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BS News

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BSNews

MECHANICAL & ELECTRICAL BUILDING SERVICES

MARCH 2003

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of the Year**

**Domestic Boilers
CIBSE News**

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BSNews

MECHANICAL & ELECTRICAL
BUILDING SERVICES

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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 (MEBSA); 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 and/or involvement in the industry.

OPINION

Don Collins His Memory Lives On

That the memory of the late Don Collins within the building services sector is so strong is not surprising. However, it is nonetheless extraordinary that a charity golf classic organised in his name to raise funds for a special sterilising unit for the Tallaght Hospital intensive care unit should be so successful.

This machine is used to sterilise diagnostic equipment, including scopes and cameras. The machine currently in use in the ICU Unit takes eight hours to sterilise equipment but the new Steris steriliser being purchased with funds raised by the Don Collins Golf Classic will do so in 30 minutes.

As we went to press nearly €40,000 had already been raised, just €8,000 short of the purchase price. Those participating in the event (4 April, City West Golf Club) have already paid €1000 per team of four. However, many others have also contributed similar/lesser amounts by way of donation.

If you would like to contribute to this excellent cause — and honour the memory of Don Collins in a manner which he would have been so proud of — please contact one of the undersigned.

Brendan Pluck — Tel: 087 - 255 5428

Ollie Fitzpatrick — Tel: 087- 258 3201

Dave Harris — Tel: 087 256 - 7985

BSNews will carry a full report on the day, and the presentation of the unit to the hospital, in our next issue.

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Sunvic's new 'MoMo' Valves

On Tuesday 4 March last over 40 IDHE members and their guests attended a technical and product presentation at the Red Cow Hotel in Dublin by Derek Ferguson of Sunvic Controls and Tom Noone of Chronotherm Controls. The point of the evening was to introduce Sunvic Controls newly-developed range of motorised valves to



the Irish building services sector, and to put them into context in relation to current and impending regulations and legislation governing controls.

With conventional spring return valves, the motor must be stalled all the time the system is calling for heat and/or hot water. In this state, the power drawn by the motor is converted into heat that can ultimately lead to premature burnout.

The Sunvic "MoMo" valve employs a high integrity motor open/motor-closed drive mechanism. Thus, its valve actuator only operates when the valve is changing position, resulting in reduced motor "on" time and consequently greater reliability.

Easy to install, the "MoMo" valve is compatible with standard S&Y plan type control systems and is an ideal upgrade valve for all market sectors. Requiring no additional wiring or changeover room thermostat, it can directly replace all other spring return valves. Wiring colours are identical and industry standard while body dimensions mean minimal pipework changes. This makes for far simpler, and quicker, installation.

The unique design of the "MoMo" valve incorporates some features which increase performance and reliability. These include:

- Unique "Slipseal" 100% shut-off shoe mechanism that provides automatic chamber cleansing;
- Simple, industry-standard, wiring;
- Replaces most makes of spring-

- return valves without wiring or pipework changes;
- Robust manual thumbwheel and valve position indicator;
- Motor open/motor closed operation — significantly reduced power consumption;
- Actuator replaceable without draining down — snap-on action.

The presentation also included details of other products in the Sunvic range including room thermostats, cylinder and pipe thermostats, timers and programmers, radiator thermostats, and control packs (complete solutions in one box).

An excellent Q&A session followed the formal presentations with Derek Ferguson assuring those present that he was available to attend site visits and provide further technical support and guidance in association with Tom Noone of Chronotherm.

IDHE Golf Outing

The IDHE annual golf outing will take place at Corrstown Golf Club on Tuesday, 20 May next. The tee has been booked from 12pm to 2pm, tea and coffee will be served before the off. A 3-course meal, including wine, will be served at 7pm.

To confirm your place send a cheque for €65 to The IDHE, Suite 183, 28 South Frederick Street, Dublin 2.

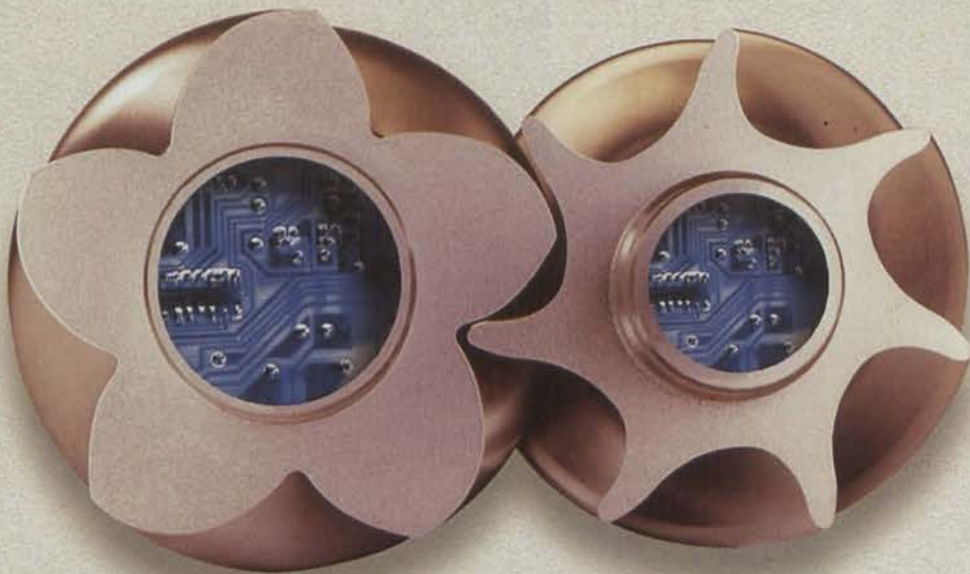
Tee times will be drawn out and players informed mid-April.

Contact: email: jnewman@indigo.ie

Unvented Water Systems

The next IDHE technical evening will be on the ACV unvented hot water system. Contact: Donal Hartnett, C&F Quadrant. Tel: 01 - 630 5702.

The Series R™ range of chillers



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WATER-COOLED CHILLERS



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To receive information on any of the units in our Series R™ range, the contact is Maria Furlong :



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TEL : 01 460 6030 FAX : 01 460 6039



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Air Tightness Testing of Buildings

Despite the enormous development and advances in performances in the thermal insulation properties of modern building materials, it is the actual infiltration load that causes the majority of the overall heating demand that the building requires.

There is a perception

that once the correct building materials are used, then the energy consumption of the building should be within the current guidelines.

The effects of a poorly-constructed building on the energy demands of that building are dramatic. Moreover, with the prospects of being

subjected to a "Carbon Tax" in the near future, it is a grave concern for many property owners.

This seminar, with Tony Jamieson as the main speaker, set out the procedures and requirements necessary to deliver and hand over a properly-sealed building which would meet all current energy ratings.

The large attendance clearly indicated the interest there is within the building services sector at present on this issue, while the lively Q&A session also highlighted many of the concerns, fears and challenges the industry is faced with.

Lighting Seminar



Pictured at the lighting seminar held in Kevin Street DIT are CIBSE Republic of Ireland Branch Chairman Brian Sterling and Professor Brian Norton (centre) with Kevin O'Connell, