELL and RESET certified buildings not just throughout the world, but here in Ireland. For instance, the new IPUT office at St Stephen's Green was recently awarded WELL Certification at the Gold Level – a first in Dublin. In an effort to provide a more comfortable and productive space for employees and achieve WELL, IPUT's office successfully passed third-party testing for air quality, water, lighting, acoustics and thermal comfort.

To improve working conditions for people inside the building, IPUT installed sensors to continuously monitor indoor air quality in the office space and meeting rooms, which allows staff to view readings on CO<sub>2</sub>, humidity, temperature and VOCs in real time. IPUT also committed to regularly test the quality of the drinking water. These strategies improve the

## About WELL

The WELL Building Standard™ (WELL™) is a global performance-based system for measuring, certifying and monitoring features of buildings that impact the health and wellness of people. The WELL v2™ pilot is a recently-launched version of the popular WELL Building Standard, and the WELL Community Standard™ pilot is a district-scale rating system that sets a new global benchmark for healthy communities. WELL is focused exclusively on the ways that buildings and communities, and everything in them, can improve comfort, drive better choices, and generally enhance, not compromise, health and wellness. For more information about IWBI and WELL, visit [www.wellcertified.com](http://www.wellcertified.com)

## About RESET

The RESET Standard and Certification Program is first and foremost a standard for data quality, particularly as it relates to sensor and cloud technology. Buildings certified under the RESET™ Air Standard continuously monitor indoor air quality and live-stream the results to a cloud where it is accessible to tenants, employees and building management. The air quality measurements are verified against best practice. For more information about RESET, visit <https://www.reset.build/>

quality of air to breathe and water to drink, and help to demonstrate to their employees and the Irish industry at large that people are the priority.

Everyone involved in building services engineering – be it the system designer, installer or manufacturer/distributor – has a role to play in realising the objectives of the WELL and RESET concepts. It also makes good business sense. ■

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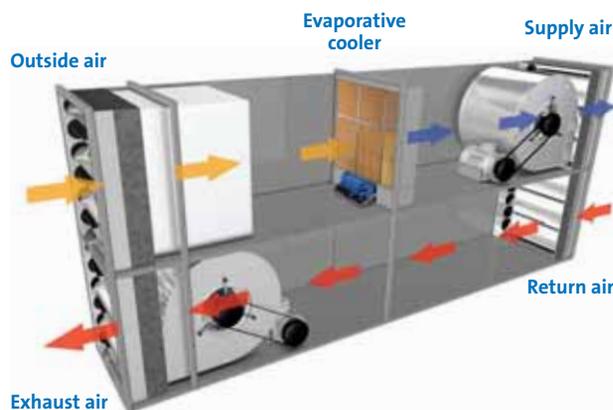
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■ Carrier VSD Screw Premium Efficiency Air Cooled Chiller



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■ Lu-Ve Dry Air Cooler



■ Vertiv/Liebert Indirect Evaporative Cooling Unit

... speak for themselves

(for everything else, speak to our staff)

# SMART CONTROL AC with Panasonic Comfort Cloud

The new Panasonic Comfort Cloud offers advanced smartphone control of air conditioning from anywhere in the world and at any time. This smart new App allows owners to remotely manage up to 200 RAC units, set up additional user profiles with variable access rights, monitor energy usage, and learn how to reduce costs. Comfort Cloud is aptly named, especially with the emergence of the WELL Building concept, and WELL certification.



**Comfort Cloud includes** an easy-to-use interface and weekly timer functions among other features, all from both Android or iOS smart devices. It offers a wide choice of benefits for homeowners, multi-tenant owners and for small-to-medium sized commercial premises. With remote control of indoor functions, including all units on/off, quiet mode operation, fan speed settings, airflow direction and temperature control, users can instantly increase comfort and make energy savings at any time.

The weekly timer option can accommodate up to six events per day and 42 in a week. The user can pre-programme climate settings to suit the daily and seasonal needs of inhabitants,

for example pre-cooling an office in summer before employees arrive for the day. This useful feature helps to save time and effort, while also conserving energy when the property is unoccupied. This is particularly beneficial for businesses where the comfort of employees and opportunities to make cost savings are both important considerations.

### Energy monitoring and statistics

Panasonic Comfort Cloud monitors the energy usage of each connected unit, identifying areas where energy consumption can be reduced, and efficiency increased. Information is clearly displayed in easy-to-understand graphs that highlight daily patterns of usage.

Access can be granted for multiple users, with different levels of control for each additional user. This is ideal for individual offices, for example allowing each employee to control the temperature in their own room. It also applies to

homes, and is especially useful for those with second homes.

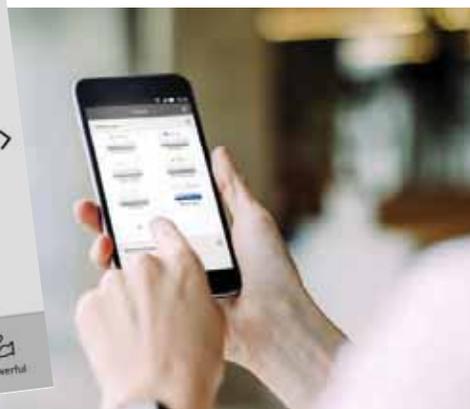
The intuitive interface, available in 19 languages, displays information in a simple format, using pictograms and diagrams to allow each user to quickly and easily navigate the app.

Users can manage up to 200 air-to-air heat pump units across a maximum of 10 locations, from just one smart device. They can also register a maximum of 20 air-conditioning units per location. This is a huge benefit for owners of multiple properties, holiday rentals or homes with additional outbuildings such as a studio.

Panasonic Comfort Cloud provides energy consumption updates and sends an error code in the event of a malfunction, so quick action can be taken when maintenance is required.

The WiFi kit is compatible with Panasonic RAC indoor units with a CN-CNT connector\* (CS-Z\*\* and CS-E\*\* from 2017/18, except floor consoles CS-E\*\*GFEW). Its compact size allows it to discreetly and easily attach to the air-conditioning unit, for instant connectivity with Panasonic Comfort Cloud. Setting up the app is also easy, simply download for free from the Apple Store or Android Play Store as "Panasonic Comfort Cloud", register, log in and follow the simple instructions to get started.

Contact: Vincent Mahony, Ireland Sales Manager, Panasonic. Tel: 087 – 969 4221; email: vincent.mahony@eu.panasonic.com



# TEMPERATURE CONTROL FOR TODAY & TOMORROW



## KXZ

# KXZ VRF Series for High Performing Cooling and Heating

The new Mitsubishi Heavy Industries KXZ VRF series delivers high performance in cooling and heating for all commercial applications. It offers the highest level of design flexibility, improved efficiency and enhanced operational functions.

We've Always been Solutions Focused



### VTCC

The Variable temperature and capacity control (VTCC) is a newly-developed energy saving function specifically designed to maximise energy savings in partial load conditions throughout all seasons.

### Flexible pipe length

One of the key features sees maximum piping length between indoor unit and outdoor unit now at 160m, while the maximum height difference has been increased to 70m. This gives greater flexibility of installation.

