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## BS News March/April

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# Building Services news



■ Trends from ISH 2015



■ IHEEM/CIBSE Seminar



■ Postcard from Abroad

Published by BS News, TU Dublin, 2015



## SEAI's Energy Show 2015 grows 20% on last year

## Seasonally efficient

- New DC inverter compressor for improved low-speed and part-load seasonal performance
- SCOP of up to 4.9 A++ rating and SEER of up to 6.38 A++ rating

## Zone-by-zone control

- Individual control of multiple indoor units in each zone
- Adjust temperature settings according to occupancy and external environmental conditions to save on energy

## Easy installation

- Compact and lightweight outdoor unit
- Reduced number of outdoor units and less pipework required

## Improved comfort

- Slitless fin heat exchanger for improved heating performance
- Cold draft prevention, frost protection and low noise as standard

## Eco friendly

- Compatible with existing R22 installations\*
- All IVX Standard and Premium models are ErP compliant, exceeding the 2014 ErP Lot 10 standards



\* restrictions apply



# VRF without the price tag, Premium efficiency as standard

Compatible with a new range of highly-efficient indoor units as well as the KPI-Energy heat recovery ventilation system, IVX Premium is top of its class when it comes to energy efficiency. A new DC inverter compressor is optimised for seasonal part-load performance and reduced energy consumption at low speeds; plus the new slitless fin heat exchanger prevents surface frost forming, improving heating performance even at low temperatures. And credit where it's due, IVX Premium can even be installed using existing pipework for R22 replacements, reducing install costs as well as being substantially more energy efficient.

And with an expanded model range (5kW to 30kW), improved connectivity (up to eight indoor units per outdoor) and zone-by-zone individual control, it's a premium product, at a very affordable price.

**Individual control and seasonally efficient – IVX Premium delivers.**

To find out more call Hitachi on **+353 1216 4406**

Email [aircon.ireland@hitachi-eu.com](mailto:aircon.ireland@hitachi-eu.com) or visit [www.hitachiaircon.com](http://www.hitachiaircon.com)

<https://arrow.tudublin.ie/bsn/vol54/iss2/1>

**HITACHI**  
Inspire the Next

## Registration of gas installers – we must get it right!

The competitive designation process to appoint Ireland's Gas Safety Supervisory Body (GSSB) was announced on Friday, 13 March last with Thursday, 7 May next being the deadline for completed tenders.

The present incumbent is the Register of Gas Installers of Ireland (RECI) and its primary role is to supervise the work of gas installers with regard to safety, principally by ensuring that all who carry out gas-related works are properly registered.

However, the reality is that after nearly seven years since the introduction of this new registration scheme to replace the voluntary register previously operated by Bord Gais, some estimate that only half of those carrying out gas-related works in Ireland are actually members of RGII.

Who is responsible for this situation is debatable but it really does not matter at this stage. What is far more important going forward is that whoever wins the current competitive designation process is held accountable for – but also given the legal authority – to tackle the issue.

## Building Services news

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## NEWS AND PRODUCTS

### DIT's boiler rig gets complete revamp

The Heating Demonstration Rig first installed in DIT Bolton St back in 1999 with the help of industry partners and L Lynch & Co was completely upgraded recently.

After nearly 15 years of intensive use much of the equipment required refurbishment, comprehensive servicing or renewal. Once again L Lynch & Co stood up to the plate and carried out all the work at no cost to DIT.

The plant includes two conventional and one condensing gas fired boiler, primary pumped circuit with low loss header, two secondary pumped circuits and packaged pressurisation unit.

The BMS and controls system displays and allows adjustment of various system flow and return temperatures. The ability to artificially reschedule the outside air temperature provides the students with a great demonstration of how a compensated circuit

functions as they can observe the three-port mixing valve move to achieve a new LTHW flow temperature.

The rig is used for numerous performance demonstrations and experimental investigations by students on the Ordinary and Honours Degrees courses in both DIT Bolton and Kevin Street.



Dr Michael Crowley, DIT School of Mechanical Engineering pictured with Dr Ben Costelloe, Assistant Head of School of Mechanical & Design Engineering, Brian Sterling, Director, Leo Lynch & Co and Ger Reilly, Head of DIT School of Engineering.

### Ian Dennis joins RDL

Refrigeration Distributors Ltd has appointed Ian Dennis to its team. Ian is now based in RDL's Dublin office in Ballymount and is primarily responsible for sales and customer support.

Having worked for over a decade in the refrigeration and air-conditioning wholesale industry, Ian brings a wealth of experience and knowledge to further strengthen RDL's position as a leading wholesaler in Ireland.

RDL is a 100% Irish-owned refrigeration and air conditioning wholesaler established since 1981 with offices in Dublin and Cork.

Ian can be contacted at  
Tel: 01 – 450 6001; Mobile: 086 – 605 6225;  
email: ian.dennis@rdl.ie



### Charity Cycle Run

Get involved in a fun charity challenge by cycling around the beautiful Inishowen peninsula in Donegal. The Inishowen Charity Cycle takes place on 9 May 2015 and comprises a 100-mile cycle around the 'Inishowen 100' route with a choice of routes for every level of cyclist.

All funds raised go to charity and it promises to be a great day out with plenty of craic and a good physical workout.

Paul Clancy, Managing Director, Baxi Potterton Myson is a strong promoter of the event and he says. "This is a really challenging route. We'll leave from Moville and follow the traditional 'Inishowen 100' route through Manmore Gap, Malin Head and then come back through the dredged Kinego bay.

"It's all for a good cause though and we're hoping everyone who participates will do their bit to raise money for the charity of their choice, or support the charities already listed such as the Irish Hospice Foundation".

Don't delay, sign up now for a good work out, some fun, and to help a charitable cause. Log on to <<https://www.facebook.com/inishowencycle>> to register.



### BTU Golf Society Outings 2015

The BTU Golf Society outings for the coming years are as follows:

Friday, 24 April 2015 – St Anne's Golf Club;

Friday, 15 May 2015 – Malahide Golf Club;

Friday, 12 June 2015 – Castleknock Golf Club (Captain's Outing);

Friday, 10 July 2015 – Delgany Golf Club;

Friday, 11 September 2015 – Stackstown Golf Club (President's Outing);

Friday, 9 October 2015 – Newlands Golf Club;

Friday, 27 November 2015 – Luttrellstown Golf Club

Outings sponsors (in no particular order): Mueller Europe; TIDL; Versatile Bathrooms; Lynch Interact; Victaulic Europe; and BSS/Gerberit.

Other sponsors:

Matchplay: Eurofluid Handling Systems;

Player of the Year: Grundfos Ireland;

Dinner Wine: Crystal Air

Contact: David Daly. Tel: 087 – 2611711; email: david@atpireland.com



# Time to Rethink Heating



## Heat pump and gas condensing boiler in one, the best of two technologies!

- Up to 35% efficiency increase compared to condensing boiler
- Most economical mode to operate
- Heating and domestic hot water
- Hybrid technology
- Gas condensing boiler of 33 kW
- COP in heat pump operation: 5.04



## Daikin Altherma Hybrid Heat Pump

The Daikin Altherma hybrid heat pump is the ideal solution for the replacement of a gas boiler.

Depending on the outdoor temperature, energy prices and the internal heat load, the Daikin Altherma hybrid heat pump smartly chooses between the heat pump and/or the gas boiler, always selecting the most economical mode to operate.

Like to learn more about the Daikin Altherma solutions?

Request your FREE COPY of the 58-page Daikin solutions booklet today!

Call 1800-324546  
Email [heating@daikin.ie](mailto:heating@daikin.ie)

## NEWS AND PRODUCTS

### KXZP latest MHI model from Diamond Air

The latest addition to the Mitsubishi Heavy Industries' KXZ Micro range, Model KXZP, is now available in Ireland from



Diamond Air Conditioning. This innovative range incorporates a host of new features that result in significant benefits for both installers and end users alike. These include cost efficiency, value for money, improved and easier installation and proven reliability.

*Building Services News* will have full details on KXZP in our next issue.

Diamond Air Conditioning has also re-energised its branding, including the unveiling of a new logo. In addition, it has appointed Diamond Shipping as its new logistics partner.

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



### Tony Cusack joins Eurofluid

Tony Cusack, who is well-known and highly-respected within the building services sector, has joined Eurofluid Handling Systems Ltd in the newly-created role of Business Development Consultant.

Tony has over 40 years experience in the pump industry and held many senior roles down through the years, culminating in the role of managing director of a leading-brand international pump manufacturer.



Tony now has responsibility for the development of strategies to increase sales over 2015 and beyond, both within the existing Eurofluid product ranges and also with regard to the launch of new, exciting and innovative product ranges.

His vast experience will be invaluable in expanding the already-successful Eurofluid business and he is optimistic that the growth pattern now being experienced by the company can be developed to take the company to the next level.

Contact: Tony Cusack. email: info@euro-fluid.com

### CIBSE Student Awards



The recent CIBSE Ireland Student Awards evening in Bolton St proved a very successful occasion with the standard of papers presented by the finalists being to a very high level.

Back Row: Mr. Micheál O'Flaherty (DIT), Brian West (CIBSE), Dr. Ben Costelloe (DIT), Ms. Ciara Ahern (DIT).

Middle Row: Mr. Vincent Mahony (Managing Director Panasonic Heating and Cooling Systems), Mr. David Dowling (Runner-Up Bach. Eng. Tech. Building Services Eng.), Mr. Brian Finlay (Winner Bach. Eng. Tech. Building Services Eng.), Mr. Gary Anderson (Runner-Up Bach. Eng. Tech. Building Services Eng.), Mr. Greg Hayden (Managing Director Ethos Engineering).

Front Row: Mr. David Doherty (Vice-Chairman CIBSE), Ms. Elisha Campbell (Runner-Up Bach. Eng. Building Services Eng.), Mr. Andrew King (Winner Bach. Eng. Building Services Eng.), Mr. Luke Malcolm (Runner-Up Bach. Eng. Building Services Eng.), Mr. Sean Dowd (Chairman CIBSE).

### Versatile partners with Quartz

Versatile has been in the fan coil business for the last 20 years in both Ireland and the UK and has now teamed with Quartz, a name synonymous with the manufacturer of high-quality and high-performance fan coils, as sole distributor.

Quartz is a recognised market leader in fan coils and is renowned for using the best quality ECDC motors to achieve the highest energy efficiency possible. It also has an in-depth knowledge of the specific mechanical requirements of these markets.

As respective market leaders in their own right, Quartz and Versatile look forward to a strong, successful partnership for years to come.

Contact: Andrew Treacy, Versatile. Tel: 046 – 902 9444.

Email: sales@versatile.ie; www.versatile.ie



Paul Stynes, Versatile with Steve David and John Lightfoot, Quartz; and Andrew Treacy, Philip Treacy, Tony Kennedy and Pat O'Donnell, all of Versatile.

## NEWS AND PRODUCTS

### Increase in grants for energy efficiency

**Minister for Energy, Alex White TD** has announced a boost in the level of grants available to householders who want to undertake energy efficiency improvements. The cash value of every grant available to householders under the Better Energy Homes Scheme has been increased by between 25/50%. In addition, a bonus payment has been introduced which will see householders receive bonus payments if they complete three or more energy efficiency improvements.

The new grant levels are effective immediately and will apply to everyone who has applied for a grant that has not yet been paid. The previous minimum grant threshold of €400 has been abolished and a bonus payment of €300 for householders who undertake three efficiency measures has been introduced, with an additional bonus payment of €100 available to householders who undertake four measures. The bonus payments are available to new applicants and to householders who have already availed of the scheme who wish to undertake further upgrades.

