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### BS News

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# BSN*ews*

et al.: BS News

MECHANICAL & ELECTRICAL BUILDING SERVICES

NOVEMBER 2005

Refrigeration — As cold as ice  
but as pure as driven snow ...

HFCs — Self-policing does work!



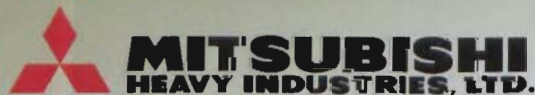
## ecolution KX4: ultimate control



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



**3D Air Sales (Ireland) Ltd,**  
Tel: 01 - 462 7570 Fax: 01 - 462 7611

email: [micclan1@eircom.net](mailto:micclan1@eircom.net) [www.3dair.co.uk](http://www.3dair.co.uk)



# BSNews

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BUILDING SERVICES

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READERSHIP DATA

BSNews (formerly Irish Building Services News) is Ireland's only dedicated Building Services magazine providing coverage of heating, ventilating, air conditioning, refrigeration, sanitaryware, plumbing, maintenance, energy and environmental industries. It is the only publication catering exclusively for these industries and its circulation includes members of the following:-  
Chartered Institution of Building Services Engineers (CIBSE); The Mechanical Engineering & Building Services Contractors' Association (MEBSCA); The Association of Consulting Engineers of Ireland (ACEI); The Mechanical Engineering Contractors' Association; The Institute of Domestic Heating Engineers (IDHE); The Institute of Plumbing; The Register of Environmental & Gas Installers of Ireland (REGII); The Irish Home Builders Association (IHBA); Builders Merchants/Trade Supply Outlets; Irish Property & Facilities Managers Association.

In addition, BSNews circulates to independent building services contractors and key executives in industry. Government, Semi-State and local authority bodies. Essentially, our circulation is virtually saturation coverage of all those with an interest and/or involvement in the building services industry.

O P I N I O N

## Welcome Online!

Great to see so many of you logging on to the online version of the **BSNews Building Services Product Specification Guide**.

With over 6,000 cross-referenced, brand-led entries under 250 primary and sub-category headings, the new online version is particularly dynamic with updates and changes being added on a daily basis.

Product suppliers have also been quick off the mark and have been submitting changes and alterations to information previously supplied for inclusion.

The online version of the Guide is intended as a complementary specifying aid and one which can be used in conjunction with the printed version.

Those of you who have not yet registered as members can now do so by accessing **www.bsnewsbuyerguide.com**

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## Crystal Air Energy Conservation Project

Crystal Air Ltd has just completed the installation of a new gas engine heat pump air conditioning system at the Navan Credit Union offices in Navan, Co Meath. Within this unique project particular emphasis was given to the air conditioning as it was deemed to be a major requirement for staff comfort levels of both temperature and humidity which are difficult to control when the natural ventilation systems are inadequate.

The consultant engineer, Brian McPhillips of Derham Mc Phillips — with the assistance of the architects Gaia Associates — was set the task of providing an energy-efficient solution that would perform as and when required by the building management system to provide cooling without being able to utilise false ceilings or false floors.

The system selected was a GHP Gas Engine Heat Pump from Sanyo which delivers either cooling or heating to floor standing air conditioners via a refrigerant pipework system positioned in offices and around the atrium. The condensing units are powered by natural gas which is a very cost-effective way of producing energy compared to conventional electric systems, while still providing an instant source of cooling when required.

The units were located internally in the roof-top plant room and ducted to external weather louvres at high level. A specifically-designed cantilever extension to the plant room designed by Gaia Associates proved to be a very clever method of introducing large volumes of air for the condensing unit to carry out its heat exchange process.

In addition to being



The Navan Credit Union Offices, Navan, Co Meath where Crystal Air have just completed the installation of a new gas engine heat pump air conditioning system.

energy-efficient, the system is also kinder to the environment. Compared with an electric system, it produces 34% less CO2 annually, while the annual running costs are 55% less than that of an electrical system.

Integration of the Sanyo Central System Controller allowed Crystal Air engineers to inhibit end users from adjusting set points in the occupied zones. It also ensured that every effort was made to achieve maximum building performance and only brought on cooling at the desired design

condition. This condition was found to be 24°C as the natural ventilation system would cope up to this temperature.

The equipment installed was two Sanyo 20hp Gas Engine Heat pump units rated at 56kW cooling and 67kW heating, 22 Sanyo floor standing air conditioners ranging from 2.8kW to 7.3kW cooling, and one Sanyo System Controller.

Contact: Barry Hennessy or Sinead Duffy, Sanyo Air Conditioners. Tel: 01 - 403 9900; [www.sanyoaircon.com](http://www.sanyoaircon.com)

## Potterton Myson Appointment

Fintan Kennedy has returned to Potterton Myson Ireland to take up the position of Area Sales Manager in the southern region. While Fintan has worked with the company before, he now returns with his experience in the merchant side of the business. As such he is even better equipped to deal with the challenges in this very important region to our company.

Contact: Fintan Kennedy, Potterton Myson Ireland. Tel: 086 259 3609; email: [fintan.kennedy@potterton-myson.ie](mailto:fintan.kennedy@potterton-myson.ie)

## Engineers Enter New Era



Calum Dowling, Andrew Henderick, Aoife Gattling Colleran and Gabriella Lears playing around with Engineers Ireland's new logo, which is based on the greek symbol Phi.

The Institution of Engineers of Ireland has embarked on a major rebranding campaign and will now operate under the title Engineers Ireland.

Announcing the change Anne Butler, President of Engineers Ireland said: "If Ireland is to develop the knowledge-based economy that the Government is talking about, and sustain our economic success, we urgently need

to increase the supply of engineering graduates into the workforce. This campaign will build on the success of the Institution's Science Technology and Engineering Programme for Schools (STEPS), which over the past five years has introduced thousands of primary and second level students to the world of engineering.



# The next generation of VRF



ECOi R410A 3 Way Multi: 8HP to 48HP



SANYO are proud to introduce the next generation of simultaneous heating and cooling VRF systems, the ECOi 3 Way Multi. Specifically designed for the UK and Irish markets, the units combine the latest DC Inverter technology and R410A refrigerant to provide dramatically improved energy efficiency, wider operating ranges and longer pipe runs than ever before.

- Simultaneous heating and cooling
- 22.4kW to 135kW nominal cooling capacity
- Industry low outdoor sound levels: 55 dB(A)
- COPs start at 4.09
- Provides cooling down to -10°C ambient
- 150m pipe separations
- Connectability of 40 indoor units
- Industry's smallest changeover boxes
- 10 indoor styles, 11 indoor capacities
- New TouchScreen controller

Simple to apply, install and maintain, the ECOi 3 Way Multi range also qualifies for the Enhanced Capital Allowance Scheme.  
SANYO - a good decision all round.





## Sanitary Temperature Sensors

Manotherm has introduced a new range of temperature sensors from Love Controls, a Division of Dwyer Instruments, that serve many industries and applications.

Offering an extensive choice of CIP (clean in place) sanitary connections, the Series D is most commonly used in processes where corrosion or contamination is a concern. Units comply with 3A symbol council authorisation No:74-00 and the polypropylene heads comply with FDA guidelines.

The Series P penetration probes are for monitoring the internal temperature of poultry, meat, fish, dough, and other fresh or slightly-frozen food products. The units can also be used to penetrate soft process materials such as plastic compounds and rubber. The probes are constructed entirely of FDA-compliant materials for use in sanitary applications. Series P probes are available in RTD or configurations.

Designed to protect temperature sensors from harsh environments, high pressures and flows, the Series W thermowells are widely used in oil refineries, power plants, water and sanitation treatment plants, pressurised fluid lines and tanks.

Where a complete package for temperature-sensing in process applications is required, there is the Series T Temperature Assemblies range. Units combine a 316 SS sheathed sensor protected in a thermowell and offer a choice of head connections. Snap or screw cover head connections designed for weatherproof or explosion-proof areas are available in aluminum, polypropylene or stainless steel.

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

## Wilo Acquires Mather & Platt Pumps

Wilo AG, one of the world's leading manufacturers of pumps and pumping systems, took over 100 % shares of ACP, Allied Centrifugal Pumps Pvt Ltd, Kolkata, and the majority of the listed companies Mather & Platt Pumps Ltd and Mather & Platt Fire Systems Ltd, both Pune.

ACP produces axial split-case pumps which are mainly used for water supply and fire fighting systems, as well as in air conditioning installations.

Mather & Platt Pumps, founded in 1870, is one of

the oldest pump manufacturers in the world and produces large pumps for power plants, municipal water supply and municipal sewage systems, chemical as well as petrochemical industry applications, and agrarian irrigation.

The strategic goal of the acquisition is to broaden the scope of applications of the existing range and so strengthen its standing in the Indian market, while also providing a purchasing alternative to the Chinese suppliers' market.

## Benchmarking For Property Occupiers



A new benchmarking service for property occupiers in Ireland, set up by the IPFMA (Irish Property & Facility Management Association) and the IPD Occupiers Property Databank, has been launched. Details of the new benchmarking initiative — signed up to by 12 Irish participants — were announced at the IPFMA 2005 Annual Conference in Dublin on "The Challenge of Managing Occupancy Costs" in Dublin recently. Pictured at the conference were (from left): Speaker Christopher Hedley, Director of IPD and Head of the Occupiers Property Databank; IPFMA chairman Patricia Crisp of Ganly Walters, Dublin; and Felix McKenna of Eircom, former IPFMA chairman and Junior Vice-President of the SCS (Society of Chartered Surveyors).

## Safe Pass Training Course

A series of Safe Pass courses by Fas-approved tutors with many years of training and experience is now on offer to individuals and companies.

Covering all aspects of the Safe Pass Programme — and catering for first time and renewals — the courses are held at convenient Dublin city centre locations and run Monday through to Friday. In-company training can also be provided while non-national groups are catered for with qualified translators.

Contact: Safe Pass Courses. Tel: 087 235 9947.

## Major Boost From Grundfos

The Grundfos CH family of horizontal multistage centrifugal pumps are already well known for their robustness in many different applications, including pressure boosting, water treatment and industrial applications. These same qualities are well represented in the new CHIE models, along with additional features and benefits which have now been added.

The CHIE integrates an MGE variable speed motor that enables the pump to continuously operate at

maximum efficiency. Variable control means the pump can operate in any duty point within the range between the minimum and maximum performance curves. The duty point can be set either on the control panel of the terminal box, or via the Grundfos R100 remote control. When in-situ, the pump can also be connected to a building management system.

Contact: Gemma Horan, Grundfos.  
Tel: 01 408 9805;  
email: ghoran@grundfos.com



## Honeywell Wins H&V News Awards

Honeywell has won two categories in the *H&V News Awards 2005*, the "Oscars" of the HVAC (heating, ventilation and air conditioning) industry. The Honeywell CM Zone wireless zone heating control system, described by judges as "streets ahead" of other domestic heating controls, was voted Domestic H&V Product of the Year. The company's prolonged campaign during 2004, using advertising, PR and a series of "Driving Expectations" roadshows, was voted Marketing Initiative of the Year.

The award-winning CM Zone uses wireless RF signals from central unit to every radiator for fuel-efficient time/temperature

control of several heating zones. It delivers "right temperature, right time, right place", for maximum comfort and minimum energy wastage. It also optimises boiler firing by aggregating demands from individual radiators. This further reduces energy wastage and prolongs boiler life.

The judges noted the flexibility of CM Zone, as control is independent of the pipework layout, so householders can move control of any radiator between heating zones simply from the wireless central controller.

Judges also noted that only occupied rooms are heated, thanks to individual time programmes, and that the



system takes advantage of external energy sources (eg the sun) and features an automatic open window detection function to switch off a radiator if a window is open in that room.

Honeywell's award-winning marketing campaign during 2004 aimed to reinforce the Honeywell brand, forge better relationships with

installers and specifiers, and back the launch of the company's latest heating control system, CM Zone. It used advertising, PR and a series of "Driving Expectations" roadshow events at 19 venues across the UK and Northern Ireland.

Contact: Honeywell Control Systems.  
email: [literature@honeywell.com](mailto:literature@honeywell.com);  
[www.honeywelluk.com](http://www.honeywelluk.com)



## WOODSIDE ENGINEERING LTD

Suppliers of chilled ceiling, fire-rated ductwork, grilles, fire smoke dampers, and volume control dampers.

Due to continued expansion Woodside Engineering Ltd wishes to fill the following positions:—

### NATIONAL SALES MANAGER

Successful candidate will have 5-10 years experience in the HVCA industry, dealing with contractors and consultants. A good knowledge of grilles and air movement is essential. Driving license required.

*Salary: Negotiable + Car + Pension.*

### INTERNAL SALES

This is an office-based sales position. Knowledge of HVCA industry an advantage but not essential as training will be provided.

*Salary: Negotiable + Pension.*

### CABLEPLAN LTD

Woodside Engineering's sister company — Cableplan Ltd — has a requirement for an Electrical Sales Engineer to cover the South of Ireland. Product range includes automated lighting control systems, busbars and access floor boxes, desk modules and other ancillary products.

*Salary: Negotiable + Car + Pension.*

*Please forward CV's to Neil Ryan:—*

Woodside Engineering Ltd, Park-House, Kylesmore Park North, Dublin 10.

email: [neilryan@park-house.net](mailto:neilryan@park-house.net)



# wireless...



You hardly have to lift a finger, let alone a floorboard to fit CM Zone. With no effort, upheaval, plumbing, cabling, drilling or fuss, CM Zone provides precise, room by room temperature control...

## Honeywell

WITH THE **NEW CM ZONE...**

## Precision Heating Move

Precision Heating Ltd has moved to new, purpose-built premises incorporating offices, training facilities, workshop and warehousing. The new address is Unit 4b, Northwest Business Park, Phase 11, Mitchelstown Road, Ballycoolin, Dublin 15.

Contact: Alan Hogan, Precision Heating.  
Tel: 01 - 809 1571; email: info@precisionheating.ie

## Tender Prices Rising at Moderate Rate

Construction tender prices are continuing to rise, but at a reasonably moderate rate, according to the Society of Chartered Surveyors (SCS), which has just published its latest Tender Price Index.

