


1-1-2018

## BS News January/February

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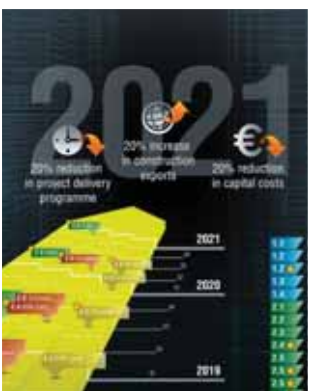
# Building Services news



CIBSE to Celebrate 50th Anniversary



BIFM Ireland Summit Awards



Roadmap to Digital Transition  
Published by ARROW@TU Dublin, 2018



## Adaptation to significant changes in refrigerant gas supply an urgent priority



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## Free SDAR Journal

The latest edition of the *SDAR Journal* – a joint collaboration between DIT and CIBSE Ireland – comes to you free with this issue of *Building Services News*. This scholarly journal contains six peer-reviewed, applied research papers on sustainable design and represents a wealth of evidence-based data and information.

As Editor Kevin Kelly says in his introduction: “We are challenged to be innovative and creative with low-energy solutions. Reduced thermal demand, increased use of renewables, and innovative lighting, are at the heart of how we can address these challenges.

“It is by evaluating innovations that value is assured for clients and they can better see that sometimes a broader and longer-term view is required. They need to understand that the cheapest solution is not often the best value but we, as a community, must present the evidence to convince them to increase their initial investment.”

The *SDAR Journal* does just precisely that.

## Building Services news

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The latest edition of the *SDAR Journal* comes free with this issue of *Building Services News*.

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## NEWS AND PRODUCTS

### Energy use not reducing fast enough

**Ireland's energy use** is not reducing fast enough and individuals, businesses and communities will be central to addressing the problem, according to Jim Gannon, Chief Executive, SEAI.

Despite energy use growing at a slower rate (3.7%) compared to the economy (5.1%), Ireland is not decoupling economic growth from energy use quickly enough. The SEAI's recently-published *Energy in Ireland 1990-2016* report highlights the extent of the challenge and presents the latest national data and trends on energy efficiency and renewable energy in Ireland.

The report points to the reduction of our energy import dependency to 69% in 2016, down from 88% the previous year. This helped to lower our annual energy import bill to €3.4 billion from €4.6 billion.

Remaining cautious on the impact of this turnaround, Gannon said: "The significant reduction in our import dependence gives us a more dependable energy supply in the short term. However, this was heavily reliant on Corrib gas, a finite fossil fuel. This may give us a window of opportunity but it is not a long-term solution."

Visit [www.seai.ie](http://www.seai.ie)



Jim Gannon, CEO SEAI

### Two major appointments for IBC

**IBC has been** appointed distributor for Onicon Inc (the worldwide leaders in HVAC [PRON: H-VAC] flow and energy measurement) for both Ireland and the UK. Every product is ready to use out of the box – they're wet-calibrated, fully-programmed and specifically tailored to suit all requirements.

IBC has also been appointed an authorised dealer for Reliable Controls Corporation [RCC] of Canada with responsibility for the Republic of Ireland and Northern Ireland. Reliable Controls supplies a complete controls solution that easily interconnects intelligent building technology with specific reference to BACnet, the industry standard protocol.



Reliable Controls is one of the simplest and most flexible building automation systems on the market and IBC's local knowledge and 5-year warranty makes for a sustainable, cost-effective offering.

Contact: Rich Costa, IBC.  
Tel: 01 – 457 5421;  
Mobile: 085 – 125 7037;  
email: [rich@ibc.ie](mailto:rich@ibc.ie); [www.ibc.ie](http://www.ibc.ie)

### DIT-led initiative on building engineering



Ciara Ahern, Head of Building Engineering at DIT

**The urgent need** for building engineering graduates has resulted in key industry players joining forces with the ACEI and DIT to promote the Level-8 building engineering course being delivered by DIT in Bolton St. Among the companies supporting the initiative are Jones Engineering, Sirius, Haughton & Young, Designer Group, Ethos, Varmings, Axis, Dornans, OCSC, Metec, Homan O'Brien and Cundall & Partners.

The DIT-led initiative is spearheaded by Ciara Ahern, Head of Building Engineering at DIT and comprises a dynamic advertising and PR campaign taking in all media formats, from traditional print and radio through to Facebook and other online platforms.

In announcing the campaign Ciara highlighted the immense potential for career development in the area, pointing out that the

discipline isn't very well understood, but that it is now at the vanguard of a new engineering revolution that is key to meeting global climate change targets.

She also detailed the excellent career opportunities it presents, stating that building engineers are the highest paid engineers in the construction sector, earning a starting salary that is typically €5,000 more than other graduates".

Jim Curley, Group Chief Executive at Jones Engineering Group, said: "DIT is an innovator in the building engineering discipline and we are delighted to support the Institute's campaign. There is a shortage of graduates with the building engineering skills needed by industry and all sectors should actively get behind this initiative".



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\*We understand a smart-pump as a new category of pumps, which goes far beyond our high-efficiency pumps or pumps with pump intelligence. Only the combination of the latest sensor technology and innovative control functions (e.g. Dynamic Adapt plus and Multi-Flow Adaptation), bidirectional connectivity (e.g. Bluetooth, integrated analogue inputs, binary inputs and outputs, Wilo Net interface), software updates and excellent usability (e.g. thanks to the Setup Guide, the preview principle for predictive navigation and the tried and tested Green Button Technology) make this pump a smart-pump.

## NEWS AND PRODUCTS

### LAI 2018 programme commences with CE Regulation course

**Following the Lighting** Association Ireland (LAI) AGM just before Christmas, the extensive programme of activities and events planned for 2018 has already commenced. Earlier this month Andy Guest, from the Lighting Industry Association (LIA), presented a day-long course on CE marking and legislation at the prestigious RDS in Ballsbridge in Dublin.



Gay Byrne, LAI Chairman, addressing the CE course in the RDS before handing over to Andy Guest, the course presenter from LIA.

This course was specifically devised by LIA for its members in the UK but LAI has also adopted accreditation to it as part of its membership criteria.

The nature of the course is more like a workshop with inter-action and discussion a key part of the proceedings. The capacity attendance in the RDS fully embraced the concept and participated with enthusiasm, sharing views and opinions on the various points raised. All agreed that it was extremely educational and beneficial.

Apart from an important information source, accreditation as having completed this course is also critical in that it is now part of the requirements of LAI membership. The recent AGM passed a motion approving a measure whereby at least one person from member companies must have accreditation as having successfully completed this course.

This, and other initiatives planned for 2018, demonstrate LAI's determination to provide guidance and leadership to the lighting sector in Ireland, and to promote professional responsibility. It will continue to

promote best practice across all industry segments, and to engage with Government agencies and regulatory authorities, especially the Sustainable Energy Authority of Ireland (SEAI), with whom it has a number of working committees.

### Dristeem lowering the cost of humidification maintenance

**Partnering an electric** humidifier and reverse osmosis system into an integrated package combines two proven products, the Dristeem humiditech electric humidifier and the 200 Series reverse-osmosis system. It provides single connections for power, water and drain, resulting in lower installation costs.

Dristeem's low-maintenance humidifier offers real value by reducing the time and the effort for maintenance. High purity water means less chalky scale build-up in the heat exchanger, ensuring reliable, long-term humidifier performance, while the reverse osmosis system component removes over 98% of dissolved solids from supply water.

In the pharmaceutical industry down-time for maintenance is costly as production is stopped while the



**Dristeem's low-maintenance humidifier**

maintenance is carried out. The compact design of a fully integrated

water treatment process is designed to lower these maintenance costs, lower installation costs, and provide consistent humidification output during demand cycles.

Using a low-maintenance humidifier also increases control accuracy to 1%, allowing a smaller band which in the end saves energy and money.

Features of the system include:

- Water in, clean steam out: System ships completely piped and wired;
- Downtime is virtually eliminated with humidifier maintenance reduced by up to 10 times;
- Long-term and reliable performance means fewer maintenance occurrences and lower cost;
- Integrated controls make for a single interface for water treatment system and humidifier.

Contact: Rich Costa, IBC, authorised representative for Dristeem Humidification. Tel: 01 - 457 5421; email: rich@ibc.ie



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## NEWS AND PRODUCTS

### Condair 'Humidity Fights Flu' campaign

**Humidification specialist Condair** is running a "Humidity Fights Flu" campaign to promote awareness that an indoor humidity level of 40-60%RH is very beneficial in combating airborne influenza infections.

Tim Scott, Head of Sales at Condair plc (left), comments:

"There is overwhelming scientific evidence that person-to-person airborne flu infections are significantly reduced when indoor humidity is maintained at 40-60%RH. Yet there is still no legislative requirement for public places or healthcare facilities to manage their humidity levels appropriately and take advantage of this effective weapon in the fight against seasonal flu. This is an ideal opportunity for building services to show leadership in this area and hence our new campaign".

As part of the campaign, Condair has published the summaries of 24 scientific studies on its website, which show the effect humidity has on health. This research shows three humidity-related processes that inhibit the spread of airborne respiratory infections. See [www.condair.ie/fighting-flu](http://www.condair.ie/fighting-flu)

"Putting aside the sector's moral obligation to protect the health of its buildings' occupants, humidity control for health makes obvious financial sense. Staff costs typically account for 90% of business expenditure and respiratory infections are the primary cause of short-term absenteeism", said Tim.

Condair's "Humidity Fights Flu" campaign will see free desktop hygrometers being offered to people working in offices, education and healthcare.

Contact: Damien Power, Condair Area Sales Manager for Ireland. Tel: 091 – 507 120; 0044 7802 669819; email: [damien.power@condair.com](mailto:damien.power@condair.com)



### Hitachi partners with Secon

**Hitachi Air Conditioning** Europe has partnered with solar thermal and renewables specialists, Secon, to supply high quality renewables to its trade customer base throughout the UK and Ireland.

Effective immediately, Secon will offer the full range of Yutaki mono and split air source heat pumps, supported by their own in-house technical support team. All products will benefit from Hitachi's 5-year manufacturer product warranty.

Andrew Hooper, UK Heating Manager, Johnson Controls – Hitachi Air Conditioning, said: "We are delighted that the team at Secon will be supporting our sales activity both in the UK and in Ireland".



### Flamco appoints Lynch

Flamco Group has appointed John Lynch as Sales Director, Domestic. John is well known across the UK and Ireland domestic heating sector, having worked with Sentinel, the water treatment company, for many years as Sales Director for the UK and Ireland.

### BTU 2018 calendar dates

**Friday, 20 April:** Lutterellstown;

**Friday, 18 May:** Clontarf;

**Friday, 29 June:** Lucan (Captain's outing);

**Friday, 24 August:** Hermitage;

**Friday, 21 September:** Newlands (President's outing);

**Friday, 12 October:** St Margarets.

**Christmas outing, Friday, 7 December:** St Anne's. Dinner and music at Clontarf Castle (private room 7.30pm).

Nationals taking place in Newcastle NE Region UK, 7-9 June 2018.

### Core AC appointment

**Dave Clarke** has been appointed General Manager, Core Air Conditioning Ltd. Dave has been with Core for four years, having previously worked within the sector for a number of other market-leading manufacturers and suppliers.

Core AC has expanded considerably in recent years and Dave's appointment is part of a structural re-organisation that sees him take responsibility for the day-to-day running of the business, while Austin McDermott (company founder and Chairman) concentrates on strategic issues and looking after key accounts.

Core AC supplies the complete range of Carrier, Vertiv, Mitsubishi Electric, Novair and Clint HVAC products in Ireland. It also provides a full services package to clients including commissioning, breakdown call-out cover and full preventative maintenance on all makes of equipment and systems.

*Building Services News* will have an in-depth interview with Dave in our next issue.