Under the revised scheme a family in a semi-detached house could benefit from a grant payment of up to €4700 for external wall insulation, a boiler and heating control upgrade, and cavity and attic insulation. A couple in an apartment could receive €3400 towards internal wall insulation, a boiler and heating control upgrade and the installation of solar thermal heating.

Specifically in relation to heating, the grant for a new gas/oil boiler installation with heating controls has been increased to €700 while that for a heating controls upgrade alone is now €600. The grant towards a solar thermal heating installation has been increased to €1200.



Minister for Communications, Energy and Natural Resources, Mr Alex White TD and Brian Motherway, CEO of the Sustainable Energy Authority of Ireland with homeowners Helen and Des Fox from Ballinteer who recently had their house insulated.

# Soler&Palau Ventilation Group

## Career opportunity

S&P Ventilation Systems Ireland expansion plans have created an exciting opportunity for an outstanding individual to join the S&P team in Ireland.  
(See [www.youtube.com/watch?v=7qnqFh9NLPI](http://www.youtube.com/watch?v=7qnqFh9NLPI))

### The role

- ✓ Technical sales support to consulting engineers and contractors throughout Leinster;
- ✓ Carry out fan selection for client applications and projects;
- ✓ Provide outstanding levels of customer service;
- ✓ Carry out on-site surveys and provide recommendations;
- ✓ Presentation of CPD seminars;
- ✓ Attend exhibitions and seminars.

### Ideal candidate

- ✓ Experience in selecting ventilation and fan based products;
- ✓ Excellent knowledge of Building Regulations, Compliance Guides and Standards are essential;
- ✓ Experience of working from home;
- ✓ Excellent levels of literacy and numeracy;
- ✓ Computer literate with competence in Microsoft Word, Excel and PowerPoint applications.

### The package

S&P Ventilation Systems Ireland offers a competitive salary, open-ended realistic bonus scheme, company car and pension.

### To apply

Please send your CV with a covering letter to [sales.ie@solerpalau.com](mailto:sales.ie@solerpalau.com)

***Closing date for receipt of applications is Friday 8 May 2015***



## NEWS AND PRODUCTS

### Mitsubishi Electric air-source heat pumps

**Mitsubishi Electric has launched** a new 11.2kW Ecodan air-source heat pump to join the existing three monobloc models. The line-up for the self-contained outdoor units now boasts 5kW, 8.5kW, 11.2kW and 14kW units, to make Ecodan suitable for almost any situation.

“We at Mitsubishi Electric constantly review our line-up so that we deliver what the market wants. This new model slots nicely into the range to ensure we can deliver renewable Ecodan heating to almost any home in the country”, says David McConnell, Heating Products Manager, Mitsubishi Electric Ireland



The new PUHZ-W112VHA model is a single-phase Harp database and MCS-certified 11.2kW unit that shares the ability to cascade up to six units of the same output,

allowing Ecodan systems to offer a capacity range from 5kW through to 84kW.

The second Ecodan unit introduced is a 4.5kW split unit which boasts an impressive Harp database SPF of 440% – a significant advantage in terms of attaining high BER scores and achieving Part L compliance. With low maintenance and quiet running recognised by the Noise Abatement Society, the units operate with outside temperatures as low as -20°C and also offer a bivalent function, allowing them to be used in a hybrid situation with an existing traditional boiler.

To ease installation, fast on-site commissioning and logging is available via the pre-programmed SD card, and for the building owners, Ecodan can be controlled by the MELCloud Wi-Fi remote controller.

Contact: Dave McConnell, Mitsubishi Electric. Tel: 01 – 419 8800; email: david.mcconnell@meir.mee.com

### Halfway towards 2020 targets

**In 2013 renewable energy** contributed 7.8% of Ireland's final energy demand, almost halfway towards our binding target of 16% under the EU's Renewable Energy Directive (RED).

Most of the renewable energy came from wind (47%) and bioenergy (42%), with the remainder coming from hydro, geothermal and solar. Renewable electricity accounted for 58%, renewable heat 30% and renewable transport fuels 12%.

### IERC Conference 2015, Cork

“**The Agile Energy Future:** Expanding the Horizons for Energy Innovation” is the theme for the forthcoming IERC Annual Conference to be held in the Clarion Hotel, Cork on Wednesday, 13 May 2015 (see <http://www.ierc.ie/2015-conference/>).

The conference networking dinner will be held in the hotel the previous evening, while Alex White, TD, Minister for Communications Energy and Natural Resources, will perform the official conference opening on the Wednesday.

This session will also feature keynote speakers Marie Donnelly, Director, DG Energy,

European Commission and Eckhart Morre, Managing Director, Bilfinger HSG Facility Management GmbH.

The conference will be divided into the following sessions: Session 1 – Energy Efficiency First: Making the Business Case; Session 2 – The Heat Power Nexus: Integrated Systems Thinking; Session 3 – Next Generation Buildings: Technical Challenges and Smart Solutions; Session 4 – Debate: The Internet of Energy Things.

The conference will also feature the IERC Research Showcase and a number of networking sessions.

### Board of Delap & Waller Ltd restructured

**The role of Managing Director** at Delap & Waller has been taken over by Michael O'Doherty, a chartered mechanical engineer who has worked with the practice since 1992 in both the London and Dublin Offices. Liam O'Hagan has stepped down as Managing Director but remains as a Director within Delap & Waller.

Michael and Liam are now supported by an experienced team that includes Ryan Scott, Mark Fallon, Tom Hamilton and Ruairi Dempsey.

Both Vincent O'Hara and Charlie McKillop remain with the practice and continue to support the board with their extensive experience.

To mark the restructure, Delap & Waller has unveiled a new website which can be found at [www.delapandwaller.com](http://www.delapandwaller.com)

Contact: Michael O'Doherty, Delap & Waller. Tel: 01 – 535 5900; email: Michael@delapandwaller.com



Back: Ryan Scott, Director: Electrical with Mark Fallon, Director: Mechanical. Front: Michael O Doherty, Managing Director and Liam O'Hagan, Director.



**IHEEM/CIBSE SEMINAR**

# CRITICAL ELECTRICAL SYSTEMS IN HEALTHCARE

IHEEM and CIBSE Ireland recently held a joint technical evening in the Crowne Plaza Hotel, Santry. The theme of the event was Critical Electrical Systems in Healthcare and comprised six separate presentations.

The presentations were made by prominent figures from a wide cross-section of the industry. They were:

**Michael O'Hara**

Micheal O'Hara, Managing Director of O'Hara Engineering Services, presented a paper on the supply and distribution of electrical services for hospital and healthcare facilities. He said generation should not be centralised and gave many reasons to substantiate his claim.

It was Michael's finding that the best method of commissioning is the system used by the ESB where the commission is broken into different stages.

**Brendan Redington**

Brendan Redington is HSE Estates Manager Quality & Standards. He presented on medium voltage systems. His address focused on the significant increase in fault levels on site due to ESB Networks upgrade works. He also detailed arc flash and where it occurs.

**Brendan Meehan**

Brendan Meehan is Managing Director of BMC Manufacturing. He presented on low voltage

switchgear and continuity of service in healthcare facilities focusing on such keypoints as problems with low voltage switchgear, overload, connection problems, device or component failure and reventative and predictive maintenance among others.

**Robert Breadon**

Robert Breadon, an applications consultant with FG Wilson, presented a paper on generator ratings and selection focusing on rating definitions, load acceptances and load analysis. He highlighted the role of Genset in this crucial sector.

**Jonathon Rogers**

Jonathon Rodgers, Applications Consultant with FG Wilson, presented on generator installation considerations. He covered generator system/energy, fuel systems, cooling systems, airflow, acoustics, exhaust systems and emissions.

**Chris Simmons**

Chis Simmons, Bender Ireland spoke on isolated power systems in healthcare, under the heading "The power in electrical safety". Points covered included: IPS basic overview, IPS/UPS, design consideration and case studies.

The presentations were followed by an informative question and answer session that led to a number of robust discussions between the attendees and speakers. The joint presentation proved informative and extremely well attended with both institutes looking forward to future collaborations.

Contact: Stephen Walsh, Hon. Secretary  
email address: [swalsh@jvtierney.ie](mailto:swalsh@jvtierney.ie)



Back Row: Michael O'Hara, Managing Director, O'Hara Engineering Services with Chris Simmons, Bender; Brendan Meehan, Managing Director, BMC Manufacturing; and Robert Breadon and Jonathon Rogers, FG Wilson Engineering. Front Row: Brendan Redington, HSE with Bill O'Reilly, Chairman IHEEM and Brian West, CIBSE and Stephen Walsh, IHEEM.

The Sustainable Energy Authority of Ireland's (SEAI) annual business to business event, The Energy Show 2015, was a real success with the exhibition growing 20% and visitor numbers up 10% on last year to 3,800. The show, which took place at the RDS in Dublin on 25 and 26 March, hosted over 170 exhibitors along with multiple networking events, an extensive electric vehicle showcase, live retrofit demonstrations, Product of the Show Awards, an international markets pavilion and a wide range of workshops.

# SEAI's Energy Show 2015 grows 20% on last year

**Grant Engineering was** presented with the Overall Product of the Show award for its condensing wood pellet boiler which also secured Best Renewable Product.

Over the years the Energy Show Product Awards have championed innovative product developments, especially those incorporating smart energy solutions. Considerable investment in R&D, coupled with rapidly-changing technology, has seen a wave of pioneering products and systems featured at the show, and it is now regarded as the preferred platform for most manufacturers and suppliers to introduce their latest innovations.

Apart from the prestige of winning one of the five Awards, there are also very tangible commercial benefits. In addition to PR opportunities, shortlisted finalists are profiled at the Energy Show in their own dedicated exhibition area.

# THE ENERGY SHOW 2015

25<sup>TH</sup> & 26<sup>TH</sup> MARCH - RDS, DUBLIN 4

“ Around €1.5 billion is being invested in sustainable energy technologies and services in Ireland annually.



Overall Product of the Show Winner – Jim Gannon, Chairman of the Panel of Assessors, Energy Show Product of the Show Awards 2015 with Stephen Grant, Grant Engineering and Tom Halpin, Head of Information, SEAI. The company also won the Best Renewable Category.



Best Energy Efficient Product: Winner – Kieran Fallon, one of the Energy Show Product of the Show Awards 2015 judges with Paul O'Neill and Andy Bartlett, Belimo and Tom Halpin, Head of Information, SEAI.



# Dial before you dig!

**You never know what's below the surface. Digging into a gas pipeline can cause serious injury – even death. So before you break ground, always check the location of gas pipelines. It could save your life. Email - [dig@gasnetworks.ie](mailto:dig@gasnetworks.ie) or visit [www.gasnetworks.ie/dial](http://www.gasnetworks.ie/dial)**



**DIAL BEFORE YOU DIG**  
**1850 42 77 47**

In Emergency call  
**1850 20 50 50**



Gas  
Networks  
Ireland



**Gas  
Networks  
Ireland**



Best Innovation: Winner – Brian Scannell, one of the Energy Show Product of the Show Awards 2015 judges with John Gleeson, IES and Tom Halpin, Head of Information, SEAI.



Best Innovation: Highly-Commended – Sean Dowd, one of the Energy Show Product of the Show Awards 2015 judges with Alan Callister, Edina and Tom Halpin, Head of Information, SEAI.



Best Services Provider: Winner – Brian Scannell, one of the Energy Show Product of the Show Awards 2015 judges with Niall Crosson, Ecological Building Systems and Tom Halpin, Head of Information, SEAI.



