et al.: BS News

Merry Christmas & a Happy New Year

Published by ARROW @ TU Dublin, 2005
Cylon making change easy

Cylon’s flexible control solution minimises the costs of design changes even at a late stage in commissioning. Client’s needs change, plant equipment is updated, but with Cylon the same control solution can fit your project requirements. Cylon UnitronUC32 range of controls are unique in their level of adaptability, with UniPUTS™ as standard and a common software framework throughout the range.

For the versatile Cylon specification please contact us today on (01) 245 0500 or info@cylon.com

www.cylon.com
Consultants — Rise to the Challenge!

Building services are critical to the performance of buildings, especially in the context of energy efficiencies, healthy indoor environment, and the optimum performance of services-related plant and equipment. They routinely account for over 50% of the capital costs of new buildings and up to 70% of life-cycle costs.

Today’s building services are technologically complex and involve numerous disciplines and trades. The need for the cohesive coordination of these inputs at the initial design stage is essential, especially if we are to meet the requirements, and ideals, of the EPBD which comes into force next year.

Traditionally, architects have designed the core building structure and then passed it to the mechanical and electrical consultant to design the services. This process is no longer sustainable. Consulting engineers must be involved from the outset.

For this to happen consulting engineers must take the initiative and become the driving force for change. They must engage with architects at ground level, and through the appropriate representative bodies. They must also engage with the client.

Unless this happens and radical changes are made to the fundamental building design process, genuine sustainability within the built environment framework will not be achieved.

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Cylon — ‘Energy Control Just Got Smarter’

Cylon Controls is now recommending EnergyUC as its preferred Energy Management System. EnergyUC is marketed by the ESB and, under this new agreement, is also available through Cylon as an integrated solution. Given the 40% rise in energy costs in Ireland over the last three years, end users are increasingly seeking to leverage their building management systems for energy control projects.

It is claimed that EnergyUC can help save anything between 5% and 25% on annual utility bills. It is a software package that helps identify and minimise wastage by monitoring and tracking energy usage in real-time. It can also help identify trends and forecast for the future.

The automatic monitoring means reduced manpower costs and the automatic alert facility via email, SMS and screen alarm messages means problems can be dealt with immediately. There is even a facility to set the program to take care of the problem itself and to issue a report via email.

EnergyUC can monitor and track multiple meters and multiple fuels quickly. It can be operated as a client-server, stand-alone or multi-site system, tightly integrated with the UnitronUC32 BMS. It is very flexible and can be tailored to suit specific requirements. A key feature is that a client can start with a basic kit and build on to it, as and when needed.

Not only can the system automatically retrieve Unitron Command Centre data but it can connect directly to Unitron controllers to retrieve real-time values. Compatible with Unitron2000 and UnitronUC32 ranges, it is claimed that no other energy management package offers this level of integration along with support from a single source.

According to a recent IBEC survey companies are looking for energy efficiencies to reduce energy expenditure, including conducting an energy management audit and, if necessary, implementing energy saving technologies.

Gas Leak & Purge Detector

The new portable Gaseeker from Telegan provides heating engineers working on large gas systems in commercial or light industrial premises with leak and purge information at the touch of a button.

The device features a dual-range flammable gas sensor with an option of a 2-year oxygen sensor. Simple to use, the Gaseeker’s clear, backlit LCD display provides all gas readings simultaneously, as well as auto ranging, elapsed time and standard instrumentation data. There is a bright visual alarm, with the option of an audible alarm.

Contact: Telegan Gas Monitoring.
Tel: 0044 - 1235 557700; mail: sales@telegangas.com

Jobs Corner

EXPERIENCED BUYER

McGrattan & Kenny Ltd has recently re-structured due to continued growth and now has a vacancy for an experienced buyer.

The position is for a self-motivated person who has a thorough knowledge of the mechanical contracting industry and proven sourcing and negotiation skills. Salary is negotiable, depending on level of experience.

Please reply, enclosing a CV to mail@mcgk.ie or to Eileen Mulvany, McGrattan & Kenny Ltd, Unit C5 Riverview Business Park, New Nangor Road, Dublin 12.

AUTOCAD TECHNICIAN/ENGINEER

Glow Heating Ltd, mechanical services contractors, wish to appoint an Autocad Technician/Engineer. He/she will be responsible for the organisation and running of all aspects of the drawing office. The package is negotiable depending on experience. Please reply, enclosing a CV to Nicola O’Neill, Unit A11, Cookstown Business Centre, Cookstown Industrial Estate, Dublin 24, or to nicola@glowheating.com

Contact: Alan Kearney, Cylon Controls.
Tel 01 – 2450500; email alan.kearney@cyilon.com; www.cylon.com
Seasons Greetings from

The full range

Published by ARROW@TU Dublin, 2005

www.sanyo.com.com

All round air conditioning by
Andel Leak Detection from Manotherm

As one of the world’s recognised market leaders in the design and development of leak detection systems, Andel has accumulated a substantial resource of technical expertise and practical know-how. Through Manotherm, its distributor for Ireland, it offers a comprehensive range of leak detection solutions. This includes everything from initial site survey through equipment selection, system design, installation and full service back-up for any size of project.

The Andel "Floodline" range covers all possible requirements, from stand-alone single-zone modules and units for the smaller installation to comprehensive multi-zone systems with the capacity to handle the largest building.

Floodline leak detection systems offer outstanding flexibility, with a range of equipment and sensors to tailor each installation to the client’s exact needs. These systems are simple to install, easy to use and extremely reliable.

Floodline leak detection is installed in sensitive and critical areas to give an early warning of leakage from any source, e.g. pipes, tanks and air conditioning plants. It uses lengths of water-sensing detection cable or point sensors which are connected individually, or in groups, to multi-zone control panels (Floodline “System”) or to self-contained single-control modules (Floodline “Solo”). Each sensor or group of sensors is allocated a separate zone with each zone having its own “address”. An event in one zone has no effect on the normal function and monitoring of adjacent zones, or the rest of the system. Each zone is continually monitored for either a leak or system fault with each alarm is shown separately. Moreover, the system offers true multi-zoning — it can handle, display and report any number of simultaneous and/or consecutive alarms with no minimum or maximum zone size requirement.

Separate outputs/communication can be provided for each zone with alarm prioritisation for important zones. It is also possible to “mix & match” different types of sensor from zone to zone.

Typical applications include high-risk installations such as computer rooms; IT, telecommunications and switch centres; operations rooms; banks; sports centres; hospitals; government departments; TV and radio stations; libraries; art galleries; and historic buildings.

Contact: Bob Gilbert, Noel Walsh or Robert Gilbert, Manotherm. Tel: 01 - 452 2355; email: info@manotherm.ie

Refrigeration & AC Controls Course

As part of its continuing educational programme Refrigeration Technology Skillnet will host a one-day workshop on Friday, 13 January 2006, on electronics and controls for refrigeration and air conditioning systems. The venue is Frigotech’s premises in Tallaght and the cost per delegate is €120, inclusive of tuition, materials, lunch, etc.

The workshop is designed for technical personnel from apprentice-level upwards and will cover the basic principles of control theory, providing an opportunity for hands-on experience of controllers, pack controllers and temperature monitoring systems.

Contact: Enda Hogan, Refrigeration technology Skillnet. Tel: 01 - 878 3773; email: enda.hogan@dit.ie

High Density, High Risk & High Rise

Pictured at the Society of Chartered Surveyors (SCS) national Annual Conference — Dublin, the Next Phase: High Density, High Risk, High Rise? — in Dublin recently were the Minister for the Environment, Heritage & Local Government, Dick Roche TD; Derry Scully, Managing Partner of Bruce Shaw Partnership and President of the Society of Chartered Surveyors; and Conor Hogan of Joseph C Hogan & Sons, Vice-President of the Society of Chartered Surveyors.
SPOT THE HEATING SYSTEM?

The Unico System offers the best of all worlds. You have no draughts, no hot or cold spots, no noise and no worries. The unique high velocity mini duct technology allows for installation behind walls, in ceiling voids and out of sight.

When you're thinking of heating and/or cooling in your home, think Comfort. Think Unico

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or email info@precisionheating.ie

Heating AND Cooling.
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www.unicosystem.co.uk/self-build
Myson Heating Controls Back to Full Stock

Senior management of Myson Heating Controls with members of the Rettig main board announcing the commitment to rebuild the factory in Newcastlewest Co Limerick. Pictured are: John Moloney, Peter Spiers, Patsy O'Connor, Ian Huxtable, Thomas Franck, Dan Stahl, Donal O'Grady, Rodney Minchin, Denis Murphy, James Gaire, Gerald O'Connor and Ger Costelloe.

