


9-2010

## BS News September/October

Follow this and additional works at: <https://arrow.tudublin.ie/bsn>

 Part of the [Civil Engineering Commons](#), [Construction Engineering Commons](#), and the [Construction Engineering and Management Commons](#)

### Recommended Citation

(2010) "BS News September/October," *Building Services News*: Vol. 49: Iss. 5, Article 1.  
Available at: <https://arrow.tudublin.ie/bsn/vol49/iss5/1>

This Article is brought to you for free and open access by the Journals at ARROW@TU Dublin. It has been accepted for inclusion in Building Services News by an authorized administrator of ARROW@TU Dublin. For more information, please contact [yvonne.desmond@tudublin.ie](mailto:yvonne.desmond@tudublin.ie), [arrow.admin@tudublin.ie](mailto:arrow.admin@tudublin.ie), [brian.widdis@tudublin.ie](mailto:brian.widdis@tudublin.ie).



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 3.0 License](#)

# bs news

building services news

September/October 2010



■ Wilo 30 years in Ireland



■ Enlighten special



■ Chronotherm Silver Jubilee



■ ATP scores at Aviva

## *CIBSE Silver Medal award for John Purcell*



## Heat Pump Air Curtains

- Reduced heating/cooling costs
- Extremely energy-efficient
- Excellent COP



- Wide range of styles/outputs
- Simple to operate
- Easy to install



Tel: 01 286 4377  
Email: [info@gtphelan.ie](mailto:info@gtphelan.ie)  
[www.gtphelan.ie](http://www.gtphelan.ie)

<https://arrow.tudublin.ie/bsn/vol49/iss5/1>

TOSHIBA AIRCONDITIONING

Advancing the **eco** -evolution

<b>News and products</b>	<b>2</b>
<b>RACGS</b>	<b>6</b>
<b>Mitsubishi's green initiative</b>	<b>7</b>
<b>Wilo celebrates 30 years in Ireland</b>	<b>8</b>
<b>CIBSE Silver medal for John Purcell</b>	<b>10</b>
<b>Toshiba heat pump air curtains</b>	<b>11</b>
<b>Combined heat and power (CHP)</b>	<b>12</b>
<b>Enlighten 4-page special</b>	<b>17</b>
<b>Hitachi comfort at tourist attractions</b>	<b>21</b>
<b>PMI helps installers</b>	<b>22</b>
<b>T&amp;A scoping out the market</b>	<b>24</b>
<b>Chronotherm Silver Jubilee</b>	<b>26</b>
<b>Flowcon automatic balancing valves</b>	<b>28</b>
<b>Carel Retail Sistema</b>	<b>30</b>
<b>Innovative solutions from Manotherm</b>	<b>31</b>
<b>bsnews visits Daikin Europe NV</b>	<b>32</b>
<b>BTU golf round-up</b>	<b>34</b>
<b>CIBSE annual golf outing</b>	<b>35</b>
<b>Back Issues</b>	<b>36</b>

# bs news

building services news

ISSN 0791-0878

**Published by:**

Pressline Ltd,

Carraig Court, George's Avenue, Blackrock, Co Dublin.

Tel: 01 - 288 5001/2/3 Fax: 01 - 288 6966

ISDN: 01 - 211 2338/9

email: bsnews@pressline.ie

web: www.buildingservicesnews.com

www.bsnewsbuyerguide.com

www.pressline.ie

**UK Office:**

Mike Knight Tel: (+44) 07966 196 383

email: mike-bsnews@blueyonder.co.uk

**Editor:** Pat Lehane

**Advertisement Director:** Joe Warren

**Origination and Design:**

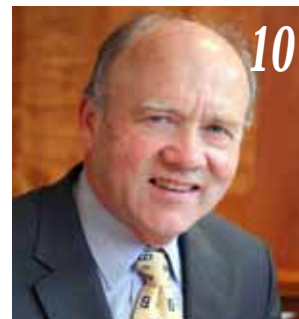
Pressline Ltd. Tel: 01 - 288 5001

**Subscription:** One Year – €70

**Printed by:** Swift Print Solutions (SPS).

© All editorial contents and all advertisements prepared by the publishers, Pressline Ltd.

## Contents



## opinion

### Building services proving its resilience

**W**hile it is impossible to deny that the building services sector – from consultants through to mechanical contractors, domestic installers and product suppliers – is under massive strain, it is quite amazing how resilient it is proving to be.

Faced with hitherto unimaginable trading conditions, companies have risen to the challenge and re-structured their businesses accordingly. Of course there have been casualties, and there undoubtedly will be more, but the predicted total meltdown of the sector has not materialised.

Most industry players are now more creative in how they market themselves, and are becoming increasingly adept at identifying and exploiting new market opportunities.

The sense of fear and resignation which pervaded the industry over the last 12 months has now been replaced by a determination to survive. This, in itself, will not solve all the problems, but it is a step in the right direction. ■

News and Products

## CIBSE Sustainable Design Award

Following the success of the inaugural *Sustainable Design in Building Services Award* last year, the CIBSE Republic of Ireland Region plans to make it an annual event, commencing next year. The awards are sponsored by John Sisk & Son, supported by *bs news* and organised through DIT. The objective of the awards is to promote innovation and evidence-based evaluation of building services engineering by encouraging

research, the dissemination of knowledge, and the adoption of new concepts and ideas in projects.

CIBSE expects entries to critically evaluate what they are doing and to examine mistakes, as well as successes, in an open way on innovative projects. In this way the profession builds capacity to innovate successfully. The intention is not merely to select successful projects but successful research that

informs our engineering peers.

The awards will be presented in March 2011 and 1-page abstracts are now being sought from those seeking to enter. Cut-off date for receipt of these abstracts is 31 October 2010. A shortlist will be selected by peer review from these entries and invited to present final, more comprehensive, papers by 10 January 2011. Contact: Kevin Kelly, DIT. Email: Kevin.kelly@dit.ie

## TA'S CPD hydronic systems seminar

**Tour and Andersson**, the leading hydronic balancing valve specialist is once again leading a series of technical CPD seminars designed to inform and advise HVAC consultants and contractors.

Every day, consultants, contractors and building services engineers have to face challenges and increasingly-complex

**Ken Browne,**  
Sales  
Engineer –  
Ireland,  
Tour &  
Andersson.



system design, installation and commissioning, all set against a backdrop of changing regulations.

Tour & Andersson has designed a programme of CPD seminars to provide building services professionals with very specific knowledge of hot and cold water systems, helping them to develop their expertise and competence in this specialist field.

The next seminar in the series is on *Investment and Energy Saving Opportunities in Variable Flow Systems* and it will be held in the Gresham Hotel, Dublin on 30 September.

Contact: Ken Browne, Tour and Andersson. Tel: 087 – 280 1095; email: ken.browne@tourandersson.co.uk

## FESA Abbeyleix AGM

The Fire Engineering Systems Association (FESA) recently held its AGM in Abbeyleix, Co Laois. Since its formation in 2004 FESA has emerged as a very strong representative voice for the industry. Apart from providing lobbying services, it also has a very active training



programme which ensures that members are kept fully up-to-date with developments such as I.S. 3218:2009 (Fire Alarm Detection Systems). Pictured at the recent meeting were Paul Drillsma, Jim Horan, Kieron Drumm, Chris Lundy and Frank Pierce. Contact: Chris Lundy, FESA. Tel: 086 - 048 6000.

## APHCI to reclaim installer status

The Alliance of Plumbing & Heating Contractors of Ireland (APHCI) is now in the process of being formally registered with all legal and compliance issues currently being attended to.

Over the last six weeks various meetings have taken place throughout the country with regional installer representative groups from Dublin, Cork, Waterford, Clonmel, Galway and Mayo coming together to pledge their support and allegiance to the initiative.

Since the introduction of RGII, *bona fide* installers – all of whom fully support the concept of a register – have grown increasingly concerned that the mechanisms for entry to RGII, and the policing of good practice, leave a lot to be desired. Such was the intensity of this concern that a spontaneous movement emerged all over the country with installers first coming together locally and now, finally, in a more formal manner under the guise of the APHCI.

Once the legal and regulatory compliance formalities have been completed over the coming weeks, the temporary steering committee will organise a national meeting to formally unveil the Association. Matters to be discussed will include membership recruitment, election of officers, and the setting of goals and objectives.

For further information – and to receive the regular *APHCI Newsletter* – please send your email address to [aphci@hsg.ie](mailto:aphci@hsg.ie)

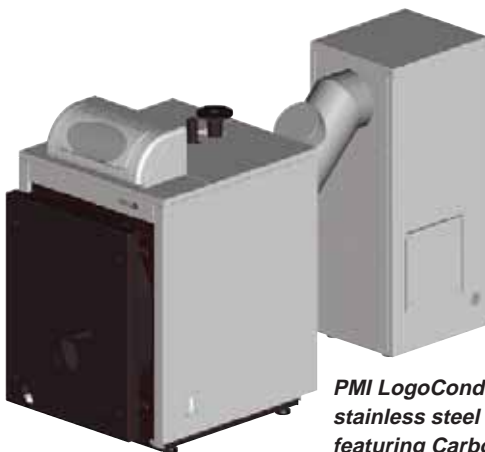
News and Products

# PMI LogoCondense with CarboCondense

**Potterton Myson Ireland**, which is part of the newly-formed BDR Thermea Group, has introduced a new high-output steel pressure jet boiler with a patented carbon heat exchanger that can safely and efficiently condense and even clean the boiler's flue gases.

The LogoCondense is a high-performance one-piece, steel shell, forced-draught, high-efficiency boiler range with compact dimensions for easy installation.

Outstanding performance is achieved using advanced three-pass combustion chamber technology, coupled



**PMI LogoCondense stainless steel boiler featuring CarboCondense.**

with a state-of-the-art flue gas heat recovery heat exchanger.

The LogoCondense solution combines a low-temperature boiler with an

external condensing heat exchanger, the CarboCondense, that can be used with both gaseous and liquid fuel burners. The external condensing heat

exchanger increases the efficiency, compared to the low temperature boiler without CarboCondense, by 14% with gas firing and 8.5% with oil.

Available in two models – 98kW and 131kW – LogoCondense with CarboCondense is the perfect solution for both new-build and as part of a low-carbon replacement heating system that could be integrated with other LZC (Low to Zero Carbon) technologies, especially where there is no mains gas.

Contact: Potterton Myson Ireland. Tel: 01- 459-0870; email: sales@potterton-myson.ie

Looking at the future




## Energy Savings Solutions

**humiFog multizone**  
 Adiabatic cooling for all air handling units and heat exchangers  
 Offering cooling cost savings up to 88%\*

\* based on London climate & application

**ChillBooster**  
 Air cooling solution for chillers and drycoolers  
**30%** increase in efficiency  
**60%** increase in power  
 Offering typical cost savings up to 30%

Carel Ireland, Unit 28E, Ashbourne Business Centre, Ashbourne, Co Meath  
 Tel: 01 - 835 3745. Email: sales@carel.ie www.carel.com

**NEW**  
 humidification-for-life.com

## News and Products

## Irish Lighter Awards presentations

The **Irish Young Lighter** and the Irish Lighter Awards are highly-prestigious events intended by CIBSE to encourage evidence-based research in lighting. They are all Ireland competitions sponsored by Enlighten, organised by DIT on behalf of CIBSE (ROI), and supported by SLL, ILE and *bs news*.

The adjudication process is well advanced with the final stages, and the presentations of awards, taking place in DIT Kevin St on 30 September next.

Apart from the prestige and honour associated with the awards, there are also significant monetary prizes. The winner in both competitions will receive €1000 sponsored by Enlighten; while Runners-up will each receive €500, thanks to the generous sponsorship of SLL, CIBSE Republic of Ireland Region, and the ILE.

The schedule for the final on 30 September sees the Young Lighter finals, including presentations by those on the shortlist, taking place throughout the course of the afternoon, with the Irish Lighter finals, again involving presentations, running from 6.30pm to 8.30pm.

Thereafter, the order of award recipients will be formally announced and prizes presented, before winners, guests and sponsors adjourn for a wine and finger-food reception.

Contact: Kevin Kelly at email: kevin.kelly@dit.ie

### *Kinviro pre-pay heating solution*

In response to client demand Kinviro has now introduced a pre-payment system for district heating schemes. The system operates via a smartcard that can be topped up at local shops or from the site facilities management offices.



The system works in conjunction with Kinviro's range of Domocal/Domosolutions units (heat stations), but can also be integrated into other manufacturers equipment. It is compatible with other CIUs available on the market and can be retro-fitted into existing schemes with little or no disruption.

Pre-payment means tenants/occupiers can manage their weekly spend on heating/hot water, while the district heating scheme operator can be confident in the knowledge that debt collection will become a thing of the past.

Contact: Alan Callister, Kinviro. Tel: 086 - 262 0582; email: alan@kinviro.com

## *ATP stars at Aviva Stadium*

**ATP supplied Flowcon** automatic balancing valves to the recently-opened Aviva Stadium. The heating and cooling fan coil units in the state-of-the-art 50,000-seater stadium are controlled by means of the Flowcon SME 2-port control and balancing valve. This unique valve operates with 3-point floating actuators to deliver the exact required flowrate, while being 100% pressure independent.



Meanwhile, the Flowcon AB valve was used for automatic balancing of the radiator circuits. The chiller and boiler circuits were fitted with the compact wafer valve and the air handling units were fitted with the time and cost-saving SM valves.

In addition, ATP provided almost 1km of Sill Line trench heating to the stadium, making it possibly the largest trench project ever to take place in Ireland. The trench heating neatly sits adjacent to the window on the premium levels. The aluminium grille glides around the curve on the now-famous structure to provide a warm flow of air up the perimeter glazing.

The continuous grille complements the spectacular curve of Dublin's newest landmark. In the words of ATP's Peter Kelly, "corners have never been a problem for ATP!"