This index for the first half of 2005 shows, on average, a 2.3% increase since the second half of 2004 and a 5.4% increase in the 12 months from the first half of 2004.

"The average tender prices are now at their highest point since SCS records began in 1998", said Derry Scully, SCS President.

The outlook for the remainder of 2005 is that tender prices will increase further at a rate slightly

ahead of general inflation levels, according to the Quantity Surveying Division of the Society, which prepared the Index.

The Index is based on actual tender returns for non-residential projects during the period for which it is undertaken. It is also based on predominately new build projects with values ranging from €0.5m to €10.0m and covers all of Ireland. The Index is therefore a measure of average construction tender price increases across differing project types and locations.

Contact: Derry Scully, SCS President, at Bruce Shaw Partnership.  
Tel: 01- 661 4711.

## Consolidated Winner

Michael McElligott of McElligotts Ltd, Tralee Road, Castleisland, Co Kerry, was the lucky winner of a patio heater in the draw run by Consolidated Pumps on their stand at the recent AHL trade show.

## O'Neill Appointed JODA Associates

Tom O'Flynn and Terry O'Neill have been appointed Associates of JODA (John O'Donovan & Associates) consulting engineers in Cork. Mr O'Flynn has been a senior mechanical services engineer with the firm for the last 19 years and has worked on some of the largest projects in the south of Ireland. Mr O'Neill has been a senior civil structural engineer with the firm for the last five years and has worked on some of the largest projects in the south of Ireland.

JODA has a staff of 42 and is based in Model Farm Road, Cork. It has been involved in civil, structural, mechanical and electrical engineering for over 40 years.



## SCS Forms Conservation Group

A new Conservation Group is to be set up by the Society of Chartered Surveyors (SCS) to cater for surveyors involved in conservation work and protected structures and heritage buildings. Practitioners who successfully complete a new conservation course will be eligible to become participants in the group.

Already something like 30 SCS members, mostly

quantity and building surveyors, have enrolled for the Society's initial conservation course. It is hoped to run the course on a yearly basis and that it will become recognised by the RICS to fulfil part of its requirements for membership of the RICS Conservation Forum.

Contact: Robert Patterson, Keenan Lynch Patterson.  
Tel: 01- 662 0944.

## Hochtief Appointment

Hochtief Facility Management has appointed David Ewen, Business Unit Head, PPP Division in Ireland. As a specialist in strategic facility management, Mr Ewen has extensive experience in both the private and public sector in the areas of facility management and consultancy, contracting, and site-based operations.



## Toshiba Piping Software

Toshiba has released two new editions of its piping programme software. Both programmes are issued on a single disk and cover the latest SMMS and SHRM VRF system product lines.  
Contact: Derek Phelan, GT Phelan. Tel: 01 - 286 4377; email: gtphehan@eircom.net

## South West Waste Management Plan



Pauline McDonogh, Environmental Awareness Officer, Limerick, County Council with Tom Enright, Director of Services, Limerick County Council and Chairman of the Regional Waste Management Steering Committee; and Philippa King, Regional Waste Coordinator for Limerick, Clare, Kerry at the launch of the Draft Replacement Waste Management Plan for the Limerick, Clare, Kerry Region.

# ...effortless



... And CM Zone doesn't just save the installer energy. By heating rooms selectively and taking advantage of "external" heat sources, CM Zone offers significant energy savings very quickly paying for itself.

## Honeywell

**...YOU HARDLY HAVE TO LIFT  
A FINGER FOR EFFORTLESS,  
WIRELESS CONTROL**



## Jobs Corner

### MANOTHERM SALES REPRESENTATIVE



Manotherm Ltd wishes to appoint a sales representative for the Munster area. He/she will be responsible for the sales and marketing of to company's extensive range of products and equipment, including:— process instrumentation; control valves

and regulators for biotech/pharmaceutical applications; and general industrial and hevac products.

A person with good contacts in these industries would have a decided advantage.

Generous remuneration package, including company car, available for the right person.

Apply in writing, enclosing CV, to: Bobby Gilbert, Manotherm Ltd, 4 Walkinstown Road, Dublin 4.

### CALLING ALL EMPLOYERS

Employers, if you have a position to fill please email brief details to [louise@pressline.ie](mailto:louise@pressline.ie) for inclusion free of charge in *BSNews Jobs Corner*.

### CORE AC SERVICE ENGINEER

Core Air Conditioning, distributors of Carrier, Liebert Hiross and LG air conditioning equipment, wish to appoint a service engineer. Previous experience in air conditioning and chillers is essential. Excellent package for successful candidate.



Reply with CV to Core Air Conditioning Ltd, Unit A6 Centre Point Business Park, Oak Road, Clondalkin, Dublin 12. email: [fintan@coreac.com](mailto:fintan@coreac.com)

### TECHNICAL SUPPORT/ASSISTANT

#### PROJECT MANAGER

# Walkair

A well established air-conditioning company, Walkair Ltd, require an individual with a

substantial understanding of air-conditioning and project management to support existing and future work.

CAD experience would be preferable but not essential. Transport provided.

Negotiable package dependant upon experience. Reply in confidence with CV to:— Vincent Mahony, Walkair Ltd, 901 Western Ind Est, Dublin 12 or [vmahony@walkair.ie](mailto:vmahony@walkair.ie)

## 'Simple Control Transforms Energy Efficiency'



Bypass damper with Carrier's new 3V controller attached.

Carrier 3V, the new stand-alone "open protocol" control system from Core Air Conditioning, is now available for retrofit and refurbishment applications on existing constant-

volume airside systems. These systems represent a considerable investment in ductwork and the like so, improving their performance in a cost-effective manner holds

many attractions.

Carrier 3V will bring constantly-monitored, measurable indoor air quality to existing installations. Energy savings will come from treating air when occupants need it instead of pumping a constant volume of air whether the space is occupied or not.

According to Core's Austin McDermott, temperatures can be controlled to within a third of a degree with Carrier 3V, in different zones within a single floor or an entire building.

Contact: Austin McDermott, Core Air Conditioning.  
Tel: 01 - 409 8912;  
email: [info@coreac.com](mailto:info@coreac.com)

## RADIATORS & CONTROLS

The December 2005 issue of *BSNews* will focus on Radiators & Controls, a market segment that has changed dramatically in recent years.

It will include a detailed breakdown of trends and developments, along with market value information and brand availability.

To participate contact Joe Warren @  
Tel: 01 - 288 5001 or  
Mobile: 086 253 7115



using nature to devise ...

design-led

technology-driven

heating concept solutions



runtal



jaga



vogel



zehnder radiant ceiling panels

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, Sabiana 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.



Beechmount Industrial Estate, Navan, Co Meath

Tel: 046 - 902 9444  
Web: www.versatile.ie



## Tackling Surface & Wastewater Problems



In recent years disposing of contaminated wastewater, removing and displacing excessive surface water, and providing clean water for various uses has become a critical issue for the building services sector.

Changing weather patterns, greater site utilisation, and health and safety legislation have all contributed to this situation and seen the emergence of specialist advisors who have particular expertise in this area.

Graham Fay is one such specialist. Graham has extensive experience of dealing with projects of this nature, having spent many years in the Middle East devising all types of wastewater, water treatment and water supply solutions.

One particular project — the King Abdul Aziz University in Saudi Arabia — involved the refurbishment and conversion of a failed dry-installed system to a wet system catering for a student population of almost 30,000. The ingenious solution included a subterranean chamber something like 120ft below ground and various holding and treatment “ponds” strategically located throughout the 6km square site.

Back here in Ireland Graham specialises in devising similar, all-embracing, solutions on both large and small-scale projects. He applies the knowledge and experience gained on these mega-scale projects to provide unique customised solutions for each application. This includes everything from detailed analysis of the requirements through to system design, product selection, overseeing installation and final commissioning. In essence, it is total project management.

A typical example is rainwater attenuation systems which have become very prevalent in Dublin City. Basically, rainwater from a new development must first be stored and then released gradually into the sewers at a controlled rate. The theory is that, as we increasingly “concrete” in open ground, we are reducing the ability of the soil to absorb surface water and are therefore concentrating it in areas which can give rise to flooding and overloading of sewers and treatment works. This system is designed to alleviate the problem and has been a requirement of Dublin City Council for the last few years. Graham Fay has particular expertise in this sector and he has installed quite a number of these systems, each one on a bespoke basis.

Contact: Graham Fay. Tel: 01 - 825 8212.

## BTU Royal Dublin Outing

Sponsors on the day were Danfoss Ireland with John Sampson presenting the prizes with BTU Captain John White.

Full details are as follows:—

### Overall Winner

Winner — Brendan Bracken (36 pts);

### Class 1 (Scr - 11)

Winner — John Lavelle (35 pts);

Second — Robert Kenny (33.5 pts);

Third — Graham Fay (32.5 pts);

### Class 2 (12 - 17)

Winner — Des Haughton

(33 pts);

Second — Gerry Tobin (31 pts);

Third — John White (30 pts);

### Class 3 (18 +)

Winner — Michael Murphy (28 pts);

Second — John Duignam (26 pts);

Third — Martin McKeon (23 pts).

### Front 9

Winner — Dave Cranston (16 pts).

### Back 9

Winner — Brian Kearney (19 pts).



BTU Captain John White with Overall Winner Brendan Bracken and John Sampson, Danfoss Ireland



Captain John White with 3rd, Class 1 Graham Fay and sponsor John Sampson, Danfoss Ireland



Both the chimney fan and system controls have been carefully documented in accordance with applicable standards. All products for gas fires feature special fail-safe systems approved by Gastec B.V.

All systems are developed to meet international and local standards.

## Special fan selection programme

EXHAUSTO has developed a computer selection programme for chimney calculations based on the relevant international standards.

The selection programme, the detailed product documentation and the complete chimney system appraisals, all form an integrated part of our customer service concept. EXHAUSTO are happy to provide a free fan selection and system evaluation based on our extensive expertise in the design of mechanical chimney draught systems.

With more than 25 different models it is always possible to recommend a chimney fan and control system that meets any customer demand.



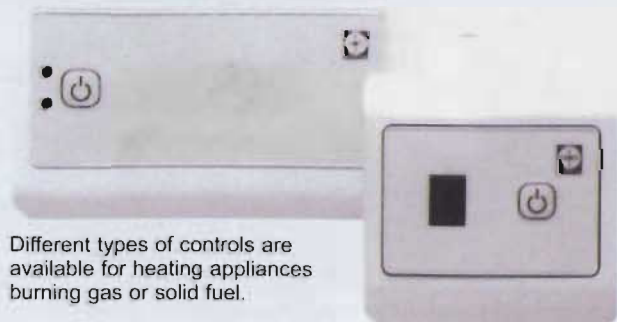
## Advanced, easy to use technology

EXHAUSTO's mechanical draught systems consist of a high quality chimney fan and specially designed control systems. The chimney fans offer capacities which will cover any heating appliance from small domestic fireplaces to larger commercial/ industrial boiler installations. Systems are available for solid fuel, gas or oil.

EXHAUSTO chimney fans are manufactured in two basic versions with either horizontal or vertical discharge. Site conditions and type of heating appliance determine the correct fan selection. In addition, a range of wall fans are available for gas appliances.

Automatic control systems are available from simple manual speed controllers to control systems which interlink with

multiple boiler systems. All products and controls are supplied with a two year warranty. A full 30 day money back guarantee is valid if EXHAUSTO has recommended the chimney fan system. If you are not happy with the performance simply return the product for a full refund.



Different types of controls are available for heating appliances burning gas or solid fuel.



# Cylon — From University Spin-Off Project to European Market Leader



Sean Giblin, Managing Director, Cylon Controls

"We are committed to delivering management systems which provide our customers with a competitive advantage in a constantly-changing marketplace."

While all entrepreneurial success stories reflect professionalism, commitment and achievement, the really great ones also involve an element of naive idealism. So it was with Cylon Controls Ltd. When Sean Giblin embarked on a university project to devise an automatic control mechanism to ring bells in a school, he had no idea that the result would be the world's most sophisticated and acclaimed building management controls system.

Back in 1984 Cylon founder and Managing Director Sean Giblin was a third-year electronics engineering student at



Cylon's headquarters in Dublin is fitted out using the company's own state-of-the-art building management control systems.

UCD. Together with a fellow student, he won an IDA Student Enterprise Award for a product based around electronic timer control. They then developed the idea into a working prototype as a final year project.

While the controller was nowhere near perfected, UCD

obviously saw the potential and installed it in the college's library building. IDA approval for a research and development grant followed in 1985 and thus Cylon Controls was born. Shortly after a production prototype was created, thanks to UCD who put up half the money with the remaining funding coming from the IDA and friends.

Sean and his colleagues then raised a further £20,000 through a business expansion scheme and moved out of the university. This was its first step into the cut-throat business world and came as something of a culture shock. However, they rose to the challenge, unveiling Cylon's first commercial product, the CC200 controller, in 1987.

Shortly after they were introduced to



The smaller form factor of UnitronUC32 products reduces the size of MCC panel required



# Cylon – From University Spin-Off Project to European Market Leader



Additions to senior management team — Jennifer Egan, Customer Services Manager; John Fallon, Product Marketing Manager; Sean Giblin, Managing Director; and Alan Long, Sales Director.



The UnitronUC32 product family from Cylon now also includes a full range of sensors

Brown Boveri (now ABB), who agreed to sell the product in Ireland.

By June 1988 Cylon had 10 employees and a unit in the East Wall Centre. This year also saw the appointment of Tony Gannon as Chairman, who brought much-needed business acumen and experience.

Conscious of the need to get into the export market, they were on the look-out to appoint a UK distributor in 1988 when they were approached by Landis & Gyr who were having problems with their own product. They agreed an OEM deal whereby Cylon manufactured its CC200 product but Landis & Gyr badged it as its own. However, there was a downside. When the deal ended in 1992 and

Cylon entered the UK market under its own brand-name no one knew who they were.

From that day forward they vowed never to be dependent on any one customer or on any one market segment. They also vowed to create their own market identity.

