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### BS News

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# BSN News

MECHANICAL & ELECTRICAL BUILDING SERVICES

MARCH 2002

CONSTRUCTING  
ATMOSPHERES

**Aircontec at Light & Building, Frankfurt**

## **INSIDE**

**Energy Show 2002**

**Domestic Boilers**

**Innovation at Interclima**

**CIBSE Ball**

# Innovation in Pumping Technology

## Wilo TOP-E range

From the company who patented the first circulator back in 1929 and introduced the first electronic circulator in 1989 comes a heating circulator with completely in-built pump management

- Micro processor controlled inverter drive
- Infinitely variable performance
- Energy savings of up to 50%
- LCD, giving operating parameters at the pump head
- Suitable for new or replacement applications
- Digital link to BMS
- DN32-DN80
- Potential free contacts for simple fault indication
- Integrated motor protection



# WILO

WILO ENGINEERING LTD  
Enterprise Centre,  
Childers Road  
Limerick, Ireland

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Fax: 061-414728  
E-mail: sales@wilo.ie  
Internet: www.wilo.com



# BSNews

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## Readership Data

Irish Building Services News (formerly Irish H&V News) is Ireland's only Building Services magazine providing coverage of heating, ventilating, air conditioning, refrigeration, sanitaryware, plumbing, maintenance 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 Registered Heating Contractors Association; The Maintenance, Energy & Environmental Technology Association (MEETA) which incorporates energy managers and maintenance managers; The Energy Conservation & District Heating Association; The Institute of Plumbing; The Irish Home Builders Association (IHBA); Builders Merchants/Trade Supply Outlets; Irish Property & Facilities Managers Association.

In addition, Irish Building Services News 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

## O P I N I O N

# Energy Challenge Means Business Opportunities

Moving towards sustainable energy policies has created a massive demand for innovative, cost-effective products and services. The range and diversity of technologically-advanced products already on the marketplace is staggering, while those just about to come on stream will advance the cause of energy efficiency and renewable sources of energy even further. The question is ... how do you get the message across to the key decision-makers who have responsibility for energy-related purchasing decisions?

Enter the Energy Show 2002. While already well-established as the national showcase for energy and energy-related matters, the timing of the forthcoming event — 15/16 May 2002, RDS Industries Hall — is most opportune in that it will take place against a backdrop which sees a whole plethora of national and international strategic initiatives coinciding with the introduction of major product innovations from suppliers. As such the Energy Show 2002 — which is presented by the Irish Energy Centre — is the perfect sales, marketing and promotion platform for all companies active in the energy sector. The unique combination of product displays and energy workshops draws a vast and varied visitor base of consulting engineers, energy managers, property and facilities managers, architects, plant owners and operators, etc.

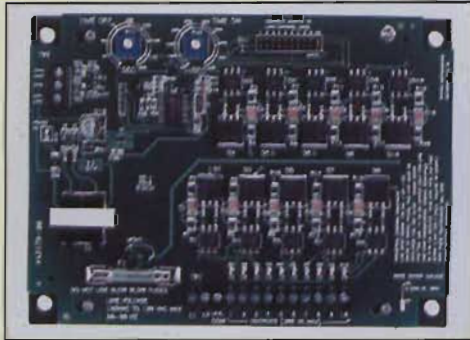
If these key decision-makers are your target market, then exhibiting at Energy Show 2002 is the perfect route to get their attention.

## I N T H I S I S S U E

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## Easy-to-Use, Low-Cost Timer Controller



The new Dwyer easy-to-use, low-cost timer controller from Manotherm.

Ideal for pneumatic conveying systems, the Dwyer Series DCT500 low-cost timer controller from Manotherm is designed to provide continuous or on-demand cleaning for receivers and pulse jet systems. Available in either 4, 6, or 10 channels, each unit is the same size, minimising enclosure space and reducing overall system installation cost.

The units are simple and easy to use. Time-on and time-off settings are selected using two potentiometers. High-limit and low-limit control inputs are provided for use with on demand systems.

For added safety the control circuitry, including the control inputs, is isolated from the line-voltage, and an optional weatherproof enclosure is available.

Contact: Bob Gilbert/Brian Harris, Manotherm. Tel: 01 - 452 2355; email: manotherm@eircom.net.



Fourteen diplomas were presented to graduates of the Irish Property and Facilities Management course (a one-year diploma course) run by the IPFMA (Irish Property and Facilities Managers Association) at the Association's Annual Members Lunch in Dublin recently. Close to 300 members and guests attended the lunch, which was addressed by the Chairman of the IPFMA, Felix McKenna. Pictured are Felix McKenna, Chairman of the Irish Property and Facilities Managers Association, Collette Downey, Vice-president of the RIAI (Royal Institution of the Architects of Ireland); and Brian Homan, Chairman of CIBSE (Chartered Institute of Building Services Engineers).

## Advanced Plumbing/Mechanical Services

B131 Advanced Plumbing/Mechanical Services (revised syllabus) is a DIT part-time course intended for craftspersons involved in the plumbing and mechanical services industries. Its aim is to enhance and develop existing skills and to provide, within a modular framework, a sound understanding of the technology and techniques, employed in today's plumbing/mechanical services industry.

The main emphasis will be on system design and plant selection, management, employment, and communication techniques. It has been designed to complement the experiences obtained in employment.

The content will include the technology and design of hot and cold water; sanitation and drainage; space heating; ventilation and air-conditioning; team building; working relationships and

communications; application of CAD in mechanical services design; bills of quantities; estimating, tendering and contracts; employment legislation, employing the workforce and managing sub-contractors; and building legislation, health and safety regulations and risk assessment.

Entry requirements are:

— Department of Education and science, Senior Trade Certificate in Plumbing; applicants must be currently employed in the mechanical services industry.

— National Craft Certificate in Plumbing or equivalent.

Course duration is two years, two evenings per week, (a total of 66 evenings per year).

Course fee is as yet to be confirmed but will be in the region of €610.

Contact: John Smartt, Department of Construction Skills, DIT. Tel: 01 - 402 4025; email: john.smartt@dit.ie.

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Louise at

**01 - 288 5001**



# There's nothing like a nice, long, relaxing soak ...



There's nothing like a nice, long, relaxing soak. And when it comes to filling a bath, there's nothing quite like the Baxi Combi 130HE. With a flow rate of sixteen litres per minute, this highly impressive, high efficiency boiler delivers water faster than any other boiler of its kind. Interestingly, it also has a rather ingenious control system which monitors daily hot water usage and cleverly anticipates future requirements.

You see, at Baxi, they've always believed that high efficiency boilers should also be endowed with high intelligence. That's exactly what you can expect from the equally impressive Baxi 100HE. It has a sophisticated control system which delivers greater cost efficiencies in homes large and small, by automatically adjusting the heat output to match the needs of the property.

*For further information please contact any one of our representatives at our Heatmerchants branches nationwide - after all, thanks to Heatmerchants and Baxi, you can now expect a whole lot more from a high efficiency boiler.*



BAXI 100 HE



BAXI 130 HE



# heatmerchants

Incorporating

## Gas & Oil Parts



## Wilo Boost Ireland's Tallest Hotel

Wilo Engineering Ltd recently supplied the water boosting equipment and heating circulating pumps to the newly-constructed Clarion Hotel at Steamboat Quay, Limerick. As the tallest hotel in Ireland, the €20



million development — designed by Murray O'Laoire architects — has become a major new landmark on the river Shannon waterfront. The 92-bedroom hotel, which rises to 17 storeys, towers over the existing Limerick skyline and is due to open within the next few months.

Circulators from Wilo's TOP SD twin pump range were installed on the LPHW heating system and TOP Z bronze pumps are used for secondary hot water return. The water booster set is from Wilo's successful COe range, using MVI 1600 stainless steel vertical multistage pumps.

Contact: Wilo Engineering Ltd.  
Tel: 061 - 410 963;  
e-mail : sales@wilo.ie

## 'Powerhouse to Improve Urban Environment'

An Taoiseach, Bertie Ahern TD, laid the foundation stone for the new €2 million Urban Institute Ireland at University College Dublin, Richview, Clonskeagh, Co Dublin, recently. Being developed as a "powerhouse of new ideas to improve the quality of the urban working and living environment", the new institute will provide facilities for postgraduate research

and study in all aspects of urban life.

The two-storey, 834 sq m institute building will be constructed by Townlink Construction Ltd beside the existing Architecture Library and is due for completion by September this year. The development will accommodate Urbis, an urban information system connected to the existing library — it involves CSO, Ordnance Survey Ireland and the Environmental

Protection Agency.

There will be five research departments for postgraduates and a building performance and sustainability laboratory for use by researchers and professionals. A shared research studio, common room, director's office and conference room are also planned.

Philippe O'Sullivan of Grafton Architects is project architect for Urban Institute Ireland.



## 'May Day Alert' to Building Industry

There are only a few weeks left to prepare for the May Day deadline laid down by new construction safety regulations. The regulations, which were announced last year by Minister Tom Kitt, Minister for Labour, Trade and Consumer Affairs, impose significant new legal responsibilities on construction project supervisors in important areas such as safety training, welfare and safety. By 1 May this year, construction workers on all new projects must have attended a Fás training course known as the Fás Safe Pass scheme.

Last year, 22 people died in accidents involving construction-related activities. In the first two months of this year alone, the number of fatal accidents in the sector was five.

Already, in excess of 35,000 construction workers have received Fás Safe Pass training, a dramatic increase from the figure of 5,000 last September. But there remains much work to be done and the Authority plans more than 7,000 inspections in the construction sector, in an intensive campaign which aims to ensure compliance with the new regulations.



## Grundfos WinCAPS ... Making Pump Selection Simple

The new version of WinCAPS from Grundfos is now available in version 7.33. It has been significantly upgraded and includes many new additions, such as the new Magna range.