Contact: ATP. Tel: 01- 885 3792; email info@atpireland.com

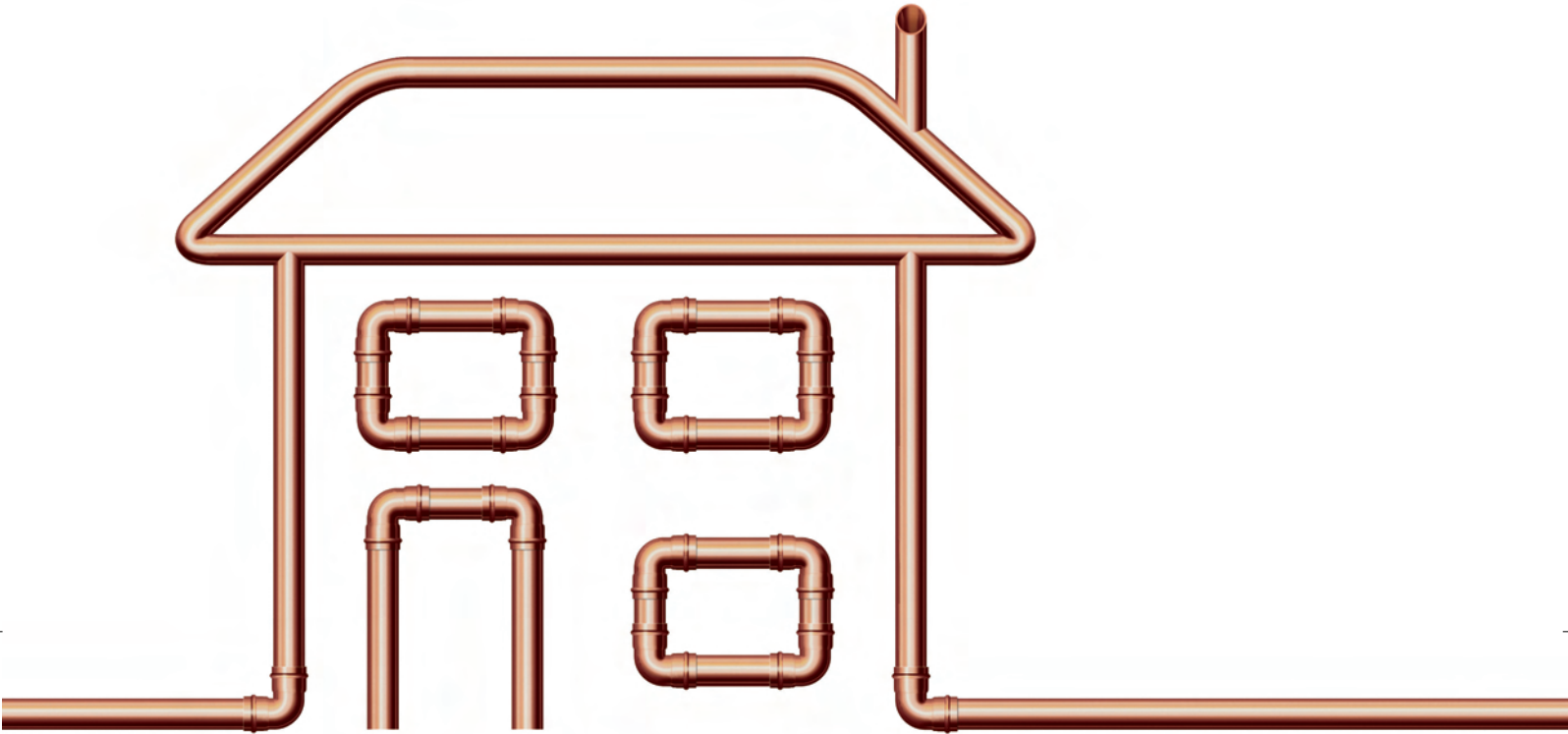
### *System upgrade for Deloitte*

**Crossflow has just** completed a significant air conditioning upgrade at Deloitte's Dublin offices using Daikin's new VRVQ unit. The original R22 VRV system had to be replaced as it no longer complied with F Gas Regulations.

The new Daikin VRVQ installation is a R410 VRV system which, apart from ensuring regulatory compliance, is also high-performing and energy-efficient.

Both the outdoor and indoor units were replaced, an added bonus being that the existing pipework could be re-used. Final commissioning was carried out with assistance from Daikin Ireland.

Contact: Liam Kirwan, Daikin. Tel: 01 - 642 3430; email: info@daikin.ie; Crossflow Ltd. Tel: 427 9300.

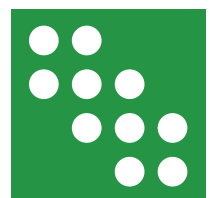


## ➔ IRISH METAL INDUSTRIES: TUBE WITH BUILT IN QUALITY

### WHEN QUALITY AND RELIABILITY COUNT, SPECIFY TUBE FROM IRISH METAL INDUSTRIES

Thousands of properties in Ireland have a built-in quality product – copper plumbing tube from Irish Metal Industries. With its 25 year guarantee and carrying either the Irish Standard Mark or BSi Kitemark, our tube offers you proven and trouble-free service, year after year.

You can rely on Irish Metal Industries tube – so ask for it by name.



**Irish Metal  
Industries**



RACGS

# Heritage Outing

**D**anfoss Ireland sponsored the most recent RACGS outing at the Heritage Golf Club on a day when both the hotel and golf course went into administration. However, the weather was perfect and the course in splendid condition so all who played had a very enjoyable day.

John Sampson of Danfoss Ireland – RACGS

longest-serving sponsor – expressed himself delighted with the turnout but hoped that his own golf would improve by the end of the summer!

In addition to a wonderful array of prizes for all the winners, John also presented a personal gift to everyone who participated.

Results were as follows:

**Overall Winner:** John Ryan (13hp), 37pts.

**Class 1: First:** Kevin Roden (12hp), 33pts; **Second:** Joe Warren (12hp), 29pts.

**Class 2: First:** Dave Kirwan (14hp), 34pts; **Second:** Jack Elstead (13hp), 33pts.

**Class 3: First:** Dave Killalea (18hp), 36pts; **Second:** Don Ryan (20hp), 30pts.

**Front 9:** Paddy Smee, 17pts; **Back 9:** Mark Kiely, 16pts

**Visitors: First:** Brendan Sharkey (12hp), 37pts; **Second:** Nicky Norris (11hp), 36pts.

**Longest Drive:** Mark Kiely; **Nearest the Pin:** Denis Curtin ■



*John Sampson, Danfoss Ireland, sponsor at the Heritage, presenting overall winner John Ryan with his prize.*

## NRG triumphs in Ryder Cup

**Congratulations to the Northern Refrigeration Golf Society** who had an emphatic victory over RACGS in this year's Refrigeration Ryder Cup which was held at Motrum Hall in Manchester. As always it was sponsored by *bs news* and Sauermaann UK.

The RACGS squad made life very difficult for themselves with their travel arrangements but that is not to take from the NRG team who took full advantage of their home course to avenge their defeat of last year.

## Golfer of Year

**John Ryan is** the runaway leader in this year's Hitachi-sponsored Golfer of the Year competition. At 24pts he is comfortably ahead of second-placed Jack Elstead on 19pts. Closing in in hot pursuit are Dave Killalea (14pts); Mick Clancy (14pts) and Pat Lowry (13pts).



***Environmental Vision 2021 and the Green Gateway Initiative are two Mitsubishi Electric-led campaigns which, between them, will dramatically reduce worldwide energy usage and CO<sub>2</sub> emissions.***



## ***Environmental Vision 2021 and Green Gateway Initiative show industry leadership***

***Environmental Vision 2021*** is the long-term environmental management vision of the Mitsubishi Electric Group which defines a long-term strategy devised to prevent global warming and to create a recycling-based society. The year 2021 was chosen as it will mark the 100th anniversary of the founding of the company.

The guideline – “making positive contributions to the earth and its people through technology and action” – calls for the company to work towards the realisation of a sustainable society by utilising its wide-ranging and sophisticated technologies, as well as the assertive contribution of its employees.

Specifically, Mitsubishi Electric is now working towards the following objectives:

- The 30% reduction (compared to 2001 levels) of carbon dioxide emissions resulting from product use, through technological innovations and promotions of energy-saving products;
- A reduction of 30% in the total carbon dioxide emitted throughout the Mitsubishi Electric Group during production, while still achieving continued company expansion;
- Contributing to the reduction of carbon dioxide emissions from power generation by supplying products and systems that do not emit carbon dioxide. In the photovoltaic generation systems business, the company will continue efforts to promote its installation and develop technology to increase module efficiency.
- Adoption and enforcement of measures to reduce, reuse and recycle throughout the product lifecycle. The objective is to reduce the total amount of materials used by 30%, and to recycle 100% of the plastic brought to home appliance recycling plants.

*The Green Gateway Initiative* is very much a complementary development to the *Environmental Vision 2021* strategy with both schemes running in tandem. As

market leader in providing heating and cooling solutions for commercial and domestic buildings, Mitsubishi Electric is ideally placed to fundamentally change the way people think about heating, cooling and ventilating buildings.

There is an increasing need for people everywhere to adopt a more responsible approach to energy use and emissions, with the EU setting ambitious targets for the coming years.

*The Green Gateway Initiative* is Mitsubishi Electric’s direct response to this challenge. It comprises an ambitious 10-point plan that seeks to help people and businesses everywhere to achieve significant cuts in CO<sub>2</sub> emissions, while substantially reducing energy consumption.

The areas covered in the 10-point plan include replacement of old equipment; specifier and client purchasing behaviour; heat pumps for heating; free cooling and heat recovery; improved specification and design; decision support tools; installation and commissioning; and maintenance.

“*Environmental Vision 2021* and the *Green Gateway Initiative* are fundamental to Mitsubishi Electric’s strategy as we move forward”, says Mike Sheehan, Mitsubishi Electric. “They reflect our concern for the environment at large, and also our willingness to take responsibility for, and to show leadership, in tackling energy usage and CO<sub>2</sub> emissions.

“This philosophy also extends to the actual product portfolio, the second-generation R410A City Multi Replace models being a typical case in point. They offer an 80% increase in COP, halve the install time, and cut installation costs by up to 40% when replacing a 10-year-old R22 air conditioning system.

“At Mitsubishi Electric we are now ideally placed to provide energy-efficient and environment-friendly heating, cooling and ventilation across the entire building services spectrum. We provide a myriad of solutions and systems which not only meet all current legislative objectives, but also satisfy anticipated future statutory requirements.”

Contact: Mike Sheehan, Mitsubishi Electric:

Tel: 01 – 419 8800. ■



## Wilo in Ireland

### Green before it was fashionable

While sustainability and energy efficiency is today's industry norm, Wilo has championed the cause for many years and is now considered the undisputed ecological pioneer in the pump sector. It was instrumental, along with other manufacturers, in promoting the EU energy-labelling system for pumps and has consistently achieved A ratings across its new product introductions, including most recent arrivals the Wilo Pico and the Wilo Nova.

The Wilo-Stratos Pico high-efficiency pump allows power savings of up to 90 % compared to uncontrolled heating pumps. Other features include a front display with clear menu navigation, and an automatic ventilation function which avoids performance losses and noise.

A bonus for installers is the new integrated "Wilo connector" which allows quick connection of the pump to the power supply without any tools. It is especially helpful

with pump replacement as it is compatible with the connection components of different standard products.

The Wilo-Star-Z Nova is a high-efficiency pump for secondary hot water circulation providing energy savings of up to 80% thanks to its power consumption of only 2W to 4.5W. It is the only secondary hot water circulation pump in the single and two-family home area which is also suitable for water hardnesses up to 20 °dH, and therefore suitable for water with an especially high lime content. With its corrosion-resistant stainless steel impeller, it meets the highest safety and hygiene requirements with total reliability.

8



## WILO Wilo 'Pumpen

When Wilo SE chose Limerick as the location for its first manufacturing facility outside of Germany in 1980, it was a declaration of confidence in the ready availability of an educated, engineering-based workforce. Now, 30 years later, that leap of faith has been truly vindicated as Wilo Pumps continues to thrive as a key manufacturing arm of the German pump giant.

Originally established as a volume producer of domestic circulators for export to all corners of the globe, Wilo Pumps is still exclusively export-oriented but today specialises in high-end energy-efficient products from the company's extensive portfolio. There have been many peaks and troughs down through the years but Wilo's Limerick plant has proved resilient and adaptable when faced with changing market conditions.

A key factor in this respect is the inherent skill base of the Limerick workforce and the close, family-like atmosphere. This is appropriate given that Wilo SE – despite an annual turnover of approximately €1 billion – is still a family-owned, private company. Louis Oplander founded the business in 1872 and the current Chairman, Dr Jochen Oplander, is the 3rd generation family member to take the helm.

Today Wilo SE is one of the world's leading manufacturers of pumps and pump systems for heating, cooling and air-conditioning; for water supply; and drainage and sewage. It has 70 subsidiaries worldwide, including Wilo Pumps in Limerick, and employs in the region of 6,000 people, 35 of whom are located in Ireland.

While Wilo Pumps is the Limerick-based manufacturing arm of the Irish subsidiary, its sister company in Ireland, Wilo Engineering Ltd, which operates from bases in Dublin and Limerick, is the sales arm which looks after the Irish marketplace.

It too is celebrating 30 years and it is notable that Tony Cusack – who himself has 30 years service with the company – is Managing Director for both operations. Indeed, long service is a feature of

Wilo Ireland looks forward to further growth and development in the coming years



Wilo Ireland Managing Director Tony CUSack.

# Intelligenz' in Ireland for 30 years

the Wilo set-up with quite a number of personnel having been with the company for 10, 15 and 20 plus years.

It is this unique mix of experience, coupled with extensive research and development, that ensures the continuous introduction of innovative pumping solutions for all types of applications.

Wilo Ireland plays a pivotal role in the ongoing success of Wilo SE and, in celebrating its 30th anniversary, looks forward to further growth and development in the coming years. ➡



*Michael O'Herlihy, Area Sales Manager, Southern Region with Derek Elton, Sales Director and Mark O'Sullivan, Area Sales Manager Northern Region.*

## Applications

Wilo is synonymous throughout the world with the tradition of first-class German engineering. From individual pumps to complex systems, expertise in these areas is constantly enhanced because of close contact with professionals and end-users. This expertise is the basis for individual solutions that are oriented to the needs of customers – Wilo calls this “Pumpen Intelligenz”. Sectors catered for include domestic, commercial, industrial and municipal.



*The busy Wilo production line at the Limerick-based manufacturing arm of the company.*

## Technical and After Sales Support

*Commissioning, fault diagnosis and quality analyses are especially important in today's marketplace. Hence the holistic approach Wilo takes to every project, no matter what the size.*

*Engineers are constantly engaged in continuous professional development, participating in training and educational courses at Wilo in Ireland, and at various Wilo centres of excellence throughout the world.*

*Pictured are service engineers John Cusack and Peter Allen with Service Coordinator Thomas Brennan.*



## System Design Support

*Wilo commences design and technical support at the earliest possible opportunity in a project. The specially-developed Wilo and Wilo EMU software provides comprehensive back-up when planning and configuring pumps and pump systems, when drawing up proposals, and when creating project documentation.*

*Engineers familiarise themselves with the system as a whole ... that's what ensures system performance, energy efficiency and product longevity. There is also a range of planning handbooks giving simple tips on pump selection. Complementing that is direct access to Wilo field and office-based engineering technicians, all of whom are experienced and highly-qualified. Pictured are Internal Technical Support Team – Damien Gernon and David Staunton.*



## Nationwide Stockists

To ensure ex-stock availability Wilo has appointed a network of nationwide stockists who are strategically located to provide comprehensive coverage throughout the entire country. Some specialise in domestic and light commercial pumps while others concentrate on industrial and commercial pumps. Either way both domestic installers and major contractors are assured of ready availability of Wilo pumps, whatever their location.



## Wilo Engineering Ltd.

Limerick Office: Tel: 061 – 227 566;  
 Dublin Office: 01 – 426 000;  
 email: sales@wilo.ie; www.wilo.ie

In an honour that is long overdue, John Purcell has been awarded the CIBSE Silver Medal in recognition of his excellent service to the Institution, and the industry at large, over a period spanning four decades.

## *CIBSE Silver Medal award for John Purcell*

**John joined Varming** Consulting Engineers on graduation from UCD in 1970 and this year completes 40 years of continuous association with the company. In that time he has served the company at all levels, beginning with his initial appointment as a design engineer before progressing through the management ranks to project director, partner, executive director, chief executive and finally Chairman, his current role.

When John arrived in the practice in 1970 the company had begun a period of rapid and sustained growth which coincided with the boom in industrial construction in Ireland, especially in the pharmaceutical manufacturing sector. Such projects posed new challenges for John and created many opportunities for him and his Varming colleagues to carry out research into solutions successfully applied elsewhere, and to develop new design approaches not previously tried in Irish construction.

The 1970s and 1980s are now recognised as the “golden age” of development and growth of the CIBSE Republic of Ireland

Branch with wonderful engagement between building services designers, contractors and equipment suppliers. Technical evenings were enthusiastically supported with full-house attendances and “standing room only” for late comers being the norm.

John became an active member of the CIBSE Republic of Ireland Branch during this period and presented several technical papers in Ireland, and the UK. This included a landmark paper on the creation of sterile environments for pharmaceutical applications at the

joint CIBSE/ASHRAE conference held in Dublin in 1986.

He was an active committee member of the Republic of Ireland Branch throughout this time and served as Branch Chairman for the term 1993/1994. During his term as Chairman, John expended considerable effort in promoting building services engineering as an attractive career for school leavers.

In parallel with his CIBSE activities, John was a prominent member of the Executive Committee of Association of Consulting Engineers of Ireland (ACEI). He actively served on committee for 15 years, culminating with his election as President for the 1994/1995 term. During those years he raised the profile of the building services engineer at all levels, including meetings with Government Departments, the Construction Industry Council, the Forum for the Construction Industry and at other relevant bodies.

For the last 15 years, in addition to his duties as Chief Executive and Chairman of Varming Consulting Engineers, John has headed up the Varming Healthcare Group, managing a range of major healthcare projects in Ireland. Of particular note has been his involvement on the building services design of large public hospitals such as Tallaght, Beaumont and St James’.

Varming Healthcare projects also included the design of major private hospitals in Galway and Dublin, the Galway Medical Clinic project being awarded the ACEI Award for Excellence in Design in 2005.

In the design of Varming projects there has always been a strong emphasis on the consideration and utilisation of sustainable engineering design and energy efficient systems. John believes that this approach is now more essential than ever and that a holistic approach to architecture, construction, and building services design is essential as the industry moves forward.

Even now, after 40 years of continuous service to building services in Ireland, John is still looking to the future. He is mindful that the challenges faced are greater than ever but is as confident as he was back in 1970 that the profession will deliver the required solutions. Such unflinching faith in the profession, let alone the massive service already delivered, is worthy of a CIBSE Silver Medal Award in its own right! ■



New from GT Phelan

In an age of rising energy costs, efficient use of resources is essential. Toshiba Air Conditioning has always considered this a core element when devising new product solutions and its latest introduction, the new heat pump air curtain range, is no exception.

# Heat pump air curtains open new market niche

**Developed in partnership** with Envirotec, the UK's market leader in air curtain manufacturing, the new energy-efficient units suit a wide variety of applications, from office and retail outlets through to commercial premises.

Heat Pump technology provides an effective method of transferring heat from the atmosphere to where it is most needed, using the least possible power to drive the system. Air curtain applications with DX heating are easily dealt with using Toshiba digital inverter outdoor units.

With Toshiba's unique twin rotary compressor technology and extremely-efficient hybrid inverter compressors, these new units make for a very cost-effective, energy-efficient solution. They deliver excellent coefficient of performance (COP) – typically of the order of 3.5. So, for every 1kW of power put in, the power output is 3.5kW.

The new heat pump air curtain range is easy to install and very simple



to use with no additional valves or mechanical components required. A variety of options and add-ons are also available.

By minimising heat loss and heat gains through the doorway, the air curtain solution by Toshiba provides maximum comfort to customers and staff. In addition, it has the potential to reduce energy consumption by as much as 70%.

Open-door policy buildings can still create a comfortable internal environment in all weather conditions while still being energy-

efficient and cost-effective. The benefits of installing a Toshiba heat pump air curtain include:

- Conditioned air contained within building;
- Winter cold air kept outside;
- Drafts reduced;
- Summer warm air kept outside;
- Insect ingress reduced;
- Reduced heating and cooling costs

These new heat pump air curtains complement the existing Toshiba portfolio which includes the following:



*The various model types of Toshiba heat pump air curtain now available from GT Phelan.*

**Residential range** – Toshiba's range of residential products incorporates the most advanced technology for higher energy efficiency and comfort, with new air filtration systems to provide an even healthier home environment;

**Light commercial range** – For premises such as retail, dental surgeries, doctors, education institutions and other small commercial buildings, Toshiba's range of split systems offers a wide combination of indoor units, providing greater flexibility and maximum comfort;

**Commercial and business range** –

Toshiba's range of large multi-type systems (VRF) are ideal for commercial properties, large office blocks, hospitals and hotels where there are a larger number of rooms that require a cost-effective solution to varying heating and cooling;

**Air-to-water heat pump range** – The

Toshiba Estia range of air to water heat pumps has been specifically designed to

provide heating or cooling in two separate zones as well as being able to provide domestic hot water. Ideal for providing a cost-

effective solution for underfloor heating;

**AHU interface solutions** – Air handling unit applications are easily dealt with by using the Toshiba Digital and Super Digital Inverter range of heat pumps. With no additional valves required, the installation is made very simple;

**Control systems** – Toshiba has a complete range of integrated controls systems to suit all applications to ensure a simple, yet cost-effective, comfortable indoor environment.

"Given the strength of the Toshiba portfolio as it already stands", says Derek Phelan of GT Phelan, "we're very excited by the addition of the new heat pump air curtain range. This extends the scope of customised solutions we can now offer clients, especially those with 'open-door' buildings".

Contact: Derek Phelan, GT Phelan.

Tel: 01 - 286 4377;

email: info@gtphelan.ie ■

# Combined heat and power in a sustainable system

Combined Heat and Power (CHP), also known as cogeneration, is a reliable technology for the simultaneous production of electrical and heat energy. Its significant quality is that the heat produced in the process of generating electricity, which is normally wasted, is captured and put to good use. CHP can offer an economic method of providing heat and power which is a better environmental solution than conventional methods, writes Declan Doyle.

## Improvements to the environment

Since the 2009 Budget, a new carbon tax rate of €15 per tonne was introduced by the government. The Minister for Finance Brian Lenihan announced in his budget speech that it was designed to change behaviour to reduce greenhouse gas emissions.

*“The most effective way is to put a price on carbon. This will encourage innovation by incentivising companies to bring low carbon products and services to the market.”*

In the right application, Combined Heat and Power (CHP) can be a low carbon product improving the efficiency of energy use and achieving environmental targets for emissions reduction (Figure 1).

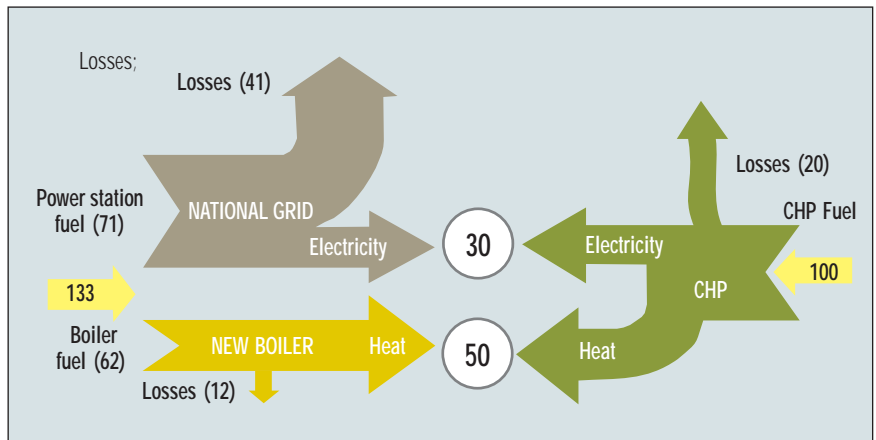


Figure 1: Diagram displaying how energy saving is achieved using CHP compared to the separate production of heat and centralised electricity.

## What is CHP?

A conventional power plant makes electricity by a fairly inefficient process.

A fossil fuel such as oil, coal, or natural gas is burned in a giant furnace to release heat energy. The heat is used to boil water and make steam, the steam drives a turbine, the turbine drives a generator, and the generator makes electricity (Figure 2).

The difficulty with this is that energy is wasted in every step of the process. For example, the water that's boiled into steam to drive the steam turbines has to be cooled back down using giant cooling towers in the open air, wasting huge amounts of energy. In Ireland 55% of the input energy is lost with just 45% being transformed into electricity.

Instead of letting heat escape uselessly up cooling towers, why not simply pipe it as hot water to homes and offices instead? That's fundamentally the idea behind CHP: to capture the heat that would normally be wasted in electricity generation and supply it to local buildings as well. Where a conventional power plant makes electricity and wastes the heat it makes as a by product, a CHP power

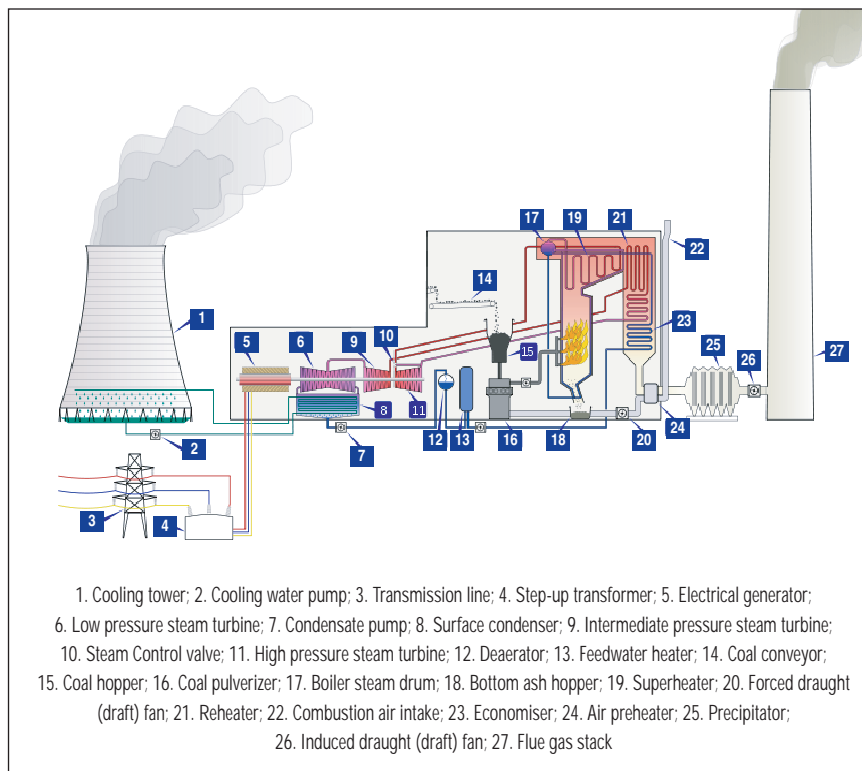


Figure 2: Typical conventional fossil fuel generation plant

# The Specialist in Power Generation

Edina is one of the leading renewable power generation specialists in the market with offices in Dublin, Cork, Lisburn, Derry and Manchester. We offer cost-effective solutions via innovative financial options and practical energy designs. From natural and non-natural gas to diesel powered generators, sales to hire, small generators to full turnkey projects, we deliver tailored, cost-effective, energy-efficient solutions on schedule and within budget.