That they achieved this objective is patently obvious. Something like 70% of the business is now export-oriented with no one market representing more than 35%. Countries now served include the UK, Germany, Italy, France, Norway, Sweden, the USA, Singapore, Taiwan and China.

In the early days there were no system integrators in the market but that dramatically

changed. End users require local companies or specialists to apply the Cylon systems. Hence the emergence of the Approved Cylon Systems Integrators (ACSI) network.

May 2001 saw the company move into a new purpose-built building at Clonshaugh Business and Technology Park, on the northside of Dublin, quadrupling its R&D, office and manufacturing floorspace. The benefits of its advanced systems are also fully integrated into the building and are used to provide working demonstrations.

On the product side there have been generation after generation of innovative introductions, the most recent being the groundbreaking Unitron UC32 in 2004. This is an entirely new 32-bit

hardware architecture which combines advances in controller engineering with ethernet networking and system interaction via the web.

Looking to the future, implementing the current strategic business plan is the immediate aim for Sean Giblin and his colleagues. The first part of this has seen a strengthening of the management team with several senior appointments in recent months. The next element is to focus on sales and marketing in order to realise the ambition of doubling turnover over the next five years.

Contact: Alan Kearney, Cylon Controls Ltd.  
Tel 01 – 245 0500;  
email: alan.kearney@cylon.com;  
www.cylon.com



In addition to prestigious installations in Ireland and throughout Europe, Cylon building management control systems feature in high profile projects throughout the world. A typical example is the Fangfeiuyan, Diaoyutai, State Guest House pictured above. This is where China hosted the North Korean nuclear talks.



# RACGS At The Hermitage



The RAGS Captain's outing in The Heritage recently proved the most popular of the season so far with 45 participants enjoying an excellent days golf.

Tough wind conditions, especially on the front nine, were perhaps the greatest challenge on the day but Joe Warren of *BSNews*, playing off 12, seemed immune as he played a wonderful round to justifiably take the overall winners' slot. Vincent Barrett, playing off 14, was runner-up.

It was a fitting outing for popular Captain Liam Hocter with Pat Cummins of RDL providing main sponsorship on the day.

Other winners were Liam Hocter (Cat: 1); Michael Clancy (Cat: 2); and Eamon Murphy (Cat: 3).



Pat Cummins, RDL with overall winner, Joe Warren, *BSNews*

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Category 3 winner, Eamon Murphy with Pat Cummins, RDL



Category 1 winner, Liam Hocter with Pat Cummins, RDL

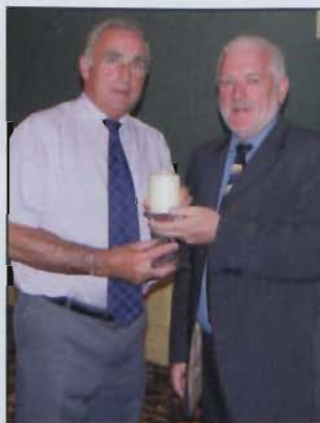


Pat Cummins, RDL with Category 2 winner, Michael Clancy

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Brian Carty with Pat Cummins, RDL



Michael McLoughlin with Pat Cummins, RDL



Iggy Malone with Pat Cummins, RDL



Paddy Smee with Pat Cummins, RDL



Mark Keily with Pat Cummins, RDL



Tom McDonold with Pat Cummins, RDL



# EPA To Enforce Regulation on Ozone-Depleting Substances

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For further information and advice regarding compliance with the ODS regulation see the following web link — [www.epa.ie/technical-guidanceandadvice/ODS](http://www.epa.ie/technical-guidanceandadvice/ODS) or contact David Dodd, Inspector, Environmental Protection Agency, Environmental Planning and Guidance, Johnstown Castle Estate, Co Wexford.  
Tel: 053 – 60600;  
Fax: 053 – 60699;  
email: [wasteinfo@epa.ie](mailto:wasteinfo@epa.ie);  
[www.epa.ie/technical-guidanceandadvice/ODS](http://www.epa.ie/technical-guidanceandadvice/ODS)

At a time of increasing environmental awareness and protection, there are few industrial sectors that do not have to comply with some piece of environmental legislation. There are a number of pieces of existing and pending legislation which have particular implications for the refrigeration and air conditioning sectors.

Regulation EC No: 2037/2000 on substances that deplete the ozone layer came into effect on the 1 October 2000. As the EC legislation is in the form of a Regulation and not a Directive, it is directly applicable in Irish law. The Environmental

Protection Agency (EPA) has recently been designated as the competent authority for the implementation and enforcement of this regulation.

It is apparent that the industry as a whole has been pro-active with regard to this Regulation and should be congratulated for the way it has endeavoured to comply with this legislation over the last number of years.

The Regulation places bans and limitations on the production, import, export, placing on the market, use, recovery, recycling, reclamation and destruction of certain ozone-depleting substances in Ireland and the EU. The main substances of concern to the air conditioning and refrigeration sectors are CFCs (typically R11, R12 and R502) and HCFCs (typically R22).

Other substances covered by this Regulation are listed on the Advertisement on page 45. This is a non-exhaustive list, and a full listing of controlled substances covered is listed in Annex 1 of the Regulation which can be viewed on the EPA website [www.epa.ie/technicalguidanceandadvice/ODS](http://www.epa.ie/technicalguidanceandadvice/ODS).

The Regulation also requires minimum qualifications to be specified for personnel involved in recovery, recycling, reclamation and destruction of ODS and also for technicians leak-testing ODS-containing refrigeration systems.

The EPA and the

Department of the Environment, Heritage and Local Government (DEHLG) have already held a preliminary meeting and discussions with representatives of the Institute of Refrigeration of Ireland (IRI), Refrigeration Technology Skillnet and the Dublin Institute of Technology (DIT) regarding the implications of complying with the Regulation and, in particular, the training and qualifications requirements necessary under the Regulation. Contact has also been made with individual companies and organisations.

It is important that the industry is compliant with the Regulation as other environmental legislation such as the Fluorinated Greenhouse Gas Regulations (F Gas Regulations dealing with control of certain fluorinated greenhouse gases such as hydrofluorocarbons (HFCs)) and the Energy Performance in Buildings Directive (Directive 2002/91/EC) will have further implications for the sectors.

The EPA — along with the DEHLG — will assist the industry in its compliance with this Regulation but at this point, we require your co-operation with regard to compiling a database on all persons and organisations involved in the utilisation of these controlled substances. Guidance notes for industrial sectors are also being prepared. Questionnaires have been sent out to over 200

companies in the building services area in recent weeks.

The information gathered from the questionnaires will be used to prepare reports to be submitted to the European Commission in November. Due to the short time frame involved, it would be appreciated if companies who have received the information request forms would complete and return them as soon as possible (preferably by email, see details below).

If you have not received a questionnaire but think that the Regulation applies to your operation, please download the appropriate ODS information form, complete the relevant information, and return to the address provided below as soon as possible. The EPA is aware that some of the information required may be commercially sensitive. The information provided by companies will be kept secure and will remain anonymous in so far as possible within the constraints of the Freedom of Information Act.

Completed information forms should be emailed to [ODS@urscorp.com](mailto:ODS@urscorp.com) or posted to the following address: Ozone Depleting Substances, URS Ireland Ltd., Iveagh Court, 6-8 Harcourt Road, Dublin 2.



## FOHN



### Cabinet heater

**CAPACITY:** 30 KW – 1,000 KW

#### PRODUCT APPLICATION

Factories • Engineering Plants • Abattoirs • Cardboard Factories  
Paper Factories • Workshops • Garages • Warehouses • Shops  
Aeroplane Hangars • Showrooms • Hotels • Cash & Carry  
Gymnasiums • Dressings Rooms • Exhibition Halls

## GS / GC / ROOF TOP

### Unit air heater



**CAPACITY:** 20 KW – 95 KW

#### PRODUCT APPLICATION

Factories • Engineering Plants • Abattoirs • Cardboard Factories  
Paper Factories • Workshops • Garages • Warehouses • Shops  
Aeroplane Hangars • Showrooms • Hotels • Cash & Carry  
Gymnasiums • Dressings Rooms • Exhibition Halls • Pub's, Bar's & Restaurants

## CALFLO

### Gas-fired make up air unit



**CAPACITY:** 65 KW – 1,200 KW (+)

#### PRODUCT APPLICATION

Engineering Plants • Spray Cabinets  
Paper Factories • Garages • Exhibition Halls  
Process Industry • Factories • Abattoirs •  
Cardboard Factories

## RADIANT PLAQUE



**CAPACITY:** 2.5 KW – 27 KW

#### PRODUCT APPLICATION

• Aeroplane Hangars • Shops • Cash & Carry  
• Cargo Platform • Grandstand • Workshops • Warehouses  
Gymnasiums • Exhibition Halls

## INFRA AQUA

### Water radiant panels

**CAPACITY:** Project Related

#### PRODUCT APPLICATION

Offices • Factories • Abattoirs • Workshops •  
Garages • Warehouses • Shops •  
• Showrooms/Hotel • Cash & Carry  
Gymnasiums • Dressings Rooms • Exhibition Halls  
• Churches • Aeroplane Hangars



<https://arrow.tudublin.ie/bsn/vol44/iss10/1>

## INFRA/INFRA MONO

### Gas-fired black



**CAPACITY:**

#### PRODUCT

Factories • Engineering Plants  
Warehouses • Aeroplane Hangars  
Gymnasiums • Exhibition Halls

## TANNER / DOOR

### Warm water



**CAPACITY:**

#### PRODUCT

Factories • Engineering Plants •  
Warehouses • Aeroplane Hangars •  
Cash & Carry • Gymnasiums •

## KLIMAT

### Air handling units



## ECOFAN

### Destratification



#### PRODUCT APPLICATION

Factories • Engineering Plants • Abattoirs  
Aeroplane Hangars • Showrooms • Hotels •  
Gymnasiums • Dressing Rooms •

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## INFRA LINE

### tube radiant heating



13 KW – 100 KW

#### APPLICATION

- Abattoirs • Workshops • Garages
- Shops • Cash & Carry
- Cargo Platform • Grandstand

## CURTAINS

### unit air heaters



8 KW – 115 KW

#### APPLICATION

- Abattoirs • Workshops • Garages
- Showrooms • Shops
- Dressing Rooms • Exhibition Halls

#### PRODUCT APPLICATION:

- Offices • Factories • Spray Cabinets
- Abattoirs • Workshops • Garages
- Warehouses • Aeroplane Hangars • Showrooms • Hotels • Shops • Cash & Carry
- Gymnasiums • Dressing Rooms • Churches • Pub's, Bar's & Restaurants

**CAPACITY:**  
4,000 - 8,000 -  
14,000 m<sup>3</sup>/h



- Workshops • Garages
- Shops • Cash & Carry
- Exhibition Halls • Churches

## DRYFLO

et al.: BS News

### Industrial burner installation



**CAPACITY:** 1 KW – 13,000 KW (+)

#### PRODUCT APPLICATION

Process Industry

## VENTILATION MDV

### Roof fan

**CAPACITY:** 1,840 to 10,200 m<sup>3</sup>/h

#### PRODUCT APPLICATION

- Offices • Process Industry • Construction Halls • Factories • Engineering Plants
- Spray Cabinets • Abattoirs • Workshops • Garages • Warehouses • Cash & Carry
- Aeroplane Hangars • Showrooms • Hotels • Shops • Gymnasiums • Dressing Rooms



## WALL MOUNTED HEATING

### Gas fired wall and ceiling heaters

**CAPACITY:** 2.5 KW – 10 KW



#### PRODUCT APPLICATION

- Offices • Domestic Rooms • Creche • Meeting Rooms
- Car Show Rooms • Hotel Rooms • Banks • Shops

## FAN COIL

### Wall and ceiling L.P.H.W. fan coil

**CAPACITY:** \* Heating 3.6 KW to 16 KW  
\* Cooling 1.5 KW to 6.9 KW



#### PRODUCT APPLICATION

- Offices • Domestic Rooms • Creche • Meeting Rooms
- Car Show Rooms • Hotel Rooms • Banks • Shops

## BENDER

### Hydraulic pipe bending machine

**PIPE DIAMETERS:** 3/8" to 4" (thick-wall)  
10mm to 42mm (thin-wall)  
**CONTROL:** Hand or Electric



# mark

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# F-Gas Regulation — EU Votes for Containment, Not Phase Out



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As we went to press Seamus Kerr, Chairman of the Institute of Refrigeration Ireland, informed *BSNews* that the proposal to ban the use of HFC refrigerants in Europe has been rejected by the European Parliament. Earlier this month, the Parliament's Environment Committee included the ban in last-minute amendments to the F-Gas Regulation. It recommended the phase-out of refrigeration and air conditioning equipment using HFCs by 2010, on the grounds of the refrigerant's global warming impact.

MEPs also voted (by 336 votes to 279) to retain a dual legal base, rejecting proposals that the Regulation should be founded entirely on an environmental base — a move which would have allowed member states to adopt stricter measures to control F-gases than those in the EU Regulation.

The Regulation, without the proposed amendments, now passes to the Council of Ministers for approval and possible implementation throughout the member states from next year.

Cedric Sloan of The Federation of Environmental Trade Associations (FETA) said of the decision: "This is a vote for common sense, for economic stability and for the environment. As



Garrett Keenaghan, DIT, with Enda Hogan, Refrigeration Technology Skillnet; Seamus Kerr, RSL Ireland; and John Samspon, Danfoss Ireland

an industry we look forward to early implementation of a regulation that emphasises the need to contain emissions and improve the training and certification of those who handle refrigerants. Let us now use our energies to help the environment and enhance the reputation of our essential industry, rather than waste time defeating absurd interventions by irresponsible pressure groups."