### Peak cut control

The peak cut function can easily be set to control the capacity and provide improved energy savings in the long run. Five steps of capacity control are available with 100%, 80%, 60%, 40% and 0% settings.

### Tool E-solution

Using MHI's E-Solution software tool, which includes specification details of the latest KXZ VRF systems, engineers can select the most cost-effective and energy efficient mix of indoor units, outdoor units, pipework and controls.

### Improved scroll compressor

The enhanced KXZ multi-port compressor includes two additional discharge ports which optimise the pressure control within the compressor.

### Priority Operation

The KXZ has four operation modes – First Unit Operation, Last Unit Operation, Majority Operation and Master Operation.

### Emergency stop function

The new KXZ has control for emergency stop by external input, i.e. an alarm unit can be connected to the PCB.



Diamond Air Conditioning Ltd, 71 Premier Business Park, Ballycoolin Road, Dublin 11.

Tel: 01 – 636 3131; email: info@diamondair.ie; www.diamondair.ie

Published by ARROW@TU Dublin, 2019



# Condair outdoor steam humidifiers

Leading humidification specialist Condair has extended its range of electric steam humidifiers to include new IP55-rated models suitable for outdoor installation. The robust enclosures on the Condair RS resistive steam and Condair EL electrode boiler steam humidifiers means the units can be located on rooftops and exposed to the elements.

Rather than simply installing the standard humidifiers inside a protective housing on a rooftop, the new outdoor humidifiers from Condair have purpose-built IP55-rated casings. This means they take up much less room on a rooftop and are easier to install. Condair's new outdoor humidifiers are the most compact in the industry. They have the smallest footprint and incorporate lifting handles to make on-site transportation easier.

The enclosures incorporate a thermostat-controlled heater and fan unit to maintain the

internal temperature at an optimum level with outside ambient conditions ranging from -20° to 40°C. An anti-freeze valve will ensure the humidifier completely drains should the unit experience temperatures of less than 6°C during periods of operation.

The new Condair outdoor humidifiers can be wall-mounted, allowing them to be attached to an AHU, or free-standing. Lockable doors are removable for easy access and optional internal lighting improves visibility for servicing and maintenance.



Damien Power, Condair Area Sales Manager for Ireland.

Alongside these new enhanced "outdoor" features, the Condair RS and Condair EL steam humidifiers inside the robust outer casing still offer all the innovative features that make these resistive and electrode humidifiers market-leaders. The latest touch-screen control panel gives intuitive control over operation and reporting, and a USB connection allows software to be updated and historic operational information downloaded into Excel.

The Condair RS resistive steam humidifier has an innovative scale-management system that sees limescale detach from the heating elements and fall into a scale-collector tank. This can be emptied occasionally to remove scale from the system without the need for major maintenance downtime. The Condair EL electrode boiler humidifier has advanced water quality management that precisely maintains the mineral content of the boiling cylinder. This avoids the need for excessive flushing of hot water to drain and minimises limescale formation.

Contact: Damien Power, Area Sales Manager for Ireland. Email: [damien.power@condair.com](mailto:damien.power@condair.com) ■



The new outdoor steam humidifier from Condair.

# Mitsubishi Electric leads WELL Building drive

More than ever in the European heating, ventilation and air-conditioning (HVAC) industry there is not just a need, but a willingness, to change. A combination of fuel prices, carbon reduction, legislation, climate change and down-time costs have re-focused the sector's outlook, and this is very apparent here in Ireland, writes *Andrew Keegan, National Specification Manager, Mitsubishi Electric Europe – Ireland.*

**The industry has** met this change head on with the development of synergies between the air-conditioning, domestic hot water and ventilation plant utilising, rather than rejecting, a building's available energy. Terms like manufacture commissioning and enhanced operation have become the norm in specification. Life-time costs, extended warranty and individual unit operation costs are now common features in post-commissioning and cost-effective maintenance requirements.

In Ireland, commercial buildings account for in excess of 40% of energy consumption and carbon emission through mechanical plant. By focusing on how we heat, cool and ventilate our buildings' water and air supplies, we target the largest energy draw to any commercial building. What may appear as "small changes" have far-reaching consequences through legislation, compliance and certification. Equally important, they impact indoor air quality and comfort levels, with more and more focus now on the physical and mental well-being of buildings' occupants. WELL Building certification is now the "holy grail" of building services design.

Leading manufacturers have responded to this emerging scenario with Mitsubishi Electric in

particular developing pioneering, yet market-proven, technologies. The City Multi Hybrid variable refrigerant flow system is a case in point. CM HVRF meets and exceeds tough market demands brought about by legislative, certification and client expectations. Hybrid VRF is a two-pipe heat recovery system that utilises water between branch control and indoor units, thus removing the refrigerant requirement from the occupied space (working area).

In addition, the market has seen the introduction of the N-G2 City Multi which meets the requirement to commission the outdoor heat exchange unit to match the system's location,



Mitsubishi Electric new City Multi next generation outdoor unit.

sound requirements, design flexibility and efficacy's of SEER and SCOPE. Certification schemes require simultaneous local control with front-end monitoring and data recording through multiple platforms.

R-32 refrigerants, while necessitated through legislation (EN378), have also become widely accepted in the market, including as the replacement for high global warming potential (GWP) refrigerants like R-410, the most commonly used in HVAC applications. R-32 is a low GWP, high-efficiency refrigerant that is readily available and easy to recycle. The CO<sub>2</sub> equivalency (CO<sub>2</sub><sub>eqv</sub>) of R-32 is approximately 30% of R-410, enabling an environmentally-sound and effective refrigerant solution.

The key to successful design and sustained efficient operation is combining all the "next generation" technologies available to us. This must include limiting – or completely removing – refrigerants from the occupied building using advancements such as the Y Series heat pump, and incorporating the benefits of R2 heat recovery into solutions. We should also look at third-stage heat recovery such as that exemplified by Lossnay ventilation units.

Other desirable avenues already embraced by Mitsubishi Electric include moving to water-based heating and simultaneous cooling solutions; lower GWP refrigerants with increased efficacy; and control of the occupied temperature to within .5°C with recordable exportable data management. All of this is achieved through a single point of control.

While the refrigeration industry is still travelling in this direction, Mitsubishi Electric has already arrived there.

Contact: Andrew Keegan,  
Mitsubishi Electric.  
Tel: 01 – 419 8800;  
email: andy.keegan@meir.mee.com

# KOOLAIR

## Air Distribution Equipment

### CIRCULAR DIFFUSERS

Multicone circular diffusers for horizontal or vertical air discharge (adjustable core only)



### SQUARE DIFFUSERS

Square diffusers with removable central core to supply air in four directions.



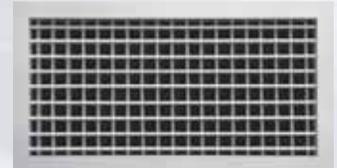
### LINEAR DIFFUSERS

Diffusers for installation in false ceiling preferably, for variable or constant air flow.