### Reasons to Choose Edina

- Largest CHP supplier in Ireland
- In-house design and project management
- 210 MW gas engines installed
- Experience – established in 1985
- Sole distributor for MWM
- Superior German product
- Industry-leading efficiencies
- Sales, lease, hire and ESCo options



Specialists in Power Generation

# Edina



**Edina**, Unit 142A/B Slaney Close, Dublin Industrial Estate, Glasnevin, Dublin 11.  
Tel: 01 – 882 4800; email: sales@edina.ie; www.edina.eu

## Dachs Micro CHP from Kinviro

The Dachs is a micro combined heat and power (CHP) system that suits smaller energy installations but which can also be configured to meet larger sites' requirements in multi-module arrangements. Developed and manufactured by German company SenerTec GmbH, it is a packaged unit designed to operate on natural gas or LPG, and is best suited to applications where there is a continuous demand for heat and electricity.

The 5.5KWe/12.5KWt Dachs is the most successful CHP system in Europe, with in excess of 23,000 units installed in a dozen different countries, and the 50 units here in Ireland confirms it as the clear market leader in its range.



### Benefits

- Reduced energy consumption
- Increased energy performance
- Reduced carbon footprint
- Proven Reliability over 20 years

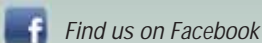
### Applications

- Apartment Buildings
- Commercial Buildings
- Nursing Homes
- Leisure Centres
- Hospitals
- Hotels
- Large Private Homes
- District Heating Schemes

# KINVIRO

**KINVIRO LIMITED**

Tel: 01 443 3825 M: 087 637 9000 F: +353 1 484 5952  
E: info@kinviro.com W: www.kinviro.com



**Qualifies for Accelerated Capital Allowances**



plant makes both electricity and hot water and supplies both to consumers. Cogeneration (the alternative name for CHP) simply means that the electricity and heat are made at the same time.

**CHP applications**

The fundamental underlying principle is that there must be a demand for heating which can be fulfilled by the CHP Plant. Over 80% of the installed CHP capacity is in the industrial sector. However, most of the actual installations are in hotels, hospitals, colleges etc. Fuels vary from natural gas, diesel, gas oil and solid fuel.

The buildings shown in Figure 3 have proven to be suitable for CHP installation.

**Type of CHP systems**

**Steam turbines**

Steam turbines generate electricity from the heat (steam) produced in a boiler, converting steam energy into shaft power. Steam turbines are one of the most versatile technologies used to drive a generator or mechanical machinery. The energy produced in the boiler is transferred to the turbine through high-pressure steam that in turn powers the turbine and generator. This separation

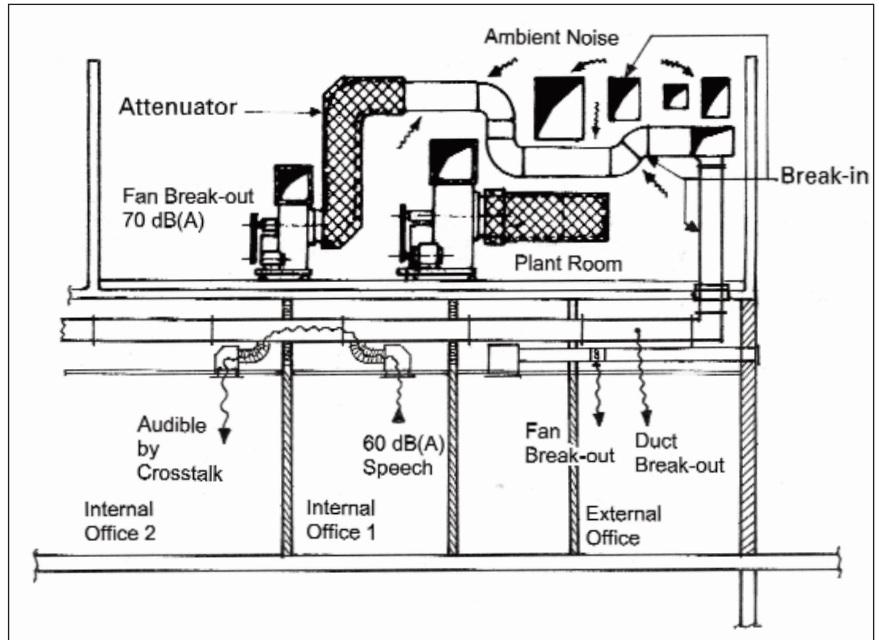


Figure 4: Typical reciprocating engine CHP providing hot water output

of functions enables steam turbines to operate with a variety of fuels, including natural gas, solid waste, coal and wood. The capacity of commercially available steam turbines ranges from 50kW to more than 250MW. Ideal applications of steam turbine-based CHP systems include medium- and large-scale industrial or institutional facilities with high thermal loads, and where solid or waste fuels are readily available for boiler use.

**Reciprocating engines**

Reciprocating internal combustion engines (Figure 4) are the most widespread technology for power generation, commonly for small, portable generators to large industrial engines that power generators of several megawatts. Reciprocating engines start quickly, follow load well, have good part-load efficiencies, and generally are highly reliable. In many instances, multiple reciprocating engine units can enhance plant capacity and availability. Reciprocating engines are well suited for applications that require hot water or low-pressure steam.

**Gas turbines**

Gas turbines are a recognised power generation technology available in sizes from several hundred kW to more than 100 MW. Gas turbines produce high-quality heat that can be used to generate steam for onsite use or for additional power generation (combined cycle). Gas turbines can be set up to burn natural gas, a variety of petroleum fuels, landfill or biogas, or can have dual-fuel capability.

**Fuel cells**

Fuel cells use an electrochemical or battery-like process to convert the chemical energy of hydrogen into water and electricity. In CHP applications, heat

Facility	Requirement
Industry	<ul style="list-style-type: none"> <li>✓ A high process hot water demand.</li> <li>✓ A continuous heat requirement.</li> </ul>
Hospitals	<ul style="list-style-type: none"> <li>✓ A high demand for domestic hot water over a 24-hour operation.</li> <li>✓ Continuous heat requirement.</li> <li>✓ Laundry.</li> <li>✓ Kitchen.</li> </ul>
Swimming Pools	<ul style="list-style-type: none"> <li>✓ A continuous high demand for domestic hot water.</li> <li>✓ Continuous electrical pump demand.</li> </ul>
Hotels	<ul style="list-style-type: none"> <li>✓ A high demand for domestic hot water for client comfort.</li> <li>✓ Often have swimming pool within leisure centre.</li> </ul>
Third Level Campus	<ul style="list-style-type: none"> <li>✓ Student accommodation with a high domestic hot water demand in the morning and evening time.</li> <li>✓ Teaching space heat requirement during the day.</li> </ul>
Nursing Homes	<ul style="list-style-type: none"> <li>✓ A high demand for domestic hot water.</li> <li>✓ Elderly residents require a continuous high ambient temperature.</li> </ul>

Figure 3: The suitability of CHP in building

is generally recovered in the form of hot water or low-pressure steam and the quality of heat depends on the type of fuel cell and its operating temperature. Fuel cells use hydrogen, which can be obtained from natural gas, coal gas, methanol, and other hydrocarbon fuels. Fuel cells promise higher efficiency than generation technologies based on heat engine prime movers. In addition, fuel cells are inherently quiet and extremely clean running.

### Sizing of CHP system

To achieve an acceptable payback, it is important that the CHP unit operates for as many hours in a day as possible. As the capital investment may be considerable, an idle plant results in no benefits. CHP are normally sized on the heat demand (Figure 5). Therefore, CHP units are designed to provide base thermal output, with any shortfall being supplemented by electricity from the grid or hot water/steam from boilers.

Figure 6 shows an example of a typical daily demand thermal profile. The green area represents the base load thermal energy. The most cost-effective solution, however, may be to size above base load involving some modulating functions (black dashed line on graph), even though this would involve dumping of some heat at particular times during the day, or using thermal storage tanks to recover the heat.

### CHP and the Building Regulations

Part L2(b) of the Building Regulations for Domestic Buildings sets a minimum level

Market	Micro <50kWe	Small ≥ 50kWe & <1MWe	Large ≥ 1MWe
Market	Domestic and Commercial	Commercial and Services	Industrial and Services

Figure 5: Market application and associated size of CHP

of energy provision from renewable technologies of 10kWh/m2/annum contribution to energy use for domestic hot water heating, space heating or 4kWh/m2/annum contribution of electrical energy. As an alternative to providing these from renewable technology sources, the use of a small-scale CHP system which contributes to the space and water heating energy use is acceptable. This approach may be appropriate in high-density developments such as apartments and mixed use developments.

### The future of CHP in Ireland

SEAI no longer offers grants on fossil fuel fired CHP systems. Support for the Bio/ Anaerobic Digestion (AD) CHP operates on the basis of limited discretionary support with grants of up to 30% potentially available. In May of this year, the Commission for Energy Regulation announced a revised set of feed-in tariffs under the Renewable Energy Feed In Tariff (REFIT) scheme. The tariffs are for biomass combustion, Anaerobic Digestion (AD CHP ≤500 kW €150/MWh and AD CHP >500 kW €130/MWh) and Biomass CHP (Biomass CHP ≤1500kW €140/MWh and Biomass CHP >1500kW €120/MWh). Anaerobic Digestion (AD) is a natural process of decomposition and decay that takes place in the absence of oxygen and

by which organic matter is broken down to its simpler components. The digestion process produces biogas, comprising largely of methane (50-75%) and carbon dioxide (25-45%), and a digested material. Biogas can be utilised in CHP and AD. CHP has the potential to supply electricity, heat, gas and transport fuel throughout the year.

Biomass CHP utilises either combustion or gasification. Combustion can be used to raise steam which can drive a turbine or by utilising the Organic Rankine Cycle (ORC) which uses a thermal oil. This is a thermodynamic process similar to a conventional steam cycle but using a different media to drive the turbine. ORC systems use high molecular organic fluids instead of water. The biomass gasification process is the process of heating biomass in an oxygen-starved environment until volatile pyrolysis gases (carbon monoxide and hydrogen) are released from the biomass. The gases can be mixed with air or pure oxygen for complete combustion and the heat produced can be transferred to a boiler for energy distribution. Otherwise, the gases can be cooled, filtered, and purified to remove tars (a major concern for any wood gasification process) and particulates and used as fuel for internal combustion engines (Stirling motor), micro

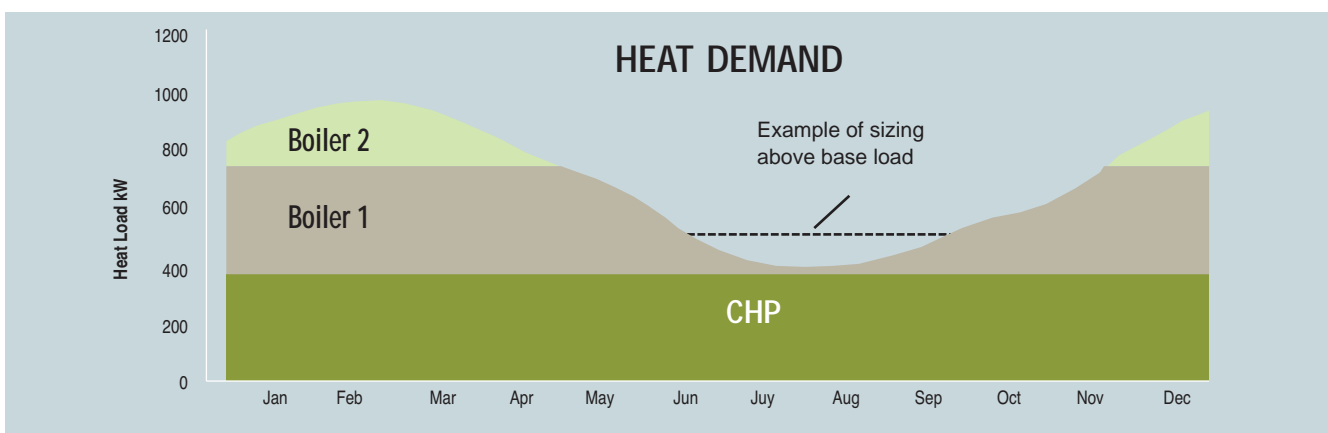


Figure 6: A typical daily thermal demand

turbines, and gas turbines. Stirling motors have been used successfully but are limited in their available capacity ranges.

Biomass can vary a lot in particle size, moisture content, ash content, calorific value and density depending on the source (wood, rice husk, palm oil fibres, etc). The production and use of biomass gas is only economic if the fuel composition is consistent and the gasifier is monitored and serviced on a regular basis.

The second process of power generation with biomass is the combustion of it in a furnace attached to a boiler. The combustion takes place on a static or moving grate under high temperature and staged combustion air supply. Modern biomass combustion systems are PLC controlled, high efficient and do not pollute the environment. These modern combustion systems are often used with steam boilers for generating process steam or for CHP systems to operate a steam turbine with generator. The disadvantage of steam power plants below 1MW is that these systems are expensive to design and operate due to the complicated control systems, water treatment issue and high steam pressures required. The normal operation, start-up and shut down of such systems need highly-qualified operators. This is one of the reasons why ORC turbo generators have been developed and have become so popular in such a short time. The ability to generate electrical power in small power plants (<1MW) with biomass combustion and thermal oil systems makes these systems attractive.

### EU Combined Heat and Power Directive

An EU Directive – *Promotion of cogeneration based on a useful heat demand in the internal energy market* – has been introduced. The intention of the Directive is to produce a structure for the promotion and advance of CHP systems within the EU.