But Seamus Kerr cautioned the industry against complacency. "We are still facing quite a number of very significant challenges", he said, "among them issues relating to suction and discharge; new legislation which will impact on the sector; The Pressure Equipment Directive; F-Gas; and brazing certification. Rising labour costs, insurance costs and raw material price increases are also putting Irish companies under

more and more pressure. New approach directives — while removing trade barriers — also mean that Irish refrigeration companies must prepare for increased competition. "The Irish refrigeration industry is a core industry that supports many other industries in Ireland. Refrigeration provides a critical role in our daily lives, from the preservation of food to the cooling of power generating plant. All of the new pharmaceutical, biomedical and IT component plants that have helped boost the Irish economy rely on refrigeration and cooling as part of their processes. A recent report showed that over 17% of electrical power in Ireland goes to the provision of refrigeration. In the US, ASHRAE estimates that the refrigeration sector is responsible for a third of all energy consumed in that country."

In April 1904 the first meeting of the American

Society of Refrigerating Engineers was held at 374 Fifth Avenue, New York. The scope of the society was to "embrace all those interested in a scientific and practical promotion of the art of mechanical refrigeration." More than 90 people had applied for membership.

One hundred years later, on Friday 26 November 2004 to be precise, the Institute of Refrigeration Ireland was launched. The objectives of the institution include the promotion of the general advancement of refrigeration and air conditioning applications, and the pursuit of excellence in the provision of refrigeration products and services for the community. It also serves as an industry lobbying group and orchestrated a significant, and very effective, campaign targeting Irish TDs and Government ministers in relation to the recent F-Gas vote in the European Parliament.

That said, training forms the pivotal core of most of its regular programmes. The Refrigeration Technology Skillnets (RTS) training program was specifically developed to help alleviate the pressures listed above. This network now has 140 member companies, including all of the key players in the industry, and is expected to grow to 180 companies by the end of 2007.



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[rslireland.com](http://rslireland.com)



# F-Gas Regulation — EU Votes for Containment, Not Phase Out

The focus to date has been mainly on technical training and this continues to be top priority.

However, RTS now also aims to address some of the business development needs of the members. Indeed, the Institute of Refrigeration Ireland (IRI) was one of the first initiatives in this direction. Through the IRI the industry is increasingly anxious to influence government decisions relating to the refrigeration sector as a whole.

On an even more positive note the RTS has just recently been advised that additional funding for its activities has been approved until the year 2007 under the Government-sponsored skillnets programme. A series of seminars, reports and training initiatives has also been approved and these will commence over the coming months.

Moreover, the IRI Educational Committee is extremely well organised. In educational terms refrigeration is a relatively new apprenticeship under the National Craft Certification system. There are a number of theses written specific to the trade and it is as a result of the industry's need and eagerness to train/retrain refrigeration personnel that the Refrigeration Skillnets initiative is so successful.

Industry provided the



DIT programme proves its worth — Alan Parr, Coolrite Refrigeration, wins gold in the refrigeration section of the World Skills competition in Helsinki earlier this year.

board of Refrigeration Skillnets with information on the type of continual professional development courses required, on courses needed to enable industry comply with legalisation, and on courses needed to up-skill their engineers.

Refrigeration skillnets identified the training providers and allowed Irish trainers such as Fas, DIT and CIT to put proposals on the table and deliver the necessary training. The result is evident in the wide spread of skillnet courses and workshops available throughout the country.

The IRI educational committee now has an exciting opportunity to move forward from the skillnet platform and develop an educational programme with its counterparts in Europe which would allow members an opportunity to develop new skills combined with an upgrading of current skills.

In the short time since the Institute was established it has made contacts with European

bodies such as the Air Conditioning and Refrigeration European Association (AREA ). By liaising at board level IRI can keep members in Ireland fully informed about changes which will directly influence how business is conducted.

An endorsement of the status of IRI within Europe is the fact that an IRI member will be directly involved this year in judging the European skills competition at IKK. The experience gained from participating in such a competition will be brought back and used in the Refrigeration National Competitions held annually in DIT.

Furthermore, the Danish partners of an international-led initiative — which includes refrigeration educational institutes from France, Sweden and Spain — have asked the refrigeration section within the Department of Construction Skills in DIT to carry out an evaluation of their programme and possibly incorporate some of their modules into existing courses.

The partners have produced web-based

training programmes which will allow students to combine college study in their own time with on-the-job training. The close relationship of study and practical training will be highly motivating for students in the learning process. The IRI educational committee will be working with DIT on the evaluation of this programme and will be looking for volunteers shortly to participate on the programmes.

The training modules are designed to cover basic and advanced training. Once the students feel ready, they will be required to sit a global examination under supervision. Findings from this evaluation will be made available to the educational committee of the IRI who can in turn use it to adapt the experience to Irish industry-specific needs.

### Conclusion

Looking to the future, the IRI educational committee is working tirelessly on members' behalf to bring about easily-accessible programmes that meet the standards of increasingly-changing regulations, legislation and technology. Through dialogue with members, and in partnership with European educational institutes and industry, it is slowly building a better future for refrigeration personnel in Ireland.

Contact: Enda Hogan, Institute of Refrigeration Ireland. Tel: 01 - 878 3772; email: info@instituteofrefrigerationireland.ie





et al.: BS News

# 'Panasonic UM R410A Heralds New AC Era'

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Panasonic claims that its new Urban Multi R410A VRF inverter system is a pioneering development and one which sets the benchmark for the future direction of air conditioning. Extensive R&D followed by exhaustive field trials has resulted in an innovative range based on five critical factors — flexibility of design; performance; low noise; ease of installation; and high reliability.

There are two principal options available — VRF inverter heat pump or VRF with heat recovery. Features and benefits of each are as follows:—

**VRF Inverter Heat Pump** — Used to cool or heat from a single system; control up to 40 units with just one outdoor unit; capacities from 14kW to 134kW, in increments of 5kW.

**VRF with Heat Recovery** — For

simultaneous cooling and heating; control up to 40 units with one outdoor model; broad range of capacity levels; heat recovery obtained by utilising the heat generation by the indoor units in cooling mode in areas that require heat; the HR unit switches between cooling and heating modes in the system.

The advanced technology incorporated into the outdoor units includes new aerodynamic fans and coil grids; E-pass heat exchanger; DC-inverter fan motor; and reluctance DC scroll compressors. Inverter technology also makes for exacting control on the cooling load. In this way using two compressor types — one fixed speed and the other inverter — compressor capacity can be controlled step-by-step if a low-capacity indoor unit is used. The condenser is

also inverter controlled while the new aerodynamic fan and coil grid mean reduced noise in large-volume fans and a compact cover design along with the compressor technology.

The length of cooling pipe between the indoor unit and the outdoor units in a system can be extended up to 150m, with a height difference of up to 50m between the indoor units and the outdoor unit. These limits make it possible to place the outside unit on the roof of a 15-floor building. Additionally, the maximum height difference between indoor units in the same system may be up to 15m, thus covering four or five floors in the same system.

The unique system of pipes and wiring, coupled with the light weight and compact size of the units, make for quick and easy installation. Moreover, the automatic configuration function of addresses and self-diagnosis for connection errors in piping or wiring enables any installer to install direct-expansion air conditioning equipment in a highly-reliable and competent manner.

Another key benefit is the reduction in the total amount of refrigerant throughout the installation. The adoption of the new R410A refrigerant gas, together with the optimisation and reduction of pipe diameters, makes for a major reduction in the volume of the whole circuit.

The use of R410A also makes for a considerable

reduction in the initial refrigerant load which can be as much as 20% compared to the old R22 models. There is also a specially-designed refrigerant recovery function which opens the valves to facilitate recovery of the refrigerant using a recovery unit.

The sustainability of the units is further enhanced by the choice of materials used and the production methods. As with the entire Panasonic range, the welds used in the electronic plates of the units are lead-free. The bottom plate of the outdoor units is designed to multiply its service by six versus the traditional galvanised bases, whereas the Galbanium steel used to manufacture them is 100% recyclable.

As distributor for Panasonic throughout Ireland, Walkair provides comprehensive design support, installation, commissioning and service back-up through a network of accredited dealers. They are fully trained in the latest technology and products coming on stream from Panasonic, and work very closely with Walkair and the consultant on every project to ensure the most appropriate, cost-efficient, and environmental-friendly solution is provided. All applications are catered for, major clients including AIB, Gynzyme, Leo Pharma and GlaxoSmithKline.

Contact: Vincent Mahony, Walkair.  
Tel: 01 - 456 8070;  
email: vmahony@walkair.ie



Panasonic claims that its new Urban Multi R410A VRF inverter system is a pioneering development and one which sets the benchmark for the future direction of air conditioning.



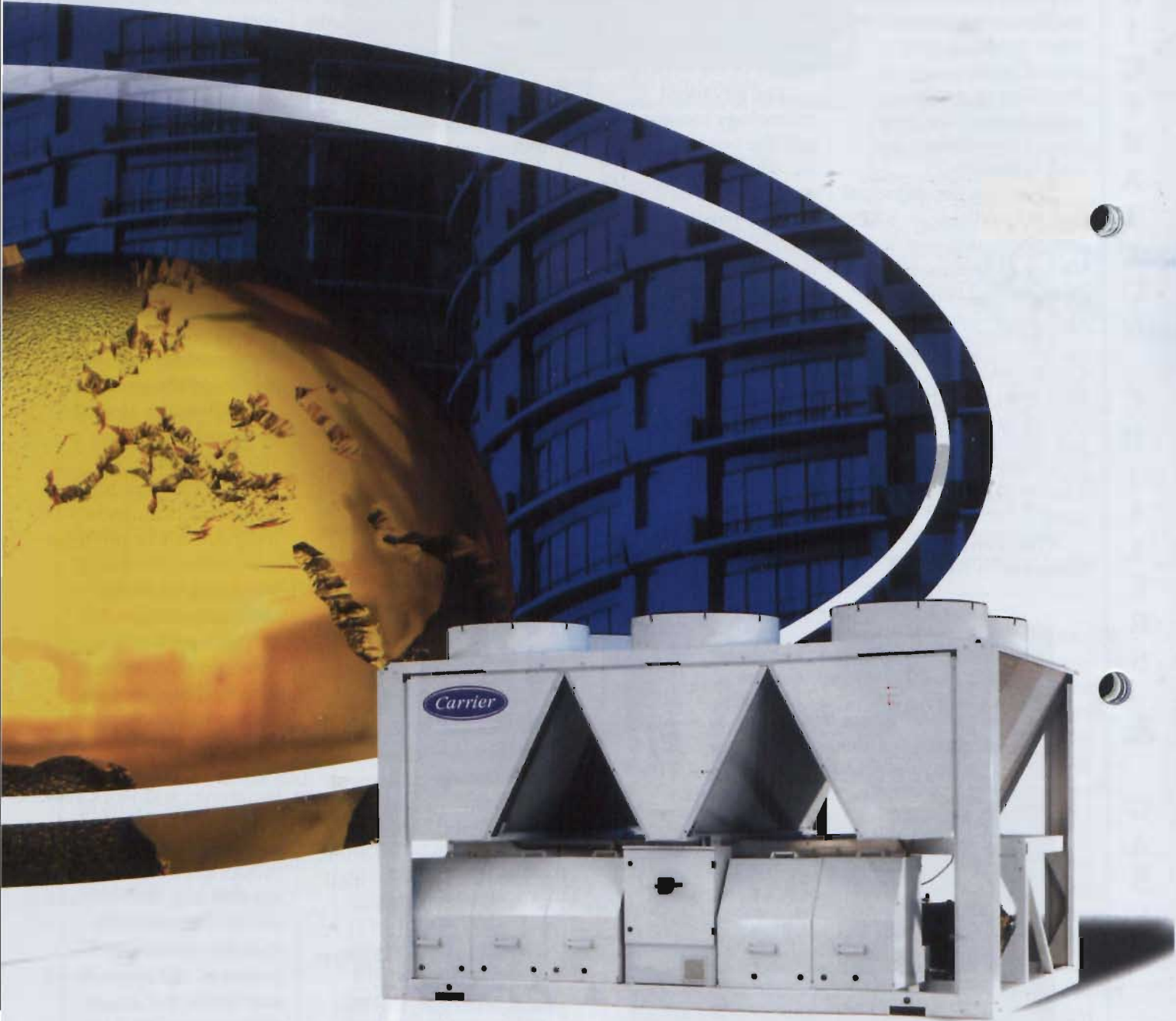


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# Carrier DX Free Cooling



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Modern architecture, coupled with climate change, better building methods and the extensive use of computers and office equipment, means that more and more buildings require cooling all year 'round. This holds true for virtually every country, irrespective of latitude, and in this respect Ireland is no exception.

The common solution has been to use cold air from the outside. However, such traditional free-cooling water systems can be expensive to install and take a long time to recover the investment. Additionally, they use a glycol water solution which means that power consumption outside of the free-cooling periods is increased. So, today's requirement is for a more cost-effective solution.

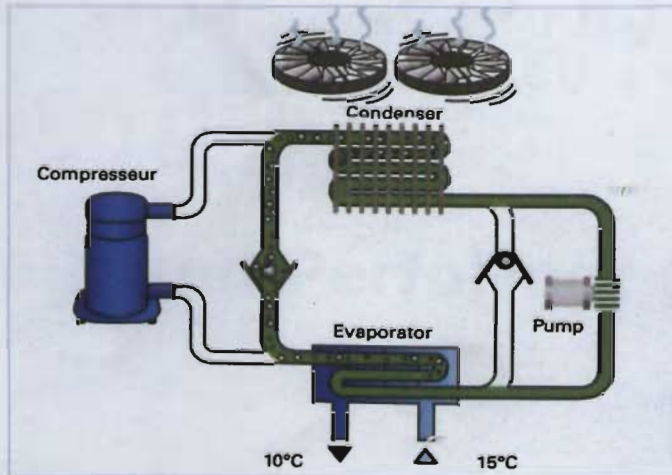
Against this background Carrier has developed the DX free-cooling system which is said to guarantee exceptionally-economical chilled-water production as soon as the outside temperature falls below 5°C. *BSNews* asked Austin McDermott, Managing Director of Core Air Conditioning who distribute Carrier, how this is achieved.

"Carrier invested considerable resources in

addressing this problem", says Austin, "and eventually came up with the revolutionary DX (direct expansion) free-cooling system which utilises the thermosyphon principle. Gas from a relatively warm region (the evaporator) migrates to a relatively cool region (the condenser), transferring heat in the process. All that's required to operate and sustain this process are the condenser fans and a small refrigerant circulating pump. Hence the significant reduction in energy consumption.

"Moreover, the hydronic circuit uses pure water without glycol. This also makes for decreased energy consumption, less generated noise and less pollution. Effectively, what DX free-cooling does is optimise the exploitation of renewable energy while delivering significant cost efficiencies and protecting the environment."

The innovative DX option is now available with the Aquasnap range, which itself was a pioneering development when first introduced a couple of years ago. Again the result of an extensive development process and exhaustive field tests, there are already something like 20,000 Aquasnap units installed



The Carrier DX free-cooling AquaSnap system

worldwide with new, more advanced, models regularly coming on stream.

A typical example is Aquasnap Puron. Anticipating ecological market expectations some years back, Carrier choose to use the non-ozone-depleting, chlorine-free refrigerant Puron in its then new residential air conditioner range. Within a few years Puron (Carrier's name for refrigerant R410A) became the established benchmark for smaller installations and now Carrier has extended its use to large commercial and industrial units.

With R410A the latest Aquasnap range of heat pumps and chillers offers higher capacity at reduced power consumption, contributing to a reduction in CO<sub>2</sub> emissions. Moreover, the use of recyclable materials and ISO 14001 certification

(environment) at the production stage further enhances Carrier's ecological philosophy.

An additional advantage is that Aquasnap includes virtually everything. The integrated hydronic module within the chiller incorporates pump, valves and hydronic accessories which reduces plant room size and frees up valuable space for more productive use.

In conclusion, Austin McDermott says that, with the revolutionary DX free-cooling system, Carrier's latest range represents the most economical and ecological development in air conditioning technology currently available on the marketplace.

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



# Panasonic

Air Conditioning

## UM3 R410A VRF Systems



- R410A inverter VRF system;
- Simultaneous heating / cooling with cooling capacities 14 to 134kW, heating capacities 16 to 150kW;
- High COP's / EER's;
- Extended piperuns up to 175m equivalent length / 150m actual length;
- Reduced weight, footprint and pipe diameters thereby reducing space and installation costs;
- Reduced refrigeration volume;
- Reduced initial refrigerant load.

# Walkair

Walkair Ltd

Unit 901 Western Industrial Estate, Dublin 12

Tel: 01 - 456 8070

Fax: 01 - 456 8098

email: [sales@walkair.ie](mailto:sales@walkair.ie)





# RSL — Your Link To Quality, Technically-Advanced, Certified Suppliers

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The Irish refrigeration and air conditioning industry has grown dramatically over the last 30 years, driven primarily by the food processing, food retailing, IT, electronics, pharmaceutical, retail, commercial development and industrial sectors. Throughout that time RSL has been at the forefront of this growth, working with consultants and installers to keep abreast of the latest trends and techniques.

As if to emphasise this point it has just unveiled its new website. This is very much an inter-active site which offers design advice, technical support, product selection guidance and direct links to RSL's many blue-chip product supply partners.

Today RSL specialises in the design and supply of equipment to refrigeration contractors throughout Ireland and Northern Ireland, in addition to clients throughout Europe, Far East, Russia and Africa.

It also distributes a wide range of air conditioning products and systems for residential, commercial and industrial use. All of the important Ice thermal Storage (ice bank) systems installed in Ireland have been designed and supplied by RSL. The recent giant closed-circuit condenser water circulation systems at some retail parks were also supplied by RSL.

Additionally, it is the recognised leader in the wholesale supply of industrial and commercial refrigeration, air conditioning and allied equipment.

RSL's portfolio comprises leading-brand, cutting-edge products from European, American and worldwide industry leaders. Core products include compressors, condensers, compressor racks/packs/, evaporators, heat exchangers, packaged refrigeration systems, heat pumps, controls, piping and insulation.

Engineering quality and energy efficiency are the prime considerations when RSL sources new additions to the range.

All products are subject to rigorous testing and certified. Where necessary, they are compliant with The Pressure Equipment Directive (PED), possess CE certification, and are sourced from ISO9001 certified suppliers

RSL maintains a multi-million euro inventory to ensure prompt availability, along with efficient, knowledgeable and courteous service, from its branches in Dublin, Galway, Cork and Belfast. The same

philosophy applies to its sister company in the UK, Refrigeration Spares Ltd, which has depots in London, Exeter, Manchester, Coventry and Glasgow.

All RSL branches offer free delivery, using its own transport fleet, in addition to trade counter service, five and a half days a week.

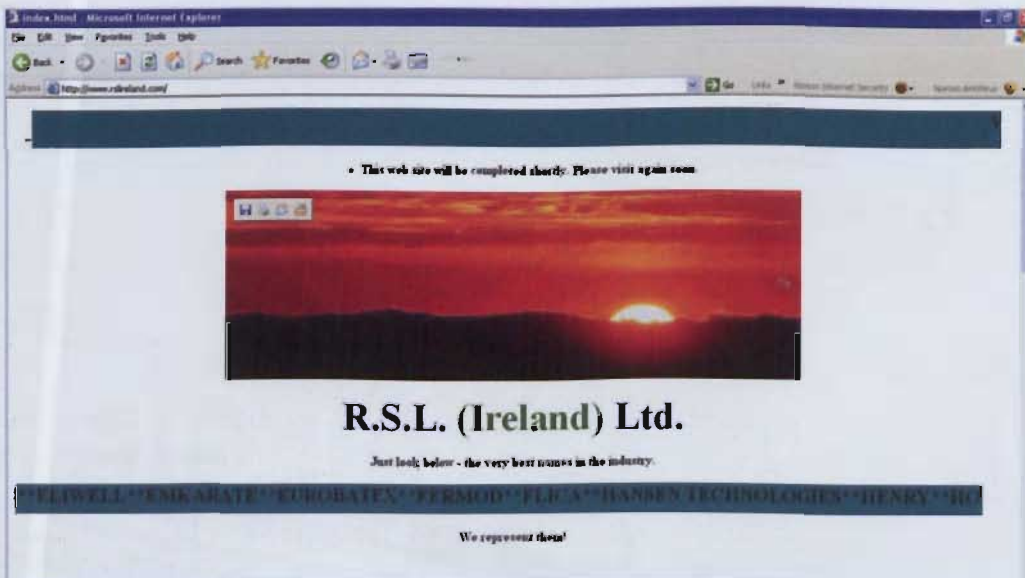
One of RSL's main strengths is the design and supply of commercial and industrial refrigeration systems, from water chilling for large pharmaceutical plants to supermarket display cooling units. RSL supplies all the components of these systems from tools, through to test equipment, piping and associated components, to evaporative and air/water cooled condensers.

RSL is ideally placed to offer the design and selection expertise for any industrial, commercial refrigeration or air conditioning projects. Its sales engineers are fully-qualified in all of the areas

and have a combined knowledge base of decades of experience and learning. They constantly attend international seminars and training sessions to keep up with the latest techniques and technology.

In order to offer the best technical advice RSL uses the latest information technologies and has also developed its own software for design and optimised equipment selection. This, along with specialised software from its brand-leading suppliers, is freely available to its customers. Further strengthening that all-embracing service is the fact that RSL personnel are also actively involved in industry-related organisations such as the Institute of Refrigeration of Ireland, Engineers Ireland (Institution of Engineers of Ireland) and ASHRAE.

Contact: Visit [www.rslireland.com](http://www.rslireland.com)



The new RSL Ireland website is very much an inter-active site which offers design advice, technical support, product selection guidance and direct links to RSL's many blue-chip product supply partners.



# Liebert Hiross Himod & Matrix Point the Way Forward

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Liebert Hiross, one of the leading providers of high-performance air conditioning solutions and services in the world, is represented in Ireland by Core Air Conditioning. Renowned for its specialist applications such as telecommunications, information technology, clean rooms, high security and other critical technological environments, it also caters for commercial and residential applications.

Over the years it has been responsible for many industry "firsts", two of the latest being Himod and Matrix.

Himod is a quiet, efficient solution for medium-sized electronic heat loads. It provides precise temperature regulation, humidity control and air filtration required by electronic equipment in computer rooms, telecommunications sites and other high-tech environments. Featuring total front access for

installation and service, the Himod fits easily into cramped spaces, leaving more room for critical electronic equipment. Low noise Levels make it a user-friendly solution.

The combination of a scroll compressor, with its high EER (Energy Efficiency Ratio) and the motorised impeller fans gives the Himod unrivalled efficiency with high sensible heat ratios and energy efficiency. The use of motorised impeller fans with variable speed features, combined with a specially-designed larger air chamber, provide low noise characteristics which are demanded in today's applications.

To address environmental concerns, the new Himod is constructed of double-skin panels using CFC-free insulation materials and all components can be recycled. In addition, it is designed to operate on zero ozone depletion potential refrigerant R407C (R22 models are also available until

December 31, 2009, when production is prohibited).

Turning to chillers, the new model Matrix S — with cooling capacities from 40kW to 280kW — deliver optimum performance with exceptionally-low sound emissions. All models incorporate new - generation, sickle-profile fans, specifically-designed condenser coils, particularly silent scroll compressors, and *ad hoc* designed nozzles. Also, the optional EC fans can reduce sound emissions by as much as 10 dB(A) in partialisation, when compared with traditional fan speed adjustment systems.

Free-cooling technology also has a considerable impact on energy consumption. It allows optimum use of external air according to the specific climatic conditions, reducing energy consumption and wear and tear of the main components.

Matrix range S is available in six versions to meet different applications and allows for total customisation of the system — chiller only or chiller with integrated free-cooling section; and base, low-noise and quiet to give an answer to all the different requests of sound emissions arising from the market.

Full management of the Matrix units is allowed by the onboard



**HIMOD range is the solution for systems demanding uncompromising reliability and precision, year after year.**

control, Microface Evolution, which allows the programming of temperature and pressure thresholds as well as the teamwork functionality through the proprietary Hirobus system. The complete set-up can be carried out using the simple operating display that, through symbols and codes, ensures a reliable and flexible man-machine interface.

Up to 16 Matrix can be easily linked together on a network to provide teamwork mode, stand-by operation and duty cycling without additional hardware. Reliability is not affected if there are problems on the data communication buses because the units return automatically to the stand-alone mode.

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



**MATRIX S is the new chiller range covering cooling capacities between 40kW and 280kW from Core Air Conditioning**



# Grant Engineering Home Heating Fuel

## Heat your home better for less money

At a time of rising fuel and heating costs and increasing concern over environmental damage from fuel emissions, there is a way to heat your home better, reduce your costs and help protect the environment.

Thanks to their innovative design, Offaly-based Grant Engineering's range of oil-fired condensing central heating boilers can cut fuel costs by as much as 30 percent while providing excellent heat and reducing harmful emissions.

### Better Heating, For Less

Grant Engineering's oil-fired condensing central heating boilers are both cost effective and eco-friendly because they are the most efficient and reliable on the market. Other kinds of oil-fired boilers can have seasonal efficiencies as low as 65 percent, particularly older models, while even more modern standard oil-fired boilers only have a maximum of 85 percent seasonal efficiency.

### Reduce your fuel emissions

However, condensing boilers differ from traditional boilers in that they are designed to capture heat normally lost through the flue system during the combustion process. The additional energy that has been

recovered enables the boiler to operate continuously at much higher efficiency levels and this also significantly reduces the amount of fuel burnt.

Grant Engineering, the market leaders in Ireland and the UK, have developed a range of oil-fired condensing boilers that are up to 97 percent efficient, which means lower heating and hot water running costs, and a major reduction in harmful emissions to the atmosphere. The UK Government's SEDBUK Efficiency Database ([www.sedbuk.com](http://www.sedbuk.com)) ranks Grant's boilers as the most efficient in the oil sector. Grant's boilers are also more efficient and cheaper to run than gas boilers.

### Most efficient and reliable boilers on the market

#### The Grant Range

The Grant Engineering award-winning range of boilers are designed and manufactured to the highest standards at its plant in Birr, Co Offaly. They provide heating outputs from 70,000 - 155,000 BTUs.

#### Kitchen Range

The Grant Kitchen Range is the market leader in oil-fired condensing boilers, achieving efficiencies of up to 97 percent. The award-winning range has set the standard for oil-fired condensing boiler design. Unlike traditional boilers, they are exceptionally quiet in operation, and setting and controlling temperature and general boiler operations is a simple process. They are also tastefully designed to fit beautifully in any modern kitchen or utility room.

#### Outdoor Range

If a boiler cannot be accommodated inside a house, Grant Engineering offers a range of space-saving outdoor oil-fired condensing boilers. These boilers have unique features such as multi-directional flueing options, high quality galvanised finish, built-in frost protection, mains isolating switches and test switches.



### Quality Guaranteed

The unique heat exchanger on the Grant condensing boiler range is covered by a five-year guarantee. All other component parts of the boiler are guaranteed for one year from the date of purchase (excluding consumable items), subject to being installed in accordance with the manufacturer's instructions. Grant Engineering boilers are backed by a national network of suppliers and independent service engineers.

In addition, annual maintenance is made easy by Grant's cleverly designed front service access to both the burner and all internal serviceable parts.

### Designed to fit tastefully in any modern kitchen or utility room

With over 30 years' experience in designing, manufacturing and supplying highly efficient, reliable and award-winning products, Grant Engineering can guarantee that its condensing boilers will not only keep you warm through the cold winter months, but will cut your heating bill.

All Grant Engineering products are readily available nationwide through all builders merchants, or ask your local heating engineer.

For further information, please contact 0509 20089 or visit [www.grantengineering.ie](http://www.grantengineering.ie)



GRANT condensing 50-90 System boiler

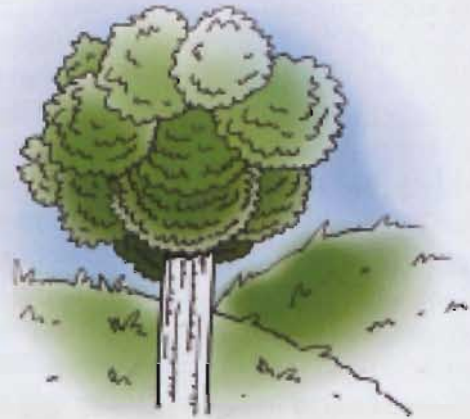


# g Boilers Can Cut el Costs by 30%

*The perfect environment*



*For your home*



*and Ireland*

The Grant Engineering range of Home Central Heating Condensing Oil Boilers help protect the environment and can cut your fuel bills by as much as **30%**.