### SUPPLY AIR GRILLES

Supply air grilles with curved blades suitable for installation in HIDE ducts.



### LONG THROW DIFFUSERS

Special diffusers to cover large throws at non-isothermal temperatures, allowing the possibility to change the orientation of the air stream.



### RETURN AIR GRILLES

Return grille for returning air, with horizontal fixed blades at 45°.



### LINEAR GRILLES

Supply or return linear bar grilles.



### FLOOR / STEP DIFFUSERS

Designed to ensure low noise levels, reduced air velocities and a moderate temperature gradient in the occupied zone. For variable or constant air volume installations.



### PERFORATED FACE DIFFUSERS

Perforated face diffusers for supplying air that incorporate interior directional plates.



### FIXED BLADE SWIRL DIFFUSERS

Fixed blade swirl diffusers with high induction rate. Available with circular plenum.



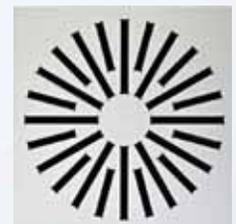
### MULTI-NOZZLE DIFFUSER

Moving nozzles that provide an optimum discharge in cooling (horizontal discharge) and heating (vertical discharge).



### ADJUSTABLE BLADE SWIRL DIFFUSERS

Adjustable blade swirl diffusers with high induction rate.



Koolair is one of the leading producers of air distribution equipment in Europe and is an industry leader in the area of air diffusion, with products from grilles and diffusers to sophisticated high-tech products. Complementing the range is "KomfortAir 3D", Koolair's exclusive, user-friendly, air diffusion product selection software which is unrivalled among competitors.



# Products and Systems Solutions for Simplified Construction and Improved Indoor Climate

## LINEAR DIFFUSERS

DFKR: Linear diffuser integrated in rectangular plate. DLR:

Linear slot diffuser with



high induction rate.

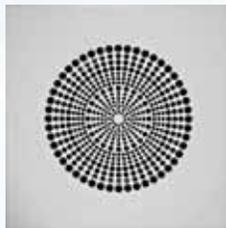
## FLAT CIRCULAR DIFFUSER

By moving its outer plate it provides an optimum discharge in cooling (horizontal discharge) and heating (vertical discharge).



## FIXED BLADE SWIRL DIFFUSERS

Fixed blade swirl diffusers with high induction rate. Suitable for installation in circular, square or plasterboard ceilings



## CIRCULAR LINEAR SLOT DIFFUSER

Supply linear slot diffuser integrated into a circular duct, suitable for variable or constant volume and heating (vertical discharge).



## SECURITY GRILLES

The range of security grilles can be used in both supply and extract applications.



## DECORATIVE FIXED BLADE SWIRL DIFFUSERS

Fixed blade swirl diffusers integrated in punched plate of special perf pattern with high induction rate.



## VARIABLE GEOMETRY DIFFUSER

The variable-geometry diffusers are suitable for high installations. They provide an optimum discharge in cooling (horizontal discharge) and heating (vertical discharge)



## HIGH PERFORMANCE FILTER PLENUM

Plenum and diffusion element for high-performance filtering (HEPA). Available in different sizes

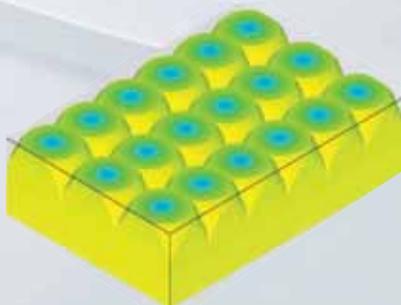


## HIGH INDUCTION DIFFUSER

1200x300 Swirl Diffuser complete with perforated plate, ideal for use with Fan Coil unit systems.



# Leading the way into a sustainable future





# Meet WELL Building requirements with Mark Eire's Airstream

**While the importance of indoor air quality on peoples' health and general wellbeing has long been recognised, it is only lately that scientific research and evidence-based data has emerged to support the fact.**

**The recent introduction** of the pioneering WELL Building Standard™ has dramatically changed building services design concepts and set a new benchmark for air conditioning and ventilation solutions.

It is against this background that Mark Eire developed the innovative Airstream high energy-efficient ventilation/heat recovery system. It is Eurovent and RLT Richtlinie-01 certified and, because of the heat recovery unit, may qualify for local government grants.

Available for both indoor and outdoor installation, Airstream is available in two models – Airstream CFX and Airstream HWX – with efficiencies of 90%.

The Airstream CFX is equipped with a high-efficiency aluminium counter-flow heat exchanger for recovering exhaust energy. It also has a "bypass" and "face" damper to allow it to ventilate during the summer, without recovering unwanted heat.

The Airstream HWX is equipped with a corrosion-resistant rotary heat exchanger made of seawater-resistant aluminium. The standard model comes with an enthalpy wheel which is extremely capable of transmitting heat and limits moisture transfer.

The unit can also be fitted with a sorption wheel. This heat wheel has a hygroscopic zeolite coating and is often used when cooling is required.

Mark Airstream is specially designed to supply fresh air as efficiently and comfortably as possible into the room that needs to be ventilated. The compact units are suitable for all types of buildings such as offices, schools, museums, theatres, cinemas, etc.

In order to design a good installation that meets the desired comfort and energy expectations, Mark Eire advises adherence to the requirements as specified by Standard NEN-EN 16798-1:2015 Energy Performance of buildings – Part 1. This standard describes the indoor environment-related input parameters for design and assessment of the energy performance of buildings for the quality of indoor air, thermal comfort, lighting, acoustics and the usage profile.

Airstream models are supplied with plug fans with fully adjustable and energy-efficient EC-motor technology (electronically-commutated, direct current, motors). The fans are optimally selected for the specific operating point so that the lowest possible sound level and energy consumption is realised. For all standard Airstream heat recovery units the fans applied are in accordance with DIN EN 13053 and meet P2. The specific fan power for all standard Airstream heat recovery units comply with DIN EN 13779 to SFP3.

The motor-fan group is statically and dynamically balanced according to DIN ISO 1940. The smaller Airstream types have a 230V connection. The larger types have a connection of 3 x 400V + N and integrated PID controller for fully modulating power control (10-100%).

## Controls

Mark Airstream is provided with a CPI/OJ-control system which manages the entire unit. Frost protection for the counter-flow heat exchanger, control of the bypass but also the control of the fans are included. This control system is extremely easy to adjust using the remote control or laptop/computer. For operation with laptop/computer, no additional software is needed. A network connection through Internet Explorer is all you need to get access.

The menu structure is clear and intuitive, with different levels of access and authority. It is possible to control the air amount on the basis of CO<sub>2</sub>, air quality, loss of pressure or humidity. Each unit is internally fused and completely wired from the components to the isolator switch. Optional is the control of a 3-way valve for cooler, heater or battery change-over with the release of a pump.