The Directive outlines the following conditions:

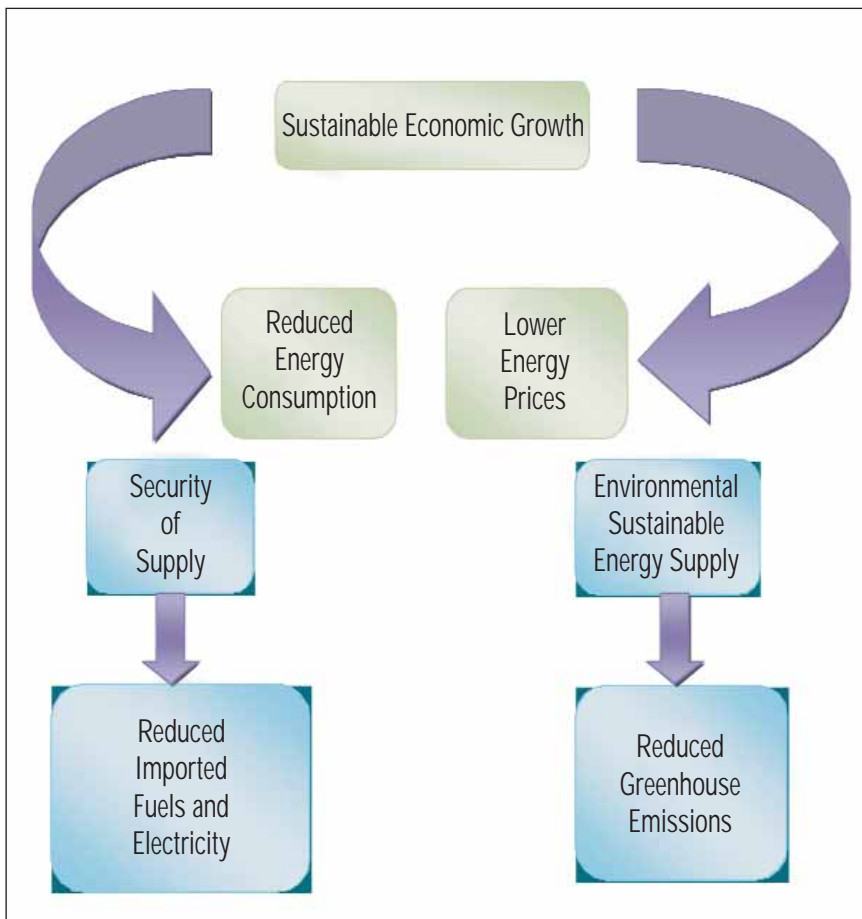


Figure 7: Future benefits for CHP within Ireland

- Adopt the EU definition for high-efficiency CHP based on net rather than gross calorific values.
- Introduce a mechanism to guarantee the origin of electricity from high-efficiency CHP.
- Ensure support schemes for CHP are compliant, i.e. based on the useful heat demand and primary energy savings.
- Ensure electricity tariffs and conditions for grid access are fair.
- Streamline administrative procedures.
- Commit to analyse national potentials for CHP and through doing so identify all potential for heating and cooling demands, together with the barriers which may prevent the realisation of the national potential for CHP. ■

#### The author:

*Declan Doyle is a Chartered Engineer and an Associate with Varming Consulting Engineers. He is actively involved on a daily basis in the design and installation of electrical building services.*





## Engineering-LED Lighting Solutions

Enlighten is a Fantasy Lights Group company established to provide professional and architectural lighting solutions across a diverse range of commercial, industrial and retail applications.

The demand for professional-quality lighting has never been greater, with the marketplace insisting on solutions which are cost-effective, energy-efficient, environment-friendly and regulation-compliant. Essentially, what's required is more for less, a daunting challenge but one that Enlighten can meet thanks to its design capability and in-depth knowledge of LED technology.

As Ireland's foremost lighting solutions provider, Enlighten personnel travel the globe to keep abreast of the latest technology breakthroughs. It has exclusive distribution agreements with some of the world's leading innovators in the field (see right), and brings the benefits of pioneering developments to clients in Ireland as and when they are released on the world stage.

Enlighten also manufactures bespoke lighting solutions incorporating fixtures and computerised controls using its own, specially-developed, software design package.

### Engineering-led Solutions

Enlighten is a lighting company with a difference. It is not about the provision of

#### Enlighten provides

- Bespoke Lighting Design
- Energy-Efficient Lighting
- Lighting Controls
- Customised Fittings
- Technical Support
- Regulation Compliance



### Lighting Emporium

Befitting the industry market leader, Enlighten has a purpose-designed Lighting Emporium at its Dublin headquarters featuring fully-working, computer-controlled displays. Architects, consulting engineers, interior designers, contractors – and their clients – are always welcome to drop in and discuss projects, be they big or small. While ultra-professional, the atmosphere is relaxed and informal, thereby making it easy for visitors to realise the best possible solution for their particular project.

### BRANDS REPRESENTED

- Beta-Calco ■ Dialight Lumidrives ■ GE Lighting ■ Griven ■ Illuma
- ISTL ■ Ivela ■ Kolarz ■ Ledon ■ MCI ■ Norlight ■ Osram ■ Sécurlite

standard, off-the-shelf products but more about delivering bespoke, engineering-led, solutions. Every project is treated as a stand-alone challenge requiring its own, dedicated solution.

Enlighten delivers this solution by providing innovative design, friendly service and total quality management throughout all phases of every project. It has its own in-house design engineers who work closely with the project architect, consulting engineer and contractor to ensure that the benefits and features of the proposed solution are fully understood by the entire team. Enlighten's client base includes Government departments, town and city councils, blue-chip commercial companies, shopping centres,

restaurants, hotels, leisure centres and retail outlets. In specifying Enlighten you are in good company.



Gabriel Byrne,  
Managing Director Enlighten

## GRIVEN

world lighting challenge

Griven is a world-leading manufacturer of architectural lighting, featuring a comprehensive portfolio of proven-quality, high-reliability, weather-proofed lighting fixtures. All products are the result of exacting design and manufacturing standards, coupled with constant research and development, leading to true technical innovation.



LED technology features strongly throughout the range, the versatility of this unique dynamic light source offering benefits such as continuous flicker-free light, instant light access, limitless colour creation, wide range of light distribution angles, and full digital control flexibility.

Choosing the right light source is a must in architectural lighting. Years of research and development have allowed Griven to feature an extensive portfolio of light fittings that are a lighting designer's "dream come true". Fitted with a CYM colour creation system based on subtractive synthesis, Griven's colour changers provide a vast selection of colour hues and are complemented by a built-in colour sequence control, which allows the units to operate in a "stand-alone" mode.



## KOLARZ

From chandeliers through to table lamps and lights for the garden, Kolarz has a solution for every application. Established in Austria in 1918, the company has been a pioneering force in lighting technology and design for almost a century.

Tradition and innovation are the cornerstones of the company philosophy. Its designers are always ahead of their time, yet the production methods are still based on traditional standards of lighting craftsmanship. Each product is treated as an individual item made of the finest materials and crafted to the highest quality-control standards.

The brief for today's Kolarz designers is to create tomorrow's lighting ideas. In this they are given a free hand – no limits are placed on their ideas and inspiration. The results are an ever-changing journey into the world of the imagination leading to lighting effects without end.

Whether the application calls for dazzling opulence for say a concert hall; pinpoint precision for a medical practice; or warm and cosy lighting for a living room, Kolarz has a solution. Working closely with Enlighten, the company also manufactures customised lighting solutions.

With its special feeling for the aesthetics of lighting, the resources to innovate, the highest quality manufacturing standards, and a sense for international trends in lighting design, Kolarz has a solution no matter what the application.



## IVELA®

Ivela has been designing distinctive lighting solutions from its base just outside Milan for 25 years. It is renowned the world over for the unique designs of the products, most of which are devised in association with leading architects.

The core philosophy of Illuma is based on quality, reliability, innovation and technology. It has its own accredited research and development laboratory, while the automated and sophisticated robotic production facilities ensure compliance will all standards and regulatory requirements.

The ecological consciousness of the firm concerns the whole production cycle, starting with the choice of materials and production methods, and ending with the vacuum-metallising techniques which eliminate problems caused by traditional methods.

The fittings also comply with the European Regulations RoHS/WEEE (Restriction of Hazardous Substances/Waste Electrical and Electronic Equipment) for the collection and draining of the products at the end of their lifecycle.

The range is extensive and includes floodlights and bollards; decorative downlights; architectural luminaires; wall brackets and globes; LED lighting; wall/ceiling/bracket lights; and industrial luminaires.



# Beta-Calco

Contemporary design, superior quality and continuous innovation, these key factors have made Beta-Calco a leader in the design and manufacture of architectural luminaires for compact fluorescent and LED light sources. Its comprehensive range focuses on the unique needs of industry professionals, from architects, consulting engineers and contractors, through to interior designers.

Production is focused on luminaires utilising the most recently-developed light sources and includes decorative wall, ceiling, recessed and pendant luminaires which offer aesthetic and technical solutions for a multitude of lighting applications.



Beta-Calco has an ongoing investment programme in new product development with the aim of creating advanced, high-quality lighting products which are high-performing and energy efficient. Its core philosophy embodies innovation, originality and style to solve critical aesthetic problems by focusing on creative product design.

Ultimately, Beta-Calco's objective is to provide architects, engineers, contractors and interior designers with the means to turn their lighting visions into reality.

# NORLIGHT

PROGETTO LUCE

The Norlight product range of commercial and industrial lighting solutions has evolved over 15 years under Norlight Ltd (formerly Jexcon Ltd). Andolite Ltd acquired Norlight in March 2006 and continues the Norlight product range, specialising in low-energy and emergency options.

Applications range from hotels to car parks, and offices to warehouses.

Norlight's aim is to give customers good value through quality products, very competitive prices, low cost of ownership and a commitment to ready availability. It achieves this by in-house manufacture and control, high efficiency lamp solutions for low running costs, and the use of brand name modules and lamps for reliability and safety.

Norlight designs and manufactures luminaires which not only provide quality lighting, but also prove to be attractive pieces of furniture. It devotes as much attention to refining details and studying shapes according to the latest trends, as to the quality of the components and materials used.

The extensive range of Norlight products meets the lighting requirements for most applications, including business and industry, culture and art, offices and stores, production facilities, architectural environments, hospitals and chemical, pharmaceutical and food plants.



# illumina

As an autonomous trading division of Searchlight Electric Ltd, Illumina is renowned for the quality and diversity of its lighting portfolio. It provides creative, practical and cost-effective lighting solutions for the commercial, retail and leisure sectors, while customised luminaires can be created for specific applications.

Illumina products can be seen across all market segments and feature in prestigious retail/hotel/restaurant outlets such as Selfridges, Harvey Nichols, House of Fraser, Timberland, Vision Express, Oxfam, Next, Gap, the Crowne Plaza and Pizza Express.

The extensive range includes everything from spotlights and track systems through to downlights and controls, all of which are manufactured to comply with relevant EU Directives and related Irish Building Regulations requirements.

Products are designed, tested and manufactured in accordance with EN Safety Standards, are CR marked, and come with a five-year manufacturer's guarantee.



## Sécurlite saves energy

Sécurlite specialises in providing innovative solutions to the energy consumption and maintenance problems encountered in schools,

colleges, hotels, sports facilities, public buildings, commercial buildings and car parks.

The extensive range of fittings incorporate in-built motion detectors which automatically adjust lux levels to ensure maximum energy savings. They can also control other “slave” fittings so that lights are only activated as and when needed.

Dimming versions and nightlite options are also available, while all are designed to be impact and vandal-resistant.



## Reel Tech light lifters

Reel Tech remote-controlled lifting systems for lighting units make maintenance safer and more cost-effective. They are moved using wired or wireless remote controls and help prevent accidents during maintenance or cleaning work.

Power supply is automatically disconnected when the lighting unit is lowered and fixed at a pre-programmed height convenient for working. Therefore, all maintenance work is carried out at a convenient working level on the ground instead of high up on the ceiling, with the power supply always disconnected



With the help of Reel Tech, lights and lamps of any kind and size can be raised and lowered at the touch of a button.

## Enlighten solves lighting's holy grail!

With the increasing emphasis on sustainable building services design – and energy conservation in particular – the focus on lighting has never been greater. Lighting is a high energy user and today's business and lifestyle options have created an unprecedented demand for lighting at a time when, ironically, the world at large is hard pressed to generate the energy to power it.

Energy usage is now the industry's Holy Grail but developments in LED technology have opened up massive opportunities to help solve the problem. That said, LED technology – and especially its correct usage – is a far more complex issue. It is essential to understand the fundamentals of LED and the whole concept of its application before specifying it for a particular project.

That is where Enlighten comes to the fore. Its team of design and engineering specialists are high-qualified in the application of LED lighting solutions and have extensive experience across all types of projects. In addition, they have instant access to the wealth of knowledge and technical know-how of Enlighten's world-renowned lighting partners.

### Inherent benefits of LED

- › Low power consumption
- › Long life
- › Environment friendly
- › Excellent illumination output
- › Full spectrum of colour option
- › Reduced installation costs
- › Reduced maintenance cost
- › Infinitely flexible
- › Unbreakable

### Where to find us

Just off the Walkinstown roundabout in  
Mulcahy Keane Estate,  
Greenhills Road, Walkinstown,  
Dublin 12.

Tel: 01-460 1052

Fax: 01-460 1054

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

Web: [www.enlighten.ie](http://www.enlighten.ie)

## Lighting management software

With lighting such an important element of building services, the ability to accurately control and manage it is critical. Consequently, Enlighten specialises in lighting software which can function on a stand-alone basis, or be customised to integrate with the overall building management control system. This is an essential part of the Enlighten service and one which sets it apart from many of its competitors.



## Hitachi comfort at top tourist attractions

Visitor comfort at Ireland's top two tourist attractions — the Guinness Storehouse in Dublin and the new Waterford Crystal Showrooms set within the Waterford Civic Office complex in the heart of Waterford City — are assured thanks to a mix of state-of-the-art Hitachi IVX and set-free VRF installations.

**W**hile totally different, the fundamental requirements for both projects were the same — competitively-priced equipment, quick and efficient installation, high-performance heating and cooling, energy-efficient operation and long life-cycle. Having carefully considered their options, the installers on both projects opted for Hitachi.