Best Renewable Product: Highly-Commended – Kieran Fallon, one of the Energy Show Product of the Show Awards 2015 judges with Mark Eastwood, Trina, Philip Connor, Construction PV and Tom Halpin, Head of Information, SEAI.

Entries are divided into five categories. Four of these are adjudicated on solely by the panel of judges with the fifth, the Best Innovation, being reduced to a shortlist which was then open to a public vote on SEAI's website. See panel (next page) for full list of awards' winners.

Opening the show Alex White, TD, Minister for Communications, Energy and Natural Resources said: "The sustainable energy sector is a significant contributor to our economic recovery and it is already supporting 15,000 jobs, a figure that is set to increase in the coming years. As we develop as a green energy location, Ireland will add sustainable energy expertise and access to secure, clean energy to the list of factors that are successfully attracting foreign companies to Ireland".

Brian Motherway, SEAI CEO said: "Around €1.5 billion is being invested in sustainable energy technologies and services in Ireland annually. The Energy Show was a great opportunity for businesses to see and hear about the latest innovations in the smart energy technology and services sector. This year there was particularly strong international interest with 30 overseas companies and 13 embassies represented. Ireland is well positioned to capitalise on this global market given our expertise in this area, as evidenced by the vibrant and successful businesses at the Energy Show 2015."

Highlights from the Energy Show 2015 can be seen on [www.seai.ie/energyshow](http://www.seai.ie/energyshow)

# THE ENERGY SHOW 2015

25<sup>TH</sup> & 26<sup>TH</sup> MARCH - RDS, DUBLIN 4  
**Product of the Show Awards**

## Overall Product of the Show Winner

**Company:** Grant Engineering Ltd  
**Product:** Vecta Condensing Wood Pellet Boiler

## Best Energy Efficient Product Winner

**Company:** Belimo Automation UK Ltd  
**Product:** Belimo Energy Valve

## Highly Commended

**Company:** Dimplex  
**Product:** Dimplex A-Class Heat Pump

## Best Services Provider

**Winner**  
**Company:** Ecological Building Systems  
**Service:** Better Building: Putting the Fabric First Training Course

## Highly Commended

**Company:** Irish Bioenergy Association  
**Service:** Wood Fuel Quality Assurance Scheme

## Best Innovation

**Winner**  
**Company:** IES Ltd  
**Product:** Ci2 (correct, investigate, compare and invest)

## Highly-Commended

**Company:** Edina Ltd  
**Product:** Containerised CHP with CO2 Harvesting

## Commended

**Company:** Reg Farrell Engineering Ltd  
**Product:** PK-160 Android Tablet Thermal Camera

## Best Renewable Product

**Winner**  
**Company:** Grant Engineering Ltd  
**Product:** Vecta Condensing Wood Pellet Boiler

## Highly-Commended

**Company:** Construction PV  
**Product:** Trina Honey in Black Solar Panel

\* No Product of the Future award was made.



Best Energy Efficient Product: Highly Commended – Brian Scannell, one of the Energy Show Product of the Show Awards 2015 judges with Johnny Dunne, Dimplex and Tom Halpin, Head of Information, SEAI.



Best Innovation: Commended – Kieran Fallon, one of the Energy Show Product of the Show Awards 2015 judges with Ian Checkley, Reg Farrell Engineering and Tom Halpin, Head of Information, SEAI.



Best Services Provider: Highly Commended – Sean Dowd, one of the Energy Show Product of the Show Awards 2015 judges with Pat Murphy, Irish Bioenergy Association and Tom Halpin, Head of Information, SEAI.



# Ideas for greater efficiency

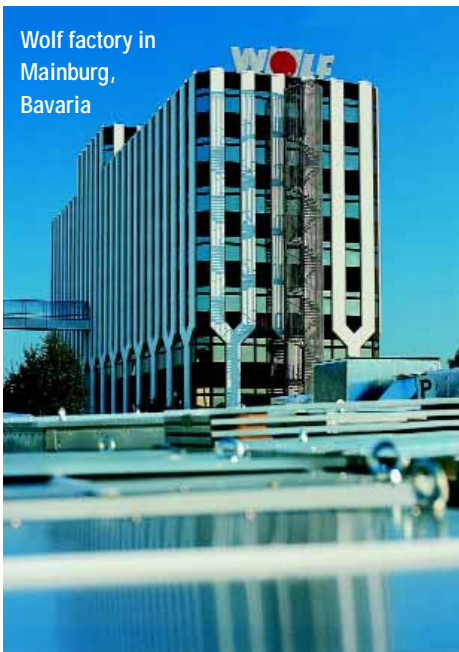
Wolf GmbH, one of the world's leading suppliers of ventilation and heating technology, has now established a dedicated office in Ireland with Niall Horgan at the helm as Sales Director. Niall is widely known and respected throughout the industry and brings extensive knowledge and experience of both the Irish and international markets to the post.

Over the years, Wolf's rapid progress to the forefront of Europe's building services industry has led to its emergence as a total systems supplier combining five sectors – heating, ventilation, air conditioning, solar and combined heat and power plants.

Today Wolf products are installed across all building types including homes, offices, opera houses, airports, museums, public buildings, entertainment venues, leisure complexes, hospitals, manufacturing plants, shopping centres, etc. It is a quality brand with a reputation for reliability, sustained long-life performance, energy efficiency and innovation.

Wolf's success story spans more than 50 years, beginning in 1963 with 80 employees producing parts for hop-drying systems and air heaters. Today it has a turnover of €337 million, 60 sales partners and subsidiaries in 50 countries, and 1800 employees. The product portfolio has also dramatically changed and now includes an extensive and varied range of heating and ventilation products and systems (see panel right).





## 'Made in Germany' quality

The research and development department at Wolf is firmly focused on the demands and target markets of the future. High-tech products are continuously being developed, tested and proven as part of an ongoing investment in new technologies and new concepts.

High-quality standards are the foundations for meeting tough challenges and, following this principle, Wolf was the first company in the sector to achieve the comprehensive ISO 9001 certification.

Wolf was also industry leader in the introduction of extended warranties, its products always feature high on market surveys, and they have also been awarded numerous prestigious design prizes.

Wolf's aim is to offer safety, reliability, high performance and energy efficiency to its customers ... and then to do just a little bit more. To achieve that all design and production processes are located at a single manufacturing facility in Mainburg, Bavaria. This is the nerve centre of the entire worldwide Wolf operation and where environment-friendly products and system solutions are conceived and brought to fruition under the motto of "Ideas for greater efficiency".

## Product portfolio

The Wolf range of products and systems is now extensive and caters for all manner and scale of application. Briefly, it includes the following:

- Air handling units
- Ventilation systems
- CHP units
- Floor standing boilers
- Gas and oil condensing boilers
- Conventional boilers
- Biomass heating technology
- Heat pumps
- DHW cylinders
- Solar thermal systems
- AHU Integrated Cooling and Heat Pumps

## Perfect control via smartphone and PC

In connection with the ISM7i interface module and a smartphone, the WRS Smartset app allows users to conveniently operate their heating systems no matter where they are. An internet connection will only be made if permitted by the user.

Full access to the selected heating system is possible from the contractor level. The associated operating conditions are shown. Adjustments can be made and parameters called up and modified.



*Energy saving and environmental protection as standard*



Niall Horgan, Sales Director, Wolf GmbH

“Wolf's aim is to offer safety, reliability, high performance and energy efficiency to its customers ... and then to do just a little bit more!”



Niall Horgan,  
Sales Director, Wolf GmbH  
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E: niall.horgan@wolf.eu  
W: www.wolf.eu



# Trends from Aircontec at ISH



Air-conditioning, cooling and ventilation technology were represented at the recent, highly-successful ISH Show in Frankfurt under the Aircontec banner. Among the sector's trending topics exhibited were systems integration, increasing energy efficiency and the linking in of renewable energy sources.

**Aircontec also had** two complementary technical programmes – The Air-conditioning Forum and the IKK Building Forum.

The Ecodesign Directive in relation to air conditioning and climate control in inhabited spaces was the main focus of the Air Conditioning Forum. Under this umbrella, three major areas were highlighted.



## Fans and blowers

Since 2013, minimum requirements with regard to energy efficiency have been in force for fans above 125 watts. These requirements became significantly more stringent from 1 January 2015.

## Ventilation in dwellings

From 1 January 2016 the minimum requirements laid down by the Ecodesign Directive will come into force for ventilation equipment in domestic dwellings. In phase 1, equipment is required to save as much heat energy as it uses in terms of electricity. In phase 2, the requirements with regard to savings will be significantly tightened up. In addition, all domestic ventilation equipment is to be provided with an energy-efficiency label from A+ to G.

## Central ventilation equipment

Also from 1 January 2016, minimum requirements will come into force for central ventilation units with regard to the power consumption of blowers and the efficiency of the heat recovery. The efficiency requirements are so high that we must assume that ventilation units will have to be manufactured up to 30% larger from 2016. Architects will need to plan for the required space early on, so that building work is not held up as a result.

The Forum provided extensive and detailed information about the current requirements and developments in these three areas, presenting, in a series of easily-understood informational displays, high-end solutions for increasing energy efficiency in non-domestic buildings. These included sorption air-conditioning systems, high-efficiency heat-circulation loops and reversible heat pumps.

Meanwhile, under the IKK Building Forum banner, specialist firms exhibited their system solutions for planners, engineering and architectural consultants, innovative members of the skilled trades and facility managers. The exhibition was complemented by lectures given by experts in their field. ■

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COOLER SUMMERS



The NEW highly efficient...

**KXZ**

The new KXZ VRF system delivers high performance cooling and heating for all commercial applications with a compact system offering the highest level of design flexibility.

Also with **Variable Temperature and Capacity Control** technology **VTCC**, the new KXZ can also increase energy savings of up to 34%\* offering one of the best efficiency ratings in the market.

\*34% energy savings are based on comparison with a KXZ standard model with VTCC vs. a KXZ standard model both under partial load condition

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Mulberry Properties' Straffan Manor Development



Smurfit Kappa Headquarters



# Ireland wins two categories in Panasonic PRO Awards

Panasonic has announced the winners of its inaugural Panasonic PRO Awards which celebrate excellence across Europe in the design, specification, installation and commissioning of projects where Panasonic heating and cooling systems were installed. There were eight awards in total and Panasonic PRO Partners from Ireland emerged victorious in two categories.

**Heat Merchants** was awarded *Best Residential Project in the Multi-dwelling* category for the Mulberry Properties' Straffan Manor Development in Co Kildare. Installed by Mick O'Shea Heating & Plumbing, the project is a great example of how heat pumps and PV can work together to deliver energy savings.

The *Special Award for Best Contribution* was awarded to Tech Refrigeration & Air Conditioning for three outstanding entries in the Commercial Air Conditioning category – the Smurfit Kappa HQ, Savills HQ Dublin and Google Block R projects.

The winning entries were carefully selected by an independent team of international judges. This was made up of experts from across Europe covering architecture, building services and the heating/cooling industry. Together they decided which projects demonstrated the most flair and innovation, as well as showcasing sustainable

design, efficiency, cost effectiveness and aesthetics.

The winner of each category receives a trip to Japan that includes a visit to the Panasonic global headquarters and to the ground-breaking Fujisawa Sustainable Smart Town. Fujisawa SST, as it's known, is a model for an environmentally-minded urban area. Located 37 miles from Tokyo and with about 400,000 residents, the smart town-within-a-city is built on the vacant lot of a former Panasonic factory and its infrastructure and services are driven by sustainable sources.

The development demonstrates energy efficiency measures such as solar power generation and battery storage systems, and showcases the synergies between cutting-edge technology and a "greener" way of living. This makes it a fascinating and unique place to visit.