Dave Clarke, newly-appointed General Manager of Core Air Conditioning with company founder and Chairman Austin McDermott.

## NEWS AND PRODUCTS

### Paul McEvoy joins Sisk

**Paul McEvoy** has joined John Sisk & Son Ltd and is working on a large mixed-use development project co-ordinating the mechanical and electrical services. Paul, widely-known and respected within the industry despite his young years, has quite a depth of experience across a number of industry segments.

A graduate of Heriot Watt University (Edinburgh) with a degree in architectural engineering (having previously studied building services engineering in DIT), Paul worked on the design and specification of building services plant for Hevac before moving to sister-company Origen Energy to work on renewable energy technology systems.

Here his work focused mainly on heat pump and combined heat and power (CHP) system design, while also working with Polytherm Heating Systems (another Hevac Group company) on the design and specification of large commercial underfloor heating projects.

He joined John Sisk & Son just before Christmas of last year and is now looking forward to the new opportunities and challenges this post will bring.

Contact: Paul McEvoy, John Sisk & Son. Tel: 087 – 614 2794; email: p.mcevoy@sisk.ie



### ecobuild, ExCel, London

This year's ecobuild at the ExCel Centre in London will feature 450 plus exhibitors, along with an extensive programme of events including a major conference, the 2018 BREEAM Awards, the Offsite Construction Awards and the Offsite Buyers & Specifiers Forum.

Exhibitors will be grouped together within related categories under eight "Districts" with sustainability at the heart of everything.

In addition, the Enterprise Europe feature is a "matchmaking" event where attendees can meet at high-speed during 20-minute appointments, before the bell rings for the next meeting.

### Building Standards, Building Controls and Consumer Protection Report

**Engineers Ireland** has welcomed the "Safe as Houses? A Report on Building Standards, Building Controls & Consumer Protection", published recently by the Oireachtas Joint Committee on Housing, Planning & Local Government.

The report calls for further improvement in building standards in new builds, as well as increased protection for homeowners and tenants who experience defects in their homes.

The recommendations build on the progress made in the Building Control (Amendment) Regulations 2014 and the Construction Industry Register Ireland (CIRI) Bill to strengthen compliance with building regulations and increase confidence in the construction sector.



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## NEWS AND PRODUCTS

### Lindab acquires AC Manufacturing

As part of its accelerated strategy to develop its ventilation business, Lindab International AB (publ) has acquired AC Manufacturing Ltd through its Irish operation Lindab (Irl) Ltd.

With an annual turnover of approximately €6 million and 40 employees, AC

Manufacturing is the largest manufacturer of ventilation ducting in Ireland. The acquisition reinforces Lindab's continued confidence in the Irish market and provides significant opportunities to improve customer offerings and project sales.

"We feel confident that the combined businesses of Lindab and AC

Manufacturing will further strengthen our ability to respond to the Irish market demands in a growing and more advanced ventilation market", says Patrick Boland, Managing Director of Lindab (Irl) Ltd, "and we are particularly pleased to welcome Shay Connolly and his team into the Lindab family".



Fredrik Liedholm, Lindab International AB with Shay Connolly, Chairman and Managing Director, AC Manufacturing and Patrick Boland, Managing Director, Lindab (Irl) Ltd.

### Ireland Power Conference 2018

The Irish energy sector is on the cusp of a dramatic and substantial overhaul, driven by the need to shift to a greener economy. Transformation in the electricity market, expanding and greening the gas grid, improving both national and international interconnection, and ensuring the infrastructure is ready and able to cope with the growing electrification of heat and transportation, are just some of the challenges on the energy horizon.

Innovative technologies are opening up opportunities for networks to become smarter, enabling energy players to optimise existing assets. All of this essential change is coming under the uncertainty surrounding Brexit.

This will have a profound impact on the integrated single energy market in Ireland which crosses the border between the North and the Republic. Its operation, and the energy security and climate change ambitions of the island, rely on finding a pragmatic and workable solution.

These topics will be discussed at the Ireland Power Conference in the Red Cow Moran Hotel on 24 April.

### RACGS 2018

**19 April:** The Heritage, 11am, Captain's Drive-in. Sponsor: Carel Ireland;

**24 May:** Kilkea Castle Golf Club, 11.30am, President's Day. Sponsor: DWG;

**21 June:** Mount Wolseley Golf Club, 11am, Sponsor: Mitsubishi Electric;

**16 August:** Formby Hall, UK (RACGS v NRGs);

**21 September:** Luttrellstown Castle Resort, 11am, Captain's Day. Sponsor: RSL (provisional);

**19 September:** Laytown Golf Club, 11am, charity outing. Sponsor: Core AC;

Daikin will continue to sponsor the 2018 Golfer of the Year.

### C&F training programme

Training continues to be an integral part of the C&F Quadrant offering with the focus on supporting the Glowworm and Vaillant brands.

Last year was a busy year for training in attendee numbers and it also saw a significant investment in the training centre at C&F Quadrant's headquarters in Dublin. That said, the company also offers regional training through its various supply partners.

The programme for 2018 is as follows: 15 February: Hurst Heating & Plumbing, Castlebar, Co Mayo; 27 to 30 March: C&F Quadrant Training Centre, Dublin; 24 to 27 April: Heat Merchants Cork and Limerick; April 12 to 15 June: C&F Quadrant Training Centre, Dublin.

Contact: Conor Gaffney, Tel: 086 – 205 2806, email: conorg@cfquadrant.ie or Fintan Kennedy, Tel: 086 – 257 1843, email: fintank@cfquadrant.ie

### FM Ireland conference

The annual Facilities Management Ireland combined conference and exhibition will take place in the RDS, Dublin, on Tuesday and Wednesday, 6 and 7 March, 2018. Attendance at both the show and various conference presentations is free. For full details and to register, log on to [www.f mireland.com](http://www.f mireland.com)

### Growth at six-month high

Irish construction activity increased at a faster pace during December 2017 amid strong growth of new orders. Rises in employment and purchasing were also recorded, while confidence regarding the 12-month outlook for 2018 improved. Inflationary pressures remained elevated, with input costs increasing to the greatest extent in six months.



## NEWS AND PRODUCTS

### PH Ross new Cabra showroom

**PH Ross** – a name synonymous with all things plumbing and bathroom related – has marked its 40th anniversary by opening a new, purpose-built, office, stores and showroom complex on the site of its former premises in Cabra.

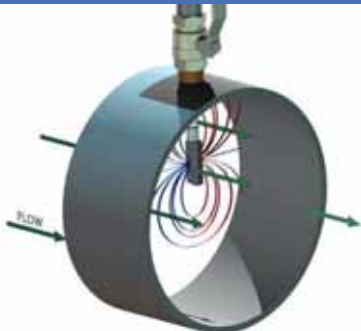
The showroom was designed by architect John-Henry Boyle and is inspired by the Berlin look interior decoration style. Within this space, PH Ross has created over 25 stylish bathrooms in a domestic-style setting. From classic bathrooms to modern cutting-edge fittings, there is something for all tastes.

Store Supervisor Christy Cameron said: "The team here is really looking forward to working the new space. Everything is designed for convenience. We've more car parking spaces and loading bays, and fantastic product ranges. Our trade customers can recommend the showroom to their customers knowing that if the customer chooses a bathroom, the plumber can purchase everything needed on site here."

Dennis O'Connor, Managing Director said: "PH Ross has been part of the community for over 40 years. As local employers, we have seen guys learn their craft working here who have gone on to set up their own successful plumbing business, and indeed are now our customers."



# Onicon Insertion Meters



**Turbine**

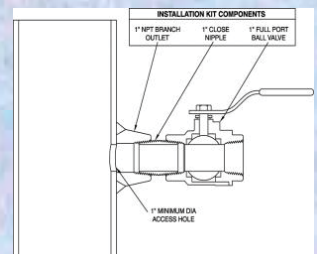


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Turbine, Ultrasonic,  
Magnetic, Vortex



Contact: Rich Costa  
Ph: +353 85 125 7037  
Email: rich@ibc.ie  
Web: www.ibc.ie

## NEWS AND PRODUCTS

### Enterprise Excellence Ireland 2018

**Enterprise Excellence Ireland 2018**, to be held at Croke Park on 23 May next, will bring together over 700 Lean managers from the European, Japanese and Irish business community to openly discuss the implementation of Lean Management systems within their facilities and organisations.



Over 32 International and national keynote speakers will provide delegates with an insight into the management philosophy that pursues the continuous elimination of waste in all business processes through the journey of Lean Management and incremental improvement.

Many of us are familiar with this common definition of Lean. While it is certainly accurate, we often find that the specific benefits that Lean will have on individual processes, and eventually entire companies, are seldom discussed. This event will do just that.

### Engineers Week

**Coordinated by Engineers Ireland**, Engineers Week 2018 will run from 24 February to 2 March, 2018. This is an excellent opportunity for those within the sector to encourage young people to engage with, and learn about, the wonderful world of engineering, and the career opportunities it offers.

Getting involved is easy with the support of the Engineers Ireland's STEPS team, who can help and advise through various initiatives. The STEPS team has developed plenty of resources to suit different needs, all of which are available on the Engineers Week website: [www.engineersweek.ie](http://www.engineersweek.ie).



### PM Group acquires PROJEN

**PM Group has** acquired PROJEN, a 100-person multi-disciplinary engineering firm based in the UK, which now trades as PM PROJEN and provides engineering and project management services in the chemical, petrochemical, advanced manufacturing technology and energy sectors.

"There is great synergy between the services already offered by PM Group and those provided by PM PROJEN", says Dave Murphy, CEO of PM Group. "We share a strong track record of designing and delivering complex projects across a wide range of process-related sectors and have a similar company culture."

The acquisition of PM PROJEN brings the total number of PM Group's personnel to over 2,200 people, with over 300 based in the UK.

### New from BSS

#### The compact Vaillant

ecoCRAFT range consists of six models – 80kW, 120kW, 160kW, 200kW, 240kW and 280kW – and comprises a modular heat exchanger design utilising a single pre-mix burner and fan to achieve part-load efficiencies as high as 108.4% (net).



Other features and benefits are: Modulation ranges as wide as 17% to 100%; NOx Class 5 rating; Adjustable maximum flow temperature from 35°C to 85°C; ErP band A.

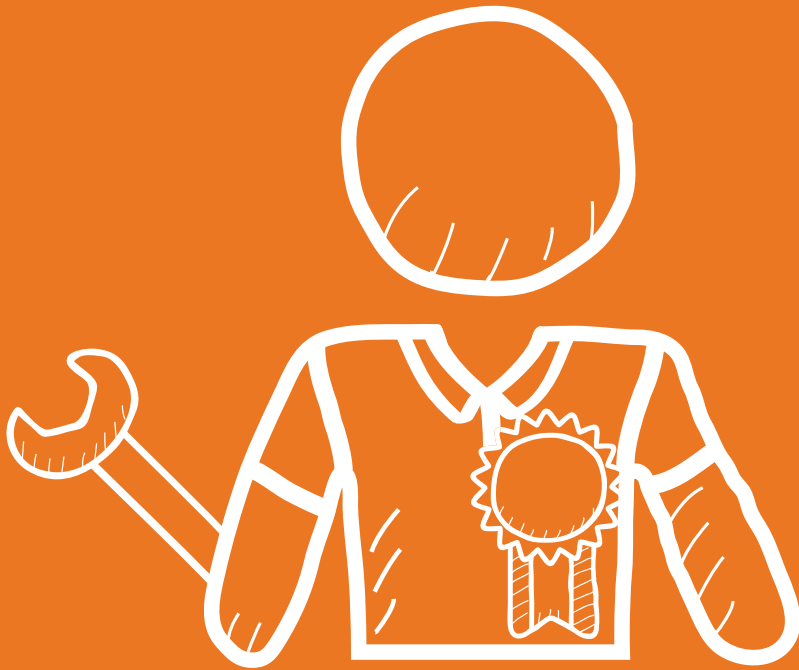
For further details see: [www.bssireland.ie](http://www.bssireland.ie)

### CIBSE Ireland celebrates 50th

**This year marks** the CIBSE Ireland Golden Jubilee. Plans are underway for a series of celebratory events throughout the year, culminating in a gala dinner in the Clayton Burlington Hotel, Dublin, on Friday, 30 November. Details of the event will be announced shortly so keep a regular eye on [www.cibseireland.org](http://www.cibseireland.org)

# BAXI

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\*Free gas boiler training is only available to RGI registered engineers.