The installation at the iconic Guinness Storehouse was carried out by REL who have a long-standing association with the brewer, especially in providing refrigeration systems for Ireland's famous brew. However, providing heating and cooling for the refurbished and updated premises in James's St was a major challenge as the building is listed.

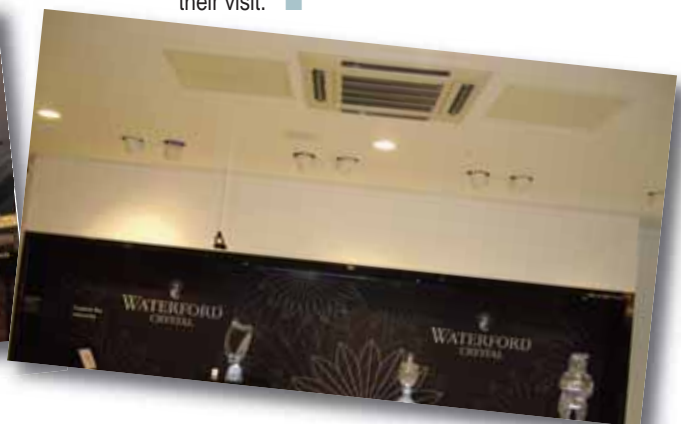
The core of the Guinness Storehouse is modelled on a giant pint glass and REL devised a customised solution to cater for the various constituent elements of the building which takes in seven floors in total. The minute the visitor enters the main entrance foyer the Hitachi presence is felt, and this is continued right throughout the customer service area, the impressive retail/merchandising shop, and the large coffee shop.

Waterford Crystal is as synonymous with Ireland as Guinness so it is appropriate that Hitachi should also provide the

heating/cooling solution at the company's new purpose-designed showrooms. Waterford Crystal dates back to 1783 and, despite its troubled history in recent years, a forward-looking chapter has begun with the opening of the new showrooms and visitor centre within the Waterford Civic Offices complex in the city's Mall area.

With the new showrooms expected to attract approximately 100,000 visitors over the next 12 months, heating and cooling was of paramount importance. Arup's in Cork were the consultants on the project and they — in association with mechanical engineers Spectron Engineering of Waterford and installers Sirius Air-Con of Cork — devised a tailored solution using a mix of Hitachi IVX and set-free VRF equipment.

"We're especially proud to be associated with these projects", says Fergus Daly, Hitachi Area Sales Manager for Ireland. "Guinness and Waterford Crystal date back to the 1700s and are names which are synonymous throughout the world with the best of Ireland. Tourists from home and abroad flock in their hundreds of thousands to both locations each year and now, thanks to Hitachi equipment and its installer partners, they are assured of total comfort during their visit." ■





# PMI helps installers win commercial projects

**P**otterton Myson Ireland has strengthened the support for its commercial products range by adding the expertise of Barry Davis, a commercial water heating specialist, to the sales team. Barry has a long association with Andrews Water Heaters, working first as an agent for the company from 1986, taking up a full-time post in 1990, and now acting as a specialist consultant.

While the heating market in Ireland is somewhat flat because of the fall-out from the global economic crisis and our own unique construction-related problems, there are opportunities in other areas. Consequently, installers are now looking to new areas of the commercial sector to keep their businesses going where the focus

may have been on new build homes and apartments as well as the hotel developments we have seen in the last decade.

However, many installers need additional support and advice when it comes to selecting a water heater for commercial-sized projects and this is where PMI has stepped in to the breach. It now has a team of area sales managers covering the entire country who are fully versed in the strengths and features of the company's commercial products. These specialist advisers provide full technical support and design advice, getting directly involved in the project with the installer where required.

Barry Davis plays a pivotal role in this process. The scope and depth of his experience in the commercial sector is enormous, as is his knowledge of the Andrews Water Heaters range. For nearly a quarter of a century he has been directly involved in providing tailor-made solutions for all manner of applications and, through PMI, installers in Ireland can now avail of that wealth of knowledge.

"When I started out with Andrews nearly 25 years ago", says Barry, "the brand had little or no competition and in that time we formed good relationships with specifiers, which we have maintained to this day. Apart from introducing new products, we also influenced marketplace thinking.

For instance, we were first to get system designers thinking about the benefits of separation and decentralisation of hot water plant away from the central heating boiler; we were also

first to introduce a stainless steel condensing direct-fired water heater. This has been very well received because much of Scotland and large areas of Ireland have issues with 'soft' water, which can affect glass-lined cylinders if suitable protective measures are not applied. Now 80% of our sales in Scotland are the stainless steel MAXXflo and the smaller NEOflo.

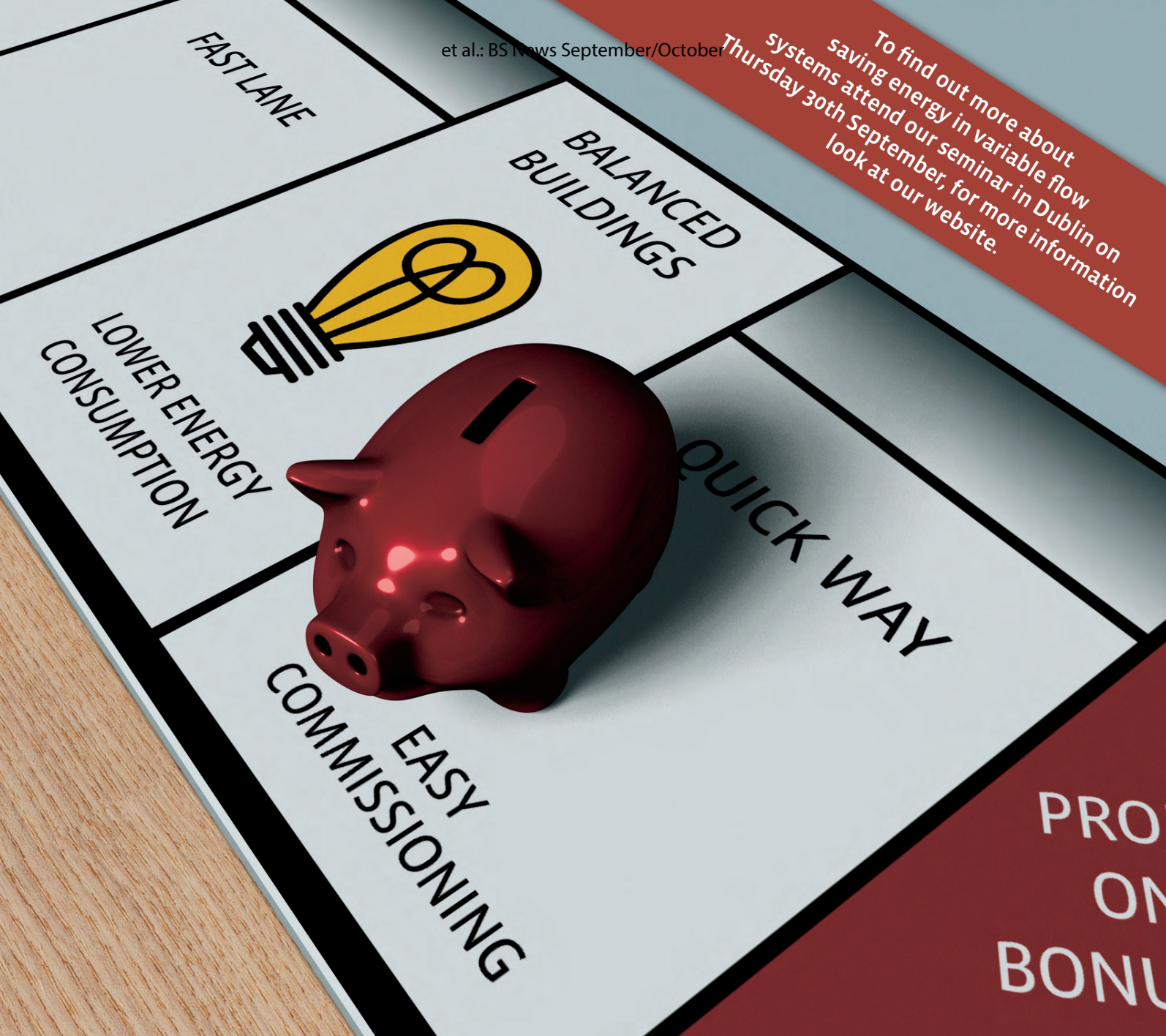
"In Ireland, the continuous flow unit, FASTflo, has historically been the most popular unit. However, I am expecting NEOflo to do well in Ireland because water systems are not mains pressure and NEOflo can operate perfectly well with water pressures as low as 0.2 bar. Selecting the right type or size of product for each particular water heating application is critical and this is where I come in. By now I have already met many of you during my trips around Ireland and I hope to meet many more over the coming months.

However, I'm constantly available for consultation and advice on projects via telephone or email. As an installer or engineer, all you have to do is get the project details to me and, once I have assessed the application requirements and discussed them with you, I will advise on the most cost-effective and energy-efficient solution. As a customer working closely with PMI, you can step up to commercial applications with confidence."

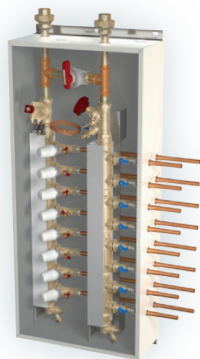
Contact: Vincent Broderick, Potterton Myson Ireland.  
Tel: 01 – 459 0870;  
email: post@potterton-myson.ie;  
Barry Davis, PMI.  
email: barry.davis@baxigroup.com ■

*Commercial water heating specialist Barry Davis who has recently joined the Potterton Myson Ireland sales team.*

To find out more about saving energy in variable flow systems attend our seminar in Dublin on Thursday 30th September, for more information look at our website.



## Save time and money across the board



It's almost a no brainer. Why not try a new method of implementing hydronic balancing. A method which saves time and money for all the parties in the project. From consultant to commissioner, and at the end of the day, the owner too.

With the TA-H.U.B.<sup>®</sup> specification is flexible and easy (so last minute design changes need not be party stoppers). Installation is time efficient and convenient, minimising the risk of delay penalties.

And commissioning and maintenance can be carried out a lot more quickly than normal. Finally, and perhaps most importantly, the owner and users of the building will benefit from lower power costs and a higher level of comfort.

To learn about the TA-H.U.B.<sup>®</sup> point your browser to [www.tourandersson.ie](http://www.tourandersson.ie) or contact your local sales engineer.

**we knowhow**

**Tour & Andersson Ltd.**  
Unit 3 Nimbus Park, Porz Avenue, Dunstable, Beds. LU5 5WZ.  
Phone: +44(0)1582 866 377. Fax: +44(0)1582 865 655. Email: [marketing@tourandersson.co.uk](mailto:marketing@tourandersson.co.uk)  
[www.tourandersson.ie](http://www.tourandersson.ie)



When creating and installing a hydronic system, it is important to ensure that measures are taken to balance all parts of the system so that it works to its optimum efficiency. Using an instrument designed specifically for this purpose, it is possible to see which areas require attention to help the system run more effectively. As such, a portable device is ideal due to the ease with which it can be used. This makes measuring and balancing much easier, faster and more accurate.

## T&A – scoping out the market

Tour & Andersson's wireless, hand-held measuring device, the TA-SCOPE, presents the ideal solution as it is designed specifically to verify, measure and balance the flow of differential pressure, temperature and power of complex systems efficiently. Due to its compact size and lightweight nature, the

TA-SCOPE presents a system that is easy to use in small spaces and situations that could otherwise prove to be dangerous if using a large, cumbersome measuring and balancing tool.

Hydronic networks can be created with the TA-SCOPE, which integrates with TA-Balance software, to aid trouble-shooting and data logging. An independent sensor communicates with the TA-SCOPE to deliver data quickly, thereby enabling contractors to balance a system, troubleshoot hydronic problems and log system performance.

As data is captured digitally, the TA-SCOPE can be connected to a computer using a USB cable so that information can be uploaded to TA Select, the HVAC design software. This means it is easy for consultants and designers to determine the most economical system design, the correct size valve requirements and pre-setting values. From here the user can print reports taken directly from the system using the TA-SCOPE.

With a simple user interface the TA-SCOPE is designed with the user in mind. The intuitive icon display makes navigating the tools quick and easy. Low power consumption and long battery life means that one full charge of the unit provides three full days of wireless performance, eliminating the risk of downtime during a site survey or monitoring job. The compact size of the unit means it is easily transportable in comparison to standard units, slipping



**The compact size of the unit means it is easily transportable.**

easily into a pocket while onsite.

Importantly, from a health and safety perspective, the TA-SCOPE does not pose the risk of mercury contaminating the system, which is something that can prove to be a real risk when using manual manometers as the tool can back-flush mercury into the system.

The TA-SCOPE helps to fulfil Tour & Andersson's proactive stance on system diagnostics and troubleshooting for efficient and controllable systems. Enabling professionals to ensure their systems operate as intended, the TA-SCOPE helps systems run with optimum energy efficiency and controllability.

Contact: Ken Browne, Tour & Andersson. Tel: 087 – 280 1095; email: ken.browne@tourandersson.co.uk; www.tourandersson.com ■



**TA-SCOPE, Tour & Andersson's wireless, hand-held measuring device.**

# MYSON the made in Ireland brand

As the only Irish-based manufacturer of heating controls Myson are uniquely positioned to respond to changing market demands. Recent evidence of this is in how the introduction of the new wireless range of room thermostats enables installers to retrofit homes under the government's Greener Homes scheme with minimum fuss to the end user. For more information on the products or to sign up for training on the comprehensive product range please contact Potterton Myson Ireland at (01) 459 0870. **Myson Controls – Made here for you.**

## Programmable Room Thermostats



## MPE Range of Motorised Valves



## TRV 2-Way



## Petite RADPAK



heating through innovation.

## Potterton Myson Ireland Ltd.

CELEBRATING  YEARS



Agent Representation



Distributor Representation



## Chronotherm Silver Jubilee spurs new market initiatives

While very proud that 2010 marks 21 years of successful growth and development, Tom Noone and his colleagues at Chronotherm Controls Ltd are very much focussed on the future. Rather than mark the occasion in a retrospective manner harking back to times past, the company has used the Silver Jubilee celebrations to devise a new, dynamic strategy aimed at securing its market-leading status over the next 21 years.