To get particular pump details you can select by product code from your pump or price list. You can also select by description if you know the pump type you are looking for.

If you know the duty you need the pump to do, just enter in the flow and head requirements and WinCAPS will select the right pump to do your particular duty.

You can enter in a typical Irish load profile and save it and now you will be able to see how the selection of "E" pump can save you running costs very quickly as the duty requirement drops.

A comprehensive operating and installation guide is included for all current models of Grundfos pumps, along with a complete parts list. If you need assistance you can contact [www.Grundfos.com/wincapssupport](http://www.Grundfos.com/wincapssupport) to resolve your problem.

Moreover, if you don't want to load the CD and simply want to make a



The new version of WinCAPS from Grundfos makes appropriate pump selection — such as that of the Grundfos Magna — simple.

selection without doing so, you can use WebCAPS online to make your selection.

If you want a CAD drawing after you have selected your pump simply log on to [www.Grundfos.com/wincapssupport](http://www.Grundfos.com/wincapssupport) and double click WebGOLD to zero in on the

drawing you are looking for and download it.

With the new version of WinCAPS 7.33 pump selection and/or part selection has never been easier. To get your personal free copy of WinCAPS 7.33 simply email: [gbarry@grundfos.com](mailto:gbarry@grundfos.com)



**BSS (Ireland) Ltd**

### **TECHNICAL SALES ENGINEER**

BSS is an established and successful distributor of technical products to both the HVAC and industrial/process markets.

We are looking for a candidate with an engineering background within the Building Services Sector. Practical hands-on experience would be an advantage. The ideal candidate should already be established in a sales-type role, and currently selling boilers, heaters, controls, heat exchange equipment or similarly-related products. The successful applicant will promote a range of technical products to consultants, designers, and mechanical services contractors.

Good communications skills are required, along with an energetic and enthusiastic approach, good presentation skills, and a determination to succeed. This is a senior position within the company with excellent career prospects for the right individual.

If you are the salesperson we are looking for, please write enclosing your up-to-date CV to the undersigned:

**Brendan Coghlan,  
Commercial Director,  
BSS (Ireland) Ltd,  
White Heather Industrial Estate,  
301 South Circular Road,  
Dublin 8.**

**All replies will be treated in the strictest confidence.**



## Danfoss Battery-Powered Thermostat

Danfoss has introduced the new RET B battery-powered room thermostat which combines the benefits of an easy-to-use setting dial with the convenience of an LCD display to show temperature and thermostat status.

Styled on the established RET and RMT thermostat range, the RET B provides accurate electronic temperature control without the need for an external power supply. This makes it an ideal choice for upgrade situations where conventional two-wire electromechanical thermostats are being replaced.

The RET B utilises a microprocessor that provides both accurate temperature control and drives a small LCD display. During normal operation the LCD displays actual room temperature, changing momentarily to show set

temperature whenever the setting dial is moved. The LCD is also used to display output relay state and to indicate when the batteries need changing.

The thermostat provides standard on/off control or more sophisticated chrono-proportional control, the latter offering closer temperature control and improved comfort. Selection between the two operating modes is made by means of installer set switches on the rear of the product.

In addition to the standard model, there are other models available with a manual auto/off switch and a manual day/night switch.

Contact: David Holmes, Danfoss Ireland Ltd.  
Tel: 01 - 626 8111;  
email: marketing@danfoss.ie



The new RET B battery-powered room thermostat from Danfoss Ireland

## Fernox Solutions for Central Heating Problems

Fernox domestic water treatment products offer complete protection solutions for central heating systems, potable water, and hot and cold

“For instance, in untreated heating systems corrosion debris accumulates in the boiler and, in hard water areas, limescale will



Fernox Superconcentrate range from Hevac

tap water. Fernox has been at the forefront in the treatment of domestic water systems against the damaging effects of corrosion and scale for over 30 years, its partnership with Hevac making the extensive product range available in Ireland for much of that time.

“Prevention is better than cure”, says Declan Kissane of Hevac. “That is why we recommended early and regular treatment with the appropriate product. Doing so eliminates system failure while also ensuring maximum performance output, along with significant fuel savings.

form. The insulating effect of these deposits reduces heat transfer to the circulating water. Established systems can be restored and protected by treatment with Fernox, while new systems should be commission-cleaned to remove flux and oil.

“Treatment with the appropriate other products from the Fernox range can prevent problems such as pump seizure and failure; radiator failure; boiler failure; cold spots near the bottom of the radiator; and boiler noise”.

Contact: Declan Kissane, Hevac.  
Tel: 01 - 419 1919



# Unico from Citycool

Citycool has announced the addition of Unico to its climate control portfolio. Unico is claimed to represent a revolution in air conditioning design as it dispenses with a component which has, until now, been regarded as an integral part of air conditioning – the external condenser.

This unique design means the Unico is fitted entirely from within the room and the disruption caused by long pipework runs is completely avoided. This allows a greater degree of flexibility to be built into refurbishment plans and budgets, particularly as the Unico operates from a standard 13-amp supply.

"No specialist skills are required to fit the Unico", says Citycool's Caimin Hall. "As it is an all-in-one unit, there are no gas charging or refrigerant handling requirements to consider. Simply drill two holes through an outside wall, fit the external grilles and mounting bracket,

and hang the unit on the wall. With three different sizes, all available for cooling and heating, the Unico provides an instant climate control solution.

"Once installed, all the operational and functional modes can be set using the remote control. A fresh air kit can also easily be added to the Unico. This is increasingly a requirement in many environments and allows fresh air to be incorporated into the room to improve air quality.

"All these features combine to make the Unico a unit which breaks new ground in the air conditioning market. We are confident that with Unico will have a major impact across a raft of market sectors in Ireland, from hotels and leisure, through healthcare and facilities management to the building and property sector.

Contact: Caimin Hall, Citycool.  
Tel: 01 - 824 3379.



Unico from Citycool



Chartered quantity surveyors, Mulcahy McDonagh & Partners (MMP), has appointed two new associate directors, Martin Coles and Miriam McCormack at its Northwest Regional Office, Sligo. These appointments underline MMP's commitment to the west and north-west of Ireland.

## 'Instant' Air Quality Determination

CDH is a new hand-held CO<sub>2</sub> and temperature monitor from Swedish manufacturer Automatik that is small enough to fit in the palm of the hand, yet powerful enough to communicate with external devices.

With the ability to display CO<sub>2</sub> readings in less than 30 seconds, the monitor is suitable for identifying hidden energy savings in over-ventilated spaces; locating the presence of combustion fumes generated by appliances; as a reference to calibrate wall-mounted CO<sub>2</sub> sensors; and to verify that ventilation systems are performing properly.

The Monitor is equipped with an output for recording data via accessory cable and data logger, which can then be graphed and printed using AP's Windows-based graphing software. The sensor has a CO<sub>2</sub> range suitable for virtually any building (0-10,000 ppm), and a push-button interface for quick field calibrations, altitude adjustment, and display reference.

The monitor runs for 80+ hours on four AA alkaline batteries, or continuously with the supplied power adaptor.

Contact: Ewert Johansson, Automatik.  
Tel: 0046 31 28 72 02,  
email: ewert@automatikprodukter.se,



The new CDH hand-held CO<sub>2</sub> and temperature monitor from Automatik



## Smartfit Proves Hit with Installers

Since its introduction Honeywells Smartfit has proved very popular with central heating controls installers throughout the country. Featuring low-voltage wiring and plug-in control connections, installation is quicker with the risk of errors minimised.

Central to Smartfit is a connection box that provides plug-in or simple two-wire connection for all space heating and hot water controls. There is no need for a wiring diagramme: installers simply connect the two-wire room unit, plug in the valves and cylinder sensor, and the system is complete, whether it is an S-Plan or Y-Plan.

All Honeywell Smartfit system connections are low voltage and polarity-free. Although installers still need to make mains voltage connections to the pump and boiler, even these have been reduced



"Honeywell Smartfit — New standard for central heating control"

to one wire per terminal.

Honeywell Smartfit valves have snap-on actuator heads with plug-in connections back to the base unit. The same actuator unit fits onto all valve bodies. The elegant Smartfit programme controller provides a single point of control for all space heating and hot water programmes. It also includes a built-in diagnostics facility that enables faults to be quickly identified and

remedied, reducing call-backs and saving installers' time and cost. The final component of the Honeywell Smartfit system is a cylinder sensor that also features plug-in connections back to the base unit.

Contact: Honeywell Control Systems.  
Tel: 0044 1344-656000;  
Fax: 0044 1344-656454;  
E-mail: uk.infocentre@honeywell.com  
Web: www.honeywell.com/uk

## Grafton Group Results

Grafton Group plc reported record results for the year ended 31 December 2001, with pre-tax profits growing by 27% to €67.2 million. The Group's Irish operations performed well with improved results from all divisions. Turnover grew by 7% to €331.6 million and operating profit increased by 9% to €39.2 million. At Chadwicks builders and plumbers merchanting, turnover grew by 2.4% to €216.5 million, and operating profit improved considerably. During the year a new Chadwicks Plumbing Centre at Navan was opened and work progressed well on Chadwicks relocation programme for its Clonmel and Kilkenny branches. Towards the year-end, Grafton acquired Pulsar Direct, a Cork-based business serving the plumbing trade.

Manufacturing was equally strong. Turnover increased by 9% to €29.9 million, compared to €27.4 million in 2000. CPI, serving the greater Dublin market, grew its concrete and EuroMix silo mortar turnover and operating profit in a highly competitive market, developing its product range and increasing its average number of silos on site throughout the year. MFP increased its plastics business and improved its profitability, despite weak selling prices in the market.

## Bord Gais Gets Scottish Green Light

Bord Gáis and the Scottish Authorities have co-signed a Section 69 Agreement which gives the go-ahead for construction of the on-shore Scotland section of the second interconnector between Ireland and South West Scotland. The Agreement enables the second interconnector to proceed on schedule for completion in October 2002.

It covers the 80 km stretch of pipeline from the BGE compressor station in Beattock to Brighthouse Bay, and the extension of the compressor stations at either end. Interconnector 2 will result in a total investment of 292 million and the creation of over 250 construction jobs.

The main component of Interconnector 2 is a second sub-sea pipeline, running parallel to the existing interconnector. The sub-sea pipeline will be 30 inches in diameter and will operate at approximately 150 bar.

The second interconnector pipeline will commence at Beattock in South West Scotland and will come ashore at Gormanstown in County Dublin. A 13.7 km pipeline measuring 36 inches in diameter and operating at 70 bar, will connect the new interconnector to the existing BGE network. The pipeline passes close to the Isle of Man, and plans are being advanced to also provide a gas supply to the island.



et al.: BS News  
*The Energy Show 2002 is a must for anyone with responsibility for, or an interest in, energy and energy-related matters.*



# **CLIMATE CHANGE** **THE NEW BUSINESS CHALLENGE**

## **EXHIBITION & WORKSHOPS\***

**Venue:** Industries Hall, RDS, Ballsbridge, Dublin 4

**Workshop Dates:** Wednesday 15 May 2002  
Thursday 16 May 2002

### Organised by

Business Exhibitions Ltd, *Contact:* Margaret Andreucetti/Maureen Ledwith,  
Tel: 01 - 295 7418; email: energy2002@irish-energy.ie

**\*All workshops must be pre-booked and pre-paid**

presented by



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## Potterton — Suppliers of the Complete Boiler Range

Potterton Myson supplies a complete range of gas and oil fired central heating boilers. At the core of the total concept for the range are improved build quality, efficient customer service and support, and the promise to provide the most advanced, efficient and economic heating system for customers.

Potterton Myson is aware that times have changed and has been proactive in moving with these changes. As proof of this the company has introduced two new boilers to the already-extensive range — Potterton System and Potterton Combi. Details of both are as follows:  
**Potterton System** — The new System Boiler is fully modulating from 30 - 80,000 Btu. With built-in frost thermostat and multiple flue options, this product will catch the current market demand for ease of installation incorporating the complete heating system at a competitive price. It is easily converted from LPG, making it the most popular choice for utilities.

**Potterton Combi** — A highly-efficient complete system incorporating instantaneous hot water. This boiler may even work in areas of minimum water pressure, overriding the weakness of most combi

offers. This offer will replace the current Puma Range.

In addition, Potterton Myson's current range includes:

**The Suprima Range** —

The Suprima Range incorporates a range of natural gas, wall hung, fanned flue, boilers for conventional heating and hot water systems. Complete with a wide choice of outputs, there is a Suprima boiler to suit any home. Some of the key features include:

— Can be used in compartments up to 50,000Btu without ventilation;

— Wide range of flueing options which facilitate a greater choice of locations;

— Single control knob which enables ease of use;

— Outputs from 30 - 120,000Btu available;

— Sealed system kit available up to 60,000Btu;

— Cast iron heat exchanger.

**Gas Boilers**

**The Kingfisher / Osprey Ranges** —

These ranges incorporate a range of floor-standing gas cast iron boilers, complete with a wide choice of outputs to suit the requirements of the family home. Some of the features include:

— A range of fanned balanced or fanned conventional flue systems;

— Compact size which

facilitates a snug fit into vented cupboards or under worktops;

— 80% efficiency compared with 65% efficiency in older boilers;

— Outputs ranging from 40,000 to 220,000Btu/h;

— Cast iron heat exchanger;

— Boilers over 125k Btu/h are available for LPG.

**The Profile** — For systems requiring gravity, the cast iron heat exchanger in the profile offers the complete solution: —

— Wide range of flue options;

— Outputs from 30 - 80 Btu/h;

— Cast iron heat exchanger;

— Available for natural gas and LPG.

**Condensing Boilers** — A new condenser boiler called Potterton Condensing will be launched this summer.

**Oil Boilers**

**The Statesman** —

Potterton's Statesman range is a range of domestic indoor oil boilers. Combining modern design with ease of installation, the Statesman is compact enough to fit into most kitchen layouts. Some of the main features are as follows:

— It is the most efficient oil boiler in the market today;

— It incorporates the tried and tested Riello burner;

— Outputs range from 45,000 Btu/h to 110,000Btu/h;

— Its unique cylindrical, telescopic balanced flue system provides a number of options to match each installation situation;

— The range covers conventional and balanced flue requirements.

With a specialist team of field and in-house technical engineers to cater for customer queries, Potterton Myson can provide expert advice on specification and installation. This, in addition to the other products in the range, such as radiators, pumps and controls, makes the company the unique one-stop shop for heating products.

Contact: Vincent Broderick, National Sales Manager, Potterton Myson (Irl) Ltd.  
 Tel: 01 - 459 0870;  
 Fax: 01 - 459 0880.



Potterton Myson floor-standing boiler



# Modulating Domestic Condensing Boiler

# KESTON

## *Celsius 25*

### With In-Built Modulating Circulation Pump



**for  
Environmentally  
Sound Home  
Heating**

- One boiler for practically any domestic installation
- Fully modulating 7kW to 25kW output
- Flue can be extended 20 metres from boiler vertically or horizontally
- Small diameter muPVC plastic flue system
- Ultra-high efficiency up to 97% (GCV)
- Can save up to 30% on fuel bill
- Integral standard domestic pump
- Wall mounted, room sealed – can be sited virtually anywhere
- Completely environmentally sound – minimal NOx and CO emissions
- Suitable for sealed or open systems
- In-built frost protection
- In-built pump and fan exercise function
- Full diagnostics
- Anti-cycle control
- Natural and LP Gas models
- Stainless steel heat exchanger – 5 year guarantee
- Higher output boilers from 38kW to 100kW also available
- British Gas Service Listed

# KHP

Keston Heating Products Ltd.

B6 Cookstown Business Centre,  
Cookstown Ind. Estate,  
Tallaght, Dublin 24  
Tel: 462 1753 Fax: 451 7613  
Email: info@keston.ie  
Website: www.kestonireland.ie



DOMESTIC BOILERS & BURNERS

# Keston DUET 125 for Environmentally Sound Home Heating

With labour, cost and energy saving in mind Keston Heating Products has introduced the ultimate domestic heating system, the DUET 125.

The new appliance combines the Keston Celsius 25 modulating condensing gas boiler, the unvented Keston SPA water storage cylinder, and controls, in one compact ready-to-install unit. All are contained in a pre-assembled, pre-plumbed and pre-wired floor-standing rig.

As the Celsius 25 is fully-modulating from 75kW to 25kW output, it is suitable for most domestic installations and for sealed systems. There is an integral standard pump with built-in pump and fan

exercise function and boiler frost protection stat. The unvented SPA water storage cylinder in this rig is available in 125 and 200-litre sizes with a 150-litre model shortly to be launched. The SPA is also pre-wired and there is a thermostat and a 2-channel time clock.

Primary equipment includes 2 x 22mm two port valves, a 22mm automatic bypass valve, 12-litre expansion vessel, 3-bar safety valve and a filling loop, all of which are pre-piped and connected with the safety valve which discharges into a tundish.

On the secondary side the Keston SPA is pre-piped and, as with the boiler, is ultra-high performance with top

grade stainless steel coil and cylinder body. No anode is required and the cylinder offers rapid heat recovery with dramatic savings through reducing boiler cycling.

This exciting new appliance from Keston has been developed totally with the installer and customer in mind. It has all the cost and energy saving benefits of condensing technology, combined with ultra-fast and easy installation.

All the installer has to do is site the unit where convenient; connect to radiators or underfloor heating system; connect to hot and cold services; and connect to the gas supply; connect 230v permanent electricity supply into a switched fused spur box fitted on to the unit; and finally connect to any choice of 230VAC room thermostat.

All servicing is from the front for easy maintenance and the



Duet 125 from Keston

water cylinder is fitted with a 3kW (2.25) immersion heater as a back-up.

As with all Keston boilers, the Celsius 25 carries the Energy Efficiency logo. In addition, the Keston DUET is designed to fully comply with Chess HR2 (2000) recommended Best Practice system specification.

Keston Boilers also provide a range of boilers from 38kW to 100kW for larger domestic and commercial applications, together with a modular system for outputs of up to 400kW. Any output required can be catered for.