## NEWS AND PRODUCTS

### Rehema Quinta Pro 55 from Euro Gas

The Rehema Quinta Pro 55 is one of the latest additions to the Euro Gas portfolio. Based on proven Quinta Pro technology, the Quinta Pro 55 is a compact, wall-hung, condensing boiler with low NOx emissions. The compact design allows for individual installation or as part of a multi-boiler cascade or rig system.



The one-piece, cast aluminium heat exchanger and other major components are contained within a sealed air box. This forms the main boiler casing with a removable front section for maintenance purposes. All electrical and electronic controls are contained within the instrument panel mounted behind the drop-down lower front panel.

Suitable for use on sealed systems and open-vented installations, the Quinta Pro 55's small footprint and multiple flueing capabilities make it exceptionally easy to install in either new or existing buildings.

### SEAI Energy Show

The SEAI Energy Show, in operation for over 20 years, is Ireland's premier business energy event, bringing together 150 exhibitors of sustainable energy technologies and services.

The show offers a unique opportunity to witness the latest innovations in energy efficiency and renewable energy, and to learn about future developments as Ireland moves towards a clean energy future.

This year visitors will have lots of networking opportunities at the industry information pavilion and the international markets hub. Free test drives will be available in the latest electric vehicles on the market while best practice demonstrations will be given on building fabric and energy solutions.

In addition, the SEAI Energy Theatre will feature free talks with industry experts on the latest policy and market developments in energy efficiency and renewable energy.

A detailed agenda for this two-day, free event will be available on [www.seai.ie](http://www.seai.ie) over the coming weeks.



### Global view of MEP market

**Increasing infrastructure development** in emerging economies and the requirement of the developed economies to upgrade their existing infrastructure is in turn expected to create a highly-conducive environment for growth of the global mechanical, electrical and plumbing (MEP) services market.

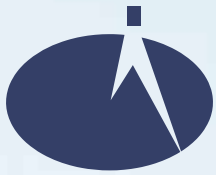
The requirement to implement energy-efficient and reliable building designs is a major factor driving this growth with clients outsourcing MEP operations to single-source suppliers. These vendors handle the mechanical, electrical and plumbing associated tasks with the clients focusing on their core activities for the construction development.

### National Construction Summit

The **third annual** National Construction Summit will be take place on 2 May 2018 in Citywest, Dublin. The purpose of the National Constriction Summit is simple ... to bring together over 2000 construction industry-related delegates to stimulate debate, enrich knowledge and connect stakeholders involved in the finance, design, construction and management of Ireland's buildings, infrastructure and industrial projects.

Among the sector represented will be construction companies, developers, policy makers, project owners, building owners, government and municipal bodies, lenders and private investment firms, architectural and design firms, planners, facility managers, property managers, large industrial companies, technology companies, legal and tax professionals, equipment and machinery providers, building material providers, professional advisors, and energy and environment professionals.

The team of speakers will include Tom Parlon, CIF Director General, Pat Doherty, CEO ESB, Robin Mandall, Robin Mandall Architects, and many more.



# Hospital Technical Systems

Hospital Technical Systems (HTS) is a leader in the supply, installation and maintenance of medical and process gases for Ireland. HTS services the process, pharma industries and hospitals, in accordance with HTM 01-01. Established in 1990, the company has a reputation for high-quality installations with a nationwide support and maintenance division.

## Services

- Design
- Installation
- Commissioning
- Maintenance
- Emergency call cover (24/7)

## Applications

- Medical gas pipeline systems
- Modular operating theatres
- Theatre pendants
- Bedhead trunking

## Standard compliance to

- HTM 02-01 and NHS Model Engineering Specification C11
- HTS Code of Practice
- Quality Assurance: ISO 9001:2008

## PureMED dryer

Pneumatech Medical Gas Solutions (PMGS), a global leader in medical gas production, delivery and control equipment, is a key HTS supply partner. Its PureMED dryer provides customers with ultra-clean medical air for:

Medical applications – Mechanical ventilation; Anaesthesia; Drug delivery via a nebulizer; Testing medical devices and Drying of medical devices.

Surgical applications – Pneumatic surgical tools (drilling, reaming, sawing, dissecting; tapping and screwing); pneumatic ceiling pendant operation; testing of medical devices; and high-speed high torque motors.

## Hospital Technical Systems

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Sandyford, Co Dublin. Eircode: A94 FX96  
Tel: 01-455 1163 Email: [info@htsltd.ie](mailto:info@htsltd.ie)

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



**T BOURKE**  
A T. BOURKE COMPANY



# BSS Group adds Vaillant Commercial Boilers

Vaillant Commercial System's ecoTEC 46, 65, 80, 100 and 120 are high efficiency condensing gas boilers. With a host of built-in features, installation and servicing of the ecoTEC range is very straightforward.

Compact, and with a comprehensive range of flues, fittings and accessories, Vaillant ecoTEC boilers can be sited almost anywhere. For larger or more complex buildings, multiple boilers can be fitted in cascade formations in various configurations, providing a highly-efficient heating system.



**ISO  
9001  
QUALITY  
ASSURANCE**

- Stainless steel heat exchanger
- High efficiency ErP compliant shunt pump
- ErP rating 'A'
- Pressure sensor to monitor system pressure via diagnostics
- Flow sensor to monitor water flow through boiler
- Air separator with auto air vent and filter for bleeding system and filtering of fine particles
- Production to ISO 9001
- Five-year guarantee as standard, subject to conditions
- Flue gas and air analysis points
- LPG conversion available for 46, 80, 100 and 120 models
- 0 - 10 V compatible for BEMS systems (via VR 34 accessory)
- Range of eBUS controls including weather compensation available





# Vaillant



## **BSS (Ireland) Ltd**

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Published by ARROW@TU Dublin, 2018



**BSS (Ireland) Ltd.**

Incorporating Pegler & Loudon Ireland

# Engineered to order

## ... 'Off-site Build' solutions hark back to Grundfos foundations

Behind all great companies there is a story, a reason for their being, a foundation for their ethos and culture. Denmark in 1944 was a country struggling for freedom from the occupying forces, an unlikely time to create a multinational engineering company. However, true entrepreneur Poul Due Jensen wanted to create a business to support his family, serve his community and create employment, and so founded a blacksmiths foundry in 1944, specialising in heating and waterworks.

In 1945 a local customer was looking for a water pumping system and, unable to source a suitable solution, Poul and his team designed and built the pump system themselves. Thus Grundfos was born and very soon the company was producing many more pumping systems for others in the neighbourhood.

stream of innovative pump solutions and industry breakthroughs such as producing the first pump with an integrated variable speed drive.

"To maintain this leadership position it is important to understand and react to changing industry needs, and to give customers the solutions they need, very often even before they realise they need them", says Liam McDermott, General Manager, Grundfos Ireland.

"The building industry is quite adept at coping with change and commercial building services have reacted well to technological change, the demands of BIM, changes to building regulations, increasing health and safety requirements, and the need to meet increased efficiency targets. The complexity of building services projects has increased, while the building programmes have decreased with the term 'rapid build' becoming more commonplace.

"Meeting these demands can be made all the more difficult by skills and labour shortages, logistical challenges on site, and the risk of stringent financial penalties for any non-compliance. For Grundfos, looking

To be  
the best,  
be with  
the best



Poul Due Jensen

Full of ambition and ideas, Poul's Grundfos soon developed innovative methods of mass-producing heating circulators, multi-stage submersible borehole pumps, and an extensive range of booster pumps. By the turn of the century, Grundfos had grown to be the world's largest pump manufacturer with a global workforce exceeding 19,500 employees in over 80 companies. These are located in 60 countries and span all continents. Grundfos very quickly achieved market leader status thanks to a constant

back to the very origins of the company has inspired the development of 'Engineered to Order' or 'Off-Site Build' solutions, a development Poul Due Jensen would probably say we have been doing since 1945.

"These packaged solutions are a natural extension of the range of packaged booster sets Grundfos has been producing at the Grundfos manufacturing plant in Sunderland. The engineering team in Sunderland started producing LPC and FM diesel/electric fire sets 20 years ago and this 'skid' business subsequently progressed to containerised fire packages.



"The natural progression was to offer this service to the building services market, and in recent years heating and chilled water packages, pressure boosting and heat interface units and various other solutions have been provided for projects in Wembley Stadium, the Shard and various hospitals in the UK. In Ireland we have supplied packaged solutions to data centres, and to pharmaceutical and many commercial projects.

"These packaged projects are managed through a controlled process, from concept through to design and production, where each stage is executed in an ISO-accredited production facility. The benefits of these 'Off-Site Build' solutions are numerous while they also save time on site and result in predictable quality.

"The perception that this solution is expensive is proved incorrect when a project is examined in real terms. Such an exercise clearly demonstrates that not only is it competitive, but that in many cases it is also a cost-saving solution. If you are involved in a project where 'Off-Site Build' would solve some of your headaches, please contact Grundfos Sales".

**"Be, think, innovate ... choose Grundfos engineered solutions".**



**Grundfos Ireland Tel: 01 – 408 9800**

**email: [info-ie@grundfos.com](mailto:info-ie@grundfos.com)**

Published by ARROW@TU Dublin, 2018

**[www.grundfos.ie](http://www.grundfos.ie)**



# Lowara ecocircXL and XLplus manufactured in-house by Xylem

The ecocirc XL and XLplus range of single and twin-head, high-efficiency, circulators was designed from scratch by Xylem and is marketed under the Lowara brand. Available in cast iron or bronze for hot and cold water HVAC applications, this new range is manufactured by Xylem with quality assurance guaranteed in respect of materials used and processes employed.

**The ecocirc XL** is a highly efficient circulator that enhances commercial hydronics systems with superior quality and dependability. State-of-the-art hydraulics, advanced motor design, intelligent controls, and smart communication capabilities highlight expert engineering across a broad range of HVAC and plumbing applications.

"At Xylem we believe in products that do their job when expected", says Austin Kennedy, Xylem Sales Manager, Ireland & NI, "and that are easy to install, commission, operate and service. When it comes to circulators, that means high efficiency, robust design and high precision manufacturing, in addition to well-thought through controls and communication".

The ecocirc XL and XLplus are designed to deliver many years of trouble-free operation. Features and benefits include:

- Low cost of operation: Operation costs are kept to a minimum thanks to a high-efficiency ECM motor and hydraulics;

- With only four logically-placed buttons, it's easy to set up and operate the new ecocirc XL. Its advanced settings can be accessed from a PC, tablet or smartphone via built-in communication BUS or Wi-Fi (optional module);
- Dry-run safety: The built-in dry-run protection stops the pump and prevents damage if it runs without water;
- Flexibility: There are two analogue inputs for 4-20mA and 0-10V signals, and one temperature probe;
- Chilled water no problems: The electronics are separated from the pump to prevent condensation problems when pumping chilled liquids.
- Keep it hot: A moulded insulation shell keeps the temperature of the pumped liquid (and the surroundings) where it should be;

- Visible in dark plant rooms: Clear display with large figures and symbols makes it easy to read the values.

Contact: Kevin Devine, Business Development Manager, Xylem.