Contact: Mark Eire. Tel: 026 – 45334; email: sales@markeire.com; www.markeire.com ■



Mark Eire Airstream outdoor installation

<https://arrow.tudublin.ie/bsn/vol58/iss1/1>

# 'Invisible' VRV comfort from Daikin

Offering a dedicated solution for banks, shops and other light commercial businesses, the new VRV IV i-series is the first VRV air conditioning outdoor unit for indoor installation. Optimised for use in city centre areas, the new VRV IV i-series offers all the benefits of high comfort and high energy efficiency from a standard VRV IV system, but with the added advantage of virtual invisibility at street level.

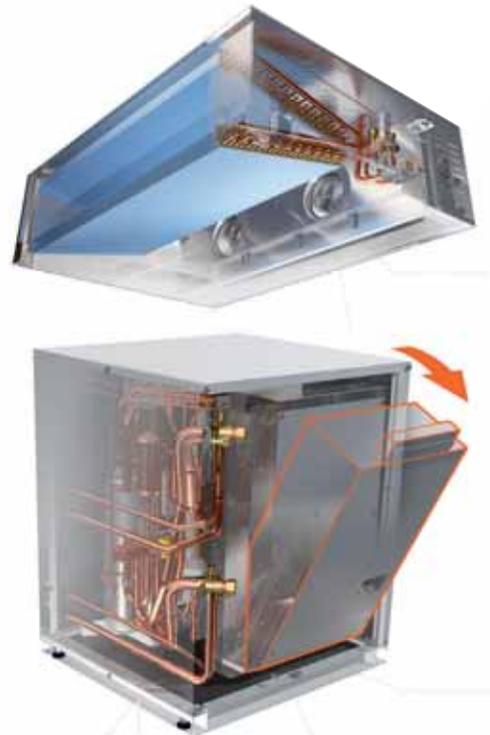
**Designed to achieve** total concealment, the new VRV IV i-Series provides an efficient solution to a wide range of properties where space, installation flexibility, the need for business continuity and building control compliance have been barriers to updating a building's HVAC system, and in keeping with existing building design style.

The unique split concept of the new VRV IV i-Series, together with its lightweight and compact design, provides the advantage of discreetly installing both indoor and outdoor units unobtrusively and within proximity of each other. This removes the need to dedicate expensive floor space to the system,

to position the outdoor unit inconveniently away from the building to avoid visibility, or to invest in heavy installation costs and cause disruption.

The lightweight, compact compressor unit uses only 600 x 550mm of floorspace and weighs just 80Kg. With exceptionally low noise operation at 47dBA, it has been designed to fit unobtrusively into back office areas, storage rooms or kitchen cabinets to maximise commercial floor space. The equally compact condenser unit can be installed in ceiling spaces for a completely streamlined look that can operate in a commercial environment but serviced out of view from customers.

Providing easy access for maintenance without disrupting customers or neighbors, the VRVIV i-Series is quick and easy to install.



**The Daikin VRV i-Series is completely invisible and does not take up expensive commercial floor space.**

Full compliance with planning and noise regulations makes it the ideal solution when new outlets need to be fast-tracked for opening.

Designed with comfort in mind and offering high seasonal efficiency (up to 28% higher than previous series), the new VRV IV i-series maximises energy efficiency to reduce running costs. A patented V-shaped heat exchanger, in combination with Daikin's unique and market-leading variable refrigerant temperature (VRT) technology, eliminates cold draughts by continuously adjusting temperatures to match weather conditions.

Developed by Daikin specifically to address the planning constraints of city centre locations, the new VRV i-Series offers efficient, cost-effective and environmentally-friendly climate control for urban buildings that were previously unable to take advantage of advances in HVAC technology.

Contact: Liam Kirwan, Daikin.  
Tel: 01 – 642 3430;  
email: [info@daikin.ie](mailto:info@daikin.ie)



**1.** The heat exchanger can be installed in a false ceiling.



**2.** The compression is compact and easy to hide, this element can be installed at floor level, in a back office, storage room, technical area or in a kitchen.

# SAMSUNG 360

## – a well rounded, truly circular cassette

Standard ceiling cassettes use blades on four sides of the unit to distribute air. This 4-sided distribution creates uneven room temperature, resulting in “cold” or “hot” spots. With bladeless technology and the use of three booster fans, the Samsung 360 Cassette from GT Phelan provides even, horizontal airflow with the option to direct the air at various angles.

While the occupants enjoy even airflow and a comfortable, healthy environment, their wellbeing is also enhanced by the beautifully-sleek design that fits into any setting. Never before has the system designer and interior architect had such a technically-advanced, high-performing air conditioning unit that is also a design feature that dramatically enhances the interior aesthetics.

This truly innovative system provides surround airflow evenly throughout the space. Available in black and white, the designer can choose either a circle or square fascia panel, with models available as split systems (which can be twinned) or as part of the VRF (DVM) range. User comfort is further enhanced by the very low sound levels on low fan speed (29dB(A)) on the 5kW VRF and 7kW split models.

Samsung’s WiFi adaptor allows for remote control of all VRF and split systems from a mobile device when using Samsung’s Smart Home App. One WiFi adaptor can control up to 16 indoor units on a single DVM S system, or connect a maximum of four adaptors for control of up to 64 indoor units on the same system. Group configuration allows for simple control of multiple units connected to the same WiFi adapter.

There are many different ways to control a Samsung system. For applications where a wireless controller is not acceptable (i.e. public facilities), three wired controllers – Simple, Touchscreen and Premium – are available to purchase as an option. Based on desired level of control and user interface preference, Samsung also offers a variety of wired controllers suitable for any application.

Samsung’s Data Management Server (DMS) lets users monitor and control on-site air conditioning needs remotely, making it the easiest and most convenient way to manage a large number of air conditioning units at once.

■ GT Phelan is also the distributor for Toshiba air conditioning equipment in Ireland and has been since 1982. It has developed a reputation for quality installations backed by excellent technical support and specialises in the provision of energy efficient cooling and heating solutions. Between both brands, the company caters for every application.

Contact: GT Phelan. Tel: 01 – 288 4377;  
email: [info@gtphelan.ie](mailto:info@gtphelan.ie); [www.gtphelan.ie](http://www.gtphelan.ie) ■

<https://arrow.tudublin.ie/bsn/vol58/iss1/1>



This truly innovative system delivers solutions for all types of application



# Grundfos for Installers Club

with you when you're on the GO

**For installers to be successful they need a great support network. Grundfos understands this and so continuously invests in specially-designed tools that include platforms such as Grundfos for Installers (GFI), Grundfos for Engineers and Grundfos ISolutions.**

All are packed with information, system guides and manuals, pump calculation tools, training modules and trouble-shooting information. They are easily-accessible, seven days a week, at [www.grundfos.com](http://www.grundfos.com)

This dedicated information hub is the perfect place to access the Grundfos range of handy apps that are available from the App Store and Google Play. Direct download links can also be found to them from the Grundfos hub. An example of this is the GO install app. With this app installers can access hundreds of guides and information, no matter where they are. If they need additional information or some extra assistance on site, it will be right there.

The benefits of the Grundfos hub don't end there. For example, it is also home to the Grundfos Ecademy, an education platform that has been dispensing knowledge and rewarding successful module completion on a wide range of general industry and

pump-specific topics for many years. Its objective is to help busy industry professionals to become more proficient at what they do, and for them to be among the first to learn about the latest developments in Grundfos, as well as other related topics within the wider industry. This section is regularly

updated, and new topics and modules are frequently added, so it is always worth logging into see what is new. On top of these great elements, being part of the Grundfos for Installers club also brings regular added bonuses that are developed to help installers maximise their business potential with both on and off-line support suggestions and ideas. On the Hints & Tips section of GFI, installers have access to a range of videos, one being the how to use Google My Business – a toolbox that makes it easy for installers' customers to find them online, and to help them promote their businesses. These video guides are only available from GFI and their role is to help installers to stand out from their competitors.

Grundfos for Installers is always ready to help ... simply log on to [www.grundfos.ie/installers](http://www.grundfos.ie/installers).





# CIBSE IRELAND GOLDEN EVENING

The CIBSE Ireland 50th anniversary celebratory dinner took place in Dublin before Christmas with approximately 750 industry personnel turning out to mark the occasion. The attendance included a cross-section of the entire building services sector in Ireland, with manufacturers and consultants rubbing shoulders with system designers, major contractors and installers.

**The “Welcome Reception”** was sponsored by Mitsubishi Electric who are also CIBSE Ireland patrons. Using the theme from its current “Comfort is ... The Ideal Working Environment” campaign, it made the reception area its own with a unique setting that incorporated the band stand and a holiday-style beach photo booth where guests created memories of the night.

MC for the evening was Lorraine Keane but, as always, formalities were kept to a minimum. CIBSE Ireland Chairman Paul Martin welcomed members and guests before handing over to Stephen Lisk, President of CIBSE. Stephen thanked everyone for joining the celebrations and paid tribute to the CIBSE Ireland members for their commitment to the industry.

His address was followed by a surprise visit from the President of Ireland (in reality Mario Rosenstock) who, apart from this portrayal, provided the main entertainment throughout the evening in his usual, inimitable, style.

His routine included some of his classic impersonations of Roy Keane, Martin O’Neill, Jack Charlton and many others.

It is customary for CIBSE Ireland to nominate a charity for these events to which CIBSE donates a fixed sum that is then supplemented by cash contributions from the floor. For 2018 it was the very deserving Capuchin Day Centre that serves up 300 meals every day between breakfast and dinner to the most vulnerable people in Dublin. It was obviously a cause that resonated with the attendance as €14,000 was raised and presented to Jonathan Smyth who accepted it on behalf of the Centre.

After the meal the winners of the inaugural CIBSE Ireland Building Services Engineering Awards were announced and presented. There were three categories in all with Daikin, Hevac and Wilo Ireland sponsoring one each. The winners were as follows.

**Up to €2 million**

Sponsor: Wilo Ireland  
Winner: Arup fit out, Albert Quay, Cork  
Consultant: Arup  
Contractor: Airflow Services

**Between €2 and €5 million**

Sponsor: Hevac  
Consultant: Homan O’Brien Associates  
Contractor: Jones Engineering Group

**€5 million and over**

Sponsor: Daikin  
Winner: Criminal Courts of Justice, Dublin  
Consultant: JV Tierney & Co

The evening’s festivities continued well into the early hours with music from the Velvet Lounge Band. See picture parade right. ■





# SEAI MARKET SURVEILLANCE FOCUS NOW ON LIGHTING, WITH SPACE AND WATER HEATING PRODUCTS TO FOLLOW

**The LED evolution** is bringing significant gains in energy efficiency. However, as the range of products on offer increases, market surveillance is essential to ensure that they are meeting the criteria required by EU standards.

An EU-wide network of market surveillance organisations carries out checks of products covered by EU regulations and removes non-compliant products from the market. The Sustainable Energy Authority of Ireland (SEAI) has functional responsibility in Ireland for market surveillance relating to ecodesign, energy labelling and tyre labelling. SEAI also monitors retailers to ensure they are meeting their obligations on labelling.

Over the last year, SEAI has been investigating the lighting sector. A major focus has been on GU10 LEDs, as there have been notable levels of non-compliance in other EU countries and the Lighting Association of Ireland (LAI)

highlighted them as being of concern.

SEAI has undertaken checks on more than 200 lamp models. Checks included market screening, technical documentation checks and, in some instances, the physical screening of lamps using a “lab in a suitcase” called LightSpion. Using a risk-based approach 12 lamps have been selected for laboratory testing.

The lamps are being tested at the accredited Lighting Industry Association Laboratories Ltd in the UK. The test results received so far

indicate that eight out of 12 of the products tested are non-compliant in one or more ways. With further test results outstanding, this number could be higher by the end of testing.

Tim Stokes, Market Surveillance Programme Manager at SEAI said: “Because these lamps have been chosen for testing based on risk, this level of non-compliance is unlikely to be replicated across the entire range of GU10s on sale in Ireland. Also, some non-compliance such as a lamp declared as an A++ energy label when it is an A+ energy label might be considered more serious than, for example, small inconsistencies in the quality of light produced. Nonetheless, our findings are concerning so we will continue to focus on

GU10s, and more widely on the lighting sector.” The next step will be to engage with the importers and manufacturers concerned to





Tim Stokes, Market Surveillance Programme Manager at SEAI

address the non-compliance. Enforcement action can be taken if needed, including a requirement to withdraw lamps from the marketplace.

SEAI is working with industry and others to improve compliance. Says Tim Stokes: "Engaging with industry, particularly through the Lighting Association of Ireland, has been a very important component of our approach. It has informed us regarding compliance issues and helped to promote compliance to businesses in the supply chain. International collaboration is also important given the free movement of products within the EU market, so we have been liaising with market surveillance bodies in other EU countries, particularly the UK, to share information and avoid duplication."

Apart from lighting, SEAI is also investigating products in other sectors. Tim Stokes told

*Building Services News:* "Our analysis indicates that space and water heating products are by some distance the most important area for us to focus on. This is because of their level of market penetration and potential for significantly-increased energy consumption due to non-compliance. We have already identified and addressed some non-compliance in the sector and will significantly ramp up our activity during 2019 and beyond."

He added: "Companies placing products on the market in Ireland need to take great care to ensure that they are compliant with EU regulations. It is our aim to tackle non-compliance robustly to improve consumer confidence, protect the environment and create a level playing field for manufacturers and importers." ■



Companies placing products on the market in Ireland need to take great care to ensure that they are compliant with EU regulations



A GU10 LED – two-pronged ceiling light



# New Wiring Rules Consultation Opens

Ireland's new National Wiring Rules, also known as *Irish Standard I.S. 10101:20xx*, have now been issued for public consultation by the National Standards Authority of Ireland (NSAI). The public consultation period is a three-month window in which the electrotechnical industry has the opportunity to provide feedback on the draft Standard which will replace the existing National Wiring Rules' in 2019. This article aims to highlight some of the key proposed changes in the new standard and describes how those with an interest can get involved in the public consultation phase.