Commenting on the announcement, Vincent Mahony, Panasonic Ireland said: "We were hugely impressed with the high standard of entries received from PRO Partners across Europe. All showcased a real passion for sustainable design and renewable energy. The winning entries demonstrated imaginative use of technology, great integration skills and commitment to delivering effective, bespoke solutions that result in best-in-class projects. We would like to take this opportunity to congratulate everyone who entered the Panasonic PRO Awards, and of course especially our PRO Partners in Ireland who fared so well."

Contact: Vincent Mahony, Panasonic Ireland.  
Tel: 01 – 413 5311; Mobile: 087 – 969 4221;  
email: vincent.mahony@eu.panasonic.com ■



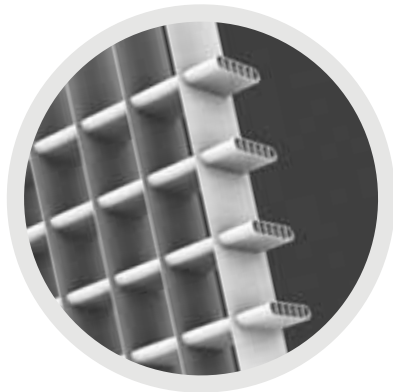
Fujisawa Sustainable Smart Town

The Renewable Solutions Provider  
Making a World of Difference

CITY MULTI



# EVERY YLM HAS A SILVER LINING



The new **City Multi YLM** is the World's First VRF System to incorporate a **unique flat tube aluminium micro-channel heat exchanger** to provide greater heat transfer efficiency.

The new **City Multi YLM** - the ultimate heating and cooling solution

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**27%**  
annual energy  
savings\*

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**WORLD  
FIRST  
IN VRF**



\*Over previous City Multi models



**2014** NEW MODEL

# ARTCOOL Slim INVERTER V

In addition to modern lines and classic style LG ARTCOOL Inverter V offers complete air conditioning solutions in an unrivalled package.

Artcool Slim's simplistic design allows it fit the ambience of any environment where it is installed.

## Supreme Energy Efficiency



### Active Energy Control

LG lets you take an active part in conserving energy and saving money with active changes to the Energy Control function, according to the situation.

## Perfect Health Care



### Plasmaster<sup>™</sup> Ionizer<sup>PLUS</sup>

Over three million ions sterilize not only the air going through the air conditioner, but all surrounding harmful substances.



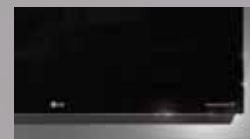
### MICRO Dust Filter Powered by 3M Tech

Micro Dust Filter Powered by 3M Tech is a high air flow filter with low noise that collects harmful microscopic substances, including pollen and fine dust.

## Stylish Design



### The Most Slimest Design



**Moving Panel**  
The cover structure is more durable and stylish.



**Magic Display**  
A bright, elegant display with a smart white-lit trim lights your way to important information.



**Sleek Design**  
Slim, sleek and refined, every detail has been considered and fine-tuned to create a timeless classic that's stylish and sturdy.



**LG**

Life's Good



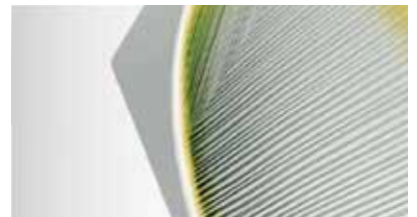
## ARTCOOL Stylist

The design of LG air conditioners are stylish in a way that is incomparable to others. Style your space.



### LED Lighting

No matter what the space, the lighting can be adjusted to suit the mood or ambience of the room.



### 3D Airflow

The 3-way swing function of the ArtCool Stylist blows the air quickly and efficiently in multi-direction function and delivers cool air to every corner of the room.



### Innovative Remote Controller

Simple and intuitive control which is suitable for small screen exposures. Fundamental function as "hot key" for quick usage.



## Style your space

The ArtCool Stylist is a unique square-shaped air conditioner designed with a super-slim profile to enable easy wall mounting. To ensure it matches the surrounding decor it is also equipped with a variable color LED ring by which the light can be adjusted to suit the mood or ambience of a room.

High on energy efficiency, it distributes air in three directions to evenly cool any space.

Unit 2, Broomhill Business Park, Broomhill Road, Tallaght, Dublin 24

T: 01-462 7311 F: 01-462 7315

email: sales@dwgasco.ie www.dwgasco.ie



# Mitsubishi Electric VRF system includes world-first aluminium heat exchanger

**Mitsubishi Electric has** announced the ultimate in commercial heating and cooling for businesses with the introduction of the City Multi YLM VRF range of air conditioners.

The R410A system includes a unique flat tube aluminium micro-channel heat exchanger which the company believes is a pivotal step-change in providing more effective and efficient heat transfer. Protected with a special zinc coating, the aluminium heat exchanger is ideal for Ireland's temperate climate.

YLM is designed for seasonal efficiency and, in addition to the use of aluminium, includes selectable increased and automated evaporating temperature control, optimised design of refrigerant circuit and components, and the ability to provide heat during defrost.

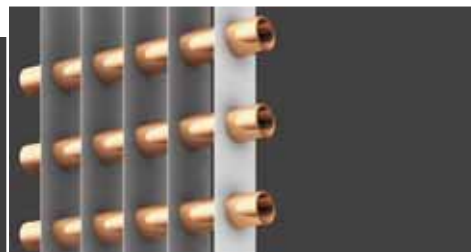
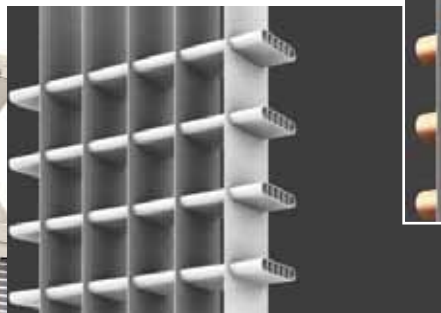
"YLM delivers real, tangible and measureable improvements and is optimised to suit Irish and UK conditions", explains Mark Grayston, Mitsubishi Electric Air Conditioning Product Manager.

delivers greater efficiency, it also means that the YLM delivers 26% more contact with the refrigerant and 30% more piping per area. It also reduces both weight and footprint and has 10% less system refrigerant volume than previous models.

This gives designers a much more flexible system, especially where EN378 restrictions are in place, such as hotels, and offers improved efficiency and performance and higher heat transfer.

The design changes include a new compressor optimised specifically to maximise efficiency during part load, therefore delivering high seasonal efficiencies and helping to reduce standby power consumption by 50% by using an induction-heated compressor.

The YLM range also includes a redesigned bellmouth grille to aid airflow, reduce static pressure and lower the energy consumption of the new DC fan motor.



The flat tube aluminium micro-channel heat exchanger in the new YLM (left) compared with standard copper piping (right).



"Open-case" view of the new Mitsubishi Electric CityMulti YLM

The use of aluminium has called for a complete redesign of refrigerant distribution and heat exchange which, along with several other innovative design changes, ensures optimum performance in Irish applications. The improvements deliver up to 27% annual energy saving compared to the previous equivalent City Multi systems.

Units are available to deliver from 22 - 101kW capacity to a building in both heat pump and heat recovery variants, with up to 50 indoor units connectable to the largest model.

The smallest unit in the range, the PUHY-EP200YLM-A, is just 740 x 920 x 1710mm in size, making it transportable in a standard building lift.

The world-first use of a flat tube aluminium micro-channel heat exchanger in a VRF system not only

Two important aspects that YLM addresses are the defrost cycle and occupant comfort levels. Defrost is integral to any heat pump and, while it is always important to manage this with good design and control, the YLM provides the choice to offer continuous heating to cover all situations.

Available across the entire YLM range, in heat pump, heat recovery, single and multiple modules, this can provide 30% to 50% capacity to indoor units during the defrost cycle using hot gas defrost technology.

YLM also brings a level of comfort above and beyond a standard VRF system, with an improved air-off temperature that delivers better control in three high sensible modes and an automated dynamic control mode.

"We see YLM as a game-changer in the air conditioning industry and believe it raises the bar in terms of comfort, design and efficiency", concludes Grayston.

Contact: Mark Grayston, Mitsubishi Electric Air Conditioning Product Manager. Tel: 01 - 419 8800; email: mark.grayston@meir.mee.com ■

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## 'Cold draught' problem-solving with Hitachi

Despite considerable advances in air conditioning technology and the innovative features incorporated into most products on the marketplace, the matter of cold spots is still a serious issue when it comes to system design and performance. Far too often the emphasis is solely on the return-air temperature with the discharge-air temperature being ignored, despite the fact that it can be as low as 9°C or 10°C.

*Hitachi has a tailored CPD presentation for consultants showing how to solve this problem that can be presented in-house for all relevant staff at a suitable time.*

**H**itachi understands the serious repercussions this has for comfort levels, and sometimes even productivity, in commercial environments and so has devised a fail-safe solution to solve the problem.

Based on Hitachi's CS Net Web Controller with off-coil protection, the system-free concept means each indoor unit consists of five key components: Air on thermistor; Air off thermistor; Liquid thermistor; Gas thermistor; Linear Electronic expansion valve

The Off-Coil Temperature Control (OCTC) on system-free indoors is a way of fixing the air off temperature on indoor units (12°C is generally acceptable). Every system-free indoor in the Hitachi range contains a discharge air sensor and a linear expansion valve (LEV). The micro-processor in the PCB modulates the LEV to maintain a fixed outlet air temperature. By fixing this air outlet temperature to 12°C, this will result in a bigger sized indoor unit being selected.

### Key features

- Eliminates cold draughts;
- Increases the SHR (but uses larger HEX);
- Increases air quality.

Hitachi's CS-NET Manager delivers precise control and management of the system. This control and supervision interface for Hitachi air conditioning and heating units was designed to combine with the CS-NET WEB to form a new package combining control functionality, maintenance, consumption management and interface protocols. No additional options are required.

There are major benefits to using Hitachi VRF with CS-NET WEB. They include:

- Close comfortable control;
- Reduction in call-out charges and nuisance calls;
- More productive office environment;
- Depending on the design brief, oversizing indoor units can be avoided.

Fergus Daly of Hitachi Ireland says Hitachi is the only manufacturer to offer off-coil control on all its indoor units, while also offering design support with Hitachi Hi-Tool kit and Auto Schedule tool.

To avail of the free CPD seminar contact Fergus Daly, Area Sales Manager, Hitachi Ireland. Tel: 01 – 216 4406; Mobile: 087 – 277 9505; email: fergus.daly@hitachi-eu.com ■

# High performance cooling and heating from MHI



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

The system has many key improvements that highlight the main benefits and functions of MHI's latest VRF technology.

**The new KXZ** line-up has been extended to offer solutions delivering up to 60HP when using a combination of three outdoor units. Furthermore, with the addition of the new Hi-COP KXZXE1 series, installation options have been greatly increased.

The Variable Temperature and Capacity Control (VTCC) feature is a newly-developed energy saving function designed by MHI (see graph). It automatically adjusts the target pressure of the refrigerant cycle in the outdoor unit according to the demand of the indoor units in partial load conditions. These smooth adjustments ensure an optimal capacity usage of the indoor units as well as maximised energy savings. Ultimately, this also increases comfort for the user.

For example, in partial load conditions where there are low cooling and heating requirements, VTCC reduces the compressor frequency and controls the actuators in the outdoor unit.

With the VTCC functionality clients will always have an additional energy saving of up to 34% (depending on configuration and usage of system) in low cooling and heating load requirements.