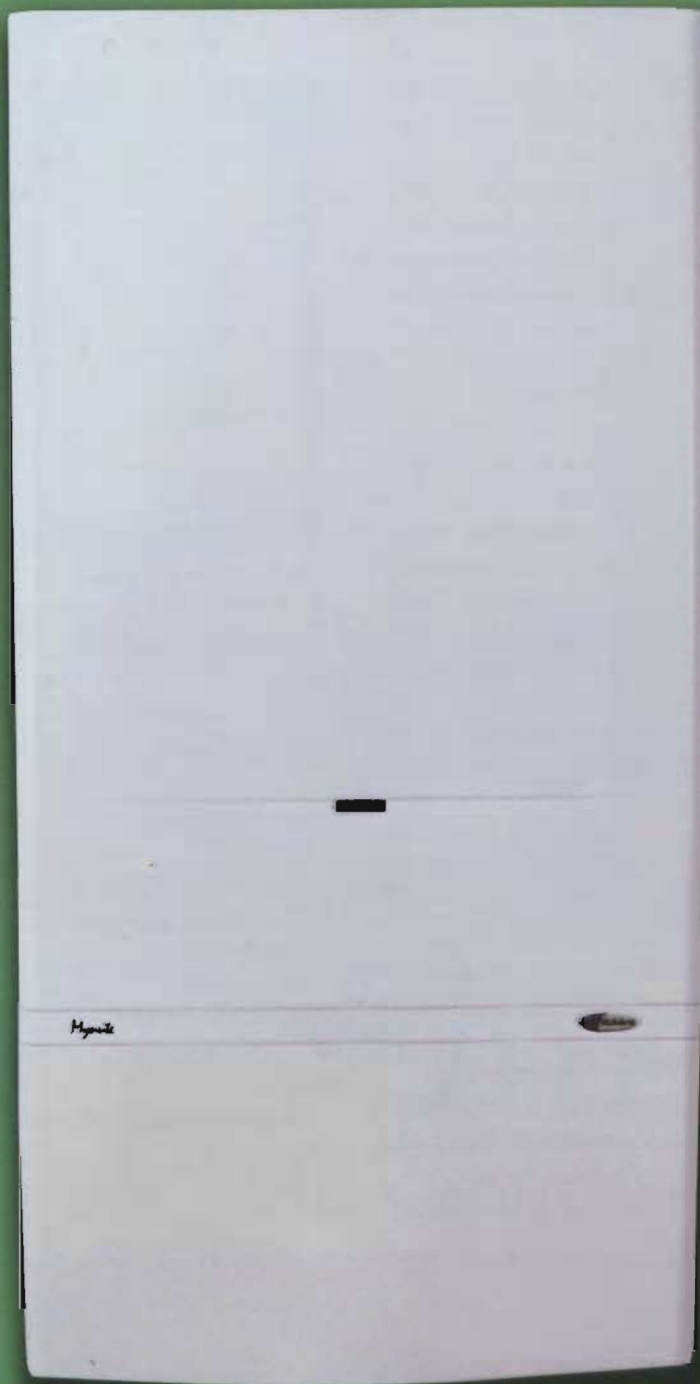
See the DUET and the full range of Keston boilers at the PHEX 2002, Red Cow Hotel, 17/18 April 2002 at Stand No: 7.

Contact: Frank Forde, Keston Heating Products.  
Tel: 01 - 462 1753;  
Fax: 01 - 451 7613;  
email: info@keston.ie.

## Technical Specification

	DUET 125	DUET 150	DUET 200
Height (mm)	1735	1910	2160
Width (mm)	690	690	690
Depth (mm)	580	580	620
Top Clearance (mm)	100	100	100
Side Clearance (mm)	25	25	25
Front Clearance (for servicing) (mm)	400	400	400
Weight (Empty) (mm)	117	120	132
Weight (Full) (mm)	252	280	342
Spa Water Storage Volume (litres)	122	150	200
Heating Flow Connection (mm)	22	22	22
Heating Return Connection (mm)	22	22	22
DHW Connection (mm)	22	22	22
CWS Connection (mm)	22	22	22
DHW Re-Heat Time (45°C rise) (mins) (DHW only mode)	16	19	25





# Mynute system boilers

All system  
components  
are built in,  
saving space,  
time and energy.

## **FIT IT – FORGET IT!**

When you install a Vokèra boiler you won't have to worry about call backs. Vokèra has a long standing reputation for quality and reliability and also a first class after sales service, so you can just fit it – and forget it!



***energizing home heating***

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## Heatmerchants Baxi Partnership Tailored to Suit Irish Needs

"Heatmerchants and Baxi continue their success story through a partnership approach. Gone are the days when UK manufacturers dumped their excess stock onto the Irish market. Our marketplace has matured over the period of the Celtic Tiger and our requirements are now much more akin to the European model", says

than the rest is foremost in encouraging this new product awareness. Baxi has more than answered our call in this regard and is well ahead of its rivals where new products are concerned.

"Over the period of my direct involvement going back some eight months ago, Baxi has produced a brand new range of combi, system and high efficiency boilers specifically for the Irish market which have been very well accepted by the trade.

"In conjunction with this product launch Heatmerchants set about developing a new service and warranty structure which saw Extended Warranty on all Baxi products, supported by a technical

service centre with engineers in all major gas regions. Couple this with a network of 18 Branches manned by well trained staff as our distribution route, then this partnership has a lot to look forward to.

"The latest Heatmerchants Baxi offering to the trade has combined the success of the combi boiler range with the performance of the high efficiency boilers, to give a high efficiency combi of unrivalled capacity. Output to domestic hot water is 39kW, providing 16 litres per minute flow rate raised by 35 C. The output to central heating is 31.4 kW and so suitable for most larger homes. "A key feature of the Combi 130HE is the intelligent hot water pre-heat feature, which monitors the domestic hot water demand. The following weeks demand is anticipated



The Baxi 130HE available from Heatmerchants

and ensures that hot water delivery from the boiler is instantaneous at a usable temperature.

"If size really matters then Baxi is the boiler for you".

Contact: Macartan McCague, Director, Heatmerchants Commercial.  
Tel: 01 - 630 4306;  
Fax: 01 - 630 4307;  
email: macartan.mccague@heatmerchants.ie



The Baxi 100 HE available from Heatmerchants

Macartan McCague, Director, Heatmerchants Commercial.

"System boilers, combi boilers and high efficiency boilers are the developing business and, as market leaders, Heatmerchants more

### Installer Benefits — Baxi Combi 130HE

- Case Height — 850mm
- Case Width — 490mm
- Case Depth — 320mm
- LCD Control Panel/Fault Diagnosis
- Suitable for Unventilated Compartments
- Automatic Modulation of CH Heat Output
- Min DHW Operating Pressure — 0.1bar
- Pre-plumbing Wall Plate
- Frost Protection
- 24-hr Pump Exercise
- Max Concentric Horizontal Flue length(equivalent) — 4m (plus terminal)
- Max Concentric Vertical Flue length(equivalent) — 5m (plus terminal)
- Max Twin-tube Horizontal Flue Length(equivalent) — 40m
- Max Twin-tube Vertical Flue Length (equivalent) — 40m





## 24ci

The New Glow-worm 24ci has hot water performance of 9.8 l/min with impressive quiet operation and is fully compliant with the latest legislation on energy efficiency. The 24ci has achieved a SEDBUK D rating.

On board diagnostics and digital displays provide for serviceability and usability.

A pre-fixing jig is also available for easier installation and our extensive flueing options allow for greater flexibility in installation.



Tel: +353 1 630 5757/+353 1 630 5700  
Fax: +353 1 630 5706/+353 1 630 5715

Glow-worm. Tel: 01773 824141. Fax: 01773 828123. [www.glow-worm.co.uk](http://www.glow-worm.co.uk)

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Conventional/Balanced Flue



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System (Oil only)  
Combi (Oil only)

### Potterton Myson (Irl) Ltd

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Tel: 01 - 459 0870; Fax: 01 - 459 0880;  
email: [post@potterton-myson.ie](mailto:post@potterton-myson.ie)



## Glow-worm ... A Step Into The Future

This year sees Glow-worm commence a programme of new product launches through Irish distributors C&F Quadrant which is the culmination of an intense product research and development programme in Ireland, the UK and mainland Europe.

The new products are in the combi, high-efficiency condensing, condensing combi, and system boiler sectors of the market and come on stream in conjunction with a St£7 million investment in new plant, equipment, technology, and manufacturing capability at the company.

"The new products are in the most popular and fastest-growing sectors such as combi and high-efficiency condensing boilers", says John Duignan of C&F Quadrant. "Glow-worm has embraced a step change in engineering design to give the installer and user reliability and product excellence".

Quality through design is the theme which underpins the Glow-worm philosophy, a key feature being the interchangeability of parts across the new range and, for the high-efficiency condensing boiler range, the use of a proven stainless steel heat exchanger from continental Europe where high-efficiency condensing boilers now

account for 85% of installations in some countries.

The launch programme commences with two new combis, two new high-efficiency condensing (heating only) boilers, two new condensing combis, and a condensing system boiler.

The 23c is a 23kW, fully-modulating, entry-level, combi. Low weight and extensive flueing options make it very easy to site and install.

This is a very quiet boiler despite delivering 9.4 litres/min of hot water with in-built frost protection and an optional time clock.

The 24ci is a 24kW fully-modulating mid-range combi, but still manages low weight and extensive flueing options. User diagnostics are standard and you can choose from a mechanical or digital time clock. The 24ci is very quiet and features in-built frost protection while delivering a higher 9.8 litres/min of hot water from a reliable plate-to-plate heat exchanger. The high-efficiency condensing range begins with the 18hxi and the 30hxi heating only boilers, both SEDBUK 'A' rated. These are "brilliantly simple boilers" according to Duignan, adding that there is no pump, no expansion vessel, and no complex sealed system devices. The small number of components

means that there is less to go wrong, he concluded.

Rated to NOx Class 5 — the best available — the 18hxi and the 30hxi offer the lowest weight in their class and also come with in-built frost protection and extensive flueing options. Glow-worm's unique "continua" electronics allow these boilers to continue to operate when others may fail due to system faults.

High efficiency combis come in the shape of the advanced SEDBUK 'A' rated 24cxi and the 30cxi. These are 37% smaller and 36% lighter than the Energysaver combi range which they replace.

An in-built filling loop is provided, along with a pre-fitted expansion vessel, pump and all sealed system devices. Rated NOx Class 5 for reduced emissions and boasting an integrated hydrobloc for improved reliability, as well as a 5-second hot water

response, this unit is a truly high-performance boiler. The reliable stainless steel heat exchanger produces up to 12.3 litres/min. The 24cxi and the 30cxi also feature "continua" electronics.

Finally, the high-efficiency range is completed with the SEDBUK 'A' rated 30sxi, a 30kW system boiler.

As with all the new Glow-worm range, the small number of components makes for less potential problems. However, Glow-worm has still packed in an expansion vessel, pump and all the required sealed system devices, yet it still weighs the least in its class. Once more this is a NOx Class 5 appliance with automatic bypass and frost protection.