Mobile: 087 – 757 7411;

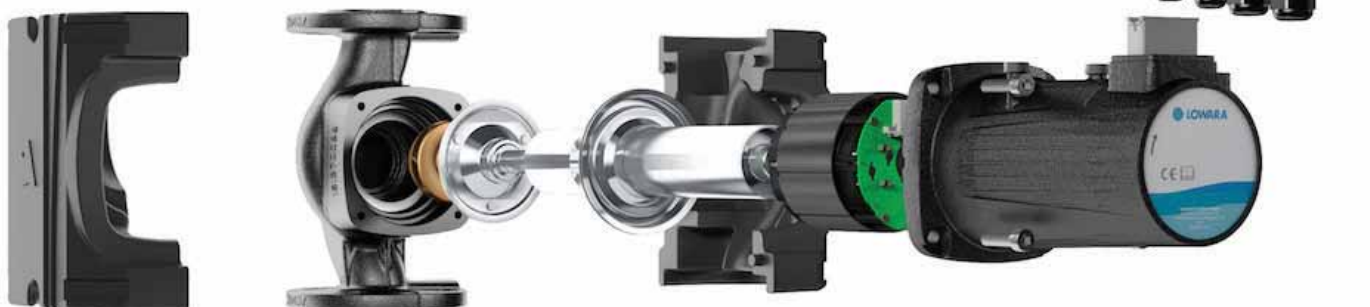
email: kevin.devine@xylem.com ■

## Lowara CAD/BIM Centre

**Also from Xylem** is the Lowara CAD Centre where consultants can find 2D and 3D CAD drawings, as well as BIM models, for all of the company's water boosting and circulating pumps. This simplifies the work of specifiers who can now find the CAD files for most Lowara products in one place.

The CAD Centre is really user-friendly with icons for each product type that lead directly to the drawings. It also has a powerful search function so finding what you're looking for is quick and easy. The files can be either downloaded or shared via email directly from the CAD Centre.

See <http://buildings.xylem.com/tools-downloads/cad-bim/>



The ecocirc XL and XLplus range of single and twin-head high-efficiency circulators from Xylem.



# EXACTLY WHAT YOU NEED FROM A CIRCULATOR

## Lowara ecocirc® XL and ecocirc® XLplus series

At Xylem we believe in products that do their job as expected; they should be easy to install, commission, operate and service. When it comes to our circulators, you can depend on high efficiency, robust design, precision manufacturing and well thought through controls and communication.

This is exactly what the ecocirc XL and XLplus will offer.



**Xylem Water Solutions Ireland Ltd.**  
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[www.xylemwatersolutions.com/ie](http://www.xylemwatersolutions.com/ie)  
email: [kevin.devine@xyleminc.com](mailto:kevin.devine@xyleminc.com)

Published by ARROW@TU Dublin, 2018

**xylem**  
Let's Solve Water





## Customised pump and water storage solutions

The Calpeda Aquarius tank system is the latest example of the innovative products available from Calpeda Pumps (Ireland). For over 20 years the company has built a strong reputation for delivering customised pump solutions to meet the requirements of a wide range of projects and applications.

This ability to create engineering-led solutions comes from a unique mix of innovative pumps complemented by a team of in-house specialists offering design advice and technical support at every stage of a project, be it a domestic, commercial, industrial or specialist application.

As part of the Italian pump giant, Calpeda SPA, Calpeda Pumps (Ireland) Ltd can also boast of continuous product development, a typical example



being the Calpeda Aquarius tank system. This unique pump and water storage solution was devised by Calpeda Pumps (Ireland) and is manufactured at its premises in Blanchardstown, Dublin 15. Carrying the prestigious Guaranteed Irish symbol of accreditation, Calpeda

Aquarius is designed to meet the demand for a self-contained, integrated pump and water storage solution and is suitable for applications such as houses, apartments, retail, commercial, hospitality, nursing homes, sports clubs and gyms.

Reflecting this versatility, there are multiple tank size options in capacities ranging from 100lt to 2000lt, and any number of different pump sizes with pressures up to 12 Bar and flow of 183 litres/minute. Tanks can be interconnected for larger storage capacities.

This range of tank sizes and tank shapes means that Calpeda Aquarius is suitable for a wide array of applications in a variety of house types and locations.

The fact that the Calpeda Aquarius range is manufactured in Dublin means that project-specific solutions can also be created.



Managing Director Graham Fay with Sales Manager Quintin Byrne.

### Easy to install

The installer has also been considered, with initial installation and future servicing kept simple. Everything relating to the pump is incorporated into the self-contained special screw-on/off lid. Servicing the pump is also straightforward and, should the need arise to replace it, the lids are interchangeable, so the installer simply needs to extract the old pump and drop in the new unit.

Every tank is manufactured from non-toxic, high-density polyethylene and certified for use with drinking water. All the materials used are non-corrodible and are UV, mould, algae and lichen resistant, while every tank is fully pressure tested and certified prior to dispatch.

All Calpeda Aquarius tanks come complete with secure access lid and screened vent, and dry-run protection built in as standard. The pumps use jacketed motor technology in order to prevent heat transfer to the stored liquid, while pressure control options are possible via the patented Calpeda **IDROMAT** and **EASYMAT** variable speed controls.



# AQUARIUS®

Guaranteed  
Irish



## Calpeda Aquarius® Tank System

### Features and Benefits

- Very quiet operation (48DB)
- Ideal in areas where mains pressure is low or inconsistent
- Certified for use with drinking water
- Over 30 different pump options
- Jacketed motor technology
- Dry-run protection built in as standard
- Pressures up to 12 Bar and flow of 183 litres/minute
- Forty different water tank size options (100lt to 2000lt)
- Pressure control options
- Outlet drain connections of 1 1/4" and 1" fitted as standard
- Tanks can be inter-connected for larger storage capacities
- All units fully leak and pressure-tested, and certified

"Calpeda Aquarius is designed to meet the demand for a self-contained, integrated pump and water storage solution."

### 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](mailto:info@calpedaireland.com)

## WILO BRINGS THE FUTURE

# Stratos Maxo arrives in 2018

**Digitalisation has become a key factor across all market segments of the building services sector but it is in pumps, where Wilo has been very much to the fore, that it is most evident. Increasingly, Wilo is moving away from being just a product supplier to becoming a system partner, and digitalisation is critical in this respect.**

**Through continuous development** and innovation Wilo has achieved many milestones since the company was first established in 1872. It has always invested heavily in R&D and the current €200 million plus investment programme in the new development facility in Dortmund has digital technology at its core. Digitalisation is changing the entire value chain and is reflected not just in product and system solutions but also in pump production processes and working procedures.

### **Stratos Maxo**

The fruits of that commitment are epitomised by the new Stratos Maxo range and its imminent availability in Ireland confirms Wilo's position as the digital pioneer in the pump industry. The successor to the Wilo-Stratos, it sets new standards in system efficiency and user-friendliness, and was awarded the prestigious "Design Plus Award" at the most recent ISH.

"The Stratos Maxo is the world's first true smart-pump", says Derek Elton, Managing Director, Wilo Ireland. "The new Green-Button-Technology combines proven handling with new and optimised functions, creating a



The new Yonos Pico

completely new level of user-friendliness. Its high degree of connectivity makes it an extremely flexible solution."

An integrated heat energy meter and the latest communication interfaces (Bluetooth) enable Stratos Maxo to be directly connected to mobile devices without accessories, while "Wilo Net" offers a new standard interface for connectivity among Wilo products, for example, to control multiple pumps.

### **New Yonos Pico**

On the domestic front, Wilo has introduced the new Wilo-Yonos PICO range. A visible symbol of this new generation of high-efficiency pumps for heating and air-conditioning systems in residential dwellings is the green operating button which stands together with new functions for maximum convenience for commissioning and maintenance. Features and benefits include:

- Three-speed manual function option;
- Maximum operating convenience;
- Intelligent settings and new functions;
- Intuitive user interfaces;
- Quick, easy installation;
- Seamless replacement;
- Optimised energy efficiency;
- Easy maintenance;
- Maximum operating safety.

Contact: Wilo Ireland.

Tel: 01 – 426 0000;

email: sales@wilo.ie;

www.wilo.ie ■



## CIBSE Ireland celebrates 50 years

# Designing future-proofed buildings for next 50 years



**As CIBSE Ireland** marks its 50th anniversary in 2018 and we look back at buildings designed in the 1960s, we now understand why large areas of glazing, lightweight construction and insufficient ventilation led to overheating and downright poorly-performing buildings.

In the intervening years the industry has learned from the many mistakes made back in the late 1960s and early 1970s in particular. Building stock constructed since then has shown marked improvement but, as we look to design buildings that will be here for the next 50, we should not be complacent.

Buildings that are performing well now, and those currently being designed and built for the today's climatic conditions, may become intolerable for occupants by 2068 (50 years time) unless we factor in concepts such as active cooling and associated high-energy usage. There is compelling scientific evidence that our climate is changing, and it is probable that average temperatures will increase by several degrees over the coming century. These increases in temperature are expected to have a major impact on the indoor environment of buildings.

It is essential that buildings being designed and built today are future-proofed so they can adapt to changes in external temperatures and humidity, light levels, energy usage and so on.

To be fair, the construction industry has already made significant steps towards tackling climate change through limiting the amount of carbon emitted – both in the materials used (embodied energy) and predicted energy usage – by using simulation programmes such as IES, along with BREEAM and LEED.

The energy message emphasis on heat-saving in winter using highly-insulated and airtight buildings also means there is a danger of overheating in the summer months. This presents a different challenge. CIBSE has produced quite a number of guidance documents in this respect, such as TM52 (The limits of thermal comfort:

avoiding overheating in European buildings: Developed for “free-running” commercial buildings) and TM59 (Design methodology for the assessment of overheating risk in homes).

The health and wellbeing impacts of overheating (see Mona Holtkoetter's article in October 2017 edition of *Building Services News*) can be significant for residents, resulting in stress, anxiety, sleep deprivation and even early deaths in heatwaves, especially in cases of vulnerable occupants.

Among the concepts now being embraced to combat these issues are highly-insulated pipework; insulated heat interface units; ventilated utility cupboards; LED lighting; and installing mechanical ventilation heat recovery units, with summer bypass and boost mode, to increase the ventilation rate when required.

Climate change is affecting how buildings will perform for occupants, both now and in the future. While overheating has emerged as a major concern, climate effects extend beyond the treatment of overheating. They also include flooding, drainage, water conservation and material durability.

The CIBSE TM36: Climate Change & the Indoor Environment: Impacts & Adaptation (CIBSE, 2005) document again offers guidance and advice on these matters.

In considering the design of both commercial and residential buildings today we must address the known and anticipated challenges that lie ahead and consider, among other things, the following:

- To what extent will climate change increase the occurrence of summertime thermal discomfort and overheating in different types of buildings?
- To what extent will passive measures be able to improve summertime thermal comfort and ameliorate the increased tendency for overheating?
- How effective will different approaches to comfort cooling be?
- What are the energy-use implications of the various strategies?

While no one has all the answers, there is still a wealth of guidance freely available to all concerned in building services. See [www.cibseireland.org/membership/](http://www.cibseireland.org/membership/) for details, or contact CIBSE Ireland directly at [contact@cibseireland.org](mailto:contact@cibseireland.org) ■



BUILDING AUTOMATION  
CONTROL TECHNOLOGY  
SENSOR TECHNOLOGY

# Smart control with b@home

# alre



Smart control at home without the internet



Optional  
programmable  
time clock



Control and monitor heat/cooling systems on your home network via LAN/WLAN (no internet connection required)

The b@home system can be easily operated and programmed on a home network, without an internet connection. All data and configuration parameters are stored locally on the b@home gateway.

The b@home system can also be used at any time, independent of the b@home app, smartphones and tablets.



Once registration has been completed in the b@home portal, the system can be operated and programmed at any time, from any location, via the internet.