Other key features include the following:

**Improved Heat-exchanger** – The outdoor heat exchanger has increased efficiency due to improved refrigerant distribution. Also, the heat exchangers are now three rows deep and have more capacity (for 18HP and 20 HP).

In addition, the newly-designed outdoor unit heat exchanger has a greater surface area and increased volume which equates to greater nominal and seasonal efficiency.

Finally, the capillary tubes improve distribution of the refrigerant in the heat exchanger while, at the same time, increasing frost resistance.

**Flexible Pipe Length** – Maximum height difference has been increased up to 70m while the maximum piping length between indoor and outdoor units is now 160m. This makes for far greater flexibility when it comes to installation.

**Improved Scroll Compressor** – The enhanced KXZ multi-port compressor includes two additional discharge ports. This optimises the pressure control within the compressor, thereby increasing the energy efficiency of the compressor in partial load conditions.

**Peak Cut Control Function** – The peak cut function can easily be set on the RC-EX1A control panel. This controls the capacity and provides improved energy savings in the long run. Five-steps of capacity control are available with 100%, 80%, 60%, 40% and 0%.

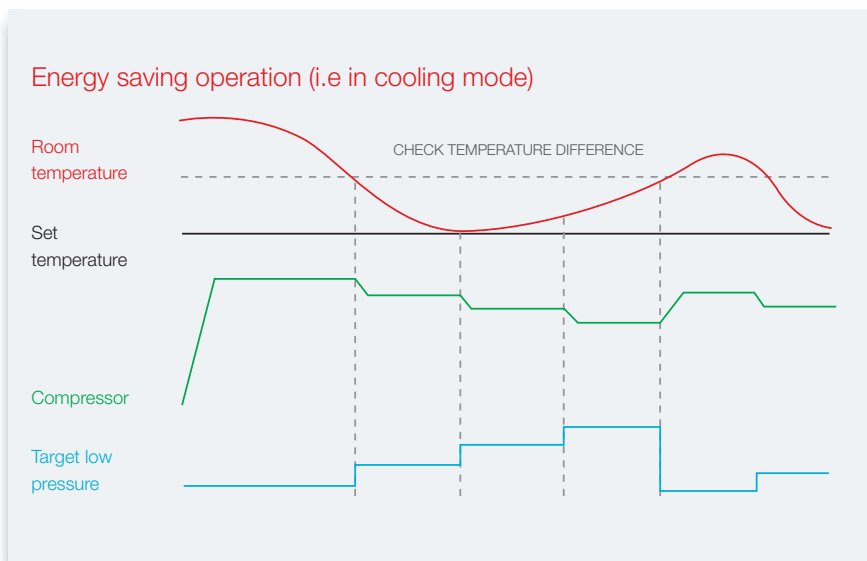


RC-EX1A control panel

**Priority Operation Mode Rule** – The new KXZ has four operation modes: First Unit Operation Mode; Last Unit Operation Mode; Majority Operation Mode and Master Operation Mode.

**Emergency Stop Function** – The new KXZ has a capacity for emergency stop by external input, i.e. an alarm unit can be connected to the PCB. It can also be used for leak detection systems according to BREEAM.

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



The compressor adjusts the pressure in the system automatically.

“ The KXZ VRF series has many key improvements that highlight the key benefits and functions of MHI's latest VRF technology.



# Work smart ... stay safe!

Gas Networks Ireland operates and maintains Ireland's 13,710km natural gas pipeline network and it is regarded as one of the safest networks in the world.

**A key risk** to the network, and to the safety of workers, is the risk of damage caused by excavation works near pipelines. In 2014 there were over 500 incidents of damage caused to pipes and several near misses at high-pressure pipelines.

### Dial before you dig

To raise awareness and reduce the instances of damage, Gas Networks Ireland operates a "Dial Before You Dig" service providing information, safety advice and maps to homeowners, builders, planners, designers, engineers, landowners, farmers, utility owners, local authorities and any other party planning excavation works where there may be gas pipes present underground.

"Dial Before You Dig" advocates that:

- Mechanical excavators should not be used within 500mm of distribution pipe or within three metres of a transmission pipe;
  - Hand-held power tools should not be used directly over a distribution pipeline (unless the gas pipe has been located by hand); nor should they be used within 1.5 metres of a gas transmission pipeline;
- The use of power tools represents a high risk to the operatives involved in the work.
- Hand digging using shovels and spades should be used where the presence of gas pipes is suspected or close to a known gas pipe;

- Operatives should have full site information on the location of gas pipelines before construction activities commence;
- People can check the location of gas pipelines by calling 1850 42 77 47, Monday to Friday, 9am to 5pm. The typical turnaround time for maps is within five days; You can also email your request for information/maps to [dig@gasnetworks.ie](mailto:dig@gasnetworks.ie)

### What to do if a gas pipe is damaged or if you smell gas

- Do not turn any electrical switches on/off;
- Do not operate any plant or equipment;
- Move people away from, and upwind of, the affected area. Restrict employee/public access to area;
- Prevent smoking, the use of naked flames, the use of mobile phones and other ignition sources in the vicinity of the leak;
- Report the leak/damage immediately to: Gas Networks Ireland 24-hour Emergency Service 1850 20 50 50.

- Provide accurate information on the location and the nature of the incident;
- Do not attempt to repair the damage;
- Do not cover up a damaged main or service as this may lead to the gas travelling through soil, ducts, sewers, chambers or voids and potentially building up inside a premises or confined space;
- Do not turn off any gas valves in the road or footpath. This could cause further problems;
- Assist Gas Networks Ireland emergency personnel as required;
- Remember, any damage to gas pipes, even if the pipe does not appear to be leaking, must be reported to Gas Networks Ireland.

### Further information

*Safety Advice for Working in the Vicinity of Natural Gas Pipes.*

[www.gasnetworks.ie/dial](http://www.gasnetworks.ie/dial)

*Code of Practice for Avoiding Danger from Underground Services.* (Health & Safety Authority) [www.hsa.ie](http://www.hsa.ie) ■



**DIAL BEFORE YOU DIG**

**1850 42 77 47**

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In Emergency call

1850 20 50 50



Gas Networks Ireland

# Submissions invited for Irish Lighter Awards 2015

Submissions for both the CIBSE Ireland Irish Lighter and Irish Young Lighter Awards – sponsored by CIBSE, and organised by DIT, SLL and *Building Services News* – are being sought with preliminary 200/300-word abstracts required by 15 June 2015.

**As this is** the International Year of Light 2015, the awards are open to all. Once the paper relates to “lighting”, competitors are encouraged to participate.

Best abstracts will be selected by a panel of assessors and a shortlist of entrants will be invited to submit full papers/presentations mid August 2015. DIT Kevin St is delighted to host the awards during such an exciting year for the lighting sector and an event showcasing associated presentations will take place in October 2015. The competition is organised in collaboration with the Society of Light & Lighting (SLL), CIBSE Ireland, DIT and *Building Services News*.

The overall winners of the Irish Lighter and the Irish Young Lighter will each receive a cheque for €500, with

prizes also being awarded to the runner-up recipients in each competition.

## Irish Lighter

For the Irish Lighter Award, entries are encouraged from right across the lighting spectrum, from physics, photonics to experienced lighting designers, or engineers who can present a paper about a finished project.

These projects, for instance, may consider a post-occupancy evaluation with evidence that is analysed critically and provides insight for the professional lighting community. Also of interest is any innovative and/or sustainable design that is at the industry cutting-edge.

Alternatively, we encourage publishable work that will be of

interest, and benefit, to the professional community.

## Irish Young Lighter

The Irish Young Lighter competition provides a platform for young students/graduates/engineers to showcase their project work in relation to light science and its applications, or “real life” projects which they have been involved with.

Entrants for the Young Lighter must be under 30 years of age.

## Who to contact:

Mr. Colin Conway  
e: colin.conway@dit.ie

Mr. Michael McDonald  
e: michael.mcdonald@dit.ie

Dr Kevin Kelly, DIT  
e: kevin.kelly@dit.ie ■



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**Building Services**news



# Daikin solution to upgrading R-22 and R-407C systems

Due to significant developments in heat pump technology, today's air conditioning systems, running on R-410A refrigerant, offer better performances than R-22 and R-407C systems did in the past. Furthermore, R-22 is now unavailable in Europe.

To upgrade R-22 and R-407C systems as cost-effectively as possible, Daikin units can be installed using existing pipework. Replacement technology is available for residential and commercial applications in the following ranges – Split, Sky Air and VRV.

By reusing the refrigerant piping, the cost of upgrading a system to one using R-410A has been kept to a minimum. In some cases, such as the VRV system, even the indoor unit can be reused.

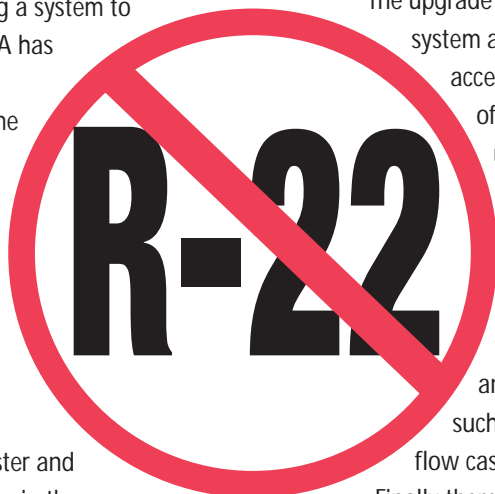
Since the existing piping can remain, the installation is faster and less intrusive than in the case of a completely new installation. Sometimes, in the case of VRV installations, it is even possible to keep

existing indoor units. As a result, the impact on the daily running of the business will be limited.

Keeping the existing pipework also means a faster and less intrusive installation (no need to break open walls) and fewer materials used in the operation. This too translates into economic savings.

The upgrade to an R-410A system also means accessing a wide choice of innovative indoor units that excel in terms of design, such as the award-winning Daikin Emura, and also in terms of comfort and functionality, such as the round flow cassette.

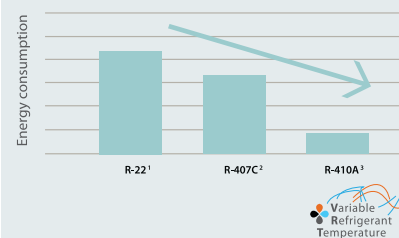
Finally there is the benefit of increased efficiency. Upgrading an old R-22 system results in increased system efficiency. Efficiency gains of up to 81%



## VRV Benefits

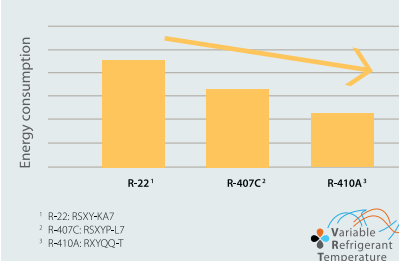
81% less consumption in cooling mode

Energy use of a 10HP system in cooling



48% less consumption in heating mode

Energy use of a 10HP system in heating



<sup>1</sup> R-22: R5XY-KA7  
<sup>2</sup> R-407C: R5XYP-L7  
<sup>3</sup> R-410A: RXYQQ-T



Example of changeover benefits for VRV

in cooling can be realised by virtue of technological developments in current heat pump technology such as variable refrigerant temperature and the more efficient R-410A refrigerant. Increased energy efficiency equals lower energy consumption, and subsequent lower energy costs.

Contact: Daikin Ireland.

Tel: 01 – 642 3430;

email: [info@daikin.ie](mailto:info@daikin.ie); [www.daikin.ie](http://www.daikin.ie)

Increased energy efficiency equals lower energy consumption, and subsequent lower energy costs.