It has been over ten years since the publication of ET101 in Ireland and there has been a significant change in the regulatory and standards development landscape. Under the Electricity Regulation Act (1999), the Commission for Regulation of Utilities (CRU) now regulates the safety of electrical installations in the country and Safe Electric is the safety supervisory body tasked with inspection and monitoring of the certification process.

In terms of standards development, NSAI is now responsible for providing a comprehensive set of standards for the electrical industry. In respect of the new National Rules for Electrical Installations, NSAI ETC Technical Committee (TC) 2 is specifically Ireland's national mirror committee responsible for maintenance and development of these rules.

It is important also to highlight that the European Committee for Electrotechnical Standardisation (CENELEC) has continued to revise the 60364 Series of Harmonisation Documents for which there is ongoing adoption by European member states. These documents form the basis for the development of national wiring rules, and Ireland, through the national mirror committee (i.e. ETC TC2) has had a vote and a say in developing these documents.

A summary of the proposed key changes in I.S. 10101:20xx are as follows:

## I.S.10101 – General

What were known as "Parts" (i.e. Parts 1-7) in ET101:2008 are being relabelled as "Chapters" in I.S.10101:20xx. This change will serve to enhance readability of the document into the future.

## I.S.10101 – Chapter 1: Scope

Chapter 1 has not changed, and the scope still refers to the fixed wiring installation right up to the plug or isolator. Equipment plugged into or wired into the isolator is handled under other standards, but not by the National Rules for Electrical Installations.

## I.S.10101 – Chapter 2: Definitions

Definitions are now all contained in Chapter 2 to enhance readability. The definitions list has been expanded and certain definitions have been modified to align with the definitions provided in the International Electrotechnical Vocabulary.

## I.S.10101 - Chapter 4 – Protection for Safety

### Clause 411.3.4

Residual Current Devices (RCDs) will now be required to be installed on lighting circuits in domestic premises.

### Clause 421.7

Arc Fault Detection Devices (AFDDs) will now be recommended for circuits installed in locations with particular risk, such as;

- in premises with sleeping accommodation;
- in locations with risks of fire due to the nature of processed or stored materials, i.e. BE2 locations, (e.g. barns, wood-working shops, stores of combustible materials);
- in locations with combustible constructional materials, (example = wooden buildings);
- in fire propagating structures;
- in locations with endangering of irreplaceable goods.

### 422.4 Locations with combustible constructional materials

Wiring connections in hollow walls may refer to either modular pods or modular wiring assemblies with connections being accessible.

## I.S.10101 - Chapter 5 – Selection and Erection of Equipment

### Clause 512.1.5

The above clause will require sign-off by the appropriate person that the installation complies with the Electromagnetic Compatibility (EMC) Directive 2014/30/EU. The installation will of course apply only to the fixed wiring and switchgear, and not to any appliance connected after the isolator or socket.

### Clause 527

The above clause requires all cables to be rated Class Dca s1b,d2,a2 in accordance with EN50575.

### Clause 530.6.1

Distribution boards in domestic installations will need to be manufactured from "non-combustible material". This requirement builds on the safety criteria specified by ET101:2008 which required distribution boards installed in escape routes to behave like a fire-proof enclosure, with the exception that the said clause did not apply to domestic premises.

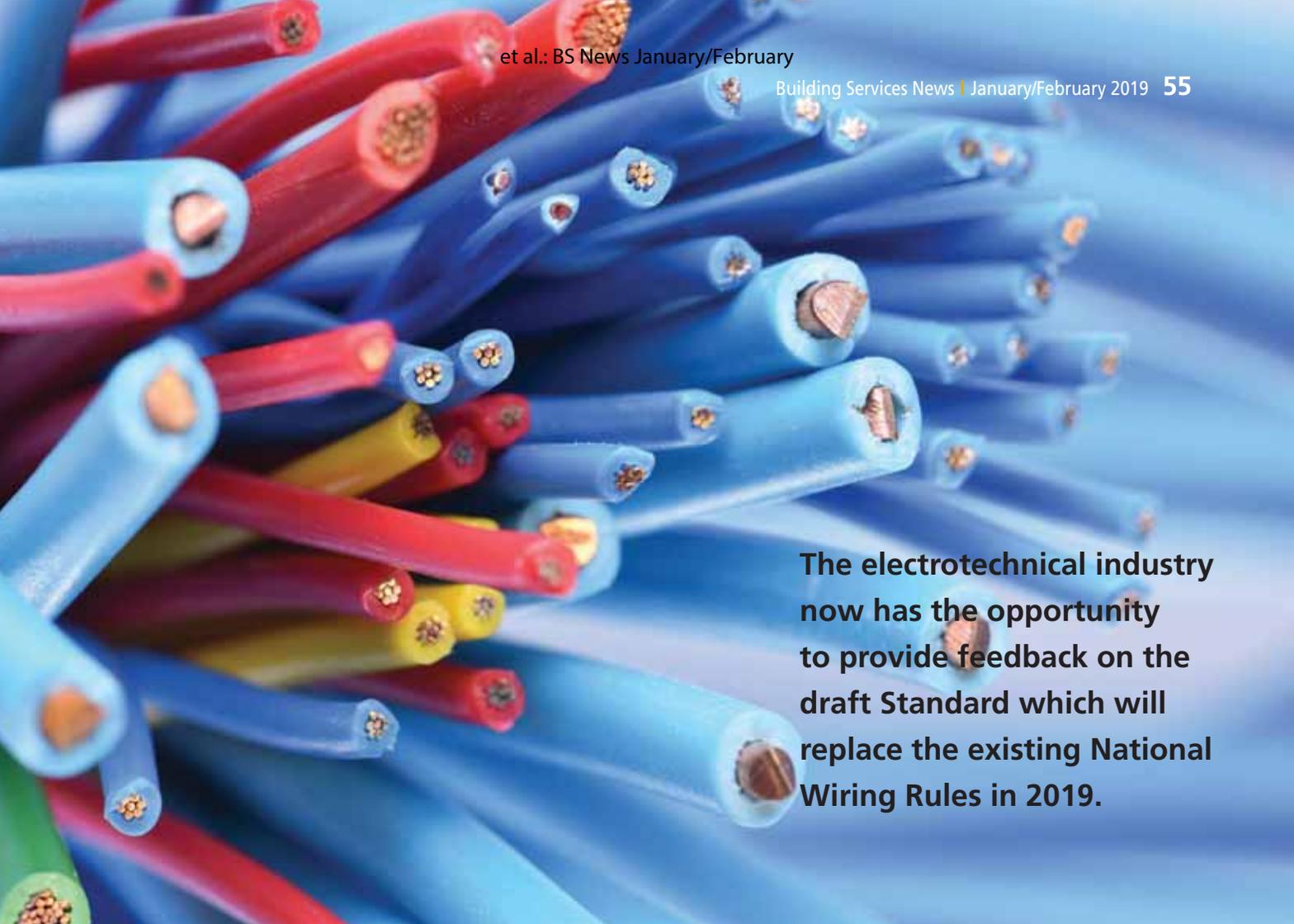
Many domestic premises have distribution boards installed in the main entrance hallway, which is the escape route, and therefore the Clause 530.6.1 will improve protection for the escape route. Non-combustible material may include steel or metal boards.