The b@home portal is secure and no information is passed on to third parties. The system is fully functional on a local network, even if the internet fails or is not present.

## Pier-to-pier technology ensures all transmissions are secure and zero interference

# Intelligent solutions for intelligent buildings

Smart control from any location via the internet



## Wireless Thermostat

Wireless battery-powered thermostat with set point adjust.

- Uses standard AAA alkaline batteries, expected battery life 2-3 years
- Can be used to control single and multiple controllers
- Up to 50m range
- Can be controlled via the "b@home" app or as a radio system



Control and monitor heat/cooling systems at any time and from any location via the internet

## Radiator Actuator

Wireless battery-powered radiator actuator.

- Uses standard AAA alkaline batteries, expected battery life 2-3 years
- M30x1.5 mm thread fits directly onto most standard radiator valves
- Used to isolate individual rooms, saving money by not heating unoccupied rooms
- Fully controllable by the "b@home" app or as a radio system



## Wireless Controller

4-channel (16Zone) wireless controller.

- Supports up to 16 zones for manifolds and zone valves
- Eight channel (32-zone) version available
- Battery powered set-up
- In-built pump module
- Can be used to control a diverse range of equipment



The Controls Centre,  
 4 Walkinstown Road, Dublin 12.  
 Tel: 01 - 452 2355/452 2229 Fax: 01 - 451 6919  
 email: info@manotherm.ie

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



# Quality System Solutions for large domestic and commercial boiler projects

**C&F Quadrant** is one of Ireland's leading suppliers of heating and plumbing products with a portfolio of market-leading brands catering for both commercial and domestic applications. With offices in Dublin and Belfast, and a network of regional representatives and merchant trading partners, comprehensive all-Ireland coverage is assured.



C&F Quadrant office and warehouse headquarters in Dublin

Complementing and supporting the extensive product portfolio is a team of highly-qualified, engineering-led, personnel. Experience runs to the core of C&F Quadrant with long service commonplace at all levels, from trade counter personnel through to technical support, field sales engineers and back-up administration.

This long-service feature is mirrored in the long-standing trading relationships it enjoys with many of its suppliers, some of which date back 20, 30 and even 40 years. Those currently in the portfolio are ACV, Bosch, Coster, Flamefast, Unical and Vaillant.

Boilers from all brands represented are listed on the SEAI Triple E Product Register and qualify for the Accelerated Capital Allowance Scheme.

Brief details of all are as follows.

**COSTER** Included in the C&F Quadrant portfolio is the Coster range of energy control products that offers solutions for the automation, control and management of heating and air conditioning sites.

The Coster product mix covers:

- Automation of boilers and burners;
- Heating;
- Thermostatic mixing valves;
- Air conditioning;
- Gas safety/alarm systems;
- Valves/actuators;
- Controllers and instruments for various uses;
- Energy metering and allocation of charges.



*flamefast* Flamefast gas sensors are suitable for use with a wide range of gases and applications. They can be interfaced with a Flamefast GasGuard System or Building Management System using its digital and analogue outputs, as well as being able to connect into much larger systems with a multi-channel controller.

This high-specification and cost-effective gas detection solution offers complete protection from gas leaks and is ideally suited for both industrial and commercial applications.



Dublin: +353 (1) 630 5757  
Belfast: +44 (28) 90 36 55 55

Email: [sales@cfquadrant.ie](mailto:sales@cfquadrant.ie)



## Excellent products supplied and supported by C&F Quadrant



Prestige wall hung boilers from ACV comprise an extended range of four models, in sizes 50kW, 75kW, 100kW and 120kW, and incorporating ACV's unique, self-cleaning stainless steel heat exchanger.

Prestige boilers can be installed in a cascade from two to eight units with a maximum combined output of 920kW. A cascade installation greatly improves the system efficiency and fuel usage, resulting in reduced running costs and lower emissions. There is also an integrated non-return flue valve to make fluing options easier.

Installation and maintenance is simple as all parts are serviceable from the front of the unit, while the ACVMAX® system control also has an easy menu structure.



# BOSCH

Bosch has specialised in commercial and industrial boiler construction for 150 years, using innovation, quality and performance efficiencies to establish industry benchmarks others have sought to emulate. Bosch commercial boilers have a very strong presence in Ireland, thanks largely to its long-standing partnership with C&F Quadrant, who have been distributing and supporting the brand for 40 years.

Today's Bosch portfolio includes energy-efficient cast iron boilers, and stainless steel and condensing boilers for commercial heating solutions. A typical example is the Buderus GE range which can achieve up to 92% NCV with low-flue gas temperatures and effective all-round thermal insulation. Easy to install and maintain, the cast iron boiler sections can be transported and supplied separately for assembly in the plant room.



# Unical®

The Unical rModuleX EXT enbloc modulating boiler has flexibility as its key advantage and comprises 12 gas condensing models with outputs from 100kW to 900kW. With a cascade installation, the boiler output capacity can be widened to over the 900kW range.

ModuleX EXT delivers a certified efficiency up to 109% at the minimum modulated capacity. Seasonal efficiency is +30% when compared with conventional boilers, while the inimitable modulation ratio is up to 1:40. There is also a modulating pump directly managed by the boiler to ensure the maximum condensation at all regimes.

These levels of output are matched by simple installation. Not only is outdoor installation possible with a protection degree of IPX5D, but the compact and light construction makes it easier to manoeuvre.



# Vaillant

Lightweight for its class and with a compact design, the Vaillant ecoTEC wall hung boiler can be sited almost anywhere. This versatile condensing

boiler includes a comprehensive range of flues, fittings and accessories, and is available in five output ranges – 46kW, 65kW, 80kW, 100kW and 120kW. It is fully compatible with Vaillant's range of intelligent eBUS controls and has flue lengths up to 24m concentric.



# Panasonic GHP GF3 Series delivers simultaneous heating/cooling and DHW

**Panasonic's new generation of gas-powered heat pumps now delivers simultaneous heating and cooling, while also delivering "free" domestic hot water (DHW), for applications such as hotels where constant high-volume supplies are crucial.**

The GHP GF3 series has been updated to provide a host of attractive benefits which improve efficiency and seasonal performance, while contributing to significant energy savings for commercial buildings and facilities.

Gas heat pump (GHP) units utilise natural gas or LPG as their primary energy source. They also require a small single-phase power supply. For example, a 71kW cooling unit requires a power supply rated at 1.8kW. This makes GHP units ideal for applications where power is an issue.

A new, improved heat exchanger provides DHW in parallel to heating or cooling, by effectively capturing the waste heat generated by the engine during operation. This powerful new heat exchanger means that the GF3 series can provide an impressive heating capacity of 100%, at ambient temperatures as low as -20°C, without requiring a defrost process.

Another advantage of the GF3 series is its outstanding seasonal performance. The GF3 16HP model,

for example, boasts a seasonal energy efficiency rating (SEER) of 1.85, an increase of 125% compared to the GF2 series, and a seasonal coefficient of performance (SCOP) of 1.40, an increase of 115%. These figures include DHW plus heating/cooling capacity in parallel, highlighting the phenomenal efficiency of the GF3 series.

Available in 16HP, 20HP and 25HP models, the new energy-saving GF3 models feature a number of innovative technologies that improve efficiency. The flywheel inside the engine is larger and this facilitates greater control and a lower energy output as more rotational energy can be stored. This, in tandem with a larger engine pulley, has improved its energy-saving performance, even at low revolutions per minute (rpm).

A new dynamic 3-blade fan has also been created, further reducing electricity consumption by up to 30%. In addition, the new "L" shaped heat exchanger increases the surface area by 25% to guarantee a more energy-efficient performance.

Finally, an improved rotary compressor design, with increased suction and reduced leakage, contributes to highly-efficient operation.

The GF3 series also has exceptionally-low carbon monoxide (CO) emissions, and includes a catalyser that significantly reduces CO emissions, making it a great choice for improving a building's environmental credentials.

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



**The GHP GF3 series has been updated to provide a host of attractive benefits which improve efficiency and seasonal performance, while contributing to significant energy savings for commercial buildings and facilities.**

# Adaptation to significant changes in refrigerant gas supply an urgent priority

Hydrofluorocarbons (HFCs) are a category of fluorinated greenhouse gases (F-gases) widely used as the coolant gas in refrigeration, freezer, chiller, air conditioning, heat pump and fire-suppressant equipment. They are powerful greenhouse gases if they escape to the atmosphere and leakages and losses accounted for approximately 3% of EU greenhouse gas emissions during 2015, writes *Eamonn Merriman, ODS & F-Gas Team, Environmental Protection Agency (EPA) (pictured).*

As part of its policy to combat climate change, the EU's 2014 F-Gas Regulation aims to cut F-gas emissions by two-thirds

by the year 2030 through several measures. This will require a transition to equipment which relies on less-damaging refrigerants such as ultra-low greenhouse impact HFCs and/or non-fluorinated refrigerants such as carbon dioxide, ammonia and hydrocarbons (i.e. these are not F-Gases).

The greenhouse gas impact of each refrigerant depends on its chemical composition and is indicated by its Global Warming Potential (GWP) value as measured in units of tonnes Carbon Dioxide equivalent (tCO<sub>2</sub>eq).

The F-Gas regulation also places responsibilities on the owner and operators of such equipment to proactively monitor their

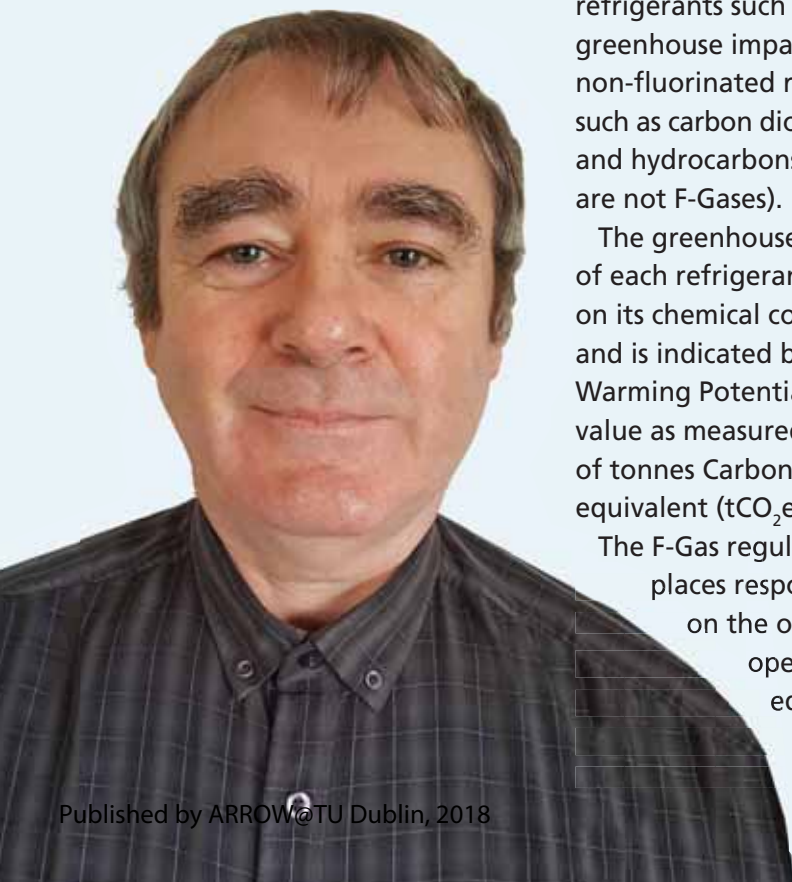
equipment in order to reduce gas leakage, to only engage F-Gas certified refrigerant contractors, to ensure the recovery of refrigerants for recycling, reclamation or destruction and to keep records to demonstrate compliance with the regulation's requirements.