Despite extensive damage caused by the major fire at Myson Heating Controls’ factory at the end of last July, management and workers rallied together and have satisfied most customer requirements throughout the last few months. Working tirelessly from a temporary location across the road from the original factory in Newcastlewest, Co Limerick, the company is now virtually back to full stock positions on the complete range, an amazing testament to the dedication and commitment of the entire workforce.

The market-leading ranges of Matchmate, Matchmaster and Fullflow manual valves — in addition to the TRV 2-way, zone and thermostatic cylinder valves — are almost fully back on line and everyone is now firmly focussed on getting stocks in place to meet the demand of the current heating season.

The support and understanding of the company’s loyal customer base was also a significant factor and a spokesman has acknowledged their input throughout this very difficult period. The limited disruption to supply was also a headache for Myson Heating Controls’ key business partner, Potterton Myson Ireland, but it too rallied to the cause.

As we went to press the Rettig main board confirmed that the massive reinvestment needed to rebuild on the original site has been approved. Work will commence shortly and the intention is to re-open the newly-refurbished plant sometime next year.

Contact: Vincent Broderick, Potterton Myson Ireland.
Tel: 01 - 459 0870; email: post@potterton-myson.ie

Production in full swing at Myson’s temporary location across the road from the original factory in Newcastlewest, Co Limerick

Carrier Hits The Roof

Carrier has re-entered the rooftop market segment with a newly-developed range of rooftop packaged units.

Carrier has returned to the rooftop market segment with the introduction of a new range which includes direct drop-in replacement models, heat pump units, and gas-fired models which will be available in the new year. Capacities range from 7kW to 120kW.

All models incorporate the latest technological advances and use R407C or R410A industry-standard refrigerants. This allows old plant to be moved away from R22 without removing or replacing ductwork, or adapting roof curbs or plant layout.

Scroll compressors are standard while electric heaters, hot water coils, power exhaust, high-efficiency filters, high static pressure transmission, differential enthalpy sensors and roof curbs are all available as accessories.

Contact: Austin McDermot, Core Air Conditioning.
Tel: 01 - 409 8912; email: info@coreac.com

Wavin Profits Slip

The increased cost of oil-based raw materials resulted in operating profit at Wavin Ireland slipping by 6.5% last year, despite a 13.1% increase in turnover to €67.2 million. Plastic pipe and fittings production is largely dependent on oil-based raw materials and the increased cost of oil in 2004, which continued into 2005, had a severe impact.

Despite this setback Managing Director Larry Carr believes that the future for the construction and civil engineering industries remains positive.

https://arrow.tudublin.ie/bsn/vol44/iss11/1
C & F Quadrant Rises To Energy Challenge

Rapidly rising energy costs, coupled with greater environmental awareness and related legislation, has led many product suppliers to focus more on controls and high-efficiency boilers. Many are now offering dedicated packages which provide tailor-made solutions aimed at maximising performance while minimising costs and energy usage.

C&F Quadrant is a typical case in point. As distributor for Glow-worm, it offers a range of high-efficiency boilers for open-vented and sealed system applications which are available in 12kW, 15kW, 18kW, 24kW, 30kW and 38kW models.

The hxi uses a single reliable stainless steel heat exchanger suitable for old and new systems and is designed for easier servicing and dependability. These boilers are SedoBUK A rated and have a NOx Class 5 rating (NOx Class 4 for 38hxi). The 30hxi is also suitable for LPG applications without the need for a conversion kit.

Performance-related features include onboard diagnostics for simpler servicing; "continua" electronics which allow the boilers to continue where others may fail because of system faults; frost protection system; and extensive flueing options, including the plume management kit for greater flexibility in installation.

As regards controls, the Smartfit concept Y Plan & S Plan patented by Honeywell is particularly useful for retrofitting and new-build providing the benefits of "one point" control and simple installation. It uses a system connection box, which provides a simple plug-in or 2-wire connection for all the low voltage, polarity-free controls.

Contact: Tony Macken, Tel: 086 - 253 2997; Colm Barrett, Tel: 087 - 050 6592. email: colm@cfquadrant.ie

CIBSE Symposium — The Future of Sustainable Design in Building Services

The Republic of Ireland Branch of CIBSE will host an international conference entitled "The Future for Sustainable Design in Building Services" in Clontarf Castle on March 9, 2006. The aim of this event is to raise awareness among those directly or indirectly involved in the design and construction of buildings, and to ensure there is a good understanding within the Industry of the issues associated with sustainability.

As custodians for the built environment, today’s building services engineers have a duty-of-care to pass on to future generations an environment better than the one it has inherited. To assist in that, CIBSE Ireland has committed itself to being at the forefront of driving the sustainability ideal and sees this conference as a major milestone in promoting best practice in this area.

An impressive speaker line-up has been assembled and delegates can look forward to forthright, thought-provoking presentations from industry luminaires such as Terry Wyatt, CIBSE Past-President; Professor Brian Norton, President DIT; Paul Kenny, UCD; Ken Beattie, DIT; Aidan McDonnell; Adrian Leaman; Jay Stuart; Phil Jones; and Tommy Goven.

Delegate fee is €100 for CIBSE members and €125 for non-members. A discounted rate of €80 per delegate applies to bookings made, and paid for, by Friday, 13 January, 2006.

A number of sponsors are already supporting the event but CIBSE would welcome the involvement of others, especially product and services suppliers with a vested interest in sustainable building services.

Delegate contact: Gerard Keating, CIBSE Secretary. Email: gerard.keating@homanobrien.ie

Sponsorship contact: Kevin Kelly, CIBSE Chairman. Email: kevin.kelly@dit.ie

Grafton Acquires Davies

As we went to press the Grafton Group acquisition of Davies was confirmed. The announcement came as no great surprise as there has been a great deal of speculation within the industry in recent months.

While various sums have been reported in the national media, the precise figure has not been revealed. BSNews will have a full report on the acquisition in the January 2006 issue.

Grundfos WinCAPS

The latest version of Grundfos’ WinCAPS CD-ROM is now available. Said to be even more user-friendly than the previous generation, it also includes the new range of wastewater pumps from the company.

WinCAPS focuses on three main areas — building services; commercial building services; and municipalities. A wide range of options are covered in each category, making pump selection and pump sizing simple. In all something like 175,000 different Grundfos products are featured. It is also possible to print out all the technical data relating to the selection and sizing procedure.

Contact: Liam McDermott, Sales Manager, Grundfos (Ireland). Tel: 01 - 408 9800; www.grundfos.com.
Designing Out Infection in Hospitals

At the recent “Designing Against Cross Infection” seminar organised by Architects for Health, Copper Development Association Director Angela Vessey addressed an aspect of material selection by highlighting copper’s antimicrobial properties and the suitability of copper and its alloys for hospital touch surfaces.

“Latest research on antimicrobial properties of copper and its alloys from Professor Bill Keevil and his team at the University of Southampton are compelling. They show that copper inactivates MRSA, E.coli and other pathogens on its surface in as little as 90 minutes, making copper alloys ideal for hospital touch surfaces such as door handles, push-plates, bed rails, intravenous poles, drug trolleys, counter tops and hand rails,” explained Mrs Vessey.

She added: “Eighty percent of infectious diseases are transmitted by touch. To the naked eye, stainless steel and aluminium doorknobs and push-plates — commonly used in hospitals today — appear to be clean yet can still harbour deadly microbes. Copper has been used around the world, throughout history, as a hygienic material.

Professor Keevil’s research demonstrates a log 7 reduction in 90 minutes and this scientific evidence indicates a role for copper alloy surfaces in helping to reduce reservoirs of pathogens in the fight against hospital-acquired infections.

“Copper alloys are tried and tested materials, available in a range of alloys with different physical properties to suit different manufacturing processes and end uses. Unlike antimicrobial coatings, copper alloys are homogeneous and solid, so the antimicrobial properties would last the life of the product and not suffer deterioration when scratched by jewellery or damaged by sharp implements.”

“Copper alloys can also match the physical properties of other materials and have the added bonus of being naturally antimicrobial. Alloys are available in a range of colours from the flaming red of pure copper to the yellow-gold of brass and the silver-grey of bronzes.”