**Chronotherm specialises in** heating controls for domestic and semi-commercial applications, providing solutions to satisfy the requirements of building regulations and SEI Grant criteria, using both hard-wired and wireless products. Due to the professional structure and technical support of its own resources – combined with that of the prestigious names it represents – solutions can be found and product sourced to satisfy virtually any application.

System design support and technical back-up is an integral part of the service provided. As a technology-led company Chronotherm has a wealth of experience across all industry sectors with highly-qualified in-house staff capable of resolving all manner of problems.

Chronotherm's product portfolio comprises distribution and agency representation on behalf of world-leading brands (see left) which are supplied to the marketplace exclusively through wholesalers.

Chronotherm provides the same level of design and technical support it receives from its principals to its customers, thereby strengthening the trading partnership

between all concerned. This includes in-house demonstrations on the use of the products, not just for wholesale staff, but also installers.

Looking to the future, Chronotherm will continue to develop and strengthen its portfolio of world-leading brands, but also has plans to complement it with a new line of own-branded products. Devised in association with three major European HVAC controls manufacturers, the new range is scheduled to come on stream shortly (see Own Branding, right).

Contact Tom Noone or Paddy Reilly at Chronotherm Controls for further details.

Left to right: Patrick Reilly with Sebastian Ribeiro, Mary Louise Doyle and Tom Noone.



## Timers

**Flash timers** are recognised throughout Ireland for their reliability and versatility. Included in the range is a very reliable mechanical immersion timer rated at 20 amps and available in 24-Hr or 7-day version. It fits on a single patress or flush box



and is the perfect solution for the SEI Grant requirements. Flash also has a stylish and easy-to-use programmable room stat, which is competitively priced.

**Sunvic** digital timers are available in

1, 2, and 3-channel versions. Features are performance, ease of use, and stylish appearance.

**Sangamo** timers extend from the iconic round pattern RPTS range to the modern power-saver range of digital immersion timers. The latest introduction is an Economy 7 timer which is easily interchangeable with some models available in the market.

## Motorised Valves

**Sunvic** devised one of the first ever motorised valves for the domestic market more than 50 years ago and has been improving on the concept ever since. One of the most reliable products in the current range is available in sizes 1/2" /15mm, 3/4" /22mm, and 1" /28mm, in metric, Irish copper or BSP, and in 2- or 3-port.



## TRVs

**Chronotherm** carries three of Europe's leading TRV brands in its range.

- Pegler Terrier
- Sunvic
- Pettinaroli



## Heating Controls Packs

The **SEI Grant** scheme to improve the standard of insulation and heating controls in domestic dwellings has led to an increased demand for heating controls packs. Sunvic has designed and manufactured heating controls pack since the mid-1960s so, not surprisingly, its new range fully meets the requirements of all regulations. In addition to the standard range, there are wireless controls for difficult retro-fit applications, and they also provide solutions to low-voltage boiler applications without the need for dedicated low voltage timers, thermostats and motorised valves. All control packs, wired and wireless, come complete with an easily-understood wiring schematic.



## Isolating Unoccupied Areas

**Chronotherm** has a special range of thermal actuators and TRV valve bodies designed to help hotels, schools, etc reduce heating costs by isolating unoccupied areas.

Used in conjunction with a room thermostat, the thermal actuator is unobtrusive, unlike motorised valves often used in the past to perform this function. Ideally, a central control panel will interrupt or supply power to the stat, thus enabling the radiators in an area to turn on or off as is required. While not a new concept, this new range will make this option more cost-effective.

## Wireless Controls

The awareness of heating/hot water zoning brought about by the 2002 Building Regulations and highlighted by the SEI Grant requirements has necessitated the need for wireless controls. To meet this demand Chronotherm has introduced, with the assistance of Flash and Sunvic, a reliable range of wireless room thermostats.

*Unique Universal Wireless Transmitter* – Chronotherm has also sourced a unique universal transmitter and receiver which allow thermostats for hot water, motorised valves and some types of timers to send wireless signals to the boiler. There are many applications for this device.



## Own Branding

In a major development Chronotherm has teamed up with three European HVAC controls manufacturers to produce a range of individual controls which will be supplied under the CTC brand. This new CTC range has been devised to complement the major brands in the overall portfolio and sits very comfortably alongside Flash, Sunvic, Sangamo and Pegler. These products are competitively priced but not at the expense of quality as many are sourced from existing market-leaders.



## Chronotherm Controls Ltd

E2 Baldonnell Business Park, Naas Road, Dublin 22.

Tel: 01 – 410 5756 Fax: 01- 410 5655 Email: sales@chronotherm.ie www.chronotherm.ie



# FLOWCON AUTOMATIC BALANCING VALVES WITH 2 PORT CONTROL



For use with

- Fan Coil Units
- Chilled Beams
- Air Handling Units and all other terminal units

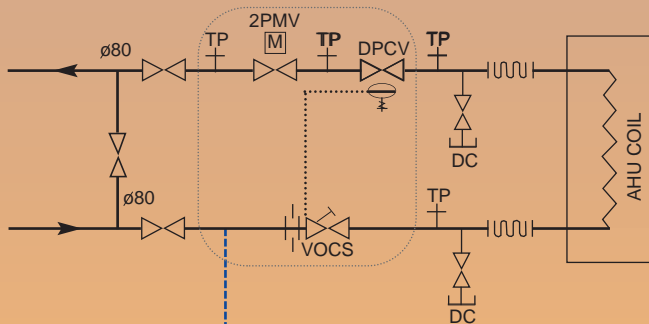
Now available with the Flowcon 3-Way bypass module for a compact installation



- Save time
- Save money
- Save space
- Better control

- Less installation time
- **LESS ENERGY**
- Compact valve size
- Pressure-independent balancing

- No commissioning
- No branch or riser valves
- Elbow straight onto valve
- 100% authority



Replace all of these items with a single Flowcon SM valve





# ADVANCED TECHNICAL PRODUCTS LTD

Visit our website for the latest news,  
product range and downloads at

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

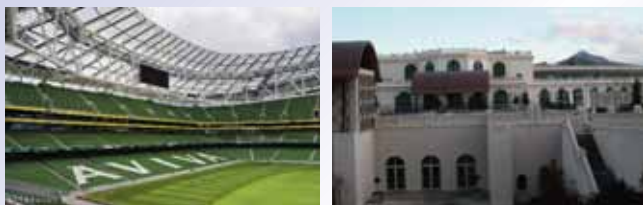
We are THE leading authority on Automatic Balancing Valves in Ireland and are backed up by a world leading authority in Flowcon, Denmark.

ATP, Ireland's only stockists, keep a range of Flowcon valves, cartridges and actuators ready for immediate dispatch.

We have a dedicated product manager to discuss your requirements, advise on product selection and to visit site.

### Completed Projects include:

- Lansdowne Road – Aviva Stadium
- Ritz Carlton Hotel, Powerscourt
- Liberties College
- Grand Canal Offices, Dublin
- Irish Times Building
- Clarion Hotel, Dublin



- Wyeth Pharmaceuticals, Newbridge
- Radisson SAS Hotel, Golden Lane, Dublin
- Kings Building, Church St, Dublin
- International House, Dublin
- Point Village Development, Dublin
- Interxion Data Centre

### Suppliers and stockists of:



### Other products include:

- Trench Heating
- Heat Exchangers
- Calorifiers
- Radiant Panels
- Expansion Bellows
- Door Curtains
- Unit Heaters
- Fan Convectors
- Air Source Heat Pumps

Unit 219 Block C, Blanchardstown Corporate Park 2, Ballycoolin, Dublin 15

**Email: [info@atpireland.com](mailto:info@atpireland.com) Tel: 01-885 3792**



# Carel Retail Sistema – the complete retail solution

The large retail business is a sector with many different requirements, varying specifications and important critical aspects. There is increasing demand for new solutions that go beyond the standard requirement of guaranteeing the correct operation and supervision of the installation.

Carel Retail Sistema is the solution that Carel has developed to respond to the current challenges in this market. It is a dedicated approach that improves the overall management of the installation and brings savings in energy costs with increased system performance and web-based communication.

Refrigeration utilities are a fundamental part of the refrigeration system and must feature the best solution to ensure the highest level of performance and flexibility. Each utility controller has the task of ensuring the correct storage temperature is achieved, the operating status is continually monitored, alarm conditions are acted upon and performance of the cabinet/cold room is optimised.

As well as ensuring these basic requirements, the Carel Retail Sistema focuses special attention on the aspects of energy saving and reliability, making it the perfect answer for the retail environment. It ensures high-performance operation with a consequent reduction in system energy consumption. The system also provides accurate control, with back-up procedures in the event of faults to ensure greater safety.

The use of Carel E2V “Stepper” electronic expansion valves in the refrigeration utilities at the point of sale exploits the maximum advantages of the energy saving functions in the overall system, based on the actual load requirements at any given time.

The possibility of operation with floating condensing and evaporation pressure control are just two of the outstanding features in terms of energy saving deriving from the use of the Carel E2V expansion valve. Such optimisation is possible as a

result of the constant and real-time aim to find the best possible operating conditions for the entire installation, something that is always guaranteed by using an integrated solution such as the Carel Retail Sistema.

Carel’s MPXPRO and E2V platform has been designed for the complete control of multiplexed showcases, with special focus not only on energy performance and flexibility, but also on simplicity of use and installation. Features and benefits include:

- Integrated control algorithm for CAREL E2V electronic expansion valve to maximise efficient energy usage and allow floating evaporation and condensing pressure control for compressor operation (requires a compressor controller and compatible CAREL supervision software);
- Up to five digital outputs and seven configurable analogue/digital inputs to allow the most advanced control algorithms;
- Dedicated outputs for the advanced and innovative management of fans and anti-sweat heaters to increase performance and stability and reduce energy consumption;
- Facility for RS485 communication back to the PlantWatch Pro or PlantVisor Pro HMI;
- Setting of the operating parameters, by downloading the parameters to the instruments connected in a network;
- Final testing of the refrigeration unit using an incorporated autotest procedure.

The MPX series controllers are the most complete and powerful range of electronic instruments for the control of multiplexed refrigeration units or systems made up of groups of units that need to operate in a coordinated manner.

For more information and demonstration of the MPX Pro performance please contact: David Killalea (MIRI), Carel Ireland. Tel: 01 – 835 3745; Mobile: 087 - 7781748; email: dave@carel.ie ■



Each Carel utility controller has the task of guaranteeing the correct storage temperature and monitoring the operating status.

**Manotherm, a name synonymous with instruments and controls throughout all of Ireland, was established in 1958 by Bob Gilbert who is still at the helm of the company with his son Robert. No matter what the application, Manotherm has a dedicated solution from a portfolio comprising internationally-renowned, brand-leading names.**



*Influx flowmeters are suitable for the measurement of most liquid and gas flowrates.*

## ***Manotherm still pioneering innovative solutions***

**M**arket sectors catered for include temperature, pressure, flow, level, humidity, moisture, pneumatic, counters, signal conditioning, data acquisition, steam speciality and flue gas analysers. Such is the massive scope and extent of the portfolio that it would be impossible to detail it in the space allowed here, so what follows is a brief sampling.

**Dwyer Instruments** – Dwyer has been a leading innovator in instruments and controls since 1931 and has been responsible for many technological breakthroughs which have become industry benchmarks. A typical example is the company's Magnehelic pressure gauge and the Photohelic pressure gauge. More recently, the development of the Hall-effect sensor, and its application with a magnetic field to define linear motion, has been key to the success of the Magnesense pressure transmitter.

**Steriflow** – Steriflow manufactures high-performance, high-quality, sanitary valves for all manner of applications across the bio-pharmaceutical, pharmaceutical, food,

cosmetics and clean process industries. Included are pressure regulators, back-pressure regulators, control valves, ball valves, steam traps, gas distribution manifolds, sight glasses and sample coolers.

A typical example from the range is the Mark 978 Series sanitary control valve designed to meet the exacting specifications for all sterile process control applications. Benefits include high rangeability, true characterised trim, high capacities, superior temperature and pressure ratings, and a lifetime diaphragm warranty.

**Jordan Valve** – Jordan Valve is a leading manufacturer of pressure regulators, back pressure regulators, temperature regulators, pneumatic and electric control valves, sanitary valves and accessories. The range includes everything from valves that can handle fractional-flow to high-flow processing, through to sanitary valves that meet FDA and 3A® approval, and a full line of control valves. Two of the most recent introductions are the Jordan Mark 627, a self-operated pressure reducing regulator

designed to provide accurate regulation and tight shut-off on low or high pressure system; and the Jordan Mark 630 self-operated pressure reducing regulator designed to provide accurate regulation and tight shut-off on high pressure gas systems, and to handle inlet pressure gas systems.

**Influx Firesure** – Influx specialises in the design and manufacture of flowmeters and accessories to suit processes requiring the measurement and control of liquids and gases. Just recently it has extended the Firesure range of LPCB-approved flowmeters for sprinkler installations with the addition of Firesure X. This uses flexible connection hoses between the pipe test section and the flow indicator, providing designers, installers and end-users greater flexibility for placing the indicator in the optimum viewing and operating position. The Firesure X indicator module can also be retrofitted to existing Firesure installations.

Contact: Bob Gilbert, Robert Gilbert, Manotherm. Tel: 01 – 452 2355; email: info@manotherm.ie ■

## Daikin Factory Visit

# Quality, energy-efficiency and environmental impact key Daikin considerations

Over the last few months Daikin Europe NV has hosted a series of educational factory visits for specifiers and installers to its 150,000 sq m state-of-the-art manufacturing facility in Ostend, Belgium. Daikin's Irish office has participated fully in this programme and just recently *bs news* joined the small party who travelled from Dublin on the latest excursion.