The F-Gas Regulation is enforced by the Environmental Protection Agency (EPA) through a programme of inspections of end-users/operators of equipment (such as fridges, freezers, chillers, heat pumps, air conditioning and fire suppressant systems), refrigerant contractors and refrigerant gas distributors.

## Legislative measures to reduce usage

The F-Gas Regulation has three key measures that aim to restrict the supply of HFC refrigerants:

(1) *Reduction in the Quantity (Phase Down) of HFC Refrigerants placed on the Market* (Article 15) – Since 2015, the amount of bulk HFC refrigerants that can be placed on the EU market by importers or producers is subject to a series of step-downs until 2030 (Figure 1) through a quota system operated by the European Commission. For instance, a 30% cut in HFC availability was implemented through this quota system on 1st January 2018. There will be another large quota cut in 2021. This measure has resulted in significant price increases for the high GWP refrigerant gases that Ireland currently depends on for its cooling needs (e.g., R404A and R410A) and is also likely to lead to reduced availability of high GWP refrigerants.





(2) *Placing on the Market Bans for Equipment Relying on HFC Refrigerants for their function (Article 11, Annex III)* – Bans on the sale of specified categories of equipment by gas type and/or quantity are set for various dates from July 2007 until January 2025. For instance, any stationary refrigeration unit that relies on HFC refrigerant gas with a GWP  $\geq 2,500$  can no longer be placed on the market from January 2020 (except to cool below  $-50^{\circ}\text{C}$ ). Other bans are looming in 2022 for multipack centralised refrigeration systems and in 2025 for single split A/C systems; and,

(3) *Control of Use of HFC Refrigerants (Article 13)* – The service and maintenance of equipment containing  $\geq 40$  tCO<sub>2</sub>eq of F-Gases with a GWP  $\geq 2,500$  will be prohibited from January 2020 for virgin gases, with the use of recycled or reclaimed gases allowed until January 2030. For example, in the case of the dominant R404A refrigerant gas (GWP = 3922), this service restriction will apply to any equipment containing 10Kg or more of R404A.

### Ireland’s refrigerant use in 2015

In Ireland, the operation and maintenance of refrigeration, air conditioning, heat pump and fire-suppressant equipment is currently heavily reliant on high GWP HFCs. During 2015, 92% of bulk refrigerant gases purchased in Ireland were HFCs with GWP values ranging from 1,430 to 14,800. A further analysis of the gas profile indicates that 77% by tCO<sub>2</sub>eq of purchased HFCs had a very high GWP ( $\geq 2,500$ ) with the HFC gas



Figure 1: HFC phase-down schedule to 2030

R404A alone accounting for 67% of all HFCs purchased. This is a serious concern as very high GWP HFCs are particularly affected by the HFC restriction measures and are becoming increasingly expensive as market availability decreases. However, all the HFCs shown in Figure 2 are subject to this pressure and if you use any of these gases, you need to take steps to secure the future operation of your equipment.

### What to do if you operate HFC-reliant equipment

- Topping-up leaking systems is likely to represent a significant proportion of your HFC demand. Take steps to minimise leakage by ensuring equipment is well maintained

and is routinely leak-tested by certified refrigerant contractors (minimum statutory requirements are specified by the F-Gas Regulation);

- Undertake an inventory of all your equipment listing gas types and quantities (each piece of equipment should be labelled with this information). Establish a plan to transition to equipment which operates with ultra-low GWP HFCs and/or alternative refrigerant gases such as CO<sub>2</sub>, ammonia or hydrocarbons. It is estimated that by 2030 the average GWP of HFCs installed in equipment must be 400 in order to achieve the F-Gas Regulation 79% quota reduction. For comparison, the current, average GWP of HFC refrigerants installed in

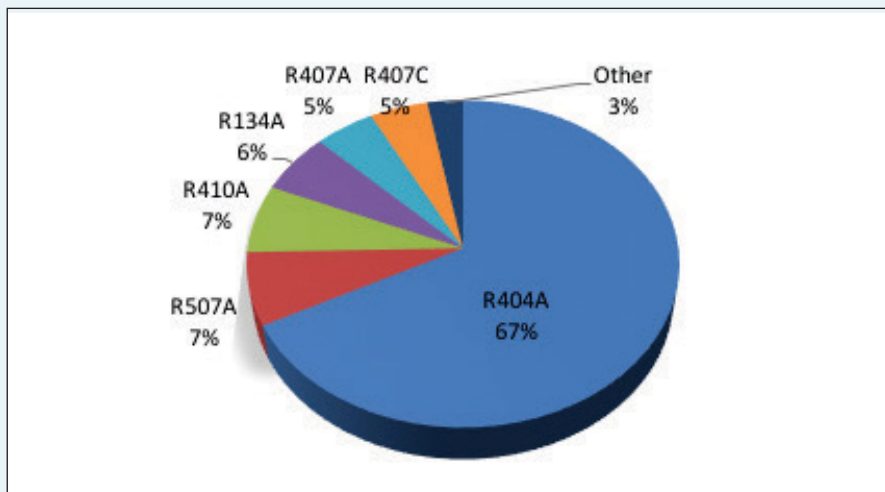


Figure 2: Bulk HFCs purchased by Irish wholesalers in 2015 (in % tCO<sub>2</sub> equivalent).

# NEW MODULAR SCROLL CHILLERS

DELIVERING  
TOMORROW'S  
EFFICIENCY  
STANDARDS  
TODAY

**HITACHI**  
Air conditioning solutions



**HITACHI**  
Air conditioning solutions



Hitachi's new generation of compact, modular chillers is a no-compromise solution delivering industry-leading efficiency and world-class performance.

The new range of air cooled cooling only and heat pump chillers utilises Hitachi's DC inverter scroll technology to deliver infinite capacity control across all cooling loads and ambient temperature conditions. Up to 32 modules can operate as a single chiller providing up to 4000kW of cooling and - being modular - additional modules can be added to future-proof any chiller installation.

Starting at under 2sqm, it's the smallest footprint chiller across the widest capacity range on the market; Hitachi's RCMA and RHMA chillers are delivering 2021 comfort cooling efficiency standards today.

To find out more call Hitachi on + 353 (0) 87 914 9703  
or visit [hitachi-hvac.com](http://hitachi-hvac.com)

equipment in the EU is 2,000;

- Get advice from informed sources when formulating your plan and specifying new equipment. Alternative solutions are being increasingly documented in case studies and new refrigerants are being released all the time;
- New equipment which relies on high GWP HFCs, especially if the GWP  $\geq 2,500$  tCO<sub>2</sub>eq, should no longer be installed unless there are unavoidable technical reasons. Equipment using alternative refrigerants or ultra-low GWP HFC refrigerants should be installed instead;
- Provide for the ongoing operation of existing equipment which relies on HFCs with high GWP (more urgently if the GWP is  $\geq 2,500$  tCO<sub>2</sub>eq) pending the transition to alternative refrigerants or ultra-low GWP HFC refrigerants at a later date.

### Available options

- Use lower GWP refrigerants as replacement “drop-in” for HFCs with a GWP  $> 2,500$  tCO<sub>2</sub>eq by the minor modification of existing equipment, where feasible. For example, R407A is a HFC blend that is suitable for use in low and medium-temperature refrigeration applications, such as those used in retail refrigeration. It can be used as a retrofit solution for many existing R404A systems as it has a GWP  $< 2,500$  and so will not be subject to the restriction on the use of very high GWP HFCs which commences on 01/01/2020.
- However, many of the currently-available potential retrofit gases are still relatively high in terms of their GWP

## If HFC refrigerants are charged to any equipment you operate, prepare and implement a plan to transition to ultra-low GWP HFCs and/or non-fluorinated refrigerants in order to ensure the ongoing operation of your equipment over the coming years.

(for example R407A has a GWP of 2107) and thus the use of drop-in replacement gases can only be viewed as a short-term measure unless suitably-low GWP replacement gases are used, or equipment designed to operate with ultra-low GWP HFCs or alternative refrigerants is installed. For instance, refrigerants R448A (GWP 1300) and R449A (GWP 1397) are being used more and more in Europe as lower GWP drop-in refrigerants for R404A rather than R407A.

- Use recycled HFCs as these are not subject to quota restrictions, although recycled HFCs with a GWP  $> 2,500$  tCO<sub>2</sub>eq cannot be used from 2030. You can, for instance, “bank” recycled HFCs which have been recovered by a refrigerant contractor during the decommissioning of a unit or during replacement by a different drop-in refrigerant, to top up another unit until 2030, subject to certain restrictions.
- Use reclaimed HFCs as these are not subject to quota restrictions although reclaimed

HFCs with a GWP  $> 2,500$  tCO<sub>2</sub>eq cannot be used from 2030. Reclaimed HFCs have been reprocessed from waste to match the equivalent performance of a virgin refrigerant. If you return waste refrigerant which is then subsequently reclaimed, your supplier may guarantee some of the reclaimed gas to you.

### Energy use

Although energy use does not come under the remit of the F-Gas Regulations, it should be noted that the energy used to operate refrigerant equipment (i.e. indirect emissions of CO<sub>2</sub>) has been estimated to account for 60% to 75% of all greenhouse gas emissions resulting from the operation of that equipment (the rest being due to leaks of refrigerant gas).

Therefore, it is advisable to also take account of energy use and building design/layout when specifying new refrigerant systems in order to maximise their future sustainability.

### Conclusion

If HFC refrigerants are charged to any equipment you operate, prepare and implement a plan to transition to ultra-low GWP HFCs and/or non-fluorinated refrigerants in order to ensure the ongoing operation of your equipment over the coming years.

### Further information

The EPA has produced a position paper summarising Ireland’s progress towards the HFC phase down based on data from 2015. This paper and other useful guidance notes relating to F-Gas regulations are available on its website at [www.fgases.ie](http://www.fgases.ie) ■



# Mitsubishi Electric Hybrid VRF Systems

## *Making a world of difference*

Given the growing need for legislation compliance, energy efficiency, cost optimisation and CO<sub>2</sub> reductions, traditional HVAC technologies and systems are increasingly less capable of delivering the required solution. That is why Mitsubishi Electric developed the Hybrid VRF, an innovative and truly integrated solution that combines the best elements of both VRF technology and chiller systems. Despite its relative recent introduction, it has already captured a significant market share as it offers modern-day solutions that are also future-proofed.

The Hybrid VRF range of air conditioning units for large-scale applications is built and assembled in the same factory as the Mitsubishi Electric VRF units, and carries the distinctive VRF DNA in terms of technology, efficiency and reliability.

Hybrid VRF is the industry's first system that uses refrigerant between the outdoor/heat source unit and the Hybrid Branch Controller (HBC), and water between the HBC and the indoor units. HBC is the most unique part in this system and allows heat exchange between refrigerant and water.

The system uses Mitsubishi Electric's original technology and provides mild air conditioning. It is suitable for a wide variety of applications by allowing centralised control, individual operation, and simultaneous cooling and heating with heat recovery. It provides a complete modern solution for office buildings, hotels, medical centres, schools, high rise buildings, shopping centres and other commercial premises.

Hybrid VRF is quick, and flexible to design and install using the same control and network as VRF systems. Furthermore, the decentralised system means hased installation is possible

with the same high levels of seasonal efficiency expected with VRF.

With water at the indoor units, Hybrid VRF provides comfortable and stable air temperature control with no refrigerant in occupied spaces, meaning simple compliance to BS EN378. It also removes the need for leak detection.

The Hybrid Branch Controller (HBC) lies at the heart of the Hybrid VRF and incorporates three key

elements – plate heat exchangers, pumps and valve block. Details are as follows:

### Plate heat exchanger

This is the point where the refrigerant circuit transfers its energy to the sealed water system. There are two sets of plate heat exchangers, both placed at opposite ends in the HBC box. Both sets provide hot water in heating mode or cold water in cooling mode. During mixed mode, one set provides hot water while the other provides cold water to its respective flow.