A Christmas Message From Sanyo

Sanyo Air Conditioners, a company at the forefront of innovation, continues to change and adapt to suit the needs of its distributors and customers. Indeed, it is this ability to challenge the limits of technology that continues to secure the positive market position which Sanyo Air Conditioners currently enjoys.

Since Sanyo first introduced a direct approach to the Irish Market in 2002 the company has gone from strength to strength, amassing an impressive portfolio of projects nationwide through its dedicated dealer network.

This position was further strengthened with the move to the prestigious National Digital Park, Citywest Business Campus earlier this year, together with the appointment of new staff. This clearly demonstrates Sanyo’s commitment to the Irish market and is also a declaration of future intent.

In July 2005 Sanyo published details of decisions made and forthcoming changes, in its global strategy, effective over the course of 2005/2006. The new Sanyo CEO Tomoyo Nonaka announced The “Sanyo Evolution Project” which, after a poor trading year, sees the company focussing back onto profit-making divisions and adopting an eco-friendly strategy.

As part of this project Sanyo will become increasingly committed to sustainable energy products and on encouraging care of the environment for the generations that follow – a healthy organisational culture for a company as significant as Sanyo. Departing from a traditional Japanese approach to ”Turnover is King” Sanyo will be directing future focus on the company’s high-technology commercial products. This strategy brings further investment and focus on to the key products such as rechargeable batteries, solar cells, and commercial air conditioning.

“With the ‘Sanyo Evolution Project’ well and truly underway”, says Barry Hennessy, “we look forward to the future and to continuing to deliver the highest standard of service which the market demands. So, it’s very much onwards and upwards in 2006 – which can only be good news for our dealers and customers alike!”

“I would like to take this opportunity to thank everyone who has supported us through 2005. Also, a special word of thanks to the BSNews team for their continued support and valuable contribution to the industry as a whole”.

Contact: Barry Hennessy or Sinead Duffy, Sanyo Air Conditioners. Tel: 01 403 9900; www.sanyoaircon.com
Keep ahead with Honeywell.

It's reassuring to know you can keep ahead of the game with Honeywell. We have been making energy saving controls for over 100 years. So people trust us to provide quality, reliability and good value.

Our top quality range of thermostatic valves includes the smart chrome-top VT200, as well as the VT15 and VT117. All offer energy savings and reversible flow bodies to give unrivalled performance, individual room temperature control and stylish appearance.

Make the smart move - use Honeywell
Radiator Control — Getting It Right

It makes sense to install thermostatic radiator valves (TRVs) in new and upgraded heating systems: they prevent radiators from overheating rooms, which is good for comfort, good for saving energy and therefore also good for the environment.

When planning the heating system, remember that a TRV regulates hot water flow through a radiator, but has no control over the boiler or central heating pump. So, if all TRVs have shut off because rooms are up to temperature, the boiler would keep firing just to heat the water in the pipes. To prevent this fuel wastage and unnecessary wear on the boiler, a room thermostat (or a programmer with an inbuilt temperature sensor) should be mounted in a room without TRVs, to switch off the boiler and pump when there is no longer a call for heat.

TRVs provide excellent room temperature control in individual rooms, provided they are installed so they can sense the real temperature of the room. A TRV should not be exposed to draughts or fitted where it can be affected by a heat source, such as a fire or direct sunlight. Nor should it be isolated from the airflow of the room by furniture or fittings ... boxing off the radiator and its TRV is not a good idea!

In some cases to avoid this, performance may be better if the TRV head is fitted in a horizontal attitude to obtain better performance. This may be done on either end of the thermostat and is easy when installing Honeywell VT117 and VT200 TRVs because they feature reversible flow — without any adjustment in the body — so there is no need to identify flow and return pipes. They eliminate the possibility of water hammer and wasteful call-backs for installers.

The defining feature is a unique insert that allows them to be fitted horizontally or vertically at either end of the radiator. In addition to conventional TRVs with pipe connections at right-angles, Honeywell offers “straight-through” versions allowing greater choice of installation positions.

The temperature setting on conventional TRV heads can only be adjusted manually. However, Honeywell is unique in offering its HR80 wireless controller head which, fitted onto standard TRV bodies as part of a CM Zone wireless zoning system, enables a building to be divided into separate heating zones without cabling or plumbing pipework changes. Radiators in each zone are adjusted automatically using wireless signals from a central CM Zone controller.

Householders can programme up to six time/temperature changes per zone each day — and a different programme each day of the week. The Honeywell HR80 is also supplied with a variety of adapters to fit valves from other manufacturers.

Each TRV fitted with the HR80 wireless controller head receives the same programmed set point as every other radiator controller in the same zone. If it is the only head in the zone, then it will be completely independent.

The local temperature adjustment available on all Honeywell TRVs is also offered by the HR80 head: the user simply turns the knob to override the last value transmitted by the central controller. When the central unit transmits its next set point value, the manually-adjusted setting on the radiator controller is overridden.

Contact: Rosie Brookes, Honeywell.
Tel: 0044 1344 656000; email: literature@honeywell.com; www.honeywelluk.com
HEAT MERCHANTS

HEAT MERCHANTS LAUNCH THE SAVANNA COMPACT.

The features of the radiator are as follows:

- A range that provides sizing flexibility to meet most application requirements.
- Factory fitted top grilles and side panels provide a tight professional fit.
- Conforms to BS EN 442.
- Guaranteed to perform to a maximum working pressure of 116psi (8 bar).
- Robust packaging protects the product through transit to installation.
- Comes with 10 year manufacturer's warranty.

Branches Nationwide • www.heatmerchants.ie
Combining High-Performance, Energy-Efficiency & Aesthetics

The Radiator Company — whose Irish distributor is Heating Distributors — supplies a vast range of radiator designs and styles. Choices offered include its designer range, along with steel multi column, aluminium, cast iron and kitchen ranges. There is also a convector range, a towel rail range, and a complementary valve collection.

Colour options are the standard white RAL 9010, plus the complete RAL range and special finishes. That said, Heating Distributors is all about choice. Consequently, among the 70 plus radiators featured in its showrooms are models from other leading radiator manufacturers. These include the Aeon Collection from Ultraheat and the Expressionist Range from MHS Radiators.

The Aeon Collection comprises 34 radiators, all with distinct aesthetics and engineered to the most exacting standards from the highest-quality stainless steel.

The Expressionist Range from MHS is of a similar high quality but has its own distinctive style. Apart from being high-performing and functional, all radiators in the range are innovative in design and have a very definite architectural feel. Also featured are models from the renowned Licon range. For instance, Licon OK wall LST convectors are normal wall-mounted radiators with a long history of use in households, and public and industrial areas. The fact that they have a modern design, are simple to assemble and economic to run, has made them especially popular.

There is also the Licon PK floor convector designed to be fitted flush with the floor, and the Licon PKVT floor convector with a tangential ventilator. The core of all Licon convectors — the Licon OR heat accumulator itself — can also be used in a much wider range of applications. It is suitable for placing individually and may be covered by almost any type of material to smoothly integrate them within the room.

Contact: Heating Distributors.
Tel: 01 - 864 8950;
email: info@heatingdistributors.com
Versatile Agencies has taken the traditional concept of heating and given it form. This is achieved by applying its own extensive knowledge and experience to the product portfolios of cutting-edge, innovative, brand leaders like Jaga, Runtal Zehnder and Vogel.

Heating solutions are custom-designed to facilitate each application. Where visible, the heat emitters contribute to the aesthetics of the setting; however, they can also be unobtrusive to the point of being invisible.
With a pedigree stretching back 70 years, an enviable product portfolio of world-renowned quality brands, and a team of highly-qualified and experienced personnel, it is not surprising that the Davies Group of companies is one of Ireland’s foremost bathroom, plumbing, heating and drainage supply specialists.

Established in 1933, year-on-year expansion was solid, continuous and controlled at all times by carefully-devised strategic development plans. That said, growth has been spectacular in recent years, prompting the move to a new €10 million purpose-designed headquarters in Dublin 5. This is a stunning development standing on a massive four-acre site and incorporating offices, warehousing, a trade counter, and state-of-the-art showroom housed in a separate building.

A new development phase is now commencing with the news as we went to press that the Davies Group had been acquired by the Grafton Group. Davies’ management style and trading philosophy is underpinned by an emphasis on professionalism and quality. This applies equally to the products and services provided, and the manner in which these are delivered. This philosophy will be reinforced over the coming months and years.