Contact: John Duignan, C&F Quadrant.

Tel: 01 - 630 5757;

Fax: 01 630 5700;

email:

sales@cfquadrant.ie



New Glow-worm 24ci 24kW fully-modulating, mid-range, combi from C&F Quadrant



## Vokèra's Complete Package

Vokèra continues its success story in Ireland, by recognising the need to provide quality products and first-rate parts and service availability. Terry Asser, Operations Director for Vokèra Ireland, explains the company's philosophy. "Consistency and support have been the key to our success, along with providing a quality service each time, every time, for installers and merchants alike. A major part of this strategy in the Republic has been achieved by the introduction of a dedicated branch for Vokèra Ireland.

"Vokèra's service support has always been recognised as industry leading. However, it is a constant challenge to grow the facilities required for our ever-increasing business, while still retaining the personal touch and flexibility that has gained the loyalty of many installers over the years. "We recognised there was a real need to establish a centre to satisfy the demands of the Irish domestic heating market and to offer customers increased choice and flexibility. As with all of Vokèra's regional cen-

tres, we are dedicated to supplying quality products, the highest standard of customer service, and comprehensive installer training". Vokèra's 8,600 sq ft premises in Callan, Co Kilkenny, houses a dedicated spares and service department, enabling a team of directly-employed Vokèra engineers to attend customers' calls the same or next working day. The centre features modern training facilities — including a lecture room and live workshop — where installers can gain hands-on experience working on real installations.

"Success is not just about back-up though, a quality product is essential to keep ahead of the competition and our Mynute CEe system boiler typifies Vokèra's commitment to producing innovative yet practical solutions", added Asser. The new specification boilers — the Mynute 12e, 16e and 20e models — feature electronic temperature sensing, with the NTC sensor now mounted on the primary flow, providing accurate control of flow temperature. The Mynute also now incor-



The updated Mynute CEe from Vokèra

porates a water pressure switch, eliminating the central heating diaphragm, improving reliability and reducing service requirements. Like traditional boilers, a system boiler can provide central heating and hot water from a cylinder if required. The key difference is that with a system boiler the major components are built in. For example, the pump — normally installed somewhere remote to the boiler — is built in, as is the expansion vessel which takes the place of the feed/expansion tank normally installed in the loft. The major benefit of a dry loft system is that you remove the potential for leaks or frost damage to tanks or pipework. Like its predecessors, the Mynute CEe can be used with low pressure

sealed systems for installations where using mains pressure is either undesirable or not possible.

The updated Mynute manages to combine style with practicality, the casing is enhanced by having a covered control panel, enabling the appliance to be sited with confidence. This is hinged down during service to provide quick and easy access to the boiler components such as the pump and gas valve.

To add to the already impressive Vokèra credentials of quality products and outstanding service support, the company is now part of the internationally-successful, Italian-based, Riello Group. This important connection provides Vokèra with international backing and support ranging from R&D to customer service.

Vokèra provides dedicated sales service and technical support to its customers in the Republic of Ireland via its customer service department.

Contact: Margaret Glennon, Vokèra Ireland. Tel: 056 - 55055; Fax: 056 - 55060; Email: enquiries@vokera.co.uk; Website: www.vokera.co.uk



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**60% SAVINGS ON POWER**



**GRUNDFOS** 



# Ventac Completes Move to Blessington

As and from 1 April 2002 the Ventac Group of companies will operate from new, purposefully-fitted-out premises located at Fitzwilliam House, Industrial Estate, Blessington, Co Wicklow.

The new contact details are Tel: 045 - 851 500; Fax: 045 - 851 501. Email remains the same: sales@ventac.com

The move heralds the beginning of the next development phase in the company's history and coincides with the adoption of new logo styles which will project a uniform and coordinated imagery for all Group companies. They are Ventac & Co Ltd; NCRL Ltd; AcTech Europe Ltd; AcTech Engineering Ltd (based in UK); AcTech UK Ltd (based in UK); and AcTech Acoustic Technologies Inc (based in US).

Standing on approximately eight acres, the new facility incorporates 6,000 sq ft of offices; 40,000 sq ft dedicated to manufacturing; and a 15,000 sq ft test facility which is currently under construction. The new trade counter will also be fully operational

by the end of the summer.

Moreover, plans are also at an advanced stage for the development of a new laboratory on the site. Construction will begin in the summer, the intention being to bring it on stream in August/September. It will house seven test suites, including an environmental suite. It will be authorised

separate. However, there is now a concerted move to coordinate these activities. On a great many projects, and especially the larger ones, there can be a significant amount of cross-over activity on both facets.

Mark Moran, National Sales Manager, is primarily responsible for the air side while Ray Walsh

drawings of air handling systems which illustrate the tie up between all the building services, architectural and acoustic elements.

Completing the process is a much closeworking relationship between the Ventac/AcTech personnel and the contractors working on each project.

As the foregoing illustrates, working relationships both internally within the Ventac Group — and externally by way of liaison with designers, clients and installers — are critical. To that end Ventac is lucky in that all employees have been retained with the move to Blessington.

Additionally, they have been further supplemented with a new staff intake, mainly from the Co Wicklow region.

Indeed, even at this early stage the new location is proving ideal. Located within easy access of the M50, it means that all regions within Dublin are easily serviced, while access to the primary road arteries serving the north, south and west of the country is simplicity itself.

All in all it seems a case of ... Here We Grow Again!



to produce aerodynamic and acoustic data accredited to international standards for any product made by the company.

Until this facility comes on stream the laboratory at the company's former headquarters in Ringsend will remain in operation.

In the past, Ventac kept the airside and acoustic functions

is the Architectural and Building Services Acoustics Manager. Irrespective of who initiates the inquiry or where the greater content, both Mark and Ray work very closely together with their respective technical support teams to ensure that the best, complete, system solution is devised and installed.

They are assisted by James Clynch, in-house CAD operator, whose role is to design and furnish



## New Energy Challenge Means New Business Opportunities

The need to meet Ireland's Kyoto Protocol greenhouse gas abatement commitments — coupled with the National Climate Change Strategy and publication of the Government's Green Paper on Sustainable Energy — has dramatically changed the playing field for both energy users and energy producers alike.

However, it has even impacted more so on the product and services suppliers catering to the energy sector. Moving towards sustainable energy policies has created a massive demand for innovative, cost-effective products and services, be it for domestic, commercial or industrial applications.

True to form, the industry has responded magnificently. The range and diversity of technologically-advanced products already on the marketplace is staggering, while those just about to come on stream will advance the cause of energy efficiency and renewable sources of energy even further. The question is ... how do you get the message across to the key decision-makers who have responsibility for energy-related purchasing decisions?

Enter the Energy Show 2002. While already well-established as the national showcase for energy and energy-related matters, the timing of the

forthcoming event is most opportune in that it will take place against a backdrop which sees a whole plethora of national and international strategic initiatives coinciding with the introduction of major product innovations from suppliers.

As such the Energy Show 2002 — which is presented by the Irish Energy Centre — is the perfect sales, marketing and promotion platform for all companies active in the energy sector. The unique combination of product displays and energy workshops draws a vast and varied visitor base.

Topics to be covered in the workshops will include Solar —

Today's Sustainable Energy; Energy Editing — Techniques & Tools; Changing Markets for Renewables; Motive Power & Transformers; Biomass — Power From the Land; Energy Saving in Practice; Wind Energy — A Breath of Fresh Air; CHP, District Heating & the Role of Energy Supply Companies.

Those attending will include architects, consulting engineers, energy managers, property and facilities managers, plant owners and operators, hospital managers, school and university managers, hotel managers, service/maintenance managers, etc.

If your target audience is any of the



### Venue

Industries Hall, RDS, Ballsbridge, Dublin 4.

### Dates

15 & 16 May 2002

aforementioned then you cannot afford to miss exhibiting at the Energy Show 2002.

Contact: Margaret Andreucetti, Business Exhibitions.

Tel: 01 - 295 7418; email: energy2002@irish-energy.ie

## Energy Show 2002 Exhibitors

*at time of going to press*

A.T.C	Gardner Energy Management
ABB Group	Hamworthy Heating
AEA Technology	INRG
Albar Associates	Irish Energy Centre
Atlas Copco Ireland	Irish Energy Management
BG CoGen	Keston Heating Products
Bord Gais	Lectron Joules
Brotherhood Aircogen	Lycris-Byrne Copper & Steel Cylinders
Casey Technology	McCool Air
City of Dublin Energy Management	Morgan-Hope Industries
Concord Boiler Engineering	Natural Energy
Cylon Controls	Peter Brotherhood
Dalkia	Precision Heating
Danfoss (Ireland)	Pure Energy
Dunstar	RVR
Edina	S & C Electric Company
Econpower	Schneider Electric Ireland
Energia	Shamrock Solar Energies
Energy Administration Services	Standard Control Systems
Energy Services	Sinergy
EPH Controls	Viessman
ESB	Wartsila Ireland
ESB Independent Energy	Water Monitoring
Fortum O&M (UK)	



# Boilerperson of the Year

## Winner: Eamon Roche – Aughinish Alumina, Askeaton, Co Limerick

Eamon Roche has worked as a boilerman with Aughinish Alumina for the last 17 years, the first 10 of which were as a field operator in the boilerhouse dealing with all aspects of the operation of the plant. Eamon has completed the following courses as part of his on-going development in his career: — City & Guilds: Boilerhouse Operators' Course; Central Electricity Generating Board: Boilerhouse Operators' Course

Based on his knowledge, expertise and understanding of the plant, Eamon has moved up through the ranks to become a Boilerhouse Control Room Operator and then Calcination/Boilerhouse Control Room Operator.