The British Antarctic Survey recently fitted two Condair MK5 steam humidifiers into the sleeping modules of its new Halley VI research station, located on the Brunt Ice Shelf, Antarctica. The extreme Antarctic environment is very dry so humidification is needed to provide a healthy environment for the scientific team stationed there.

# Condair – humidification on ice

The Condair steam humidifiers are helping to suppress electrostatic shocks and reduce drying of the skin, eyes and the mucosa of the nose and mouth. This helps maintain the health of the BAS personnel by reducing the risk of airborne infection.

BAS Technical Services confirm the importance of the indoor humidity: "Any Antarctic accommodation structure requires careful environmental and humidification management. The Halley VI station ventilation systems are designed to

blend fresh air, as low as -54°C, and recirculated air, which is then humidified and dispersed to inhabited areas".

The Condair MK5 units, which use snow melt-water as their water source, were specifically chosen for their proven operation in the Antarctic. Condair water level sensors work well with this type of water, a feature not shared by all steam humidifiers. BAS Technical confirmed: "The units are very successful in operation, and are deployed in this and other BAS facilities". Reliability and continuity were important factors in choosing Condair.

The architecturally and technically remarkable Halley VI station consists of a series of interconnecting research and living areas, each module mounted on height-adjustable stilts which terminate in skis. This construction avoids the risk of being buried and crushed under the weight of accumulating snow and, uniquely, means it can be towed and relocated, to avoid being lost as the ever-moving ice shelf breaks up into the Weddell Sea.

For over 60 years, the British Antarctic Survey has been the UK's primary environmental and scientific research organisation in Antarctica. The Halley facility is dedicated to the study of the Earth's atmosphere and measurements from Halley led to the discovery of the ozone hole in 1985.

The station works throughout the year with the summer team of up to 70 scientific and support staff *in situ* from December to early March. However, during the long winter shift that involves being completely cut off for the 105 days of perpetual darkness, the team reduces to just 16.

Condair MK5 resistive humidifiers deliver high performance, low-maintenance and hygienic steam using a wide range of water qualities. Features such as the user-friendly scale management system mean that MK5 has a long and successful history all around the world, for personal comfort and health, in heritage sites and art galleries, and in process humidification.

About Condair: Condair plc is the new name for JS Humidifiers, the UK's leading specialist in humidification and evaporative cooling.  
[www.condair.co.uk](http://www.condair.co.uk) ■



# Pumps – don't leave ErP compliance to chance ...



While the ErP Directive required that uncontrolled pumps were to cease being manufactured from the end of December 2012, it is a concern that non-compliant pumps are still available – more than two years later – in the Irish marketplace.

If a consultant, distributor, wholesaler or contractor is unsure of the date of manufacture, the serial number normally contains the first four digits noting the month and year of manufacture. Therefore, with regard to the old uncontrolled products, this should not be after December 2012. In instances where there are no detailed pump markings, especially in relation to the year of manufacture, caution is obviously advised, as all ErP compliant pumps will be CE marked with the EEI (Energy Efficiency Index) label on the pump.

While it is up to the relevant authorities to monitor the marketplace and take appropriate action where non-compliant products are identified, it is important that everyone involved in the pump sector takes responsibility for this matter.

Consultants, contractors, wholesalers and distributors have a duty to ensure that the pumps they recommend and offer to clients comply with the ErP regulatory requirements.

It is a concern that non-compliant pumps are still available in the Irish marketplace

They are also professionally obligated to provide the best value and most energy-efficient products available.

The Department of Communications, Energy and Natural Resources is the designated Market Surveillance Authority in Ireland for the EU Directives on Ecodesign and Energy Labelling of Energy Related Products, while enforcement is the responsibility of the Ecodesign and Labelling Market Surveillance Authority (ELMS).

To fulfill its obligations ELMS undertakes the following market surveillance activities.

### Compliance promotion

ELMS will support and assist suppliers and dealers in achieving compliance through the following:

- Leaflets, brochures and other guidance material to inform suppliers, dealers and the public of the requirements;
- The use of professional and trade associations;
- A dedicated contact who suppliers and dealers can contact to ask questions and receive information and assistance;
- Encouraging the public to act as a watchdog to alert for instances of non-compliance.

### Compliance monitoring

Monitoring activities include inspections of retail outlets; examination of product brochures and other technical or promotional documentation supplied with a product;

examination of websites, catalogues or other forms of distance selling; and the investigation of reports or complaints from members of the public, economic operators, customs authorities or other Member States.

### Compliance verification

Where non-compliance is suspected, ELMS undertakes verification actions to confirm the non-compliance. These include examination of records obtained during the monitoring process, document inspections and testing of products in accredited laboratories. A number of these actions are currently ongoing.

### Enforcement

Where non-compliance is detected ELMS will, depending on the circumstances, issue a Technical Assistance Letter, a Warning of Non-Compliance or a Compliance Direction.

Where the non-compliance continues, ELMS may undertake legal proceedings that can result in product withdrawal, prohibition on sale/importation, forfeiture of products, product destruction, prosecution or financial penalties.

These initiatives illustrate that the Irish authorities have the systems in place, and the personnel allocated, to tackle the matter of ErP non-compliance. However, they also need the help and support of all involved in the pump sector to identify non-compliant products so they can take the appropriate action. ■

# 'Wilo is going beyond pumps'

When it comes to pumps, the focus of Wilo is always on people. Based on knowledge of the needs of installers and consultants, it offers products and solutions that deliver much more than efficient performance, technical innovations and EU Directives' compliance.

**The result is** pioneering system solutions which greatly enhance the simplicity, convenience, flexibility and reliability of installations and system operation.

## SmartHome pump

With its Wilo-Stratos PICO-SmartHome pump Wilo is the first pump manufacturer to branch into home automation. Through its strategic partnership with iXERGY – a company which specialises in the development of smart home solutions – and the "wibutler" product, Wilo is investing in a new generation of heating pump. The Wilo-Stratos PICO-SmartHome is currently a prototype for smart pumps of the future and the company is working on creating a product that is suitable for series production. It was presented for the first time at the recent ISH 2015 in Frankfurt, Germany.

The Wilo-Stratos PICO-SmartHome pump is the first pump with a comfortable smart home connection. Using the integrated "enOcean" interface, it communicates with the "wibutler" and can even be controlled by any smartphone via the "wibutler" app. Consumptions are thus easily evaluated and optimised, and all operating status data is available at any time. The Wilo-Stratos PICO-SmartHome is just the beginning of Wilo's range of smart home products.

## BIM friendly

Wilo is also one of the first manufacturers to offer easy access to the complete BIM product data of its heating pumps. Using the Wilo-CLAB plug-in for Autodesk Revit allows designers integrate the product data into the BIM model. Irrespective of

what trade-specific Revit plug-ins are used, and regardless of future BIM developments, Wilo is most definitely BIM-ready.

## System intergration

When it comes to system integration, Wilo-SiFlux is the answer. Comprising three to four pumps connected in parallel, this pre-installed, coordinated system offers quick installation and reliable operation. Benefits include:

- Reliability thanks to perfectly-matched components;
- Easy access to all components due to vertical set-up and compact design;
- Reduced procurement costs and workload;
- Maximum overall motor efficiency with levels exceeding IE4 limit values.

## Wilo-CronoLine IL-E

Wilo-CronoLine IL-E is an electronically-controlled glanded single pump for pumping heating water in accordance with VDI 2035. It features water-glycol mixtures, cooling and cold water without abrasive substances in heating, cold water and cooling water systems. It is now available



in the power range 11kW to 22 kW, and also with IE4 motors.

## Wilo-Yonos MAXO

This is a high-efficiency glandless circulation pump for hot water heating systems, air-conditioning systems and closed cooling circuits. It has an EC motor with automatic power adjustment and is ErP-ready. Features include:

- LE display for indication of set delivery head and error messages;
- Simple adjustment when replacing an uncontrolled standard pump;
- Electrical connection with Wilo plug;
- System availability ensured thanks to collective fault signal;
- Pump housing with cathophoretic (KTL) coating.

## Wilo-Yonos PICO

This high-efficiency glandless circulation pump with EC motor features built-in electronic power control and built-in indication of the current level of power consumption. It provides direct, simple transfer of settings and quick commissioning thanks to the Wilo-Connector. Save even more time thanks to the automatic pump-venting function.

Other features and benefits include LE display for adjusting the setpoint in 0.1 m increments; simple adjustment when replacing an uncontrolled standard pump with pre-selectable speed stages, e.g. Wilo-Star-RS; and very high starting torque for reliable starting.

Contact: Wilo Ireland. Tel: 01 – 426 0000; email: sales@wilo.ie; www.wilo.ie ■

# “Perfectly coordinating performance and efficiency ...

... that’s what I call Pioneering for You.”

Dr. Franka Schneider, Research Engineer Fluid Mechanics  
WILO SE



Improving efficiency is a key focus of our development work. Our target is to increase pump performance while simultaneously decreasing the energy input. Thus a pump or system, e.g. as a replacement, can be sized significantly smaller and yet be more efficient.

WILO Ireland 061 227566 | W [www.wilo.ie](http://www.wilo.ie) | E [sales@wilo.ie](mailto:sales@wilo.ie)



Wilo-Stratos PICO



Wilo-Stratos



Wilo-Stratos GIGA



Wilo-SiBoost Smart Helix EXCEL



# Is the pump industry ready to talk?

Gordon Barry of Grundfos Pumps has worked in the pump sector for many years and has seen many advances and engineering innovations influence the industry during that time. However, here he looks to the future and at what changes are coming down the line.

**M**uch has been written about the pace of technological change over the past 10/15 years. There was a period of time when it was believed that it would not be possible to sustain this acceleration and that the world would return to "normal" at some point. However, it is now accepted that the pace will not slow down and in fact if anything, it will continue to quicken as this period of rapid technological transformation continues unabated into the future.

Looking at the raft of developments we've seen over recent years, we all accept that these advances have, by and large, made the world a better place. Equally these developments have filtered away from the consumer demand for increasingly smart gadgets and into every strata of business, including the pump industry.

A by-product of this has been the opportunity to create an holistic intelligent design approach to integrate devices such as pumps, communication units, control and protection equipment, transmitters and drives within a pump solution to ensure that the system will operate to its maximum effectiveness and efficiency.

## Ready to communicate

One of the specific ways this has manifested itself is demonstrated with regard to many new communication platforms that today offer a wide range of important benefits. Some of the reasons behind these changes are that demand is moving away from a simple pump selection scenario into a much more integrated and systems-driven approach that looks at the integration of an entire system.

This is quite a sea-change for the industry as the previous focus had been on maximising the inherent engineering to deliver the best energy efficiency on an individual pump basis. Of course the economies of scale offered by being able to

interrogate the system better means that a focus on energy is certainly an important spin-off of improved communications.

## Flexible data communication

The more technically-advanced pump companies are now able to offer a wider and more sophisticated approach. This can be seen for example in remote management systems that are already available on a secure, internet-based platform. Such systems can monitor and manage pump installations in a wide range of applications including commercial buildings, industrial processes, water supply networks and wastewater plants.

What this means is that pumps, sensors, meters and pump controllers are connected to a datalogger. Data can then be accessed from an Internet PC, providing an overview of the system. If sensor thresholds are crossed or a pump or controller reports an alarm, a communication will instantly be dispatched to the person on duty.

In this way changes in pump performance and energy consumption can be tracked and documented using automatically-generated reports and trend graphs. These can also give an indication of wear or damage, and service and maintenance can be planned accordingly.