Davies has always been very strong in heating, aligning itself with market-leading brands to deliver quality products and systems. Over the years it has built up an enviable portfolio, working in close partnership with manufacturers of international repute, Stelrad radiators being a typical example.

The Stelrad radiator range comes complete with all the features expected from a market leader and more. Combining the most sophisticated production resources in Europe, with substantial investment directed towards testing and verification of performance data, has resulted in the creation of high-output radiators for heating performance that exceeds expectation.

There are designs to suit every conceivable application, be it domestic or commercial, in unique styles which incorporate traditional and futuristic looks. There is also an extensive range of towel rails, again in traditional or futuristic styling.

Complementing the radiator collection is an extensive choice of brand-leading radiator valves. These include the Giacominı range which is manufactured and certified in accordance with ISO 9001. Included are straight manual valves; gate valves; thermostat liquid sensor, fully-reversible valves; angle “stella” wheelhead valves; globe valves; and automatic air vent valves with isolating valves.

Contact: Davies Ltd.
Tel: (01) 851 1700;
email: info@davies.ie;
www.davies.ie
Irish Metal Industries Ltd

25 Spruce Avenue
Stillorgan Industrial Park
Blackrock
Co Dublin

Sales
Tel: 01 - 295 2344 / 01 - 295 2137
Fax: 01 - 295 2163
email: info@irishmetalindustries.com
web: www.irishmetalindustries.com

IRISH METAL INDUSTRIES
EXTENSIVE PRODUCT RANGE

25 YEAR GUARANTEE
As well as featuring an elegant design which complements even the most stylish of heating installations, the RTN51 sensing heads supplied for use with the new range of thermostatic radiator valves (TRVs) from Siemens Building Technologies have no slots or apertures. The sensing element is, therefore, fully protected against contamination, ensuring consistent temperature control and minimising maintenance requirements.

The slotless construction of the sensing head also allows easy and effective cleaning, a major benefit in applications such as hospitals and residential homes, where hygiene is of particular importance.

In addition to the standard arrangement with integral RTN51 sensing heads, the new Siemens TRVs can also be used with RTN71 remote sensors. Suitable for mounting up to two metres away from the valve itself, the remote sensors provide enhanced measurement of the overall room temperature, making it easier to optimise comfort levels.

Also available for the new range are RTN81 wall-mounting remote sensors which incorporate setting facilities. These are particularly useful where the occupants of the premises have difficulty in bending to reach conventional TRVs which are fitted close to floor level. Like the RTN51 and RTN71 sensors, the RTN81 types incorporate a frost-protection function and offer easy rotary setting with a numbered scale to aid adjustment.

The new Siemens TRVs are available in a wide range of types to suit every domestic and commercial application. All valves in the range are reversible, allowing them to be fitted in either the flow or return path, and all incorporate options for limiting the setting range.

In addition, the valves provide facilities for fast, straightforward presetting of kv values without the use of tools, thereby helping to ensure that maximum energy efficiency is achieved.

Another development from Siemens Building Technologies is the use of menu-driven technology, similar to that employed in mobile phones, to make programming of domestic hot water and central heating systems much easier. Always at the head of new developments, Siemens is the first to see the benefits of this type of programming technology and utilise it for the benefit of its customers.

The two new time controllers are:— the RWB27 for use with central heating systems; and the RWB29 for dual hot water and central heating.

Siemens has ensured that ease of use by the homeowner has been carried through all aspects of the controllers. The liquid crystal display, for example, is larger in size than the average controller and is easier to read with a backlit display.

Programming flexibility has been built-in with up to three on/off settings, a three-hour boost facility and holiday programming that covers daily, weekday/weekend and seven-day schedules.

Simple push buttons on the front of the controller enable it to be programmed in situ or it can be removed from the backplate for remote programming, secure in the knowledge that the battery backup will retain the new programme schedules.

With the introduction of these new controllers, the homeowner can take advantage of familiar menu-driven programming that will enable domestic hot water and central heating schedules to be changed at will. While the installation contractor has the flexibility to programme the system either on or off site.

Contact: Dave McMenamin, Fläkt Woods Ireland.
Tel: 01 - 463 4600; email:david.mcmenamin@flaktwoods.com
heating your space

Potterton Myson (Ireland) Ltd
Belgard Road, Tallaght, Dublin 24
Tel: 01 - 459 0870
Fax: 01 - 459 0880
email: post@potterton-myson.ie
web: www.myson.co.uk
Jaga’s innovative Double Boost Effect (DBE) is a dramatic breakthrough in radiator technology on a par with the switch from LP to CD, or from VHS to DVD, according to Andrew Tracey, Managing Director, Versatile Agencies, who distribute Jaga throughout Ireland.

DBE means compact power, comfort, economy and sustainability, according to Andrew, and heralds the introduction of a ground-breaking range of radiators which are super-powered, intelligent, and come in a compact shell.

This new generation of intelligent radiators are said to think for themselves and adapt to the environment to bring maximum comfort quicker than ever. The DBE increases capacity, resulting in a smaller but more powerful radiator be it in standby, comfort or boost mode. In the comfort mode, output is boosted by 50% and in boost mode it can be up to 250% higher. Whatever the circumstances, DBE can deliver the correct heating output.

DBE units also take up less wall space and are available in a range of unique designs and finishes that will complement everything from traditional to the most avant garde interiors.

Because of its power and speed, DBE cuts down the energy-wasting heating-up period to an absolute minimum and, since the heating-up time is shorter, the heat emission is quicker and much more efficient. DBE radiators are claimed to be so powerful that extremely low boiler temperatures are possible without having to install large radiators, making it possible to have a boiler temperature up to 40% lower than normal. This also means a dramatic saving in CO₂ emissions.

Operation is simple because of the pre-programmed microprocessor. By filling in the maximum room temperature required just once, the radiator regulates everything itself, constantly measuring and processing the room and water temperatures to deliver just the right amount of heat output. They even recognise the shift from the night to day programme.

For rooms which are only used occasionally there is a boost button which can be used again to return the radiator to standby or comfort mode.

The design styles are also innovative and feature playful, metal, wood, on-feet, on-the-wall or built-in options.

Knockonwood is an excellent example of Jaga’s innovative design capabilities. Many people hide the steely character of their radiators behind a wooden cover, but this often results in a wooden cupboard with a radiator hidden behind it. With Jaga’s Knockonwood range the wooden cladding is designed to be an integral part of the radiator’s appearance and performance.

As the name suggests, Knockonwood features a simple yet elegant wooden cover, finished in the finest veneer. Wood, with or without dynamic booster option.

Knockonwood is available in a wide variety of finishes, ranging from Natural Oak, Beech, Maple and Zebrano, to Oak Wenge, Walnut, Teak Greyed and Mahogany.

Contact: Andrew Tracey, Versatile Heating Solutions.
Tel: 046-9029444; email: sales@Versatile.ie; www.Versatile.ie
Exquisite Styling

Simple Yet Innovative

Expressive Designs

Optimum Outputs
Grundfos Magna pumps are innovative, intelligent circulator pumps designed around a permanent-magnet motor that ensures maximum efficiency, a design pioneered by Grundfos. It has become the pump of choice for specifiers since first introduced in 2001, the additions and innovations added to the range since then proving even more popular. There are now a total of 27 different sizes and models to meet all circulation requirements.

Amazingly adaptable, all Magna models automatically adapt performance to suit demand, thanks to Autoadapt, a unique Grundfos feature linked to the permanent magnet motors. Put simply, Autoadapt is an intelligent regulation function that keeps the pump operating at peak performance and efficiencies. It carries out regular proportional pressure adjustments and automatically sets the pump operating profile to a more efficient performance curve whenever possible.

At start up, a Magna pump operates with a lower differential pressure than other comparable units. As the flow increases, the pump pressure follows the line of the Autoadapt factory setting until the pump operates on the maximum curve, continuing downwards until it reaches the required flow. When the flow is subsequently reduced, the Autoadapt function ensures that the operating profile does not simply return to the original curve, it sets a new lower pump speed that results in even greater energy savings.

Benefits accrue to all concerned — the specifying consultant, the installer and the end-user. With Magna consulting engineers are assured that the pump will meet performance specifications without being over-sized, or over-priced.

Installers also benefit because in about 80% of cases no subsequent manual adjustment is needed. They can quite literally install it, leave it, and forget about it.