Eamon Roche, Aughinish Alumina

In the course of his duties Eamon has control of three 220-tonne boilers which are operating at 5,600 kPa and which are fired on heavy fuel oil. This plant is designed for 16 hours downtime per year. Using touch-screens he must control steam flows to all areas of the plant, he must also control combustion in the boilers, while making sure that their performance is kept well within the strict emissions limits set by the EPA.

During his normal shift — which lasts 12 hours — Eamon controls up to 250 parameters, and it requires a lot of skill, concentration and know-how to keep the plant running smoothly and efficiently.

This is a highly-responsible and challenging job and Eamon has earned the recognition that makes him the Boilerperson of the Year for 2001.



IRISH ENERGY CENTRE  
[www.irish-energy.ie](http://www.irish-energy.ie)



Virgil Bolger,  
Irish Energy Centre.  
Tel: 01-808 2083

## Highly Commended: Jim McGrath – Merck Sharp & Dohme, Clonmel, Co Tipperary

Jim McGrath has worked for Merck Sharp and Dohme for 26 years, 25 of which have been associated with the boiler plant. Before joining the company Jim worked as a Furnace Operator in a foundry.

Apart from his extensive boiler house responsibilities Jim is also Acting Supervisor for the Utilities Area and gives cover while others are on holidays



Jim McGrath, Merck Sharp & Dohme.

etc. Over the past year there has been an increasing emphasis on the need for energy efficiency within this plant and Jim has worked with a consultant in the carrying out of a plant-wide energy audit during which major opportunities for energy savings have been identified. Jim is now also working with the Energy Management Team and is implementing projects in the boiler area which are yielding significant savings.

Jim's boiler house is extremely well controlled and is maintained to a very high standard. Written procedures are in place for all aspects of boiler house operation.

Excellent logs are kept and the information gathered is used to optimise the performance of the plant.

Jim is doing an extremely good job and is worthy of this recognition.





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# Space Planning

**T**wenty five per cent of employees are dissatisfied with their workspace according to a recent industry report. Not a very positive figure, given the now widely-accepted belief that a building's potential lies not only in its capital value but also in its ability to enhance productivity and the well-being of staff. Squeezing the maximum number of people into a given floor space will only have a negative effect on a staffs' morale and hence a company's productivity.

On the flip side, companies are increasingly trying to get the most efficient use of their space which ultimately means less space per person. Why? Because after salaries, buildings are the most expensive cost to a company. Rent in Dublin city centre at the moment ranges from 318 per sq m to 550 per sq m, depending on specification and location.

This does not even take account of running costs such as insurance, energy consumption, refurbishments, rates, repair and maintenance etc. Accommodating each member of staff can typically cost from 3,000 to 10,000 per annum. On average, a building represents a cost of 10% to 20% of a company's annual revenue.

So space costs money, but attempts to reduce space requirements can be counter productive. Hence, management must try to find a balance in its space planning policy, and the skill here is to match the desirable with the possible. A key component in this is having the right information available before management decides its space planning strategy such as:

- Space Standards
- How much space does each person get? Most organisations decide this on the basis of either



**By Martin O'Malley**  
MRICS, ASCS Senior Building  
Surveyor with Irish Estates,  
Property & Facilities Managers.  
Contact: Tel: 01 - 704 1400.

status or function. However, it is important to remember that the adherence to fewer rather than smaller standards makes an office more flexible and cost-effective, because if workspaces are the same, moves become cheaper and less disruptive. It also removes the image of "grades" or status within an office.

Modularity is also useful when it comes to ancillary spaces such as storage or meeting rooms. These areas may become workstations some day. A good basis to start from is say modules of 6 sq m, 9 sq m and 12 sq m, all of which are interchangeable.

## Open Plan or Enclosed Office?

Open plan has become the norm in many organisations. It encourages good communication and costs less to provide, maintain and replan. It is also more space efficient. There are drawbacks though. Noise increases and staff can be more easily distracted.

There will always be a demand for cellular offices. People seeking status or simply a quiet enclosed environment prefer them. Indeed, there is a strong preference for

cellular offices in mainland Europe, including Germany, France and Scandinavia.

However, if organisations are to provide cellular offices, they should bear in mind a few basic principles — avoid unnecessarily large offices; keep offices modular in size so that they may be switched to open plan if the need arises; use "truly" demountable partitions; and avoid placing offices at perimeter windows at the expense of leaving open plan staff in the middle of the building.

## Health & Safety

Health & Safety guidelines are necessary to avoid overcrowding. In Ireland, 11m<sup>3</sup> is suggested as a minimum volume per person which approximately translates to 4.5 sq m (footprint). But there are other issues to consider apart from a persons workspace. Employers are under an increasing onus to provide





accessible buildings for the physically impaired. Circulation routes within an office should be sufficient for their use. For instance, 1500mm for a main internal circulation route will comfortably accommodate a person walking alongside a person in a wheelchair.

Office space must also be designed in accordance with Fire Regulations, in Ireland, Part B of the Building Control Regulations. Travel distances are generally 18m with one direction of escape and 45m with two directions of escape.

#### Heating and Lighting

Comfort is an important goal if staff are to enjoy their office. Heating and lighting in particular influence comfort. But peoples' requirements vary widely, and solutions to the problem even more so. Where possible, control or partial control, from the user end, is preferable. Effective building management usually dictates that this is not possible and the environment is controlled remotely.

Again however, management

should consider a number of basic issues. Natural lighting should be provided where possible and the avoidance of cellular offices can facilitate this greatly. Lighting levels in offices should be in the region of 500Lux at desk-top level. It is important to avoid glare, both from natural and artificial lighting, and matt-coloured surfaces can aid this.

With regard to temperature, a range of 19-24 degrees should be targeted. If air-conditioning is used, carefully consider the location of air outlets in relation to workstations, as draughts are one of the most common causes of complaints. There is no easy answer to the control of an office environment but, at the very least, management should have a good knowledge of the lighting and heating patterns, and monitor them on a regular basis to try and ensure that comfortable conditions are achieved.

#### Furniture

There is so much to choose from in today's market that it is often difficult to distinguish priorities but it is advisable to purchase

modular systems for maximum flexibility, particularly in open-plan areas. Remember that desks are the places where most office workers spend their day, so it is recommended that staffs' feedback is obtained in seeking suitable systems.

Also, furniture suppliers are only too willing to lend samples of their furniture, and it may be prudent to take advantage of this. This may also provide an opportunity for space planners to experiment with planned new layouts.

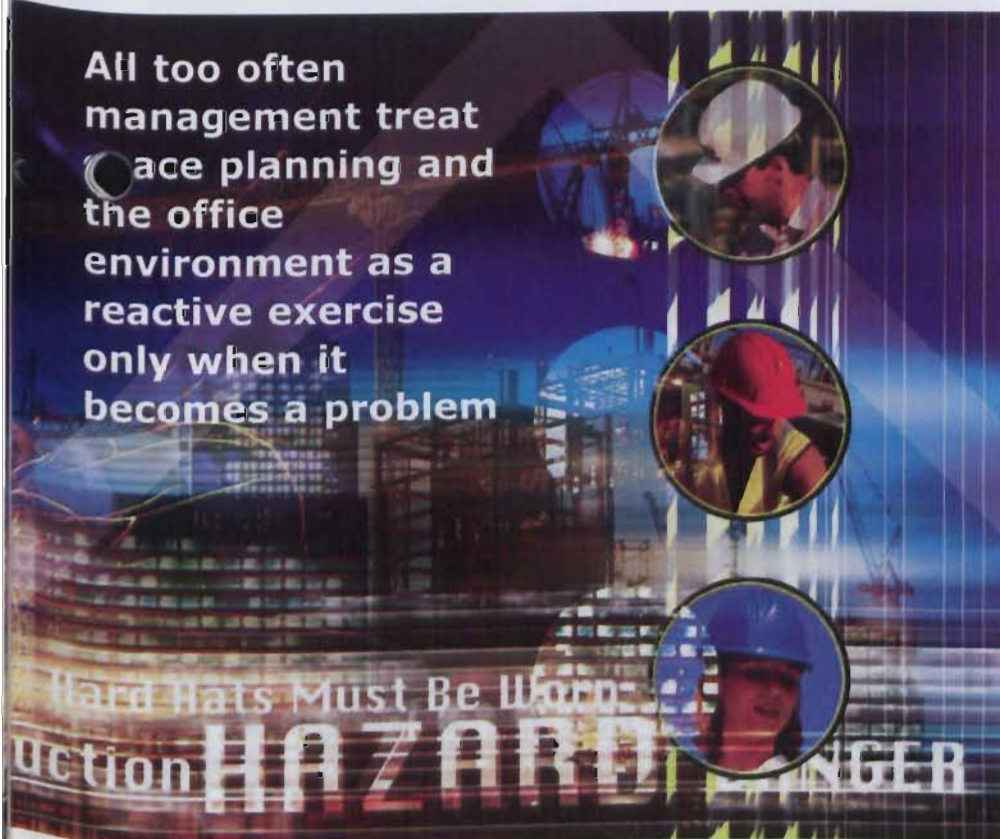
#### Creativity

Break-out areas can break the monotony of large open-plan desking. Usually distinguished by soft seating, planting, coffee machines etc, they help improve creativity and encourage communication through informal meetings. There is also plenty of scope for management to think actively about the use of colour in an office.

Research has shown that reds, oranges and yellows encourage activity and energy, while blues and greens promote contemplation and concentration. In general, dominant wall colours should be kept to soft yellows, pale greens and blues. Whites and greys should be avoided!

#### Summary

All too often management treat space planning and the office environment as a reactive exercise only when it becomes a problem. No surprise then that so many of today's workforce are unhappy with their workspace. To be exploited as a positive asset, office space must make staff feel good. In order to do this, management must work ahead and develop a space planning strategy that best suits their organisation. Committing time and effort day one and giving careful consideration to the issues involved may be costly and time-consuming but, if handled properly, will lead to a more productive and pleasing office environment for all.