### Pumps

Each set of plate heat exchangers has a DC inverter-driven water pump. This circulates the closed loop water system between the HBC and indoor units. The discharge flow rate from the pump is controlled by the valve block.

### Valve block

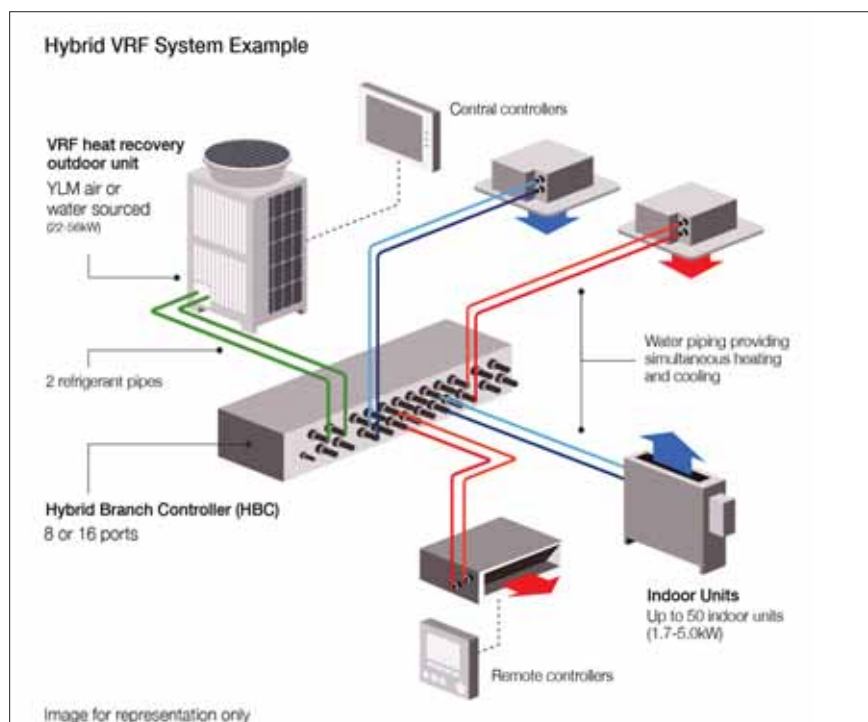
A valve block is connected between each flow and return port of the HBC. This valve block has two features. Firstly, it has the choice of selecting between the two flow headers, and secondly, it controls the flow of the water sent to the indoor unit, defining the capacity.

Contact: Mitsubishi Electric.

Tel: 01 – 419 8800;

email:sales.info@meir.mee.com;

www.mitsubishielectric.ie ■



# Our products ...





AIR CONDITIONING LTD



... speak for themselves

(for everything else, speak to our staff)





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

S&P Ireland Ventilation Systems Ltd is the Irish subsidiary of the Soler & Palau Group of companies, one of the world's market leaders in ventilation solutions.

Established in 1972, S&P Ireland brings the vast product portfolio and technical expertise of its parent group to bear when devising ventilation solutions for the Irish marketplace. Applications covered are comprehensive and include domestic, commercial, industrial and process ventilation equipment.

The team at Soler and Palau has over 40 year's experience in the ventilation business and provides professional and technical advice on choosing the optimum ventilation solution for all project applications.

S&P ... combining R&D, technology and design to deliver ventilation excellence.

TD – Silent series inline mixed flow duct fans, ultra-quiet operation



Kitchen extract fans up to 400drg C



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Acoustic cabinet fans



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ATEX explosion-proof fans



Ferrari industrial and process fans



Ventilation accessories



Gas and industrial special application bespoke fans



S&P flexible ducting and toilet valves etc.



# 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;



Mitsubishi Heavy Industries' 3-pipe KXZ VRF series

<https://arrow.tudublin.ie/bsn/vol57/iss1/1>

- 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.

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

Furthermore, 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) ■



# AHU DESIGN ...

## Regulations not a 'lucky dip'

There has been a major shift in AHU design over the last few years and this became more noticeable in 2017 as we moved from Eurovent ErP 2016 compliance units to ErP 2018. The introduction of ErP requirements reduced the velocity across internal components and led to a corresponding increase in the physical size of the units, according to Core Air Conditioning.

**However, this change** happened without the corresponding change in building fabric nor, in most cases, improvement on the energy side of the building U values. So, the same requirements for kW input into the space has been maintained into a building originally designed some years earlier and then put on hold until the market required more space. The result is a stream of projects now underway with older designs trying to fit new-regulation units into previously-designed plant space.

Effectively, air handling units have become too large to either fit into the internal plant room space or on the roof. Planning restrictions on the height of roof-top plant has resulted in side-by-side configurations or "flatter" versions of standard stacked units to accommodate thermal wheels, plate exchangers or run-round coils. Meanwhile indoor units are squeezed into spaces making future

access for maintenance extremely challenging.

Clever design may have solved the problem but that is now changing. Racing down the line towards us are revised Part L Regulations with requirements to reduce ErP down from 2 W/l/sec air flow to 1.8 W/l/sec. They also include building fabric leakage and thermal efficiency regulations.

The regulations are not a "lucky dip" that lets you leave things in or out. In fact, they also state what types of heat recovery are approved.

This should result in AHUs and other mechanical services plant requiring less energy and therefore less air volume, which in turn will make AHUs smaller and able to fit. At present this is not happening. In many cases airflows and kW loads are remaining the same, even though the building fabric is more airtight and insulation is upgraded.

The regulations are not a "lucky dip" that lets you leave things in or out. In fact, they also state what types of heat recovery are approved. Trying to circumvent the rules using mixing boxes to reduce the size of the approved methods of recovery does not lead to compliance.

The manufacturers of AHUs are legally bound to supply compliant units. Those of us who actually make the selections also need to comply. The time taken in submitting proposals and getting them back with requests for changes in dimensions is slowing the whole process down. The reality is that non-compliant installations are increasingly being noticed, with a greater resolve by the relevant authorities to tackle the issue. The concern is that that professional indemnity insurance is going to get severely stung over the coming months and years, with third parties being brought in to tidy up the mess. ■

# New Mini Series modular scroll chillers from Hitachi

Hitachi's new Mini Series modular air cooled cooling-only and heat pump chillers' outstanding performance is achieved through DC inverter scroll technology delivering infinite capacity control across all cooling loads and ambient temperatures.

**EC fans with** more efficient motors and better aerodynamics improve system efficiency, while the high-efficiency brazed plate heat exchanger uses less refrigerant and transfers heat from the liquid to the refrigerant more efficiently. This provides excellent heat transfer performance in a very compact size. It also results in a lower water-side pressure drop, allowing the use of smaller pumps and reducing power consumption.

Starting at under 2sq m, it's the smallest footprint chiller across the widest-capacity range on the market, making it ideal for high performance in smaller spaces. Installation is straightforward with a compact size for forklift loading, and its modular configuration allows units to be arranged in varying footprints to fit different space requirements.

This unique modular design means capacity can be increased incrementally as buildings are constructed or spaces become occupied. Where maintenance is required, other modules in the system will continue to operate, helping to reduce downtime and loss of capacity.



The new Mini Series from Hitachi

ECODESIGN REGULATIONS CATEGORY	EFFICIENCY METRIC	TOMORROW'S STANDARDS MET TODAY
Comfort Heating	SCOP/ηsh	<b>Mini Heat Pump:</b> Sept. 2017 Compliant (Tier 2)
Comfort Cooling	SEER/ηsc	<b>Mini Chiller:</b> Jan. 2021 Compliant (Tier 2)
Process Cooling (Med. Temp.)	SEPR	<b>Mini Chiller:</b> July 2018 Compliant (Tier 2)
Process Cooling (High Temp.)	SEPR	<b>Mini Chiller:</b> Jan. 2021 Compliant (Tier 2)

For increased efficiency, Hitachi's Mini Series comes complete with integrated smart equipment as standard. This allows the chiller to connect seamlessly to building control systems where smart-enabled equipment can self-identify and inter-operate. Units can maintain efficiency in a wide variety of conditions – down to an impressive -17.8°C ambient in cooling mode, and -15°C ambient in heating

mode. They are also fully SEER Ecodesign T2 compliant, delivering 2021 efficiency standards today.

Hitachi's new Mini Series of scroll chillers is now available from Hitachi Direct Sales and its approved distribution network.

Contact: Paul McGettigan, Hitachi. Tel: 087 - 914 9703; email: paul.mcgettigan@jci-hitachi.com ■

# St Michael's House sensory garden

Baxi Potterton Myson places enormous importance on giving back to the communities in which it operates and, over the years, has supported various charities and institutions. St Michael's House, a school and support centre for people with intellectual disabilities and their families, is one of the latest projects it has become involved with. Here Paul Clancy, Managing Director, explains more about what the scheme involves.

**"Donating to such** a worthy cause is a source of great pride for us at Baxi Potterton Myson," says Paul. "St Michael's House provides life-changing services, such as employment support, independent living and clinical therapies for 1,663 children and adults with an intellectual disability.

"St Michael's has been a lifeline for many families in the local area for 62 years. It is committed to supporting individuals in developing meaningful relationships, and to make a valued contribution to, and become active members of, their community."

Central to the school's recreational facilities is the multi-sensory garden. This is a therapeutic space for pupils to socialise and experience different sights, sounds, smells, and textures. This type of environment is the perfect space for pupils to feel safe and comfortable in exploring their senses without becoming overwhelmed by them, and is a valuable resource for a wide range of uses, from education to recreation.



Paul Clancy, Managing Director, Baxi Potterton Myson with one of the children at St Michael's House.

Recent funding cuts have placed huge strain on St Michael's House which is now entirely dependent on donations to maintain the garden's upkeep.

The great work carried out at St Michael's House was brought to the attention of Baxi Potterton Myson by Glenn Bailey, the Key Account Manager. He explains: "My nephew David is a wheelchair user and a pupil at the school. He does not communicate through speech and, like many of the children, finds great solace in the school's sensory garden, a peaceful, tactile place, full of surprising smells from the diverse plant life.

"Baxi Potterton Myson became involved after Paul Clancy visited the school with me and witnessed first-hand the impact the sensory garden has on the children. It was clear that we should make a donation to ensure future pupils would have access to this excellent resource."

Ann Higgins, School Principal at St Michael's House, commented: "We are extremely grateful for this donation. The money will go towards purchasing new, stimulating plants for the garden, as well as funding its upkeep. Keeping the sensory garden open will have a real and lasting impact on the education of the pupils here and we are extremely grateful to companies like Baxi Potterton Myson who help make this possible."

For more information on St Michael's House visit [www.smh.ie](http://www.smh.ie) or for Baxi Potterton Myson visit [www.baxipottertonmyson.ie](http://www.baxipottertonmyson.ie) ■





Mechanical and Electrical Engineering Contractors Haughton & Young Ltd held its Apprenticeship of Excellence Through Training Awards in the Celtic Suite, Croke Park Stadium, Dublin recently.



Senior Category Awards recipients – Ciaran Smullen with Sean Murphy and Graham Taffee.

## Apprenticeship Excellence Through Training Programme Awards

The innovative event was attended by over 130 Haughton & Young employees, including all company apprentices. Representatives from SOLAS, the Dublin Institute of Technology and the Chartered Institute of Plumbing and Heating Engineers were also in attendance.

Desy Haughton, Managing Director, told the audience that Haughton &

Young had trained over 200 apprentices down through the years, many of whom are still with the company. He went on to say: "These awards acknowledge the hard work and dedication that is required by apprentices to get through the seven phases of their training to become a fully-qualified craftsman. As a company we feel

it important to acknowledge their achievements at a celebratory function such as this."