Obviously the end-user benefits enormously as the pump delivers optimum performance efficiencies, thereby saving significantly on energy usage.

The entire Magna range also has an "A" Energy Rating. Against that background the pump sector has adopted the familiar energy-labelling system now commonplace on most household appliances, especially fridges and fridge-freezers.

The information is simple — ratings go from a scale of A to G — but the classifications are based on exacting, complicated calculations. All Grundfos Magna pumps are A Rated, a significant factor given that A-rated pumps consume up to 75% less energy than traditional standard pumps.

Powerful and sophisticated, the latest Magna models come with dimensions ranging from 25 - 60, offering energy-efficient, high-performance alternatives to traditional fixed-speed circulators. There are nine new models in all, specifically designed for low-flow applications such as small or medium-sized heating systems, mixing loops, etc. Full details on the Grundfos Magna range can be found on www.energyproject.com

Contact: Grundfos Ireland.
Tel: 01 - 408 9800;
email: info-ie
@grundfos.com
Modern day comfort with the heat from cast iron
Savanna Compact Range from Heat Merchants

As you would expect from a radiator with the Stelrad pedigree, the Savanna convectors are precision welded directly onto the waterways for greater efficiency and economy, with flexible connection options for the highest of commercial and domestic application specifications. They can be fitted to floor standing brackets where situations such as tiled walls present installation difficulties.

The Savanna range is manufactured under ISO 9000 in the UK and every radiator comes wrapped in robust, practical packaging that will keep the product pristine, right through to handover. Protected through storage and transit, the new packaging design also allows installation prior to removal.

Stelrad have the European background to assist and deliver total quality to Heat Merchants, with the emphasis on ensuring that each product is manufactured and painted to perfection and that it provides homes in Ireland with styled heating that lasts. Heat Merchants will continue to offer customers the high level of service and after sales service they have come to know and expect from the company.

To find a branch near you please log onto our website www.heatmerchants.ie, with 38 branches nationwide there is always one near you.

The Stelrad Compact range of radiators available from Heat Merchants' stores nationwide

In keeping with the Heat Merchants philosophy of providing top-quality products at a competitive price, Heat Merchants have teamed up with Stelrad, the UK’s market leader in central heating radiators, to provide customers with the Savanna range of compact radiators.

The Savanna range comes complete with all the features expected from a market leader. Combining the most sophisticated production resources in Europe with substantial investment directed towards testing and verification of performance data, has resulted in the creation of a high-output Savanna radiator for heating performance that exceeds expectation.

Strictly controlled independent laboratory testing ensures that all Savanna radiators are guaranteed to perform to a maximum working pressure of 116 psi (8 bar) and conform to BS EN 442 — the European Standard for radiators. As a measure of the all round dependable quality and performance, the Savanna range comes complete with a 10-year manufacturer’s warranty.

A range of 77 models provides extra sizing flexibility and covers a multitude of application requirements. With four heights, ranging from 300mm to 900mm, and lengths from as little as 400mm up to 2000mm, the Savanna range can offer a size and style to fit the most challenging of application requirements.

The elegant, integrated top grille and side panels have been specifically designed to eradicate any movement, providing a tight, professional fit that will remain in place, even after storage, transit and installation.

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By popular demand, Grundfos has steadily expanded the MAGNA range to the point where it now boasts a total of 27 different models - all with the AUTOmanagement function.
The new Magna range provides flows from as little as 1 m³/h up to 39 m³/h.
All MAGNA pumps are labelled A on the energy scale.
High quality and extremely traditional, cast iron has always been sought after for its natural qualities. Guaranteed for life and shock and corrosion-resistant, it is timeless and represents life-long investment in gentle, controlled heat and total safety.

The Chappee cast iron range from Hevac represents:
- Long life;
- Quiet operation;
- A financial asset;
- High quality material
- Comfortable, natural heating.

Chappee cast iron radiators are the result of proven technology. Comfort is ensured by the diffusion of optimal heat — aerodynamic shapes for convection; thermal exchange enhanced by the size of the hot air passages; and flat aspect for exceptional radiation.

Comfort is optimised by compact size with maximum output, whatever the size of the rooms to be heated. Cast iron is naturally quiet and does not crack or vibrate with variations in temperature, so there is none of the noise associated with other radiator types.

Cast iron has developed over time and the Savane and Dune 2 models are proof of this. The flat aspect of Savane makes it possible to combine it perfectly with any style of decoration. The elegance of its lines makes it a refined addition to any décor style.

Savane represents the perfect ready-to-assemble radiator. Evolutionary, the radiator can be adapted in height, width and power for all needs in terms of decor and comfort. Compact, flat and covered with a base coat of protective paint, radiators are easily painted over in the colour of choice. Watercolour, bracing shades or trompe l’œil ... anything is possible.

The new range of cast iron Savane radiators provides various installation options and meets all requirements in respect of quality, comfort, price, choice and safety. Recognised as the cast iron radiator that offers the best value for price and performance, the Dune 2 range is all the time evolving. Adjustable, the structure of its units ensures a good diffusion of heat in order to respond to the needs of even the largest rooms.

In the same way as Savane, Dune 2 is delivered primer-coated white, thus suiting the requirements of renovation prospects. Just like its renowned relatives, it comes with the benefit of a lifetime guarantee.

The art deco trend is also very much in evidence in the Chappee range in the form of the Floreal radiator. Modelled on the style of the decor in old and prestigious houses, this design has been enriched by a model of the same shape but with a smooth finish.

Floreal radiators have been installed in all manner of prestigious projects such as Aras An Uachtarain, Dublin Castle, City West Hotel, The Dail, Russells of Ranelagh and Farmleigh House.

To provide the end-user with the very best in heating, the entire Chappee range of cast iron radiators has a lifetime guarantee, their performance regularly checked by CETIAT. They also conform to the requirements of the European Standard NF EN 442.

Contact: Karl Carrick, Hevac.
Tel: 01 - 419 19 19;
Fax: 01 - 458 4806;
email: karlc@hevac.ie

The Chappee Savane from Hevac
The new Stelrad Style bridges the gap between standard radiators and the more expensive designer models.
Myson Radiators & Controls — Maximum Control With Optimum Performance

Myson is one of the oldest and most respected companies in the European heating industry, with a record of success dating back to the early 1960s. As one of the most innovative producers of heating equipment in the business it offers heating solutions for every application and across all price ranges. Included are radiators, towel rails, fan convectors and underfloor heating.

In total Myson produces something like two million radiators a year using exacting quality-control procedures certified to BS EN14001. Moreover, all products meet the European Standard EN442 and come with a 5-year warranty.

Potterton Myson (Irl) is the Myson distributor for Ireland and, in addition to carrying extensive stocks across the entire range, it offers comprehensive back-up and support by way of design advice and product selection guidance.

Brief details of the vast choice on offer are as follows:—

**Premier HE** — This is Myson’s flagship range and is renowned as much for its famous round-top, safety-conscious, design as its excellent heat outputs. Stylish and elegant, it complements traditional and modern environments alike;

**Select** — Suitable for all types of room decor, the Select range of radiators are neat and tidy with a high-quality white gloss finish. The range is available as a radiator with matching grilles and side panels.

**Column Radiators** — Myson has been to the forefront of radiator design concepts and this is especially true of its column styles which offer decorative potential apart from being just functional items.

**Myson Décor** — As the name suggests this is a specially-developed decorative range. There are 52 standard sizes, including horizontal, plinth, column and vertical models in a wide range of colours with a variety of connections and fixings. Customised models can also be produced.

**Myson LST** — Myson’s low surface temperature range ensures that the surface temperature of the radiator remains under 45°C. Available in four heights and eight lengths, there are size and heat output options to suit all requirements.

**Towel Warmers** — The vast range of Myson towel warmers offers a varied choice of elegant units with design styles to suit every type of bathroom decor and budget. All are manufactured from the finest materials and are hand-crafted to provide practical, yet aesthetically-pleasing, units. There is also a full range of matching accessories.

**Myson Fan Convectors** — Myson’s convector range is for situations where instant heat is required and are especially suitable for conservatories. There is a choice of Hi-Line, Lo-Line, Slim-Line and Wallstrip models, all of which connect to the central heating system. All model types have a choice of fan speeds and in-built thermostat. They also incorporate a summer setting which gives fan-only option to provide a cooling flow of air. All models have accessible filters for easy maintenance and are available in cream or white.