# CIBSE Members and Guests Have A Ball ...

The recent CIBSE Ball proved a phenomenal success with something like 650 members, their partners and guests, enjoying an excellent evening's fun and entertainment. Formalities were kept to a minimum and, as our selection of photographs show, the turnout included representation from all sectors of the building services industry. It was a truly memorable occasion and all credit to the organising committee for the manner in which this mammoth undertaking went so smoothly.



Brian Homan and Seamus Homan



Barry and Georgina Leech, CIT with Mary O'Dowd and Don and Helene Byrne, DIT



Barbara and John Cuthbert



Conor Hogan and Peter O'Dowd with Felix McKenna, Chairman, IPFMA



Shane Murphy and Rosaleen Giffney with Cathy and Tom Marren, and Barbara and Tadhg Sullivan



Bill Noone, Galway Chairman and Agnes Noone with Liam Kavanagh, Limerick Chairman



Paul and Val Riordan with Linda Devlin and John Cassidy



Seán and Jodie GannonCassidy



C I B S E N E W S



Mr and Mrs Seamus Homan with Pat Piercy and David Woods, President, CIBSE UK



Tim O'Flaherty and Carol O'Brien with Angela and Michael Brady



Margaret and Des Kelly



Tom and Eleanor Kelly with Rashida and Greg Traynor



Gemma McCarthy and Kevin Kernan



Ken Beattie and Elena Malyar



Peter and Shiela O'Brien with Barbara and Patrick Kelleher



Connor and Gemma Hale with Ann and David Doherty



Bryan and Bernie Spillane



John and Barbara Brown



John and Sonia Brady



EXHIBITION PREVIEW

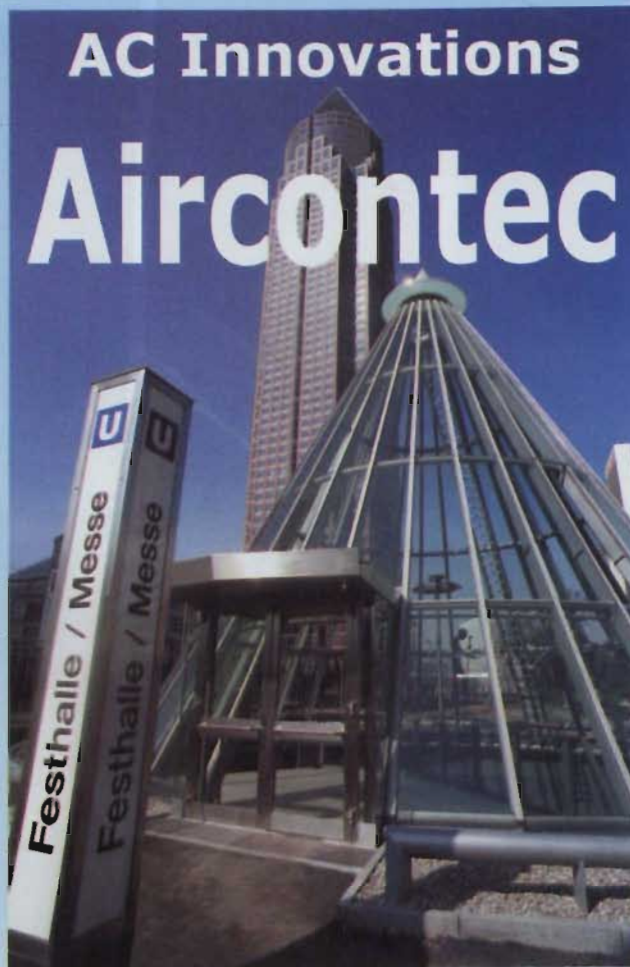
**A**t Aircontec, the dedicated air-conditioning segment of the forthcoming Light + Building exhibition (Frankfurt am Main, 14 to 18 April 2002 in Halls 9 and 9.1) visitors can inform themselves comprehensively on innovative technical and design solutions in the sphere of air-conditioning and ventilation technology.

Aircontec embraces, among others, the product sectors of construction elements for room ventilation ducting systems; instruments and appliances; domestic air-conditioning appliances; ventilators; components for internal temperature control; refrigeration plant; and complete systems for applications/sectors such as clean rooms, hospitals, kitchens, swimming pools and special industrial uses.

A unique climatic experiment will also take place at Aircontec called outLOOK, which is designed to show how a dedicated climate for every living space can work.

A dedicated climate for every living space – outLOOK shows how it works. This is the first time that a "real" cloud – which is actually a cloud in meteorological terms – has been successfully recreated in an indoor environment.

The thermal manifestation is formed from several layers of air, each with differing moisture contents and temperature levels, in a pre-set location, namely the glass-roofed Galleria of the Frankfurt Fair & Exhibition Center. Twice a day, the cloud is recreated and



professionally documented by an expert.

outLOOK looks particularly spectacular when darkness falls after the Fair has closed for the evening, when the cloud is lit up as part of Frankfurt's Luminale light culture spectacular.

Responsibility for the development and technical implementation of this impressive project lies with Atelier Markgraph GmbH, Frankfurt and TransSolar Energietechnik GmbH in Schwäbisch Gmünd and Stuttgart. The aim of the aircon engineers from TransSolar is to develop and construct buildings, which provide the optimum in thermal and visual comfort, with minimal energy consumption

levels and reduced plant costs, taking major architectural aspects into account. TransSolar has succeeded, thanks to its know-how, experience and products (which are also on show at Aircontec), in realising a technical masterpiece.

But outLOOK offers more than "cloud magic". It also specifically defines the general scope of work and responsibilities of aircon technicians and architects. For the first time, the services provided by the aircon industry and the effective, cross-sector, collaboration between the two professional groups become tangible and transparent.

In its themed exhibition in Hall 9.1, outLOOK documents this effective interaction, using concrete projects

to illustrate the reciprocal effect which man and the climate have on one another. In a benchmark progression, from the human epidermis, via the body, buildings interiors, regions and cities to the universe, outLOOK presents climate change and its effect on human beings and their environment.

Is the reaction of the human epidermis to climate change exclusively temperature-dependant? What factors determine the specific, workplace microclimate in open-plan offices? Or what climatic conditions are required to turn space stations into living and working environments, taking account of weightlessness?

In addition, architects of international repute, including Nicolas Grimshaw & Partner and Ingenhoven Overdiek and Partners, present their work and projects within the framework of outLOOK in Hall 9.1, with the focus on aircontec. They show how the interaction between architects and aircon technology works and present solutions, based on examples of some of the prominent and much-debated buildings which have resulted from collaborations between architects and aircon engineers.

The adjacent bookshop is an inviting place to research and read up on this subject.

Contact: Columbus Mueller, Geologistics. Tel: 01 - 816 6600. Website: [www.aircontec.messefrankfurt.com](http://www.aircontec.messefrankfurt.com)



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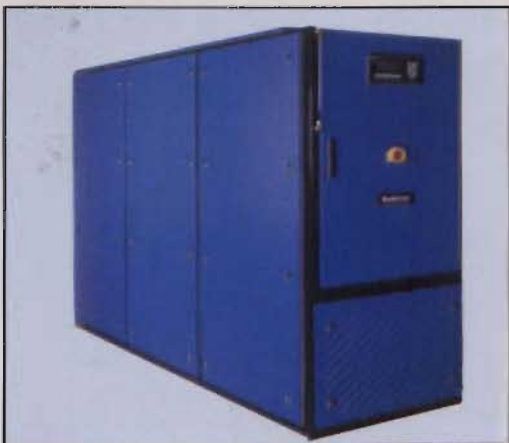
# 'Quiet Innovation' at Interclima 2002

Neither a revolution, nor a technological leap for the 2002 vintage, rather what one might term "quiet innovation". This is the view of the jury that has carefully considered the 40 shortlisted products for the recent Interclima Innovation Awards. The winning products attracted attention without presenting anything spectacularly new. Rather, they intelligently incorporated technological innovations and took on board user expectations. Here *BSNews* profiles six of the award winning products.

## Absorption Heat Pump

Absorption-diffusion heat pump for heating premises offering a yield of 130% on Pci and major fuel savings. Gas fired, it replaces a boiler for the production of heat and domestic hot water. Based on the principle of exchange between three fluids (helium, ammonia and water), it consists of a sealed heat pump that requires no maintenance, and a wall-mounted condenser boiler. Installed in a living area, it is enclosed in a single unit and includes a control unit.

Quality Mark: Gas certification  
Target Markets: Individual houses  
Contact: Buderus Chaffage.  
Tel: 0033 (0) 388 905 700.



Award winner in the Heating Section — Loganova GWP 102 from Buderus Chaffage

## AC Unit With Fitted Radiator

Silent, air-conditioning console fitted with a radiator at the front delivering air-conditioning in the summer and radiator heating in the winter. In air-conditioning mode, thermostatic control linked to three speeds of ventilation ensures a good distribution of air and constant maintenance of the desired temperature. Installed without internal work, this two-function unit uses the existing central heating network. The integrated ventilation increases the radiant heating performance. The condensates are reinjected into the network.

Target Markets: Dwellings, industrial or commercial buildings, office buildings, healthcare establishments, educational establishments.

Contact: MC International. Tel: 0033 (0) 134 657 373.



Award winner in the Air-conditioning Section — Radiacim from MC International

## Improving Air Quality

Hitec Nature System — This innovative filtration system (>0.1  $\mu\text{m}$ ) improves the air quality by filtration, cleaning the distribution ducting and refreshing the ambient air (ionic balance). Low resistance to the air, the HTNS filtration system cleans and maintains the interiors of the ducts; free micro-organisms

and dust; reduces the risk of contamination (legionnaire's disease); and recycles 70 to 90% of the ambient air.