## Remote monitoring

Remote monitoring and control refers to a field of industrial automation that is entering a new era with the development of wireless sensing devices. This was initially limited to SCADA systems, remote monitoring and control, and refers to the measurement of disparate devices from a network operations center or control room, and the ability to change the operation of these devices from that central office.

Today there are other remote monitoring solution management options that offer an

efficient and cost-effective alternative that can be used in stand-alone solutions. These, for example, include in retro-fit applications, and as complementary to or in partnership with SCADA systems. This route will often deliver a more cost-effective outcome.

Such systems have become more accessible with the introduction of cloud-based remote monitoring systems.

Pump engineering will continue to improve but in stage steps rather than any radical new developments. This will mean that bigger wins will need to be achieved in other areas such as improved overall systems design and fully-integrated solutions.

The answers are out there ... you just need to ask the right people the questions: the team at Grundfos Ireland is ready to assist you.

Contact: Grundfos Ireland. Tel: 01 – 408 9800; [www.ie.grundfos.com](http://www.ie.grundfos.com) ■



TPE3 is the latest generation of in-line pump from Grundfos Ireland

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be  
think  
innovate

Eurofluid Handling Systems is a leading manufacturer and supplier of heating and hot water equipment to the building services sector. It is a dynamic, pro-active company with a portfolio of market-leading brands and a mix of experienced and young personnel, all of whom are highly-qualified, multi-disciplined engineers.



Europak Exeflexx booster range, fully WRAS approved

## ErP compliance with Eurofluid engineered solutions

**Renowned for the** quality of the service provided, Eurofluid designs and delivers engineered cost-effective, energy-efficient heating and hot water solutions for all manner of applications. It offers the complete heating and hot water package, from consultation at concept stage to supply, commissioning, service and flexible preventative maintenance contracts.

Eurofluid has exclusive trading partnerships with some of Europe's leading manufacturers, including the following:

- ACV stainless steel water heaters and boilers

- Adisa condensing boilers
- Flamco air/dirt/hydraulic separators, vacuum degassers and pressurisation
- Lapesa storage calorifiers and buffer tanks



Smedegaard's new ErP compliant Magneta circulator

- Potterton/Andrews boilers and water heaters
- Reflex expansion vessels
- Smedegaard pumps
- Sondex plate heat exchangers

Eurofluid also has its own Europak brand of WRAS-approved water booster sets, pressurisation units and plate heat exchanger DHW skids. In addition, it can manufacture bespoke packaged plantrooms, and tailored steam, heating, chilled or domestic hot water packages.

One of the latest additions to the portfolio is the Smedegaard range of fully ErP compliant Magneta circulators. These offer full intelligence and BMS facility as standard, along with simple set-up and multiple operational choices, including the advanced "ECO" for smart auto adapting operation.

Another recent addition is the Europak Pastormaster hot water generator and Legionella eradication system. This unit guarantees the permanent elimination of Legionella and all other bacteria within a hot water system.

It is a thermal treatment process so no chemical additives that change the natural physical properties of water or routine thermal shock treatment are required.

The Europak Pastormaster also offers substantial energy and cost savings in comparison to the frequent thermal shock treatments normally used to help prevent Legionella growth. It can be installed on both existing and new-build projects and is especially suited to hospitals, clinics, retirement homes, sports centres and hotels.

Contact: Euro Fluid Handling Systems. Tel: 01 – 460 0352; Bernard Costelloe. Mobile: 087 – 250 4415; Stephen Costelloe. Mobile: 087 – 934 6060; email: info@euro-fluid.com ■



*Pumps & Circulators*



Smedegaard pumps are ErP compliant in accordance with the legislation for both glanded and glandless circulators.

We cover a wide range of circulators including our new Magneta self regulating pumps.

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GaardPress Pressurisation Sets cover everything from Wall Mounted ECO sets to bespoke Spill Units.

Suitable for any system, large or small, we have Pressurisation equipment to match any requirement.



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E: info@euro-fluid.com

[www.euro-fluid.com](http://www.euro-fluid.com)

**HEATING AND HOT WATER SPECIALISTS**



# Xylem 'next generation' global in-line and end-suction pumps

Xylem has just introduced Lowara e-series, its "next generation" global range of highly-efficient in-line and end-suction pumps that exceed the strict 2015 European Ecodesign requirements that came into effect on 1 January 2015 (Minimum Efficiency Index > 0,4).

**The new e-series** provides significantly improved energy savings of up to 23% while its expanded and optimised hydraulic coverage makes it suitable for a much broader range of HVAC and industrial applications.

The new series includes the e-NSC high-performance end-suction pumps; the e-LNE vertical in-line pumps; and the e-SH stainless steel end-suction pumps. These models will be supplied with IE3 high-efficiency motors in accordance with the European Union motor performance standards.



For an even greater reduction in energy consumption, e-series pumps can be supplied with an optional Xylem Hydrovar variable speed drive. The motor-mounted, space-saving Hydrovar is "plug-and-play" and automatically adjusts operating speeds to optimise pumping system efficiency. As a result, it can provide up to an additional 70% reduction in energy costs, depending on the application.

Terry Murray, General Manager for Ireland, comments: "We want to make selection easier for our customers. The new series consolidates several legacy models into a single, global offering, enabling specifiers to quickly choose the correct Lowara solution for their application. The e-series continues our commitment to provide our customers with the highest levels of service throughout the product's life cycle. Combined with Xylem's global presence, the improved modularity of the new designs makes maintenance and spare parts management much easier.

"While we have streamlined our offering, the new e-series does not limit our ability to serve a number of HVAC and industrial applications. In fact, the extended hydraulic range, multiple configurations, new materials and options actually dramatically increase the number and complexity of applications we can support."

The Lowara e-series provides energy cost savings and enhanced reliability, with simplified specification, faster lead times and improved pre- and post-sales support. The new pumps will enable consultants, specifiers and engineers to leverage Xylem's global presence and production network, while creating customised system solutions for their customers supported by localised applications expertise.

Contact: Terry Murray, General Manager, Xylem Water Solutions Ireland. Tel: 01 – 452 4444; email: [lowara.ireland@xylem.com](mailto:lowara.ireland@xylem.com); [www.lowara.ie](http://www.lowara.ie) ■



# HOW CAN EFFICIENCY WORK EVEN HARDER



Lowara ecocirc and ecocirc PREMIUM the revolutionary highly efficient circulators for Domestic heating with the simple and shaftless spherical motor design and patent anti block technology.

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- Self realigning ultra-hard ceramic ball bearing.
- Only one moving part.
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- 2 metre's of pre-wired cable or plug assembly.
- Directly interchangeable with other manufacturers units.
- Permanent magnet electronically commutated type motor.
- No special tools required.
- Microprocessor controlled.

For more information on how Xylem can help you, please visit [www.lowara.ie](http://www.lowara.ie)

# Baxi Potterton Myson offers an extended condensing range to capture new market

Contractors seeking a one-stop range of reliable high-efficiency commercial boilers can now find a product to meet any application, thanks to the launch of an all-star line up from Baxi Potterton Myson, one of the most established names in the heating industry.

**Potterton Commercial** has extended its range of Sirius boilers to offer outputs from 50kW up to 525kW, including new outputs for single floor standing boilers of 400kW and 525kW.

Designed with an innovative dual burner configuration, the range offers an industry-leading modulation ratio of 10:1. The stainless steel, triple-pass heat exchanger and compact design make it an energy efficient, cost-effective heating solution for large projects such as schools, hotels, care homes and leisure facilities.

For lighter commercial applications such as pubs, shops and offices, the range is available in outputs from 50kW to 110kW as a single boiler, and up to 440kW using cascade pipework kits. Particularly suitable for replacement projects, it can be used in large domestic properties and small commercial premises, as well as medium-sized applications.

Vincent Broderick, Sales Director at Baxi Potterton Myson, said: "We're proud of this extended range of Sirius boilers. The new outputs have been introduced in response to feedback from customers who told us they wanted to be able to give every end-user the peace of mind that comes with specifying a high-performance range like the Sirius.

"The new additions mean that we can now offer contractors and specifiers a truly reliable one-stop-solution for applications of any size or requirement.

All Sirius condensing boilers include a five-year parts and labour warranty, offering complete peace of mind for the contractor and end user.

Contact: Baxi Potterton Myson. Tel: 01 – 459 0870;

email: sales@potterton-myson.ie; www.potterton-myson.ie ■



Right: The Potterton Commercial Sirius two WH and cut-away showing interior (top)



Having worked within construction in Ireland for the last 20 years – as an electrical contractor, a senior electrical engineering consultant and finally an MEP manager with a main contractor – I decided it was time to make a move.

# Living the life in Doha

**I have been** very privileged to have worked on some fantastic one-off projects in Ireland with Homan O'Brien Associates and John Sisk & Son in particular. These include the Agricultural and State Laboratories, the iconic Convention Centre Dublin and Microsoft Data Centre DB5. But now I needed a new challenge.

My wife and I had been talking for

some time about leaving Ireland and giving something new a try. Our little family was underway with Sam now two years old and my wife pregnant. We felt it was the perfect time to make the move. I've always liked challenging roles and new experiences. The construction industry in Ireland was quite stagnant and the potential for large-scale interesting projects in

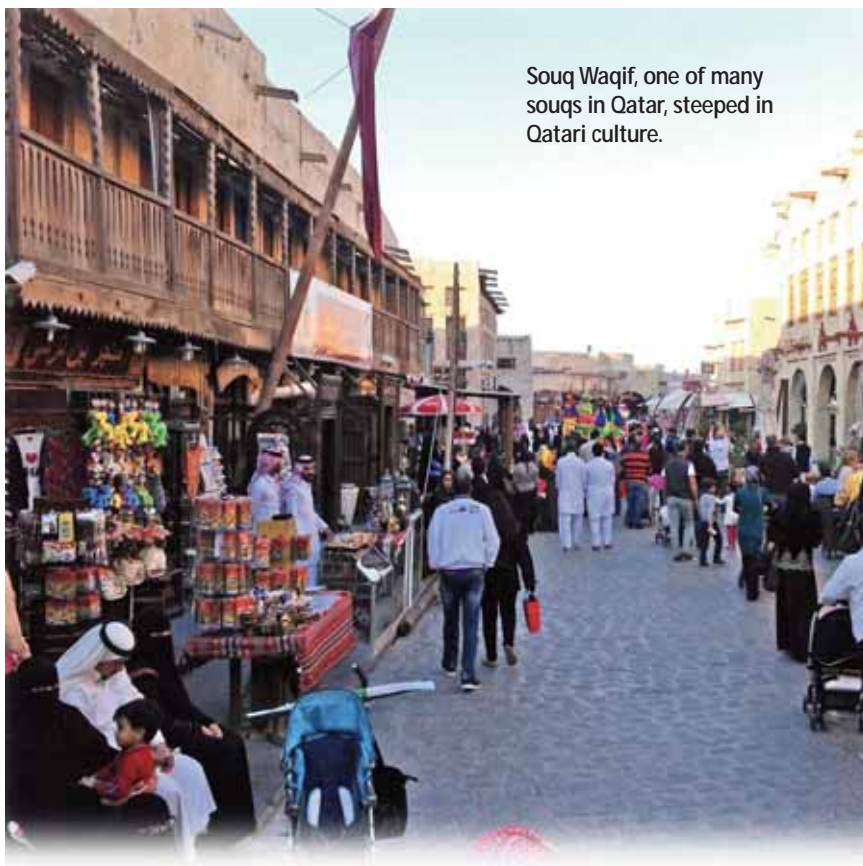
the short-term future just wasn't there.