**With the Grant Engineering range you get:**

- Heat efficiency for a warmer house
- Emission reductions to benefit the environment
- Substantial savings in your future fuel bills
- Leading technology condensers for greater efficiency
- All the benefits of oil heating

Our complete range of boilers are available nationwide through all builders' merchants. Contact your local heating engineer or Grant Engineering for full details.



**GRANT**



GRANT ENGINEERING LTD. CRINKLE, BIRR, Co. OFFALY, IRELAND  
TELEPHONE (0509) 20089 FAX (0509) 21060 [www.grantengineering.ie](http://www.grantengineering.ie)



# 'We Must Strive to Combat Negative Impacts of Climate Change'



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As Ireland continues to face major competitiveness and environmental challenges, a concerted effort is now required by industry and business to improve its energy competitiveness and in doing so help to combat climate change. That is according to David Taylor, Chief Executive of Sustainable Energy Ireland (SEI), who was speaking at the annual Sustainable Energy Awards.

Organised by SEI and sponsored by ESB Customer Supply, the Sustainable Energy Awards encourage, recognise and reward excellence in energy management in the industrial, commercial and public sectors. The awards focus on the individuals and groups who demonstrate a commitment to introduce energy

management as an integral part in the operation of their business. They also provide an opportunity for organisations to gain public recognition for their achievements in improving the efficiency of their energy use, and in doing so, reduce CO2 emissions.

Mr Taylor said: "It is our hope that the Sustainable Energy Awards, now in their second year, will have an important role to play in encouraging companies to achieve tangible improvements in energy efficiency, reductions in energy consumption, and the consequent reduction in the level of CO2 emissions.

"Recent developments in world energy markets and the accompanying energy price rises, together with the outlook for oil and gas supplies, leave



Energy Manager of the Year — Declan McGoldrick of HSE North West pictured receiving his trophy from Minister for Communications, Marine & Natural Resources, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.



Energy Awareness Campaign winner — Liam Crowe, Pfizer Ireland Pharmaceuticals, Ringaskiddy, Cork pictured receiving his trophy from Minister for Communications, Marine & Natural Resources, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.



Electrical Energy Project overall winner — Jonathan Pugsley, Masonite Ireland pictured receiving his trophy from Minister for Communications, Marine & Natural Resources, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.

no room for complacency in the way we use energy. Energy efficiency is increasingly an imperative for business success. Those receiving awards tonight are contributing to sustainable development and showing the way for other businesses facing similar competitiveness pressures."

Guest of honour at the awards — Minister

for Communications, Marine and Natural Resources Noel Dempsey, TD — said: "By participating in the Energy Awards, not only will each of the individual organisations have benefited financially from the resulting improved energy efficiency, but society as a whole is a winner from the environmental benefits which accrue from your combined





## The **Main** event.

Leading the way with the new  
**24kW & 30kW Main Combi's.**

The **new boiler range** with **big** benefits for **smaller homes.**

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# MAIN

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## Building Services

### Product Specification Guide

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and register to **PREVIEW** the site.

There are a limited number of "Button Adverts" available at a special introductory rate of €750 for the inaugural 12-month period.

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Contact: Joe Warren

tel: 01 - 2885001 mobile: 086 253 7115

email: [joe@pressline.ie](mailto:joe@pressline.ie)

## Commercial & Industrial Boilers



Coordinated Energy Management Programme overall winner — Patrick Dunne, Intel Ireland pictured receiving his trophy from Minister for Communications, Marine & Natural Resources, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.

activities. The good energy management practices established in the work situation will also be brought home and applied to our own travel and domestic energy demand".

In total, 19 Sustainable Energy Awards were presented across seven categories:

- Coordinated Energy Management Programme;
- Electrical Energy Project;
- Thermal Energy

- Project;
- Energy Awareness Campaign;
- Energy Service or Supply Company;
- Excellence in Design or Specification;
- Energy Manager of the Year 2005.

The Energy Manager of the Year was named as Declan McGoldrick of HSE North West, while the Overall Co-ordinated Energy Programme award went to Intel Ireland Ltd.



Energy Service or Supply Company winner — Pat Gilroy, Dalkia Ireland pictured receiving his trophy from Minister for Communications, Marine & Natural Resources, Mr Noel Dempsey, TD, and Tony Donnelly, ESB Deputy Chief Executive.

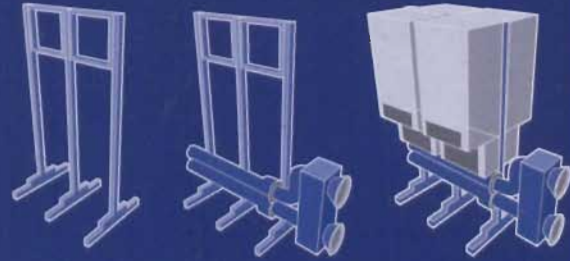


# Buderus

Heat is our element



The advanced Buderus cascade concept

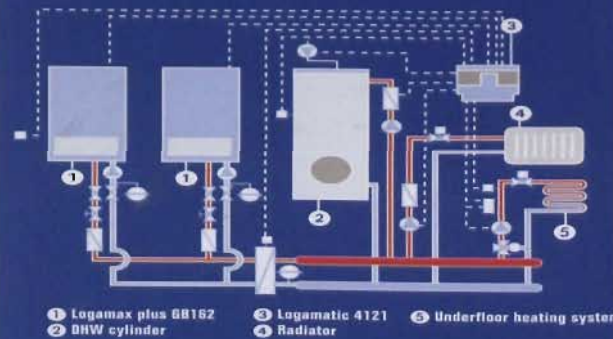


Step 1:  
Assemble the frame.

Step 2:  
Simply fit the components  
that make up the connection  
assembly.

Step 3:  
Mount the boilers and  
connect them to the water  
system using the pump  
assembly. READY!

Both condensing boilers can be used in cascades. This multiplies the design options many times over. Naturally, these boilers produce an even higher output when used in this way.



- 1 Logamax plus GB162
- 2 Logamatic 4121
- 3 DHW cylinder
- 4 Radiator
- 5 Underfloor heating system

## Perfect for large scale projects

In planning major projects, every euro and every square centimetre count. The same goes for heating systems. With its small mounted condensing boiler — Logamax GB162 — Buderus offers you flexible solutions for almost any space, with an excellent price/performance ratio. It includes the intelligent Logamatic EMS control system, and is easy to install and economical to operate.



Unit L40, Cherry Orchard Industrial Estate, Dublin 10.

Tel: 01 - 630 5757 Fax: 01 - 630 5706

email: sales@cfquadrant.ie

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





# Logamax plus GB162 – High Capacity Meets Compact Size

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With its rating of 80 or 100kW, the Logamax plus GB162 from Buderus is said to set new standards for wall-hung condensing boilers. The boiler weighs just 70 kilograms and is no wider than a conventional 24 kW boiler – all thanks to the improved aluminium finned-tube heat exchanger. This powerful gas-fired wall-hung condensing boiler, with its sophisticated design, was presented by Buderus for the first time at the ISH 2005 exhibition in Frankfurt.

The improved aluminium finned-tube heat exchanger with "ALU plus" technology is extremely robust and compact, has a very long service life and is very low-maintenance – an immense advantage for heating specialists. It reduces the flue gas temperature to only a few degrees above the water return temperature and offers optimum condensing conditions throughout the year.



A cut-away showing the inside of the Logamaz GB162 boiler

The extremely high heat transfer permitted by the innovative geometry of the internal tubes inside the heat exchanger, and its specially-annealed surface, is a particular characteristic of the "ALU plus" technology. The "ETA plus" system ensures highly-efficient utilisation of the energy input and achieves a standard utilisation factor of up to 110% for the gas-fired condensing boiler. The "ETA plus" system includes a modulating ceramic burner, which is able to run within a 19% to 100% range of capacity. Power consumption by the Logamax plus GB162 is low, which translates into very low operating costs. Its operation is not dependent on room air and it can therefore be installed virtually anywhere in the building. Thanks to the "Flow plus" system, the Logamax plus GB162 operates without requiring a minimum volume flow. Also, variable-capacity pump operation with low loss header means that the gas-fired condensing boiler can optimally utilise the energy input.

The Logamax plus GB162 is controlled by a Logamatic EMS or Logamatic 4000. The Service Diagnostic System is an integral feature of the Logamatic control systems. Its plain-text display provides all required information of the system status. In this way, the control system assists the installer with



New from Buderus: the gas-fired wall-hung condensing boiler Logamax plus GB162 with a rating of 100 kW.

precise diagnostic information when servicing and re-pairing the equipment. Both Buderus control systems are of modular design and can be extended. Settings are made by the simple principle of "push and turn". Two EMS modules can be integrated into the drawer of a Logamax plus GB162.

Up to eight condensing gas boilers can be cascaded. Four cascaded boilers with a rating of 400 kW occupy just one square metre of space. Buderus supplies special cascade units with mounting frame, distributor and switch for this purpose. Indeed, Buderus has attached great importance to ensuring easy installation and maintenance. The

units are easily installed – even in confined conditions – due to their low weight and compact outside dimensions. Pump groups and cascade units are supplied in pre-assembled form. All parts are accessible from the front and the installer need only open the door to service them. His job is made easier by the plain-text display and error messages output by the Logamatic EMS control system.

The Logamax plus GB162 can be combined with the Logalux SU water storage heaters from Buderus with capacities from 400 litres upwards.

Contact: Michael melligan, C&F Quadrant. Tel: 01 - 630 5757; email: sales@cfquadrant.ie



# Annual Golf Outing



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The CIBSE annual golf outing was held in Hermitage Golf Club on a glorious late summer day in September. The excellent weather was perfect for golf while the course itself was in superb condition as usual with a total of 31 teams taking part in the event.

The outing took the form of a Stableford competition with a total of 31 teams participating. At stake was the Chairman's Prize for the CIBSE member with the best individual score, and the PJ Doyle Trophy for the overall individual winner. The main event was a team competition with the best two scores on each hole, and all four scores on the 18th hole, contributing to a team's score.

The entire occasion was a tremendous success, thanks mainly to the organising committee and the main sponsors. These included Mitsubishi Electric and Sanyo who both provided a number of DVD

players; and Mercury Engineering, Coolair and Killarney Plastics who provided a great supply of golf balls.

Other sponsors were Dornan Engineering, C&F Quadrant, McGrattan & Kenny, Flogas, GT Phelan, Grundfos, Keaveney Engineering, Woodside Eng, HVAC Ltd, Glowtherm, FKM and Wilo Engineering.

The overall individual winner was Bill Aherne, playing off a handicap of 15, who recorded a score of 38 points. The Chairman's Prize was won by Michael White, playing off a handicap of 9, with an excellent score of 42 points.

The team results were as follows:—  
1st: — GT Phelan, 94 points;  
2nd — Valve Control Systems, 88 points;  
3rd — Woodleigh Ventilation, 88 points;  
4th — Haughton & Young, 87 points;  
5th — Flogas, 85 points;  
Front Nine — BSS, 45 points;  
Back Nine — Grundfos Pumps, 43 points;



GT Phelan, winning team — Derek Phelan, Darragh Canning, Ken Lawlor, and Bernard Denver receiving their prize from Kevin Kelly, Chairman CIBSE Republic of Ireland Branch.



Kevin Kelly, Chairman CIBSE Republic of Ireland Branch with Michael White and Colin Murphy (Chairman's prize)

Nearest the Pin — Liam Republic of Ireland  
Collins; Branch Chairman,  
Longest Drive — Alan presented an excellent  
Carton. array of prizes after a  
wonderful meal.

Kevin Kelly, CIBSE

## Irish Get President's Award

Irish people were successful in the finals of the CIBSE President's Awards Scheme 2005 which were presented at the Presidents Dinner in the Apothecaries Hall, London, last month. Their names are Dominic Choiligh and Andy Campbell.

Dominic is a Student at DIT in Dublin and his project was entitled "Owner-occupied Prime Office Development Located in Dublin's Financial Centre". He was the third placed finalist.

Andy Campbell, who is originally from Dublin, is currently working in the UK with Space Cooling Systems while furthering his studies part-time at London South Bank University. His project was entitled: "The Design, Commissioning and Review of CO2 (R744) Commercial Refrigeration System". He was the second placed finalist.



Kevin Kelly with Damien Mooney, Jim Treacy, Peter McDonnell, and Colum Creave.





# Plan Expo OPUS Architecture & Construction Awards 2005

**A**s part of the evolution of the original Opus Awards — which began six years ago — this year's awards again formally acknowledged the symbiotic relationship between architecture and construction.

Paying lip service to good contemporary design is easy but supporting good architecture and quality construction in a more real sense involves an empathy with the processes involved and an ability on the part of the client, architect and

contractor to bring quality buildings to reality. This is the reason why this award scheme has site visits to shortlisted buildings. It is also the reason why architects, contractors and an engineer make up the panel of judges.

Some 135 entries were submitted this year. However, the number of awards and commendations made was not restricted by arbitrary numbers or award headings, but rather by the intrinsic quality of the submitted schemes. For an Award to be made all participating

assessors had to agree.

The Award itself is a unique stainless steel sculpture of significant value specially designed

for the Opus Awards and presented to both the architect and contractor involved in the winning projects.



**Under €5 Million Award: 44 Raglan Lane** – Paul McDonnell, Director of Property and Finance, Group Bank of Ireland Corporate Banking; Alan Murphy, Joint MD of Expo Exhibitions; Paschal Mahoney, Mahoney Architecture; Conor Columb, Lissadell Contracting; and Eugene Cleary, Assessor, and Director of Cleary Doyle.



**Heritage Award: Browne Clayton Column** — Paul McDonnell, Director of Property and Finance Group Bank of Ireland Corporate Banking; James Howley, Howley Harrington Architects; Alan Murphy, Joint MD of Expo Exhibitions; Alan McGrath of Conservation and Restoration Ltd; and Noel Dowley, Assessor.



**Over €5 Million Award: Athlone Civic Centre** – Paul McDonnell, Director of Property and Finance Group Bank of Ireland Corporate Banking; Keith Williams, Keith Williams Architects; Alan Murphy, Joint MD of Expo Exhibitions; Noel Golden, John Sisk & Son Ltd; and Noel Dowley, Assessor.



**Under €5 Million Award: Boardwalk Phase II** – Paul McDonnell, Director of Property and Finance Group Bank of Ireland Corporate Banking; Noel McCluskey, Piers Contracting; Alan Murphy, Joint MD of Expo Exhibitions; Siobhain NiEanaigh, McGarry NiEanaigh Architects; and Eugene Cleary, Assessor and Director of Cleary Doyle.



**Heritage: Lifetime Lab** — Paul McDonnell, Director of Property and Finance Group Bank of Ireland Corporate Banking; Jack Coughlan of Jack Coughlan Associates; Alan Murphy, Joint MD of Expo Exhibitions; Alan Lehane, John E. Supple Ltd; and Noel Dowley, Assessor.





# HDL & Exhausto Mechanical Chimney-Draught Solutions

Heating Distributors Ltd ((HDL) was established in the early 1970s and today is one of the foremost suppliers of quality heating products and related chimney and flue systems. Its purpose-designed showrooms in Dublin 11 features an expansive array of products from all over the world, including radiators from Spain, Italy, Turkey, Denmark and the UK; and a vast range of modern and traditional-style stoves and gas fires.

Critical to HDL's success over the years is its ability to provide the complete fireplace solution and the Exhausto chimney system it distributes throughout Ireland allows it to install a gas fire virtually anywhere; cure irritating smokey chimney problems; and offer a range of made-to-measure fires with either manual or remote controls which can be used in a new or existing fire basket.

Exhausto too has a strong pedigree, dating back to 1957 when the company was established and introduced the first chimney fan in the world. Today it manufactures a wide range of products, from ventilation fans and MVHR systems through to domestic and industrial chimney fans. It has a specialist division dedicated solely to chimney draught technology which concentrates on developing systems and solutions for mechanical chimney draught requirements. This is a growing niche market and is often the only solution

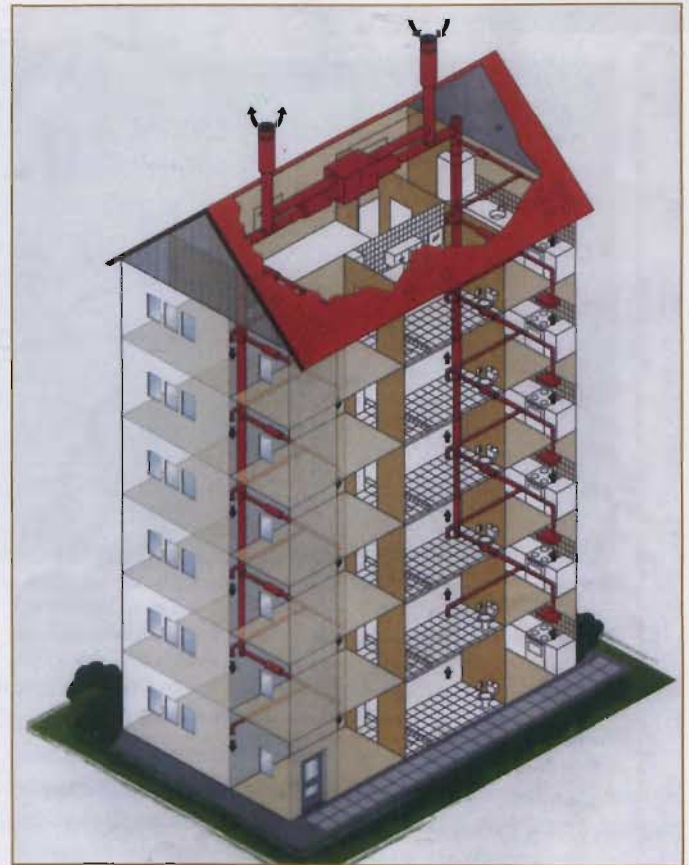
in problem-solving where natural ventilation is not an option.

Mechanical chimney draught offers both financial and environmental gains and prevents many potential problems that can be a nuisance or even dangerous to health and safety. This applies to problems such as poor combustion; condensation; chimney fires; spillage of carbon monoxide; build-up of soot; and fail-safe lockouts of gas appliances.

Today it is hard to imagine a central heating system that is expected to work based on gravity circulation. There is no reason why the design of the flue systems should not follow the same central route as central heating systems with flue diameters downsized, greater freedom of boiler siting, and safe operation. Very often the downsizing alone pays for the initial extra investment.

Optimum performance, reliability and longevity is also assured. The chimney fans are cast in Exhausto's own foundry using recycled aluminium and are manufactured, in compliance with ISO 9001 certification, using its own motors.

A major industry breakthrough is Exhausto's EBV building ventilation system designed for use in multi-storey and multi-family dwellings. When used with the recommended Exhausto products it provides a healthy indoor environment by way of an advanced, energy-saving, ventilation system which



complies with all relevant legislation.

Exhausto's EBV2004 central extraction and air supply system is a typical example. This advanced central ventilation system — which also features heat recovery — extracts air from kitchens and bathrooms and supplies air to living areas and bedrooms.

Featuring "on-demand" control, the system constantly adjusts extraction to meet current needs. The filtered and heated fresh air is constant for basic ventilation. It also ensures optimum comfort and a healthy indoor environment by replacing indoor air around the clock. Moreover, it can be controlled manually to provide forced air extraction through the cooker hood in each apartment.

Ventilation is handled

by an air handling unit installed beneath the roof, to which the vertical extraction and intake ducts are connected. In apartment kitchens air is extracted through the cooker hood which can be set for boost extraction as required. In bathrooms, air is extracted through a control valve.

Exhausto and HDL have been combining their expertise and knowledge of mechanical chimney draught technology for a number of years. Together they provide guaranteed solutions for all manner of chimney-related problems and are available at all times to advise architects, consultants and designers in devising such customised solutions.

Contact: Heating Distributors.  
Tel: 01- 864 8950';  
email: info@heatingdistributors.com



# Crystal Air at The K Club



The runners-up pipped on the day also came in with a score of 86pts. However celebrations were still in order on the night. Picture shows left to right: Ciaran Mc Carthy, Dublin Airport (18pts); Pauric Doyle, Westbury Hotel (17pts); Domnick Ward, Crystal Air; Christy O'Connor; David O'Brien, Crystal Air; Cathal Donoghue, Crystal Air (20pts) and seated Declan McCarthy, Dublin Airport (18pts)

The now annual Crystal Air Ltd corporate golf day has become one of the highlights of the corporate social calendar. This year the event was held at the K Club on the last Friday in August with Christy O'Connor Jnr as guest of honour.

Hosted by the company management team of David O'Brien and Domnick Ward, the

event attracted some of the leading lights in the building services industry and was supported by Sanyo.

Over 50 golfing enthusiasts took on the daunting course with Christy O'Connor regularly being sought for advice on how to get out of tricky situations. The day culminated in a gala dinner and the presentation of prizes.



The winning team on the day came home with a score of 86pts. Pictured before teeing off on the first hole are from left to right Gavin Mc Causland, Caldwell Partnership (9pts won on the back nine); Thomas Carr, Carr Plant Hire (21pts); Christy O'Connor; John Timmons, Great Southern Hotel (6pts) and David Shear, Caldwell Partnership(15pts).



Coming in with a score of 80 pts to take third place are left to right: Sean Drudy, Spain Courtney Doyle (20pts); Domnick Ward and David O'Brien, Crystal Air; Christy O'Connor; Tony Reilly, Keaveny Engineering (20pts) and seated Graham Wright, Sanyo Air Conditioners (24pts). The last member of the team not in picture was Greg Brett, Keaveny Engineering (20pts).



The shot nearest the pin was won by Brian McPhillips, Derham McPhillips. Picture shows Brian with Domnick Ward, Crystal Air and Christy O'Connor.



The longest drive on the day was achieved by Kevin Flynn, Flynn Management. Pictured at the prize presentation on the night is Kevin Flynn (centre) with Domnick Ward, Crystal Air and Christy O'Connor.



# RDS Development — On Track To An 'Excellent' BREEAM Rating

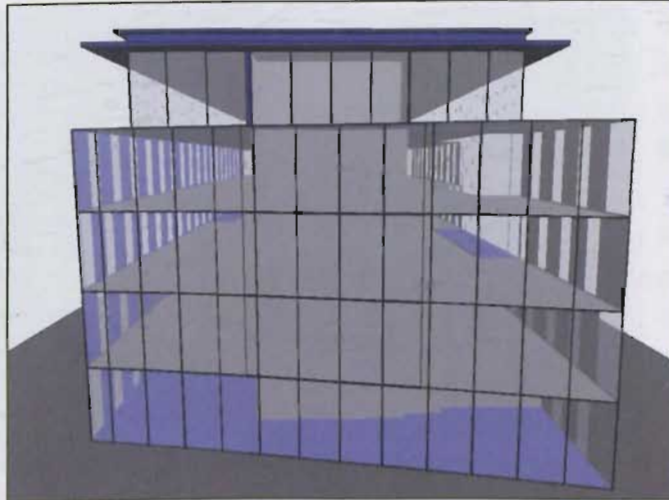
BREEAM

Phase 1 of the €100 million RDS development is on track to be the first office building in Ireland to achieve an "Excellent" BREEAM rating and also the first Irish office building to be certified under the BREEAM Offices 2005 Design and Procurement Assessment Method.

As mechanical and electrical engineering service consultants for the project, Axis Engineering managed the entire process, working very closely with the Royal Dublin Society and the design team which comprised:— Interactive Project Managers; architects RKD; quantity surveyors BSP; structural engineers ARUP; and the independent BREEAM assessor.

Sustainable and energy benign solutions were driving factors in the mechanical and electrical services design brief for this 10,000 sq m office development. Axis Engineering's proactive and professional approach in reducing capital costs while also ensuring that energy and running costs are minimised will result in the highest quality internal environment from an occupancy comfort perspective.

The Energy Consumption Guide (ECON 19) was used as a mechanism to provide a benchmark for the services engineering design. It was the target from the outset to ensure that this landmark office development exceeded the ECON 19 Best Practice energy rating.



Phase 1 of the €100 million RDS Development is the first Irish building to be certified under the BREEAM Offices 2005 Design & Procurement Assessment Method

Chiller sizes are approximately half the output required for a standard office development of the same size and scale. This is achieved by incorporating ice thermal storage units into the air conditioning system. Significant savings (up to approximately 30%) in electrical running costs and carbon dioxide emissions will result.

Thermal simulation energy analysis was a fundamental tool used by Axis Engineering in the design of the building services systems. It was used, for instance, to evaluate various glazing types on the annual energy usage and peak instantaneous peak cooling loads. A solar glazing system was selected on this basis that accomplished both a low thermal transmittance value (1.4 W/m<sup>2</sup>K) but excellent solar performance from a long and short radiation coefficient perspective. The advantages of solar shading and daylight distribution were also analysed.

Further energy efficient and sustainable design approaches include water conservation design solutions (pulsed water meters, proximity detectors on urinal and all inlets to toilet cores etc); maximising the ecological value of the site; displacement fresh air into the occupied environment, thus maximising free cooling; variable speed fans and pumps; high-efficient modulating low NO<sub>x</sub> and CO boilers; and refrigerant leakage detection systems.

Building air leakages tests will be performed by the main contractor post construction — along with a post construction BREEAM assessment — to ensure that the high quality design and specification follows through to construction, commissioning and handover. The post construction BREEAM will also be the first of its kind in Ireland.

The development is well set up to achieving a very high rating for the impending EU Building

Energy Performance Directive. The development, apart from its prestigious location and proximity to the city centre, will attract energy-conscious tenants. The design team and client recognised the changing market requirements and demand for high quality office environment that will meet sustainable objectives.

The annual running and energy costs are increasingly more important factors in a prospective tenant choosing a site. High-performance, low-energy buildings are an effective method of demonstrating that an organisation is addressing environmental concerns and promoting a sustainable image.

The ongoing commitment of Axis Engineering to cost-efficient sustainable design was recently demonstrated by achieving the Sustainable Energy Ireland "House of Tomorrow" Grant on a current residential development.

Axis Engineering is also currently involved in a number of other prestigious developments. The three directors — David Corrigan, Darragh Canning and Bernard Denver — are well known in the construction sector for their integrity, expertise and commitment, and a key strength is that they each maintain a strong personal involvement throughout the full duration of every project.

Contact: David Corrigan, Axis Engineering.  
Email: dcorrigan@axiseng.ie



# Have You Heard The One About Tommy, The Bike & The Elephant!



While *BSNews* has frequently bemoaned the lack of characters in the industry, the life and times of one Tommy Beck — who recently retired from FKM after 53 years! — make for extraordinary reading. From riding his bicycle into the back of an elephant in Drogheda, to a posting in Letterkenny where there were five women to every man, Tommy has a wealth of stories to tell ... or maybe not tell!

**T**ommy joined FKM in 1952 at the tender age of 14 on the recommendation of his then schoolmaster. At the time it was a Godsend to gain entry to any apprenticeship but, to get plumbing was a particular bonus. After three months as a full-time day student at Bolton St Tommy switched to on-the-job practical training, doing his studies at Bolton St in the evenings. It was a long, grinding experience but one which he persevered with, finally coming out of his time six years later.

Almost immediately he was sent to Letterkenny to work on the hospital project. In those days hospitals were the mainstay of the FKM business and staff were sent all over the country at the drop of a hat. It sounds simple now but, considering the poor state of the country's infrastructure, the basic nature of public transport and the shortage of vehicles, it meant staying away from home for months at a time.