As an example of the company's commitment to apprentice education, a fully-equipped practical training area has been developed whereby student apprentices can develop and improve their skill-set under the



Pictured are the award recipients and guests who attended the event at Croke Park. Front row (l to r): Brian Kiely with Sam Levingston, Alister Foley, Dylan Farrell, Graham Taaffe, Sean Murphy, Ciaran Smullen and Josh Coughlan. Back row (l to r): Paul Young, Director HYL with Peter Hinch, HYL training and education consultant; Alan O'Reilly, Facilities Manager, HYL; Tom McCormick, Chairman, Republic of Ireland Branch of The Chartered Institute of Plumbing & Heating Engineers; Michael O'Leary, SOLAS; Paddy Barnes, WBO European and World Inter-Continental flyweight champion; Ciara Ahern, Head of Building Engineering, DIT and Desy Haughton, Director HYL.



supervision of HYL training supervisors Alan O'Reilly and Stephen Bradshaw.

Haughton & Young also encourages apprentices and employees to gain professional engineering qualifications and currently two senior apprentices are studying for a Building Engineering Degree in the Dublin Institute of Technology, Bolton Street.

At the ceremony in Croke Park certificates of achievement were presented to apprentices who were assessed on their off-the-job achievements and on-the-job performance. There were Junior Apprentice Awards, Senior Apprentice Awards and the Overall Apprentice of the Year 2017 Award.

There was also a series of presentations and motivational addresses by an impressive speaker line-up that included Ciara Ahern, Head of Building Engineering, DIT; Tom McCormick, Chairman, Republic of Ireland Branch of The Chartered Institute of Plumbing & Heating Engineers; Michael O'Leary, Head of Solas Training and Peter Hinch, HYL training and education consultant.

However, given the age-profile of the audience perhaps the person who made the most impact was Belfast boxer Paddy Barnes who is the current WBO Inter-Continental flyweight champion. He echoed many of the points raised by the others, stressing the importance of enthusiasm, a strong work ethic, commitment and a belief that if you set your sights on an objective it can be realised.

The accompanying images give a flavour of the excitement and celebratory mood of the occasion.

To view a video of the award ceremony visit: [www.hyl.ie/haughton-young-apprenticeship-awards-ceremony/](http://www.hyl.ie/haughton-young-apprenticeship-awards-ceremony/)



Desy Haughton, Director HYL with Alan O'Reilly, Facilities Manager, HYL, Johna Coughlan, Overall Apprentice of the Year Award winner and Paul Young, Director, HYL.



Junior Category Awards recipients – Alister Foley with Brian Kiely, Dylan Farrell and Sam Levingston.



No prizes for guessing where the hero worship was directed on the day! Sean Murphy and Paddy Barnes are caught on camera by another excited apprentice.



# The atc Lifestyle Electric Thermal Radiator is the Greener Option. The Lifestyle incorporates advanced technology and controllability leading the way in sustainable living

## INNOVATION AND DESIGN

Our in-house team of experts developed the Lifestyle programme to provide unique and simple to use controls for the installer and end user. All components used in the Lifestyle are designed and manufactured in Europe. The programme uniquely allows for digital and manual control options in the settings.



**0.2°C**  
**ENJOY MORE PRECISE TEMPERATURE CONTROL**

PID Intelligent Control along with the Triac electronic thermostat maintains the set room temperature within 0.2°C. Only the electricity required to maintain the programmed temperature is used, this gives you the most economical heater available.



## ADAPTIVE START CONTROL FUNCTION CUTS POWER CONSUMPTION

When running in Program mode the Lifestyle measures the room temperature before the starting time and anticipates the need for heating. The Lifestyle knows how long it takes to heat up the room that it is installed in and gradually brings the room to temperature so it is warm when your time setting starts. Improving room comfort and energy efficiency.



## INTELLIGENT OPEN WINDOW FUNCTION CUTS POWER CONSUMPTION

The Lifestyle can sense when there is a sudden fall in temperature caused by open windows and / or doors into unheated areas and will after 20 minutes suspend the heating program to prevent expensive wastage of energy.



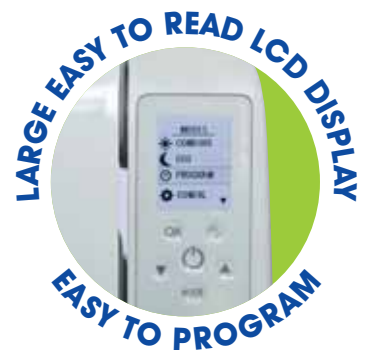
## HEAT WHEN YOU WANT IT 24 / 7

The Radiator can be programmed to come on every day, in 30 minute intervals all year round.



## TWO PROGRAMME OPTIONS AND THREE OPERATING MODES

Within the two programme options of digital or manual there are three operating modes in the Lifestyle comfort, eco or frost protection. The Lifestyle has an operation mode that suits every routine.



## MANUAL OVERRIDE WITH COUNT DOWN TIMER

Manual mode you can easily bring your heating on without having to change your program. If you are going away you can set your heater to be off whilst you are on holidays and come back on the day you return.



## LOT 20 ECO-DESIGN HEATING DIRECTIVE

From January 1st 2018 all space heaters manufactured for sale must comply with new European heating directive EED2015/1188. This means there are minimum levels of controllability required for all point of use electric heaters. The Lifestyle far exceeds the requirements of the directive.



**NEW**

et al.: BS News January/February

**atc**

# LIFESTYLE ELECTRIC RADIATOR

**ECOLOGICAL  
HEATING**



**SIMPLE TO  
PROGRAMME**

**DIGITAL OR  
MANUAL OPTIONS  
IN SETTINGS**



**ENERGY  
EFFICIENT**

**SAVE MONEY ON  
ENERGY COSTS  
COMPARED TO GAS**



**NO  
MAINTENANCE**

**10 YEAR BATTERY  
BACKUP**



**EASE & COST  
OF INSTALLATION**

**NO PIPE-WORK OR  
EXPENSIVE BOILERS**



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# NBC's Roadmap to Digital Transition

The National BIM Council (NBC) has published the first digital strategy for Ireland's construction industry titled a *Roadmap to Digital Transition*. Over a period of 18 months the Council consulted with industry, both domestically and internationally, to devise a vision and direction for the sector that looks to achieve a 20% reduction in cost; a 20% reduction in programme; and a 20% increase in construction exports to 2021.

The Minister for Business, Enterprise and Innovation, Heather Humphreys TD, said of the initiative: "The Irish government recognises the importance of BIM and sees the benefit of how it brings together technology, process improvements and digital information to radically improve project outcomes and asset operations. We see BIM as a strategic enabler for improving decision making and delivery for both buildings and public infrastructure assets across the whole lifecycle

"This industry roadmap is an

initiative that advocates more productive ways of working that improves competitiveness at home and overseas. This roadmap not only seeks to increase efficiency and the productivity of the industry, but also seeks to support an SME community that makes up almost 95% of the sector, both in Ireland and across the wider European Union."

A key priority for the Council has been to develop central Government support for a "whole industry transition". The commitment to a

four-year digital procurement directive by the Minister for Public Expenditure and Reform, Paschal Donohoe, TD, and the Minister of State for Public Procurement, Open Government and eGovernment, Patrick O'Donovan, TD, is another important milestone.

NBC Chair Caroline Spillane said: "The Government procurement mandate makes an important distinction between the type of project, its complexity and the requirement for specialist operations and maintenance with a progressive time line for implementation that meets the requirements of clients and the supply chain to adapt to new ways of working."

The alignment of collective benefits inside and outside of the industry have made a compelling case for digital adoption. John Hunt, a member of the NBC and construction advisor for Enterprise Ireland said: "Up until now, the benefits of digital adoption haven't always aligned with where the costs are initially borne, and so decisions around 'who' should invest and 'when' have not always been clear. The commitment of Government along with a definition of how we might adopt digital tools and processes over time will bring the clarity to foster wider industry adoption."

The roadmap is a bespoke vision and strategy for the industry, by the industry. Nonetheless, the overwhelming call from those individuals and companies contributing to the consultation is that Ireland does not want to "reinvent the wheel". This is particularly relevant in Ireland's development and adoption of standards which should position the success and growth of the Irish sector internationally as well as domestically.

A copy of the NBC report and roadmap is available to download at: <http://www.nbcireland.ie/roadmap/>  
 Contact: Suzanne Purcell, NBC, 23 Fitzwilliam Square, Dublin 2.  
 Tel: 01- 676 6052;  
 email: [secretariat@nbcireland.ie](mailto:secretariat@nbcireland.ie).



# BIFM Ireland Summit and Awards recognise FM excellence

Some of Ireland's most promising and talented facilities management (FM) professionals were recognised recently at the BIFM Ireland Region Awards at the organisation's FM Summit.



Keith Halliday, Northern Branch Chair of the BIFM Ireland Region with Summit sponsors Marie Katherine Meyers, Sodexo, Colin Prentice, Compass, Ray Taylor Aramark and Kieron Miller, H&J.



Pat Gaughan, Chair of the BIFM Ireland Region pictured with Aine Mulcahy, Managing Director at OCS who accepted the award on behalf of John O'Shea, Janet Downer, Director at Facilities People International and sports presenter Denise Watson.

## Facilities People International

(FPI) sponsored the awards with the BIFM Ireland Region FM Professional of the Year going to John O'Shea from OCS, and Daniel Mahony from ARUP receiving the BIFM Ireland Region Young FM Professional of the Year. Wilton Farrelly, Managing Director at Choice Services and long-standing member of the BIFM Ireland committee was presented with a special recognition award for his outstanding contribution to the FM industry.

This year's winners were selected by an independent panel of industry experts which included Avril Behan, Assistant Head at the School of Multidisciplinary Technologies at the College of Engineering and Built Environment of the Dublin Institute of Technology (DIT), Linda Hausmanis, CEO of the British Institute of Facilities Management, and David Gormalley, Senior Facilities Manager at The Guinness Storehouse, and winner of the 2016 BIFM Ireland Region FM Professional of the Year Award.

Pat Gaughan, Chair, BIFM Ireland Region said: "We are delighted to have this opportunity to recognise and reward the excellence in our industry. The awards not only highlight the outstanding work of the more established FM professionals in the field, but also those who are just beginning their FM careers. We offer our thanks to Facilities People International for their generous support".

The Summit, sponsored by Aramark, Compass, H&J and Sodexo, also brought together both business and facilities management professionals to discuss current industry trends and to share their knowledge and ideas. The theme was "FM & The Internet of Things" and speakers on the day included Derrick Black, Genisys; Karl Horner, Mobeiss; Andrew Wilkinson, Sodexo; Janet Stevenson, IT Guarded; Jane Cooper, Skanska; and Ewoud Harnie, PC Sint Amandus.

See [www.bifm.org/ireland](http://www.bifm.org/ireland) or call 01 - 608 752 for more information. ■



# CIBSE Ireland Annual Lunch

The CIBSE Ireland Annual Lunch took place in Croke Park in December with over 560 industry attendees net-working, socialising and simply having fun at what is now by far the biggest single-industry event on the building services calendar.

**As is now** customary, formalities are kept to a minimum with MC Alan Shortt coordinating the activities and leading the on-stage entertainment. Given the venue, a GAA theme dominated and included a sandwich-making competition and a quiz show with the Dubs taking on the Culchies.

The nominated charity for this year was BUMBLEance with the usual CIBSE Ireland €2,000 donation being brought up to €10,000 thanks to cash contributions from attendees.

After the meal and entertainment everyone adjourned to the "Players Lounge" in Croke Park for further networking.

## Gala Dinner

This year CIBSE Ireland celebrates its 50th anniversary and, instead of the usual lunch, there will be a gala dinner to be held at the Clayton Burlington Hotel in Dublin. While the occasion will be a bit more formal, it will still be a major networking and social event with a high-profile, keynote speaker. Full details will be announced shortly on the CIBSE Ireland website with table bookings open by the end of February.



Left: John McGuinness of BUMBLEance accepting the cheque for €10,000 from Paul Martin, CIBSE Ireland Chairman.





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