We researched Australia and Canada and although there were interviews and subsequent offers made for both, they were just not right for us as a family in one way or another. An old Sisk colleague and now close friend had already left Ireland for Doha, Qatar to work as a senior QS, and was really enjoying the move. So I researched Qatar and, as it turned out, both my wife and I had some other former colleagues and old friends who had also successfully made the move to Qatar.

The more we spoke with them about living and working conditions, plus the construction boom underway in the country, convinced us it was a good choice. I asked my contacts in Qatar about reputable companies and also conducted my own further detailed research. The name KEO International Consultants popped up over and over



West Bay in the capital Doha, one of the more high-profile districts of Doha.



Souq Waqif, one of many souqs in Qatar, steeped in Qatari culture.

again, with positive feedback from my friends on the ground, multiple awards across all its disciplines, and a company that was well established in the Middle East since 1964.

I applied for a position with KEO and within two months I had conducted a number of administration checks, interviews, contract negotiations and was offered a position. I am now part of the Technical Services Team within KEO PMI International Doha. This team consists of a dynamic multi-disciplinary group of five senior professionals (Elec, Mec, Fire, Structure and Arch) with a positive "can do" attitude, led by Shahid Chaudry, Senior Architect and Technical Services Team Leader, Doha. My role within this team is as the electrical lead.

We conduct design and constructability reviews for all projects within the offices at different design stages prior to the projects going to tender. We provide design input, technical research, site inspections and

management as and when required. My experience leading the delivery of the first ever BIM project with John Sisk in Ireland has been invaluable, enabling me to bring this knowledge base to KEO and to take the BIM lead for the Technical Services Team here in Doha.

The diversity and scale of the projects available to work on with KEO is fantastic and in just six months

I have worked on an Olympic standard sports hall and a mega zoo with an indoor rain forest.

Qatar hosted the 2015 Handball World Cup which was a great success and ended with Qatar losing in the final to France. I worked on the Lusail multi-purpose Sports Hall, a Qatar Olympic Committee (QOC) project, which held the event. This venue will also house many high-profile basketball and volleyball competitions. This massive 387,123 sq m project comprises a main hall, main arena, two training halls and lots of other facilities for athletes, operators and spectators.

Another project I'm working on is the new Qatar Zoo. This spreads over 75,000 sq m and has themed areas such as Asian Walking Safari, African Walking Safari, Tree House Hotel and Dining with Giraffes. My favorite, and the main attraction, is the Rain Forest enclosure. The profile of the roof is rolling hills and the complete enclosure will utilise ETFE technology for the structure.

We need to maintain an ambient design temperature of 29°C and relative humidity of 80% to replicate the conditions of a South American rainforest, not easy in a dry, subtropical desert climate!

All of these projects bring their own



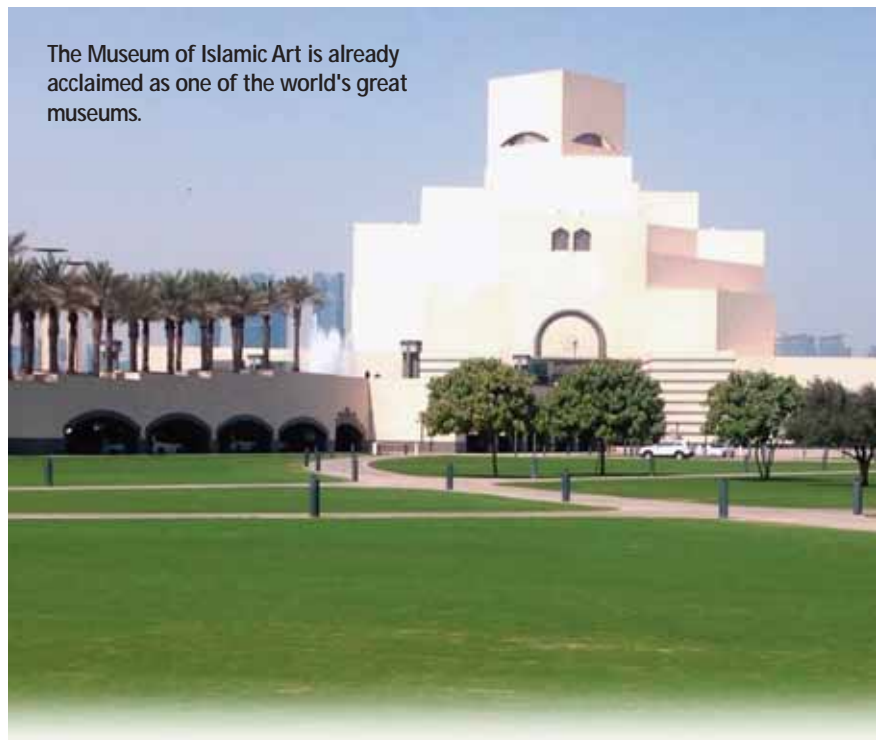
A dhow, the traditional wooden boats of the Gulf. Local tour companies arrange private trips on large dhows.

individual challenges right across the project life cycle. What is important for us as the Technical Services Team is to ensure we conduct meaningful and insightful reviews as required. At times, the reviews are conducted at various “percentage design completed” stages, so it is important to ensure that the output of the review isn’t telling the design team what they already know but instead providing insightful, constructive comments that will benefit the project, the team, and take full advantage of early identification of potential issues, delivering better projects for our clients.

What I also find very interesting working on the likes of these projects is the innovative technology that is being used and considered to ensure that projects comply with the Qatar Sustainability Assessment System (QSAS) and receive satisfactory rating on completion. EFTE technology, rain forest rainwater recycling, utilising the outside air make-up when possible through various control systems, and photovoltaics are some of the technologies incorporated into these designs.

But what of Qatar itself? It is a really good spot and you can enjoy yourself here just as much as you can in Ireland with one big difference – the sun is always shining! I am quite an outdoors person and there are lots of outdoor activities on offer that are all reasonably priced. Day time you can go quad biking on the rolling sand dunes, rent a dhow (a traditional Qatar trading vessel), jet skis and banana boats. At night time dhow trips give amazing views of the Doha skyline with its unique mix of exterior lighting icons. These dhow trips are accompanied by fresh food and friendly service.

Swimming pools, water parks, basketball courts and soccer pitches are all public amenities in abundance,



The Museum of Islamic Art is already acclaimed as one of the world’s great museums.

while even rugby and GAA pitches can all be found. In the main the Irish enjoy themselves in the traditional way in the likes of Doha Rugby Club, Crossroads, Champions Bar, Radisson Blue, Rose and Thistle ... the list goes on and on! Beers and spirits of all kinds are on offer, including pints of the black stuff!

There is also some fantastic sightseeing in Qatar such as a visit to the Museum of Islamic Art and the Souq Waqif, a traditional old market place. I often go to the Souq Waqif to get lost in its little side streets, have a coffee and just chill out.

Katara, a cultural village, is also a good spot with many Arabic restaurants and cultural events held all year round.

There are so many different cultures and religions in Qatar with thousands of expats from the UK, Ireland, Australia, Canada, South Africa, China, Pakistan, the Philippines and many more. The Qatari people are very proud of their history and heritage but also very open. They are interesting, pleasant and like the Irish. Arabic is the official language but English is widely

spoken. Qataris respond positively if you smile and at least greet them in Arabic. They will then happily continue the conversation in English.

What advice would I give people considering a similar move? Do your research and prepare detailed budgets. It is also vital to get advice from people living and working in your location of choice. HR departments and Public Relations Officers (PRO) will play a major role in ensuring that the move for you and your family runs smoothly.

Choosing the right employer is critical. From the very outset KEO has been fantastic for us, going to great lengths to make sure we settled in both personally and professionally. The change in lifestyle is quite dramatic but they have been very supportive and reassuring throughout the whole process.

We’re now more than half a year into the move and so far it has been a very positive experience. I’m looking forward to the next few years in Qatar as it continues to build on its “National Vision 2030” and also gets ready for this small tournament in 2022! ■

# back issues

## Girl power



**Good to see** the fairer sex represented at the recent CIBSE Student Awards in DIT Bolton St with Ms Elisha Campbell receiving the runner-up prize in the Bachelor of Engineering, Building Services Engineering category. She is pictured here with Sean Dowd, CIBSE Ireland Chairman.

## Cusack back in the saddle!



**Great to see** Tony Cusack back active in the industry following his premature retirement a couple of years ago. Tony is widely known and respected throughout building services, and pumps in particular, and has now returned as Business Development Consultant with Eurofluid Handling Systems.

## Doctors to 'prescribe' boilers?

**Small scale trials** in the UK – under the “warmth on prescription” programme – are to be extended so that GPs can continue to “prescribe” free boilers or insulation to vulnerable patients living in cold homes.

Some patients suffering from respiratory diseases that are exacerbated by the cold have already received home improvements worth about £5000 under the trials. The plan now is to expand the scheme with the health authorities and energy departments working together to identify vulnerable people to address their “fuel poverty” issues.

Would it work in Ireland? Somehow I doubt it. Just imagine the sales team meeting ... “and how many doctors’ surgeries did you call on today?”

## Pat Benson memorial lecture

**There were touching** scenes at the most recent Pat Benson Memorial Lecture in DIT Bolton St as it was the first time in all the years that it has run that members of his family attended. Pat’s brother and



sister marked the occasion by presenting Dr Ben Costelloe with a framed portrait of Pat. Our picture shows Back Row: Micheál O’Flaherty, DIT, speaker with David Doherty, Vice-Chairman, CIBSE Ireland; Middle Row: Luke and Alan Benson, Pat Benson’s grand-nephews; Front Row: Dr Ben Costelloe, Assistant Head of School of Mechanical & Design Engineering, DIT Bolton St with Donal Benson, Pat Benson’s brother; Kitty Benson, Pat Benson’s sister; and Kathleen Benson, Pat Benson’s sister-in-law.

## CITA BIM Gathering

### This year’s CITA BIM

Gathering will take place at the International Conference Centre in Dublin on 12 and 13 November 2015. Theme is “An Integrated Future”. See [www.cita.ie](http://www.cita.ie)



## Richard Sherlock joins Mitsubishi Electric

**Richard Sherlock** has been appointed Sales Manager, Mitsubishi Electric Ireland. Richard, who is also Chairman of the Heat Pump Association of Ireland, will take up his new role in the coming months. Best of luck Richie.



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400kW to 525kW



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Panasonic has redesigned the PACi range of air conditioners to suit the high performance demands of commercial applications. These new models are more energy-efficient than ever before and feature:

- Two product ranges - PACi Standard and PACi Elite ensure better integration into your project
- New extremely compact 5,0 kW outdoor unit - only 56cm high, 79cm wide and 28,5cm deep
- Top-class SEER: A++ / SCOP: A+ at 10,0 kW (Cassette 90x90 and ceiling options)
- Large line up of Air Curtains with Jet Flow and Standard Flow with DX Coil for extremely high savings
- Pack of accessories to connect PACi outdoor units to AHU for easy integration to ventilation systems
- Maintains the same nominal capacity even at -10°C (only for PACi Elite\*)
- Compatible with all ECDi connectivity solutions
- Easy control from smartphones with optional Wi-Fi add-on
- Twin, Triple and Double-Twin connections possible and all controlled with just one remote control

\* Maintains the capacity for the size 10KW, small capacity drops on the other models. Please check the technical manual for more details.



<b>A class</b> energy saving	<b>6,80 A++</b> SEER	<b>4,00 A+</b> SCOP*	Down to <b>-15°C</b> in cooling mode	Down to <b>-20°C</b> in heating mode	Easy control by BMS	Environmentally friendly refrigerant
<b>INVERTER+</b>	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	OUTDOOR TEMPERATURE	OUTDOOR TEMPERATURE	CONNECTIVITY	R410A