**Daikin's Richard Sherlock** was our host for the trip and the group also included Garry Morris and John Conroy from Design Cost Studios in Wexford, a multi-discipline firm of chartered architects, building surveyors and quantity surveyors.

Daikin Europe NV was formed in 1973 in Ostend, Belgium. It still occupies the same site but, in the intervening years, it has been transformed beyond all recognition. It is now one of the most advanced manufacturing facilities in the world, producing a diverse range of air conditioning and heating products specifically developed for the European market.

Daikin is renowned the world over as a pioneering market leader in air conditioning but it is now harnessing its accumulated

technical knowledge and experience to produce innovative heating products.

The acquisition of the German Rotex Group was a major event in the company's recent history. Daikin heat pump technology has placed it at the forefront of efficient and environmentally-responsible heating solutions. The acquisition of Rotex, a manufacturer and distributor of heating products and complete heating solutions, reinforces its presence in the heating market, making it a fully-fledged equal to its direct-expansion, applied systems and refrigeration business pillars.

Core Daikin products now include split air conditioners and heat pumps, sky air units, air and water cooled chillers, VRV systems, packaged units, and the Daikin Altherma heat-pump-based home heating unit. It also manufactures air purifiers and a complete suite of user-friendly computerised air conditioning management and monitoring control systems. A major additional strength is the fact that Daikin produces its own compressors and refrigerants.

The entire production process at the Ostend facility – including the sourcing of all constituent parts that go in to the supply chain – is dominated by strict quality control procedures. Sophisticated computer software manages the highly-automated plant and



A section of the huge showroom at Daikin Europe NV's headquarters in Ostend.

## R&D and testing

Daikin's environmental efforts start with R&D and include the optimal selection of components with regard to energy efficiency, specific use of materials, their longevity and recyclability. Testing whether the design specifications correspond to the actual performance of the finished products is also essential. Thorough quality checks are carried out in laboratory conditions, as well as in real life conditions.

Ostend has become the heating R&D centre *par excellence* for Daikin Europe NV. It is also the location of one of the Daikin Altherma test sites, the "Daikin Energy Saving House". This specially fitted out house provides a customised real-life environment comprising perfect test conditions for Daikin's advanced heat pump technology.



and those of our dealer network."

Daikin also invests significant resources in trying to reduce the company's environmental footprint. It sets tough targets with respect to reducing greenhouse gases in production, and continues to develop products that contribute to increased energy efficiency and reduced greenhouse gas emissions.

These efforts have been acknowledged by independent industry assessment bodies. This year alone the Daikin Altherma residential heating solution was the first in its class to be awarded the European Eco-label; the French heating industry awarded the innovative VRV® CO2 an *Enéo d'Or* for its ability to harness the benefits

equipment but there is also a significant human input to safeguard against system failures.

Every single unit coming off the production line is rigorously tested, compliance with ISO9001 and EUROVENT product-test requirements being maintained by round-the-clock performance monitoring under simulated field conditions. All these systems ensure top-class performance and maximum energy efficiency throughout the operational life of the product.

"Innovation and quality have always been the cornerstones of Daikin's philosophy" says Richard Sherlock, "and this quality emphasis is constantly reinforced by way of intensive training programmes for our own technical sales personnel



*Garry Morris with Richard Sherlock and John Conroy, pictured during the recent Daikin trip to the company's massive manufacturing facility in Ostend.*

of CO2 as a refrigerant; and Daikin Germany was among three top companies awarded an Incentive Award by the German Environment Ministry for the Conveni-Pack system.

"That said", concludes Richard Sherlock, "Daikin is forever looking to the future. To this end we have joined forces with major research institutions across Europe to develop economically-feasible, net zero energy building (nZEB) concepts based on heat pumps (see panel left). It is this constant desire to keep developing and improving which sets us apart from other players in the marketplace." ■

## Looking to the future

The EU has imposed ambitious energy use and CO2 reduction targets for the coming years. To proactively contribute to meeting these targets, Daikin Europe recently initiated a project to build a typical office that will have a net zero energy use, utilising heat pumps and solar cells as renewable energy sources.

The emphasis in the project is on practicality, the building type chosen being a common combination office/warehouse complex, built on a site at Herten in Germany. While a new build, it is anticipated that the research information gleaned will also be applicable to existing buildings.

Daikin has enlisted the cooperation of leading independent research institutions from across Europe to monitor the project and help draw the best possible conclusions.

BTU Golf News

# BTU outings round-up

## Captain's Day, Delgany Golf Club

### Sponsor: Dublin Providers

Dublin Providers were the sponsors for BTU Captain John Littlefield's Captain's day in the picturesque surroundings of Wicklow's Delgany Golf Club. The course, though hilly, was in terrific condition. Despite the excellent weather, good scores were very hard to come by, save for Gerry Tobin who scored a magnificent 44pts.



Gerry Tobin with BTU Captain John Littlefield.

Full results were as follows

**Winner:** Gerry Tobin, H16, 44pts

**Past Captain's prize:** Gerry Tobin

**Class 1**

First: Ger Hutchinson, H6 (35-1), 34pts (back 9);  
 Second: John Lavelle, H10, 34pts;  
 Third: Robert Kenny, H 7 (34-1.5), 32.5pts.

**Class 2**

First: John White, H15, 38pts (back 9);  
 Second: Shemus Kiernan, H14 (39-1), 38pts;  
 Third: Bryan Keaveny, H16 (38-.5), 37.5.

**Class 3**

First: Michael Murphy, H25, 34pts;  
 Second: Terry Maher, H21 (34-2), 32pts;  
 Third: Dave Harris, H17, 30pts.

**Front Nine:** John Littlefield

**Back Nine:** Bernie Costelloe

**Visitor Prize:** Michael O'Sullivan

## Killeen Castle, Dunsany

### Sponsor: Finheat Group

BTU's visit to Killeen Castle in Dunsaney, Co Meath, was most challenging with the course proving difficult and good scores hard to find.

Nonetheless, someone invariably bucks the trend and



congratulations to **Winner Ben McMahon with John Ennis, Ben McMahon Finheat.**

who had a wonderful score of 38pts. Sponsors were Finheat and Jim King and John Ennis were there to present the prizes. Results were as follows:

**Winner:** Ben McMahon, H21, 38pts

**Class 1**

First: Michael Kearney, H10, 34pts;  
 Second: Ger Hutchinson, H6, 33pts (back nine);  
 Third: Des Haughton, H11 (35-2), 33pts.

**Class 2**

First: Bernie Costelloe, H15 (35-.5), 34.5pts;  
 Second: Liam McDermot, H13, 32pts;  
 Third: Bryan Keveany, H15, 30pts.

**Class 3**

First: George Larkin, H24, 31pts;  
 Second: Bill Treacy, H19 (29-.5), 28.5pts;  
 Third: Des Bingley, H20 (30-2), 28pts

**Front Nine:** Tony Gillan

**Back Nine:** Mick Matthews

**Visitors' Prize:** Jim Sadlier

## Weekend Away – Killenard, Co Offaly



The BTU Weekend Away was held in the luxury surrounds of the Heritage Spa & Golf Club. Participants played two games of golf on a very challenging course – the course won! The greens were magnificent with pin positions treacherous. The hotel, staff and food were excellent. As always, great craic was had by all. Our photo shows John and Paula Littlefield (centre) with Kieron and Mags Ryan.



## CIBSE scorcher at Edmondstown!

### Main Sponsor: Unitherm Heating Systems

Seventeen teams participated in this year's CIBSE annual golf outing which was held at Edmondstown Golf Club earlier this month. The weather was absolutely perfect with bright sunshine and temperatures as high as 23°C throughout the entire day. The course was in excellent condition, which is a credit to the ground staff, while the club's Richard O'Hare deserves special mention for ensuring that each team left the tee-box at the allotted time.

Special thanks also to organisers Declan Kissane, Damien Flynn, Gary McKeown, David Doherty and Rodney Phelan who spent a great deal of time prior to the event, and on the day, ensuring that the large numbers participating had a thoroughly enjoyable time.

As in previous years the format of the competition was a team event with the best two scores on each hole, and all four scores on the 18th hole, contributing to the team score. There was also a singles Stableford competition for each player, with the Chairman's prize going to the CIBSE member with the best individual score, and the PJ Doyle Trophy being presented to the overall individual winner. Nearest the pin competition was on the 8th hole and longest drive on the 18th hole.

Given the competition format, play for some was slow. Consequently, in looking to next year the committee is considering a format which will focus only on the

team event, and the singles competition being eliminated.

The main prizes, a selection of 26 pieces of Tipperary Crystal, were sponsored by Unitherm Heating Systems and CIBSE is most grateful for their generosity. Thanks are also due to McGrattan & Kenny who sponsored the wine for the day; Daikin Europe who sponsored 20 dozen golf balls; Wilo Engineering,

### Team Results

- First: Jones Engineering (88pts);
- Second: Wilo Engineering (86pts);
- Third: Designer Group (85pts);
- Fourth: Mercury Engineering (83pts);
- Front nine: Paragon Air Conditioning (44pts);
- Back nine: Grundfos (45pts);
- Nearest the pin: 1.25 meters
- Longest Drive: Mark Cooney

Hevac, ABB, Precision Electric, Skellig Engineering, Alpha Boilers and many others. Finally, a big thank you to the participants for their continued support and commitment to the event.

The overall individual winner of the PJ Doyle Trophy was Ken Carmody, playing off a handicap of 22, with a score of 41 points. Meanwhile, Colin Murphy once again retained the Chairman's Prize playing off 7 with a score of 34 points.

The presentation of prizes by the Chairman Alan Duggan, took place after an excellent and well attended dinner. Thanks to the generosity of all the sponsors virtually everybody left with some prize. ■



Chairman Alan Duggan with Ken Carmody, the overall individual winner.



Chairman Alan Duggan with Colin Murphy, who once again retained the Chairman's prize.



# back issues

## How refreshingly honest!

**Despite the massive** retrofit programme designed to reduce the carbon footprint of the Empire State Building by more than 100,000 metric tonnes, Anthony Malkin of Malkin Holdings who own the building was refreshingly honest in his appraisal of how easy it is to achieve significant energy savings without spending a penny.



Of course the retrofit and upgrading of all 6514 windows and the chillers will yield results, as will the incredibly-sophisticated wireless management control network. However, the real key to success lies in the attitude of the building occupants.

Each tenant now has access to a website which advises them of their own energy consumption, that of the other tenants, and even that of their industry-related competitors not in the building! Crucially though the website suggests solutions such as switching lights off, cutting back on ac, moving office furniture to release more light, etc.

As Anthony Malkin says: "This is low-hanging fruit that can be plucked easily and we should simply be getting on with it as quickly as possible."

Sustainability gurus please note!

## Hitachi takes the biscuit

**Actually, it was** more a case of Hitachi giving the biscuit. To celebrate its 100th anniversary last month, Hitachi Air Conditioning & Refrigeration Group treated



customers to a box of specially made cookies.

On a more practical note Hitachi marked the occasion with a number of special offers on key products, and also held celebratory social, community and charity events.



Picture shows the triumphant Northern Refrigeration Golf Society (NRG) team after their comprehensive victory over RACGS in this year's Refrigeration Ryder Cup series.

NRG hosted the occasion in Motrum Hall in the UK and took great delight in avenging their defeat of last year.

All eyes are now focused on the 2011 event.

## Unitherm sports bags?

**Just wonder if** Declan Kissane of Unitherm ever thought of branching out into sports kit bags? As master of ceremonies and principal sponsor at the recent CIBSE annual golf outing, Declan also provided the drawstring satchels for the "goody bags".

The story goes that since then the Alpha-branded bags are to be seen in the sports holdalls of many who participated, in addition to those of their sports-playing school children.

Might be a new line there Declan!

## Contractor power to rule?

**While it is** unfortunate that it invariably takes severe adversity to spur contractors into unified action, it is nonetheless encouraging to see both the commercial and domestic sectors finally organising themselves into representative groups.

On the domestic front the emergence of the Alliance of Plumbing & Heating Contractors Ireland is a truly national body which is now championing the interests of all domestic contractors.

Meanwhile, many of the sub-contractors involved with Terminal Two at Dublin Airport have also formed an alliance. The T2 Subcontractors Group is not an association as such but it is a significant movement born out of problems experienced on the project.



At only €33\* per year to run, a lot more customers will stay cool this summer. Make sure they're yours.

**Self cleaning**

Internal cleaning functions control mould growth and remove dust from the micro mesh stainless filter – automatically

**Eco friendly**

Market-leading COP of 6.13 and EER of 6.0

**Antibacterial**

Ionised mist eliminates odours and destroys 99.9% of airborne viruses and bacteria

**Real Dry function**

Set humidity levels within the room between 40% and 70% (5% increments)

**Quiet**

Noise levels as low as 20dB(A)

With an award for energy efficiency under its belt, Hitachi's S-Series won't cost the earth. And at just €33\* a year to run, it won't break the bank either. It's even good for your customer's health thanks to its ionized mist which destroys 99.9% of all airborne viruses and bacteria. All that before we've got started on its market-leading COP and EER or its antibacterial, stainless filter. So much to shout about and yet it stays whisper quiet.

\*based on 500 hours of 100% run time with a cost of 0.16c per kW/hr on 2.5kW unit







## When it comes to replacing old R22 systems, you can now tempt your customers out of hiding with our new R410A VRF Replace Multi systems

Mitsubishi Electric's new range of **R410A VRF Replace Multi systems** provide the perfect solution for the replacement of ageing R22 systems. These highly efficient heat pump and heat recovery units enable the reuse of existing old R22 / R407c pipework plus the control and mains wiring. With the ability to use existing pipework connected to other non-Mitsubishi Electric systems the new R410A VRF Replace Multi systems dramatically reduce installation costs.

Our comprehensive range of replace models offer anyone with an existing R22 system the simplest and most cost effective way of upgrading to a more energy efficient system which will dramatically reduce running costs and CO<sub>2</sub> emissions.



for more information call: **01 - 419 8800** email: **sales@meir.mee.com**



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