Like all his colleagues he stayed in digs. These were



Paddy Delaney with Marion Coleman and Tommy and Peggy Beck.

invariably small private houses with up to four or five men crammed in to the one single bedroom. They also had to make their own entertainment. There was no TV, access to a radio was limited, and they had little or no money to go to the pub.

Consequently, they got up to all sorts of harmless capers which, no doubt, would be frowned upon today as politically incorrect or dangerous under the Health & Safety regulations. At dances they used to poke a nettle through a strategically-drilled

hole in the back wall of the ladies toilets, just as the incumbent was about to sit down. Another trick was to partially saw through the plank which served as a seat in the open-pit gents site toilet!

Then there were the more grandiose pranks. For instance, once when they were refused access to a local, open-air dance they went to an adjoining field, herded up all the cattle, and drove them into and across the dance floor.

As the years went on there were also postings to the UK and



Back Row — Rose Beck with Paddy Delaney, Ken Kirwan, Frank Mullins, Matt Mohan, Pauline Beck, Brian McDonald and Brendan Griffin; Front Row: Tommy and Peggy Beck with Tadhg Sullivan



# Have You Heard The One About Tommy, The Bike & The Elephant!



Germany. Here again the bizarre often kicked in. For instance, on being sent to London for a particular project he and his colleagues were booked in to a guesthouse on the other side of the city. The person who made the booking obviously thought London was no different in size to Letterkenny.

To make matters worse, it was run by an Indian lady, primarily for Indian nationals. Hence their introduction to Indian cuisine ... one minute they were eating typical Irish grub and the next they were presented with all manner of spicy foods and a choice of blue, white, yellow and red rice!

It was a different era" says Tommy. "You had to be resourceful and imaginative. You also had to be



John Connor with Paddy Byrne and Jack Gallagher

respectful and deferential. All the bosses were referred to as 'Mr' and you daren't question or challenge them. You simply did as you were told, and all for a couple of pounds a week, plus

travel time and digs money."

That said, it is obvious from talking to Tommy that he enjoyed the work, and especially being with his friends and colleagues in FKM.



Matt Mohan with Richard McElligott and Eamonn Sullivan

Why else would he stay with them for 53 years? ... "I was too lazy to leave", he quips.

It was also how he met his wife. On a posting to Waterford in 1960 he teamed up with Peggy, who lived across the road from his his digs. His landlady tried to act as matchmaker but, what she did not know for weeks was that Tommy had already made his approach.

But what of the elephant and the bike? ... Tommy strenuously denies the tale but there were far too many reliable eye witnesses at his farewell do in City West recently who swore to have seen the incident first hand. They say the camera never lies Tommy ... nor does the artist's sketch. Here's wishing you a long, active and enjoyable retirement.



Eddie Leonard with John Leonard, Frank Brennan and John Breton



Paul Greeley with Eamon Coventry and Shay Rodgers



# Wheels Turn Full Circle at Consolidated Pumps



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The year 1972 was hardly the most appropriate time to set up in business in Ireland ... industrial unrest was rife, unemployment was at an all-time high, and we were just coming to terms with a new phenomena — the oil crisis!

But then Roy Tolan of Consolidated Pumps was no stranger to risk-taking. As a committed and quite successful motorbike road racer he faced all manner of adversity on a regular basis, his helmet splitting in two when he crashed out of the Ulster Grand Prix in 1967. So, starting a business on his own was just one more challenge. Indeed, over the years he has applied the same mental discipline necessary for road racing to devising and implementing business strategies.

Always attracted by the concept of working for himself, Roy more or less fell in to the pump sector, being offered an engineering apprenticeship with the then leading pump manufacturer in the marketplace, Mono Pumps. He spent a number of very productive years with Mono, getting an excellent grounding in the industry while also learning about business in general.

Come 1972 he was ready to go it alone and, for good measure, he gave up the bikes and married his wife, Betty. He had very strong links with the dairy and food sector and so, from the outset, his business was nationwide. It was not uncommon in those early days for Roy to set out from Dublin with a five-gallon drum of petrol in the boot to



Right: From days gone by ... Paul Mooney with Peter Williams, Betty Tolan, Peter Whelan and Roy Tolan.

ensure that he could get home again.

While modern-day marketing gurus emphasise quality of service as if they invented it, Roy operated to that dictum all of 33 years ago. It was all about troubleshooting and problem-solving. Trust, reliability and responsiveness were the key factors. "I never sold a pump merely for the sale of the unit", says Roy, "If it would not do the required job then I'd say so".

That Consolidated Pumps is so successful 33 years later bears testimony to how successful Roy was in rising to that lofty ideal, especially in the early days. It is further endorsed by the fact that, back then all of Consolidated Pumps' business came from referrals.

That said, Roy does not look back over the last 33 years through rose-tinted glasses. "There were very tough times also", he remembers. "From 1972 to 1979 were very rewarding but, after that, things took a bit of a dip with the period 1982 through to 1986 being hell on earth. Interest rates rose to 22%, VAT at point of entry was 37% and



Below: Jaunting car jaunt in Killarney. Roy Tolan (right) pictured with other guests during a trade visit to Killarney. Also in the picture is Bob Gilbert of Manotherm (left on cart).

business activity took a nosedive. The decision to buy our present site in 1976 became a severe burden. Of course now in hindsight — and having survived and prospered since then — you wonder what all the fuss was about but, believe me, it was a traumatic time, not just for us but for the entire industry."

A major plus factor for Consolidated Pumps throughout this period was the strength of the relationships it enjoyed with its client base. The fact that it was diverse and well spread —and comprised mainly blue-chip companies — also helped.

Equally important was — and still is — the calibre of staff within the company itself. Highly-qualified in their respective fields of operation, all fully subscribe to the quality of service ethos. They operate to ISO quality procedures but, where flexibility is called for,

they act in accordance with the spirit of that procedure.

"Looking back over the last 33 years", says Roy, "I can have no complaints. It's been a bit of a roller coaster at times but today we have a very successful operation. Diversifying and taking on agencies helped secure that position and the strong relationship we enjoy with our principal suppliers is an added strength."

"Finally, it is a great source of satisfaction to me that, at a time when I am looking to take it a little easier, my two sons are also active in the business. My eldest, Andrew — a building services engineer — has been with the company for some time but my youngest, Raymond, has only just joined us. He's also a two-wheeled enthusiast and champion and so, I suppose, his coming on board starts the whole cycle in motion again!"



# Should We Be Concerned About Harmonics?

**Mr Kevin O'Connell. Head of Department of Electrical Services Engineering, DIT Kevin Street. Email: kevin.oconnell@dit.ie**

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In my last article (September 2005) I referred to the need to de-rate 3-phase cables supplying harmonic loads because of loading of the neutral conductor. In a normal balanced 3-phase load, the neutral current is zero. However, if there is a significant harmonic content in the load, the current in the neutral can be larger than the phase currents, even with a balanced load. This is caused by triple-n harmonics, i.e., 3rd, 6th, 9th etc which add up in the neutral instead of cancelling each other in the normal way.

The cable under consideration is the sub-main cable supplying the

distribution board, which in turn supplies the final circuits for the PCs. The load consists of 60 personal computers and the calculations are as follows:— 20 PCs per phase at 3 amps per PC. This totals 60 amps per phase. Due to a 30% third harmonic, the load in the neutral conductor was  $3 \times 30\% = 120\%$  the value of phase current, i.e.,  $60 \times 1.2 = 72$  amps.

Question — How to select a cable for this load? The normal procedure for cable selection is as follows. Firstly, calculate the load current (in our case 60 amps); next select a fuse or MCB size that is larger than the load current (in our case a 63 amp MCB); then apply current capacity correction factors for ambient temperature, grouping, etc to the current capacity tables; finally, select an appropriate cable size with a capacity larger than the MCB rating of 63

amps.

Assuming the following — An ambient temperature of 35°C (correction factor 0.94); Three similar cables grouped on a cable tray (correction factor 0.82); The combined correction factor is therefore  $0.94 \times 0.82 = 0.77$

Calculation 1: Ignoring the effects of harmonics — On the above basis, a 16 sq mm cable with a corrected current capacity rating of 67 amps is selected from Table 52H3 of the *ETCI National Rules for Electrical Installations*.

Calculation 2: Taking account of the effects of harmonics — The most heavily-loaded conductor is of course the neutral at 72 amps. I am suggesting that the cable be sized for this load rather than for the 63A MCB rating. Also, the relevant grouping factor should now be for six circuits, treating each 4-core cable as two single-phase circuits (ref: Dr Tony Sung, Manchester University). The combined correction factor is now  $0.94 \times 0.73 = 0.68$ .

Examining Table 52H3, Column 6, it can be seen that 25 sq mm cable has a rating of  $110 \times 0.68 = 75$  amps approximately. In my view, this can now be safely used to supply the PCs. Calculation 2 has yielded a significant 56% increase in cable size over that yielded by Calculation 1. The

photograph graphically shows the increase in cable size required when the effects of harmonics are taken into consideration. Simply put, larger cables are required to supply harmonic loads. The consequence of subjecting cables to regular overloading is at best to dramatically reduce their life and at worst to cause a short circuit due to insulation failure. Studies have shown that an increase of 8°C in the operating temperature reduces the cable life from the norm of 25 years to 12.5 years.

The problems don't rest here as the effect of neutral conductor loading (implying a harmonic content in the load) changes the way in which cable voltage drop is calculated. Also, the effect of the cable as an antenna for propagation of electromagnetic interference is another factor requiring further study and quantification.

I expect that the above example will give rise to some thought/debate, particularly when one considers that traditionally, a Circuit Protective Device (fuse/MCB) is not fitted in the neutral conductor. How then may cables be protected when the degree of harmonic loading is not known in advance?



Increased cable size





# Plumb Lines

## Heard it on the grapevine ...

### TOMMY SAYS FAREWELL AFTER 53 YEARS!



FKM just won't be the same ... how could it be? Tommy Beck, who has been with the company for a staggering 53 years, has finally called it a day. FKM may just about get someone to fill his work boots but, as a character and personality, Tommy is irreplaceable. Plumblines joins with Tommy's many friends and colleagues in the business in wishing him a very long and enjoyable retirement.

**I'LL PUFF & I'LL PUFF**  
Straw bale homes are virtually non-existent in Ireland but, in countries such as the US, they are becoming commonplace. Plumblines came across one in Nevada recently which featured load-bearing straw walls which support the roof. It used both active and passive solar heat,

solar hot water, and a graywater system. Power was provided by PV panels and a windmill. A bit disconcerting though was the rock and brick veneer exterior over the bales. It was as if the designer was trying to conceal the fact that it was a straw bale home.

**PEE POWER!**  
Scientists in Singapore have apparently developed a battery that generates electricity from urine. The paper-thin device is designed to run cheap, disposable test kits for diseases such as diabetes, etc.

### EXPENSIVE DRIP, DRIP, DRIP!



A county council in Somerset, in the UK, has had to pay the local water supplier nearly €80,000 in water charges because of two leaky taps and a broken toilet in an unoccupied travellers' halting site. Something like nine million gallons of water went down the drain over a six-month period before the plumber was called in. Officials only realised there was a problem when they got the bill!

### DO YOU REALLY WANT TO TALK TO YOUR TOILET?

Efforts by rival toilet manufacturers to outdo one another in Japan has led to a so-called toilet war. More and more bizarre features are being incorporated into the humble toilet. Examples include:—  
A toilet seat equipped with electrodes that send a mild electric charge through the user's buttocks, yielding a digital measurement of body-fat ratio;  
A toilet that glows in the dark and lifts its lid after an infrared sensor detects a human being;  
A toilet that plays any

one of six soundtracks when in use;  
A toilet seat that greets the user by flipping its lid;  
A toilet that automatically measures the user's urine sugar levels. Next to come are talking toilets. Equipped with microchips, these models will go beyond music, greeting each user with a personalised message. The Japanese have brought us some wonderful inventions but this, surely, is taking it too far.



**HANDS OFF HFCs**  
Congratulations to Seamus Kerr and his colleagues in the Institute of Refrigeration — and their European counterparts — who successfully lobbied the EU to prevent the proposal to ban the use of HFC refrigerants in Europe. The Parliament's Environment

Committee included the ban in last-minute amendments to the F-Gas Regulation earlier last month. However, the industry orchestrated a very professional campaign against the proposed ban and managed to have it excluded from the new Regulation. There is a very clear message there for other industry sectors.

Plumb Lines





## OZONE DEPLETING SUBSTANCES REGULATION

Regulation (EC) No 2037/2000 on substances that deplete the ozone layer (ODS) came into effect on 1st October 2000.

If you are involved in the production, import, export, placing on the market, use, recovery, recycling, reclamation or destruction of any of the ozone depleting substances listed below, you must do so in compliance with the Regulation. The EPA is compiling a database on all persons and organisations involved in the utilisation of these controlled substances.

If you think that the regulation might apply to your operation, please download the ODS information form from the EPA website ([www.epa.ie/Technicalguidanceandadvice/ods](http://www.epa.ie/Technicalguidanceandadvice/ods)), complete the relevant information and return to the address provided as soon as possible.

The substances covered and main industrial areas that may need to comply with the Regulation are detailed below. This is a non-exhaustive list. A full listing of controlled substances is available at:

[www.epa.ie/Technicalguidanceandadvice/ods](http://www.epa.ie/Technicalguidanceandadvice/ods)

Controlled substance	Industry Area
CFCs and HCFCs	Air conditioning and refrigeration
Halons	Fire suppression systems and fire fighting
Carbon tetrachloride,	Solvent users such as laboratories, chemical and pharmaceutical industry
1,1,1-trichloroethane	Solvent users such as laboratories, chemical and pharmaceutical industry
Methyl bromide,	Soil treatment, pest control, quarantine, fumigation, market gardening
Hydrobromofluorocarbons	Fire suppression systems and fire fighting
Bromochloromethane	Manufacture of biocides.

Completed information forms should be e-mailed to [ODS@urscorp.com](mailto:ODS@urscorp.com) or posted to the following address; Ozone Depleting Substances, URS Ireland Ltd., Iveagh Court, 6-8 Harcourt Road, Dublin 2 as soon as possible.



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