**Myson Controls** — Critical to maximising the benefits of super-efficient radiators are equally-innovative heating controls, including TRVs. Myson has an extensive range of technically-advanced electronic controls such as the new MPRT programmable room thermostat and the Myson Powerextra motorised valve.

One of the latest additions is the new PPV range of thermostatic and manual radiator valves designed specifically for use on domestic heating systems where plastic pipe has been specified. The range of valves fits all manufacturers’ BS 10r and 15mm tube, plastic or copper.

All connections are catered for, be they up, down, back, front, left, right, vertical, horizontal, pushfit or compression. This means that pipework can now be neatly installed directly into the dry-lining, through the wall, or even behind the skirting.

Contact: Potterton Myson (Irl).
Tel: 01 - 459 0870; email: post@potterton­myson.ie
In looking back over the last 12 months REGII members — and indeed the industry at large — can take heart from the progress made on a number of very significant issues concerning the business. Virtually all are initiatives that REGII has been actively involved in, sometimes as the lead player and other times as one of a group of industry bodies.

One of the most significant developments is the proposed industry-wide training initiative which is currently being finalised thanks to the collective input of SEI, REGII, Bord Gais and other building services-related representative organisations. Topics to be covered will include system design, heating controls, regulatory compliance, health and safety, and energy performance.

The lack of an accredited training and certification programme for domestic installers in particular has long been a bone of contention within the industry. It has led to a free-for-all mentality with the customer invariably being short-changed by unqualified personnel carrying out central heating installations.

The proposed new training initiative has the support and active involvement of all bona fide organisations within the business. Once operational, it will enable all legitimate installers gain the necessary understanding and knowledge of how today’s sophisticated heating products work and also the necessary skills to professionally install quality plumbing and heating systems.

SEI is to be congratulated for its contribution to this process so far, as does Bord Gais. Working with REGII and other interested bodies, they have set a collective target to create a critical mass of highly-qualified installers. Ultimately, the intention is that a formal Register of Installers will be established along the lines of the very successful RECI register for electrical contractors.

There are also proposals for a Renewable Energy Installers Academy. The same fundamental objectives will apply but the various programmes and courses will be dedicated to technologies such as solar water heating, heat pumps, biomass, wind, PV and hydro.

The new year will also see the Energy Performance of Buildings Directive (EPBD) coming into force. This again is a very welcome development and one which will undoubtedly contribute to greater professionalism within the industry. It is also an opportunity for qualified and accredited installers to develop new business opportunities. The methodologies and precise instruments by which energy ratings of buildings will be determined has yet to be finalised but competent domestic installers are ideally placed to provide this service.

Against this background the industry as a whole can be proud of the enormous progress made over the last 12 months. The manner in which opinions have been shared and discussed, differences teased out and resolved, and constructive proposals for moving forward agreed is a testament to the new-found sense of unity within the industry. Things can only get better.

In the meantime may I, on behalf of all my REGII colleagues, wish BSNews readers a very happy and peaceful Christmas and prosperous new year.
Mitigation of Triplen Harmonics in Electrical Installations

Dr Michael Conlon. School of Control Systems and Electrical Engineering, DIT Kevin Street. Email: michael.conlon@dit.ie

Over a series of articles in BSNews earlier this year, my DIT colleague, Kevin O'Connell, raised the question as to whether we should be concerned about harmonics in electrical installations. Kevin identified the causes of harmonics in electrical installations and presented the analysis of some experimental results which were recorded at DIT Kevin Street. In particular, the problem of triplen harmonics was discussed.

Triplen harmonics are voltage or current components with harmonic numbers which are odd multiples of 3 (3rd, 9th, 15th, etc) and are significant in relation to the flow of neutral current in electrical installations. Whereas non-triplen harmonics (5th, 7th, 11th, etc) in a balanced 3-phase system will sum to zero at the neutral, the triplen harmonics will reinforce each other so that a current of three times the triplen harmonic in each of the phase conductors will flow in the neutral. As Kevin’s articles demonstrated, this can lead to circumstances where the neutral conductor is under-rated for carrying significant triplen harmonic current. A number of remedies are available to deal with the problem of excessive triplen harmonics in electrical installations. Broadly, these remedies can be classified as follows:

- Deal with the excessive currents by over-rating the neutral conductor;
- Contain triplen harmonics by selection of transformer connections;
- Confine harmonics to the load by installing shunt filters;
- Reduce the harmonics taken by the load by means of series filters;
- Prevent triplen currents flowing using blocking filters in the neutral conductor;
- Install an active power filter.

This article looks at the first two of these remedies when applied to the problem of excessive triplen currents in neutral conductors of 3-phase supplies. A subsequent article will concentrate on the application of filters to the problem.

Over-rating of Neutral Conductor

One approach to dealing with the problem of excessive triplen currents is to accommodate them as part of the design by adequately specifying the rating of neutral conductors. This would mean that in installations with significant electronic equipment loads, the rating of the neutral would exceed that of the phase conductor. Such an approach obviously introduces extra costs in terms of the cables and associated equipment.

Transformer Connections

Delta-star arrangement of transformer windings will ensure that triplen harmonics are prevented from flowing back to the source from the delta side. In Figure A the phase conductors on the secondary or load side contains both fundamental (50Hz) and 3rd harmonic (150Hz) components. The triplen harmonics sum at the neutral and the neutral conductor carries three times the individual 3rd harmonic currents. The phase currents on the primary winding of the transformer have the same waveshape as the current carried in the secondary winding. However, the currents flowing back to the supply do not contain the 3rd harmonic current as it circulates within the closed delta. With this arrangement, the neutral conductor...
Mitigation of Triplen Harmonics in Electrical Installations

continues to carry the total triplen harmonic current and will be overloaded in the event of excessive harmonics. Likewise, the transformer needs to adequately accommodate the additional heating due to the harmonics.

An Example
By way of illustration, the currents on the load and source side of a delta/star transformer are considered. Figure B shows the R-phase current in an installation with a significant harmonic load. As can be seen, the current is quite peaky and contains odd harmonics up to and including the 15th, as listed in Table A.

The fundamental component of this load current is 100A (rms) but because of the harmonics, the actual rms current is 118.4A. The neutral current is shown in Figure C and contains only triplen components, with the 150Hz component dominating. This current has a peak of 250A and an rms value of 157A.

Harmonic Content of Load Current
Thus the neutral current is nearly 60% higher than the 100A fundamental current in the phase conductor. Clearly, the neutral conductor would need to be rated to accommodate this current.

Figure D shows the load current on the delta side of the delta/star transformer. This represents the current which is supplied from the source side. As with the load current, the presence of harmonics is obvious. However, the waveshape has changed now because the triplen harmonics have been removed. The fundamental component of this current is again 100A but the rms value is now only 106A, again reflecting the fact that the 3rd, 9th and 15th harmonics have been removed.

The transformer is also carrying additional current levels because of the harmonics. As we can see from Figure D, the actual rms currents in the transformer windings are 18.4% above the fundamental component.

However, the eddy current losses increase with increasing frequency. Although there may be a relatively low content of the higher harmonics (5% for the 11th, 3% for the 13th, etc in Table A), the losses associated with these higher harmonics can be significant.

Table A: Harmonic Content of Load Current

<table>
<thead>
<tr>
<th>Harmonic Number</th>
<th>1</th>
<th>3</th>
<th>5</th>
<th>7</th>
<th>9</th>
<th>11</th>
<th>13</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current, A</td>
<td>100</td>
<td>52</td>
<td>32</td>
<td>15</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>1</td>
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</tbody>
</table>

Thus, the transformer is overloaded and has to be de-rated to prevent excessive heating. The current is carried by the phase conductors of the transformer, which are adequate for the load current. However, the transformer must be de-rated to accommodate the harmonics which are present.

Clearly, as the level of harmonics being carried by the transformer increases, the actual loading on the transformer must be adjusted accordingly to prevent excessive heating.

Published by ARROW@TU Dublin, 2005
The first Annual General Meeting of the Institute of Refrigeration Ireland took place in Dublin late last month with members travelling from all over the country to look back on a busy first year and to elect a new Council for 2006. It was another important milestone for the sector with Seamus Kerr, who took on the role of Chairman in the first 12 months, giving an excellent resume of what has been achieved so far in his Chairman's report.