### Clause 531.3.3

Residual current devices (RCDs) Type AC are not recommended in new installations. RCD technology has improved greatly, and alternative devices now provide better protection.

### Clause 534

This is a complete new section and it provides details on selection of Surge Protection Devices (SPDs) including wiring diagrams, especially where lightning protection will be installed in a building.



**The electrotechnical industry now has the opportunity to provide feedback on the draft Standard which will replace the existing National Wiring Rules in 2019.**

#### **I.S.10101 – Chapter 6: Inspection and Testing**

Chapter 6 has been completely revised to align with the CENELEC Standard. Model certificates have now been removed. As previously mentioned, CRU now oversee the inspection and verification process, and certificates are issued by Safe Electric. It is necessary to highlight that certification will soon transition to an online format and it is for this reason model certificates are no longer included in the Standard.

#### **I.S.10101 – Chapter 7: Special Locations**

The associated CENELEC 60364 series of HDs have been updated which is now reflected in I.S.10101:20xx

##### *Part 722 Supplies for Electric Vehicles*

Charging for Electric Vehicles was published as an amendment to ET.101:2008 in 2017. This section is now consolidated as Part 722 in Chapter 7 and is unchanged from the version released previously.

##### *Part 710 Installations in Medical Locations*

Part 710 has been revised in accordance with HD 60364-7-710:2012 and contains several changes including;

##### *Clause 710.411.6.3.101*

Now requires risk assessment of "other electrical equipment" before being used in the patient environment.

##### *Clause 710.415.2.2*

Now requires the resistance of supplementary protective bonding conductors in Group 1 as well as Group 2 medical locations, to not exceed 0.2 Ohms.

##### *Clause 710.55.101*

Now requires the intended use of a medical location to be considered with regard to the decision on the number of socket outlets to be protected by a single RCD.

##### *Clause 710.55.102*

Now requires that socket outlets of medical IT systems in Group 2 locations be un-switched, coloured blue, and clearly and permanently marked "Medical Equipment Only".

*Part 730 Onshore Units of Electrical Connections for Inland Navigation Vessels* This section is entirely new.

#### **I.S.10101 – Chapter 8: Energy Efficiency**

This section is entirely new and provides recommendations and guidelines on design and erection of electrical installations to optimise energy, including metering and load control and minimisation of losses in conductors.

#### **I.S.10101 – What Happens Next?**

NSAI seeks input from the electrotechnical industry on I.S.10101:20xx. Anyone who wants to view the draft I.S.10101:20xx standard and submit comments can do so by logging onto "Your Standards, Your Say" web portal through the NSAI website at <http://www.nsaiep.ie/>. For comments to be considered, they must be submitted on the Official NSAI commenting template.

The public consultation phase will last for three months. It commenced on 3 December 2018 runs to 28 February, 2019. Following the public enquiry, all comments received will be reviewed by TC2 (committee) experts and used to enhance the quality of the final Standard before publication in 2019. ■

#### **References**

1. ET101:2008 (Incorporating Amendment No. 1, Amendment No. 2 and subsequent amendments)
2. Post publication, there will be a six-month transition period before the new requirements come into effect. However, installations may be designed in accordance with the 'new version' before that date.

# Oil industry responds to first draft of IRELAND'S NATIONAL ENERGY AND CLIMATE PLAN

Responding to the first draft of Ireland's National Energy and Climate Plan (NECP), the trade association for the oil and fuel sector in Ireland and the UK – The Federation of Petroleum Suppliers (FPS) – has written to the Irish Minister for Communications, Climate Action and the Environment Richard Bruton. The FPS has requested a meeting to discuss how the association can work with the Government to help find ways to reduce Ireland's carbon footprint.



Nick Hayes, FPS Ireland representative.

**The FPS and** its members feel strongly that oil and – more long-term – a liquid efuel and/or bio fuel, can be part of the phased solution and the association has been working closely with the European Confederation of Fuel Distributors (ECFD), boiler manufacturers and other trade associations to promote a liquid bio fuel.

FPS Ireland representative Nick Hayes comments: "Our members play an important role in the Irish economy in supplying heating oil for homes and businesses, and fuel for the agriculture, construction, road transport and marine sectors. Importantly, they also provide fuel for back-up generators for hospitals, schools, care homes and data centres.

"Several demonstration projects with heating systems running on partly-renewable liquid fuels are already in place across Europe, achieving substantial levels of emissions reduction, so it is disappointing that this potential is not mentioned in the Minister's recent statement.



“The Minister says that at least 170,000 homes will be supported to switch out of oil-fired boilers to heat pumps and solar panels. I would appreciate understanding the rationale for this figure and the technology assigned for the switch out. There is a danger in making early technology decisions and also in only concentrating on a small section of oil-fired homes when industry innovation can help all oil-fired homes.”

FPS Chief Executive Guy Pulham adds: “In the UK we have set up a working group with the Government, alongside different sections of the supply chain, with representation from trade associations for refineries, boiler manufacturers and installers and tank storage. This working group has been welcomed by the Government in providing information and ideas on action the government can take to meet carbon reduction targets in off gas-grid buildings and we would very much welcome the opportunity of setting up a working group with Minister Bruton.

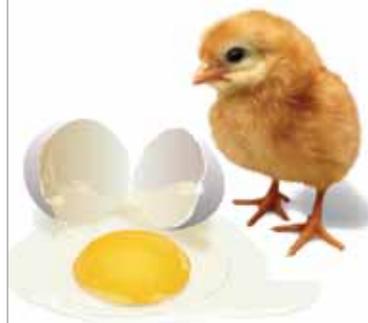
“We are not trying to protect the heating oil industry at all costs and we recognise and support the Irish Government’s work to meet carbon reduction targets, but our members believe that a liquid fuel should have a major role in meeting the

future needs of off-grid homes. There is ample supply, an effective distribution network and low-cost installation requirements to use oil for heating and cooking. These are excellent benefits which could be retained using a bio or carbon-neutral liquid fuel. The social implications for having a dependence on one technology are also important and should not be understated”.

The FPS believes the Government should look at a tiered approach to achieving the 2050 carbon reduction target, setting a pathway of home heating carbon emission reductions. That way industry can adapt all aspects of technological innovation, thereby providing the means for consumers to make cost-competitive choices in meeting those targets. A change in the standard specifications of the fuel would also give industry time to implement innovative solutions.

Nick Hayes concludes: “Such a pathway would also give consumers the opportunity to make short-term efficiencies such as replacing old oil boilers now (highly-efficient, oil-fired condensing heating systems save up to 30% of the fuel oil) and adding smart meters to tanks and installing better insulation in their homes. We urge Minister Bruton to meet with us and discuss a pathway forward”. ■

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Specially-designed handcrafted and personalised bespoke medals were presented to all category winners.

The annual HYL 2019 Apprentice Awards took place just before Christmas last in Croke Park Stadium with over 80 HYL apprentices in attendance. Also present were leading industry representatives from the academic, training and development, mechanical and electrical sectors.