Target Markets: Hospitals and clinics, white rooms.

Market launch date: Spring 2002

Contact: Capii.  
Tel: 0033 (0) 139 810 212



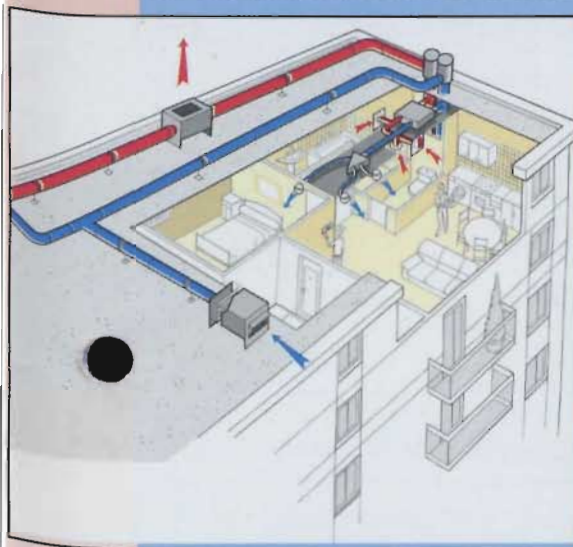
## Reducing Electric Heating Bills

Two-part ventilation and thermodynamic exchange system offering 40% to 50% lower electric heating bills in a communal new building. The communal part consists of a fan associated with several intake columns of polluted air and a fan serving several extraction columns of fresh air. Located in the false ceiling

in each dwelling, the individual part consists of a thermodynamic exchanger delivering fresh, filtered, preheated or cooled air to the living room and bedrooms. The air extracted in the WC, bathroom, and kitchen is also carried to the exchanger to recover the heat. The installation of the assembly is similar to that of single flow ventilation.

Target Markets: New communal dwellings, hotels.

Contact: Aldes.  
Tel: 0033 (0) 478 771 515.



Runner-up in the Ventilation Section —  
Temperation® from Aldes

## Thermal Inertia Radiant Heaters

Low temperature thermal inertia radiant heaters in contemporary forms, made of crushed and reconstituted natural stone (Olycale) suitable for all types of energy source. The mass and composition of the stone offers an inertia and radiant and diffusion capacity close to that of cast iron. The heating bodies are made of copper (hot water) or of heating cables. The surface temperature remains below 65°C. It takes less than ten minutes to reach this temperature and energy consumption is reduced by automatically adjusting temperature regulation to heating requirements. These

radiators are available in hot water, electric or mixed versions. The dimensions and colours can be individually chosen.

Quality mark: Complies with EN 442 standard.

Target Markets: Residential, professional, office buildings, hotels/restaurants.

Contact: Cinier Radiateurs D'Art.

Tel: 0033 (0) 467 181 953.



The Jury's Special Mention in the Heating Section — Radiateurs Contemporains from Cinier Radiateurs D'Art

## Total Heat Generation

Heat generator combining a natural gas condenser boiler, a producer of domestic hot water and a 500 kW natural gas burner has a microprocessor controlled solar extension. It offers a yield of 110% on Pci, it is immersed in the still water of the cylinder, combines the advantages of a heat store and those of an instant, coil water heater. The solar assembly comprises thermal collectors placed on the roof and a control pump. The domestic hot water is reheated in a PE-X tube exchanger, so avoiding scaling, corrosion and the proliferation of legionnaire's bacteria.

Target Markets: Dwellings, hotels/restaurants, sports, cultural or leisure centres.

Contact: Rotex.  
Tel: 0049 7135 103 127.



Runner-up in the Heating Section — Gas Solar Unit GSU 528 from Rotex.



NEW GENERATION SCROLL COMPRESSORS

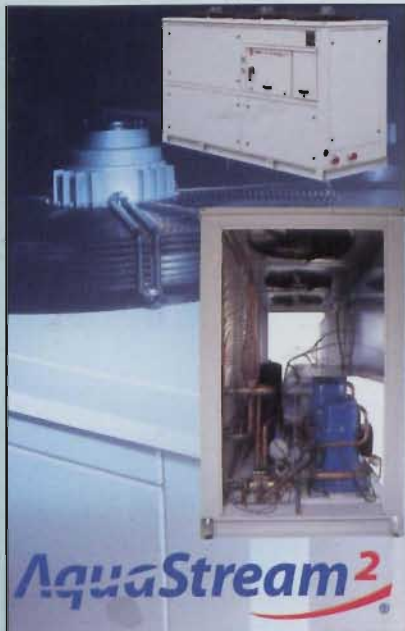
# Trane Aquastream 2 ... 2nd Generation Scroll Compressors

Trane Ireland has introduced a new generation of scroll chillers featuring advanced technology, simplicity, reliability and integrated component design.

"The air conditioning market is changing" says Trane's Dermot McMorro, "and many of these changes are driven by environmental concerns such as refrigerant and noise. Other drivers of change are cost and reliability, (in other words whole-life costing).

"From detailed investigation, customer surveys and analytical studies, we identified essential customer requirements such as ease of installation; low noise levels; energy efficiency; reliability; and ease of maintenance. These were the parameters our engineers had in mind when designing Aquastream 2, the second generation of scroll chillers. This is how they approached the solutions in respect of each of these parameters:—

"Ease of installation — Only a main power supply and water connections are required. The



Aquastream 2 from Trane Ireland

integrated hydraulic module features, as standard, a pump; expansion tank; valves; pressure gauge; relief valve; and strainer.

"For short water loops or process applications, an optional buffer tank is available. So the product can be configured to suit the application.

"Low noise levels — Trane's environmental policy is to achieve the best in sound reduction, and with Aquastream 2 that has been accomplished, providing up to a 10dB(A) noise reduction over the 1998 Scroll Chillers design.

"Also, with low speed fans as standard, these chillers will operate quieter and generate less vibration. This is an especially important environmental concern.

Energy efficiency — Heat exchangers have been selected to guarantee the best in energy efficiency and a wide operating range for year round operation.

Aquastream 2 chillers are controlled by a Trane Tracer microprocessor controller that monitors all operating parameters, ensures optimisation of the system, and has capability for remote monitoring for even more peace of mind.

"Reliability — Scroll compressors are acknowledged as one of the most reliable and efficient air conditioning compressors available today, thanks to the small number of moving parts and the ability to overcome one of the major "compressor killers" liquid slugging. Add to all this the environmental concerns ... the refrigerant used in these chillers is the chlorine-free refrigerant R407C.

"But chillers are just part of a system. To enable the distribution of the chilled water,



From Trane Ireland's new series of fan coil units

and so the provision of cooled air, Trane have developed a new series of fan coil units. Designed to fit in false ceilings, these fan coil units are very slim and very quiet. The inbuilt supply plenums offer the facility for ducted supply air as standard, ensuring an even distribution and prevention of cold draughts. The return air can be transported via a ducted plenum or directly into the unit as the system design dictates. In both cases the filters are easily removeable for maintenance, ensuring system efficiency and a good quality of indoor air.

"Again, installation is quick and easy, drop rod points are provided, controls can be factory-fitted and tested, wiring is to final terminal block, and there is on-site flexibility for speed selection.

"So, Aquastream chillers and fan coil units — as part of a chilled water system — will provide reduced installation time and cost, years of energy-efficient chilled water production, reduced operating and maintenance costs, and the knowledge that Trane Technology underpins the entire process".

Contact: Dermot McMorro, Trane Ireland.  
Tel: 01 460 6030.



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#### EASY PROGRAMMING EASY MAINTENANCE

The elegant Smartfit programme controller has been designed to make programming easy. It also incorporates a built-in commissioning sequence, integral manual overrides and a unique diagnostics programme that will highlight any fault in the system.

Smartfit is faster to fit and commission, easier to programme and makes fault identification simple. All time and cost saving features that will improve your productivity and profit margins, offering you the flexibility to be more competitive when pricing the job.

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Find out more from your local merchant, or contact Honeywell Control Systems Limited, Honeywell House, Bracknell, Berks RG12 1EB.

Or call FREE on 0800 521121 Ext 2000.

#### FITTING AND PROGRAMMING IS AS EASY AS THIS

1. Install the base unit
  2. Snap on the valve power head and plug in
  3. Attach the cylinder sensor and plug in
  4. Connect the low voltage room unit and switch on
  5. Set the programmes for heating and hot water and
  5. the Smartfit system is up and running
- IT COULDN'T BE QUICKER OR EASIER!**



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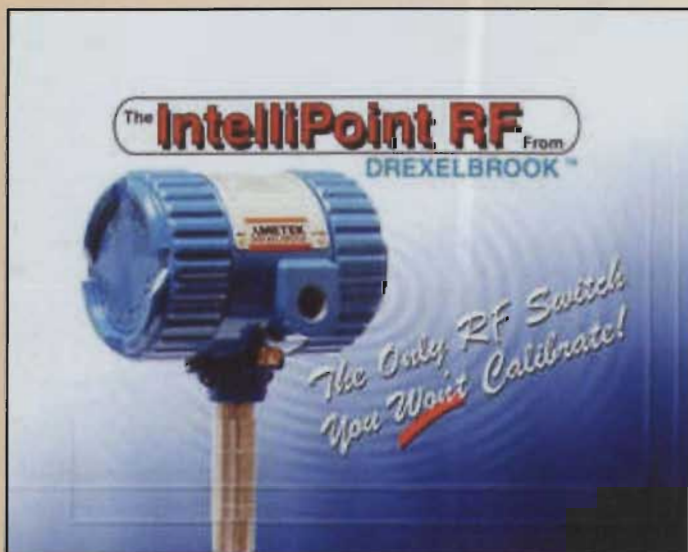
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