In the first six months of the year the Steering Committee focused its efforts mainly on putting in place the necessary structures, policies and procedures for the management and development of the Institute, and also building up the membership. The second half of the year saw activities stepped up a gear and, with the support of Refrigeration Technology Skillnet, the Institute hosted 12 technical seminars in Dublin, Cork, Limerick and Athlone. Members of all grades were invited to attend these seminars free of charge while non-members were also welcome to attend on payment of an entry fee of €30.

Topics covered included the hazards of oxyacetylene, sub-cooling and head pressure control, pressure testing, R410a service equipment and refrigerant recovery methods; the Energy Performance in Buildings Directive; and the F-Gas Regulations.

The last of these topics has been a very live issue in 2005 and is likely to remain so into 2006. As reported in the last edition of BSNews, the Institute played an important role in lobbying against late amendments to the F-Gas regulations that could have seen an almost immediate ban on HFCs.

Seamus Kerr outlined the series of actions taken by the Institute and its members to protest against the amendments and invited members to consider what might have happened if the Institute had not raised its concerns. It is likely that the vast majority of companies would have had no information, no channels of communication to policy makers and no national or EU lobbying power.

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Norman Mitchell, past president of AREA, echoed this sentiment. He was an invited guest at the AGM and he spoke passionately in favour of RAC professionals and their national representative bodies making their views known at national and European level.

He produced a tally of the votes for and against the amendments.

Air Conditioning and Refrigeration European Association, echoed this sentiment. He was an invited guest at the AGM and he spoke passionately in favour of RAC professionals and their national representative bodies making their views known at national and European level.

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<table>
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<tr>
<th>IRI Council Members 2006</th>
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<tbody>
<tr>
<td>Joe Brennan</td>
<td>Euro Cooling Systems</td>
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<tr>
<td>Robbie Burns</td>
<td>Fridge Spares</td>
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<tr>
<td>Pat Cummins</td>
<td>RDL</td>
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<tr>
<td>Alan Davies</td>
<td>Anglo-Irish Refrigeration</td>
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<tr>
<td>Liam Hoctor</td>
<td>Hoctor Refrigeration</td>
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<tr>
<td>Garreth Keenaghan</td>
<td>DIT</td>
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<tr>
<td>Seamus Kerr</td>
<td>RSL Ireland</td>
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<tr>
<td>Dave Killalea</td>
<td>Cross Technical Solutions</td>
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<td>John Murphy</td>
<td>DIT</td>
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<td>Michael Murphy</td>
<td>Murphy Refrigeration</td>
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<td>John Sampson</td>
<td>Danfoss Ireland</td>
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<td>Dominick Ward</td>
<td>Crystal Air</td>
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</table>
Institute Marks Successful First Twelve Months

Mike Hannaway, RDL and Domnick Ward, Crystal Air

The Institute has enjoyed a very successful first year and has every reason to be confident about its future. However, its continued success, as with any organisation that is based largely on voluntary effort, will depend on the support of its members. If you have not yet joined and would like to find out more, visit the IRI website at www.instituteofrefrigerationireland.ie or contact one of the new IRI Council members.

Energy Performance of Buildings Directive — Article 9

The Annual General Meeting of the IRI was preceded by a technical seminar on the Energy Performance of Buildings Directive, dealing specifically with Article 9 — Inspection of Air Conditioning Systems. This part of the Directive requires EU member states to provide for regular inspection of a/c systems greater than 12kW of cooling capacity. Inspection will have to be carried out in an independent manner.

The seminar was delivered by Des Murphy, Kovara, who was recently commissioned by Sustainable Energy Ireland to investigate the implications of implementing Article 9 of the Directive. He presented the general findings of his work, including an examination of the possible staffing requirements and training requirements, the impact on the industry, the scope of inspection, and the number on units involved. He was not asked to make specific recommendations on how Article 9 should be implemented.

Deirdre Flood, who attended the seminar on behalf of Sustainable Energy Ireland (SEI), said that it was expected that decisions on implementation of Article 9 would be taken in 2006 but that further consultation with industry was likely before any final decision is made. The Institute of Refrigeration Ireland will be asked to facilitate this consultation.

Further information on the Directive, including an Action Plan for Implementation, is available online at www.epbd.ie

Mike Hannaway, RDL and Domnick Ward, Crystal Air

Norbert O'Reilly, Cool-Rite Refrigeration and Garrett Keenaghan, DIT

Gary Reynolds, Mark O'Brien and Stephen Curran, all from Crystal Air

The F-Gas amendments across Europe. Ireland, with eleven out of 13 MEPs voting against the amendments, was second only to the UK in Europe in rejecting the ban on HFCs. This was a great result for the IRI membership and they should congratulate themselves on their success.

The AGM was also an opportunity for the Steering Committee that guided the Institute through the first 12 months to stand down, making way for the first elected Council. Nominations for election to Council were invited in last October and the members listed in the accompanying panel (page xx) were elected on the night.

It is now be up to the incoming Council to elect a president from within their ranks and to assign responsibilities for the formation of the various sub-committees.
CIBSE NEWS

CIBSE Fellow Wins SEI Award

Ciaran Coffey, a Chartered Engineer and Fellow of CIBSE working with Superquinn, was presented with two Awards, by the Minister for Energy and the Environment, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.

The Awards are presented in a number of categories representing Electrical, Thermal, Energy Awareness, Excellence in Design, and overall an Energy Manager. Ciaran received an Award in the Electrical Energy Efficient Installation category and was Highly Commended in the Energy Manager of the Year category.

EU Energy Performance of Buildings Directive

The importance of the EU Energy Performance of Buildings Directive (EPBD) — which becomes law in January 2006 — was the subject of the recent CIBSE Technical Evening held in DIT Bolton St, Dublin.

Dr Ken Beattie of the School of Civil and Building Services Engineering at DIT is currently supervising two students at Masters Level who are carrying out research on the EPBD. One of them, Mervin Doyle, presented some of his findings at the meeting. He is currently analysing possible computer programs that could be used for calculating the energy performance of buildings as required under the EPBD.

Details of EnergyPlus, SBEM (the program earmarked for use in the UK), and the IES program which is already in use in Ireland were also presented.

Copies of the paper can be obtained from Ken Beattie at ken.beattie@dit.ie

Fuel Cell Engineering

This seminar was presented by Dr Eugene Coyle, Head School of Control Systems & Electrical Engineering, DIT. Dr Mike Murphy, Dean of the Faculty of Engineering, DIT; and Kevin Kelly, Chairman CIBSE Republic of Ireland Branch

Kevin O’Connell, DIT with Brian Geraghty; Dr Eugene Coyle, Speaker/Dean of the School of Control Systems and Electrical Engineering, DIT; Dr Mike Murphy, Dean of the Faculty of Engineering, DIT; and Kevin Kelly, Chairman CIBSE Republic of Ireland Branch

Michael Dyrenfurth, Purdue University USA with Mervyn Doyle, speaker; Kevin Kelly, Chairman CIBSE Republic of Ireland Branch; and Ken Beattie

Michael McNerney with Jim Fogarty and Gerard Keating

https://arrow.tudublin.ie/bsn/vol44/iss11/1/34
As we went to press, BSNews learned that Unico System International had appointed Precision Heating as distributor for Ireland. The Unico brand is already well known throughout Ireland but Precision’s appointment is part of a new initiative aimed at significantly increasing its market penetration over the coming years.

"Unico System is a very strong brand and an excellent concept", says Alan Hogan, Director of Precision Heating, "and an excellent complement to our already-expansive heating portfolio. This appointment is perfectly suited to both companies — for Unico it will ensure increased market share and, for us, it will spearhead a new development phase aimed at growing our overall market standing".

When it comes to choosing a central heating and/or cooling system, there are critical factors to consider and these considerations are much the same whether the application is for a home, retail outlet, industrial or commercial application. Design flexibility, environmental stability, controllability, initial capital outlay, annual running costs and overall life-cycle costs must all be considered when choosing a system. "The Unico concept meets the requirements of all the aforementioned", according to Alan.

Over many decades Unico System has proved itself a firm favourite with architects, consulting engineers and installers alike, due to its high customer satisfaction levels and ease of installation. It uses unique, narrow-gauge ducting, insulated for sound and heat — together with unobtrusive outlets and a fan unit which emits very low noise levels — to create the perfect living environment.

The Unico System produces no draughts yet circulates air to all corners of the living space for even temperatures. It can be used in conjunction with hot or cold water systems, or with its own high-efficiency heating or refrigeration units.