# HYL shows leadership with 'Excellence in Training' programme

**This is now** a highly-respected annual event that recognises and acknowledges those apprentices who have gone above and beyond in terms of both academic and practical achievements during their apprenticeship training. The Excellence in Training programme is structured to encourage all apprentices to strive for excellence and high achievement, for their own personal benefit, as they progress towards craft qualification.

Desy Haughton, Managing Director of Haughton and Young Ltd (HYL) told *Building Services News*: "At HYL we continue to invest in the Training in Excellence programme that we devised for plumbing and

electrical apprentices. Our commitment to the apprentice programme, and to the training of the overall workforce within HYL, ensures our continued success on the construction sites where we deliver the highest-quality service.

"Underpinning our commitment to apprentice education, we constructed a purpose-designed and fully-equipped practical training area where student apprentices can develop and improve their skill-set under the supervision of HYL training experts Alan O'Reilly, Stephen Bradshaw and Thomas McGarvey.

"HYL also offer additional support to apprentices from an academic perspective, including mathematics tutorials in



Hibernia REIT, the sponsoring partners of the awards with overall winners – Dan Boyd, Hibernia REIT with Ciaran Smullen, 4th year apprentice and overall mechanical winner; James White, 2nd year apprentice and overall electrical winner; and Marcus Dillon, Hibernia REIT.



John Small, Dublin GAA footballer, motivational speaker to the apprentices with Sam Levingston, James White and Desy Haughton, Managing Director HYL. Sam has also successfully qualified for the DIT preliminary round for the Ireland Skills Event and will now represent DIT in the RDS on 21 to 23 March for the National Round. Best of luck from all at HYL and *Building Services News*, in the forthcoming competition.

conjunction with Peter Hinch, former DIT lecturer.”

Certificates of achievement and bespoke medals were awarded and presented to apprentices from both the junior and senior apprentice categories for outstanding achievement

in both their practical and academic efforts. Hibernian Reit generously sponsored the event and attended Croke Park to present the awards. In addition to medals, the category winners were presented with vouchers and a copy of Dublin footballer

Philly McMahon’s award-winning book *The Choice*.

Reflecting on the relevance of this, Desy Haughton commended each and every apprentice for making the choice to commit to their education and training with HYL.

Dublin footballer and four-time All Ireland winner John Small attended as guest speaker and spoke to the apprentices about the importance of self-belief and striving to become the very best you can be in your chosen career. Great banter ensued with the question and answer session – an audience with John Small – that followed his address.

Managing Director Desy Haughton congratulated not only the winners but all of the apprentices who he stated are vital to the success of the programme and the future success of the company. ■



Apprentice Achievement Awards 2018 Winners with HYL and supporting team pictured having received their certificates, medals, vouchers and Philly McMahon book.

Back row left to right: Tom McCormick, SOLAS with John Small, Dublin GAA football player; Colm McAlinden, Ryan Mooney, Graham O’Reilly, Tom McGarvey, Dylan Brennan, Alan O’Reilly, Jamie Murray, Dylan Farrell, Joe Weafer, Darren Murphy, Martin Heffernan, Marc Finegan, Tom Parlon (CIF), Desy Haughton and Stephen Bradshaw.

Front row left to right: Sam Levingston with James White, Lee Walsh, Pierce Clinton, David Dennis, Ronan Keating, Ciaran Smullen, Mark Dixon and Dean Darcy.

# EPREL –

## A new mandatory EU product registration database

The European Union has introduced a new mandatory product registration database for products covered by the EU Energy Labelling Regulations. From 1 January of this year, suppliers (manufacturers, importers or authorised representatives) of products covered by the EU Energy Labelling Regulations are required by law to upload information about their products into the *European Product Database for Energy Labelling (EPREL)*, before placing these products on the market.

**This also applies** to products that were placed on the market between 1 August 2017 and 1 January 2019 which must now be entered onto the database by 30 June 2019. Suppliers can voluntarily upload information about products placed on the market before that date.

The database has a secure portal for access only by market surveillance authorities where

technical documentation to demonstrate compliance with the EU Energy Labelling Regulations must be lodged. It will also have a public portal from May 2019, where basic information about the energy efficiency of these products can be viewed.

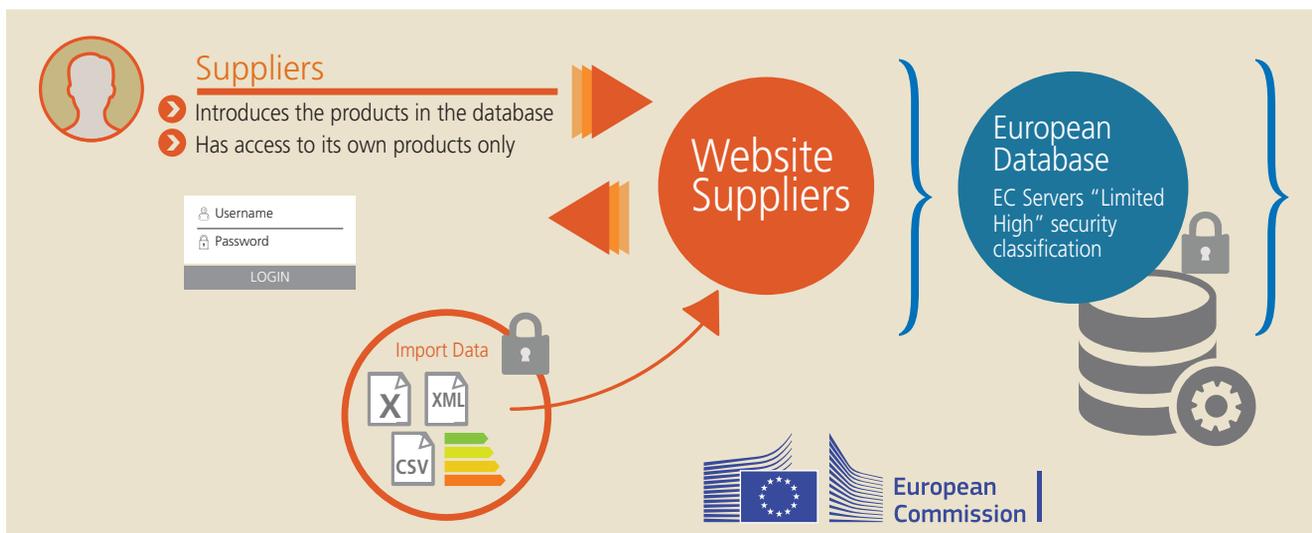
Tim Stokes, Market Surveillance Programme Manager at SEAI said: “This database will significantly speed up the process of checking



products that we undertake to ensure that they are compliant with the regulations. It is also useful for consumers if they want to check that the information on the energy label of a product they are considering buying is correct”.

More information about EPREL, and how to register products can be found at: [https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/european-product-database-energy-labelling\\_en](https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/european-product-database-energy-labelling_en) ■

### EPREL Supplier Obligations







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