Alternatively, the Unico Heat Pump can be employed to use outside air or the ground itself to provide heating and cooling at a fraction of the energy costs of using gas or electricity.

Utilising mini-duct technology and compact modular air handlers, Unico System provides even temperatures throughout; stable temperature control; both heating and cooling; low running and maintenance costs; no external radiators or pipework; ultra-low noise levels; and is draught and cold-spot free.

"We are very excited by this new appointment", says Alan, "and even at this early stage we are receiving enquiries for all manner and size of project. Obviously, a vital part of the service we provide is design and selection advice, along of course with comprehensive after-sales support. Unico System is very definitely the ideal solution for many installations and we invite consulting engineers, architects and contractors to contact us at the earliest design stage to discuss its suitability."

Contact: Alan Hogan, Precision Heating.
Tel: 01 - 809 1571; email: info@precisionheating.ie
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Minister Cowan announced a mix of pension changes in the budget which will impact on business owners and directors. Some of these measures, while not altogether what the pensions industry would have wished for, were anticipated and seem fair and equitable. More importantly, the overall attractiveness of pension schemes for business owners remains as strong as ever.

The capacity to build retirement assets of up to €5 million (indexed after 2007) in tax efficient investment structures continues to represent very attractive financial planning. This is a much more equitable solution than the expected age and salary-related contributions option. It still allows for significant retirement provision and asset accumulation through pension trusts.

The very generous funding allowances to pension schemes continues and earnings limits can now be indexed linked from 2007. It is "business as usual" for one-man Self- Administered Trusts and there are no other significant changes regarding borrowings in pensions to purchase property. In fact, these changes will not really affect the vast majority of business owners wishing to avail of the "last remaining real tax shelter"!

**The Changes**
- Maximum pension fund size of €5 million on which tax relief is provided. This will be indexed from 2007;
- Maximum tax-free lump sum entitlements from 7 December 2005 of €1.25 million;
- Deemed distribution from Approved Retirement Fund ARFs from 2007 onwards, for income tax purposes;

**The Good News**
- Pensions earnings cap is to be indexed;
- Contribution measures for those on lower incomes;

**Cap on Fund Sizes**
Minister has introduced a cap of €5 million on the Pension Fund available to an individual, with any excess being taxed at 42%. Existing funds which already exceed this amount are exempted.

The fund cap means that a €1.25 million cap on tax-free lump sums that may be taken upon retirement will apply.

**Tax treatment of Approved Retirement Funds (ARFs)**
The minister is forcing the withdrawal of 3% per annum from an Approved Retirement Funds (ARFs) created on or after 6 April 2000. If not taken out, the tax will be levied on a deemed distribution, which is perfectly reasonable as ARFs were created to provide an income in retirement.

**Pensions earnings cap**
The current annual earnings limit of 254,000 for contributions to personal pensions, PRSAs and for employee contributions to occupational pensions will also be indexed from 2007.

**Further incentives in Finance Bill 2006**
Until the Finance Bill of 2006 it is anyone's guess what form further incentives might take. Possibilities circulating include:
- Tax credit system for PRSAs, instead of the current marginal tax relief;
- Higher rate tax relief on other pension contributions, instead of the current marginal rate relief;
- Some once-off incentive to encourage people to transfer their maturing SSIA fund into an arrangement.

Pensions continue to be the retirement provision vehicle of choice.

The key benefits — including diversity of investments, control over those investments, transparency of costs and flexibility of scheme funding — remain.

The information in this article is based on Foresthill Financial's understanding and interpretation of the Budget Speech 2006 and is based on current law and revenue practice.

**Panel with pix**
Brian and Ronnie Culliton—who have cumulatively over 30 years experience in the financial services industry — are the principals behind Foresthill Financial Planning Ltd, a financial advisory company based in West Dublin. It is regulated by The Financial Regulator as an Authorised Adviser. As such, it is free to offer independent “whole-market” advice and is not tied to any financial institutions, product providers or lender.

Contact: Brian Culliton, Foresthill Financial Planning.
Tel: 087 125 5664; email: brian@foresthill.ie
Given that the course was playing long and the conditions testing, scoring at the RACG's outing in Hermitage recently was very good. There was an excellent turnout on the day with Zac Keane on 37pts just pipping Barry McCarville on 36pts for the President's prize.

Other winners were Class 1: Liam Hoctor, 35pts; Class 2: Brian Carty, 35pts; and Class 3: Tom McDonald, 33pts. The outing was sponsored by Danfoss Ireland.
LA OIL RUSH
With the price of oil in the US at an all-time high Tinseltown has re-discovered its roots. Apparently, Los Angeles wells were plugged having given up only 25% of their oil but modern technology allows for 50% of a reserve to be drained. Now these wells are being hastily re-activated but disguised in deference to their locations. For instance, in Long Beach a well has the appearance of a tropical island, complete with waterfalls and banana trees, while in Venice the rigs pose as lighthouses and office blocks.

FROM OUT OF THE ASHES
Congratulations to all at Myson Heating Controls in Newcastlewest, Co Limerick. Despite the devastating fire at the plant in July, management and staff have pulled together to maintain production from temporary premises just across the road from the original site. Owners Rettig have acknowledged this commitment and in turn pledged the necessary funds to rebuild the plant.

FREE MATHS TUITION
Congratulations to Professor Tom Brazil and his colleagues in the Electronic Engineering Department in UCD for their clever initiative. Faced with a fall-off in students choosing electrical and electronic engineering courses, they have devised a scheme whereby they provide free maths tuition to leaving certificate students in a bid to get them to opt for engineering.

DADDY ANDREW
Congratulations to Andrew Treacy on the birth of his second child, a beautiful baby daughter. That makes Bill and Catherine grandparents, again!

OLIE FITZ STARTS AGAIN!
After more than 30 years with the same company it is reasonable that a person would wish to retire. But not so Oliver Fitzpatrick. Known and respected the length and breadth of Ireland as a limitless source of radiator expertise — and a thorough gentleman to boot! — Ollie has formed his own business and will continue his long association with the heating sector nationwide. Thanks for staying on Ollie and best wishes for the new venture.

MODULAR EXAMPLE
Irish construction could well look to Russia to see how it satisfies its demand for housing. During 2004 alone, apartments built in Moscow totalled eight million sq m of floor area. Prefabricated concrete modules were used throughout for this gigantic construction project.

THE TWISTED TOWER
The Turning Torso’s Spanish architect, Santiago Calatrava is already working on a sister skyscraper, a 254-meter-high building to be erected at 80 South Street in New York. This “Turning Torso” tower, built by the Swedish housing association HSB in Malmo, counts as one of Sweden’s most debated construction projects. Its height is overwhelming, as is the gleaming white facade and the twisted form. The building can actually be seen all the way from Helsingborg, 50 kilometers away.

The building comprises nine cubes reaching skywards, the body twisting through 90°C from base to top, 54 storeys (and 190m) high. The lower stories will contain 4000 sq m of office space with 147 apartments occupying 13,500 sq m from the 14th floor upwards.

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Introducing Ecolution KX4, the VRF inverter multi system from Mitsubishi Heavy Industries. Incorporating the latest in DC inverter compressor technology, it sets truly startling new industry standards, most especially in terms of energy efficiency.

The Ecolution KX4 model range spans 14 to 90kW with a choice of over 100 compatible indoor units, so there are combinations for any project. And with all new controls, extended pipe runs and enhanced diagnostics, they are the natural choice for installers and specifiers alike.

Ecolution from Mitsubishi Heavy Industries - high performance solutions.
We offer a complete range of high-quality, competitively priced products for pressure, temperature and level measurement.

- Our range does not only cover the delivery of individual sensors, but includes suitable power supplies and measurement display units.

- Upon request, we do the entire engineering for you, all the way to the production of the finished control systems.

- National and international approvals and certificates assure the highest level of quality.

- A wide selection of materials (e.g. stainless steel 1.4571/1.4435/1.4404, Monel, Hastelloy, Platinum, Titanium, PFA/PTFE coating) and process connections enable perfect adaptation to the process.

- AFRISO measuring devices cover the following ranges:
  
  | Pressure       | from 0/4 mbar to 0/4.000 bar |
  | Temperature    | from -80°C to +600°C         |
  | Level          | from 0/60 cm to 0/100 m      |

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Measurement Technology From Manotherm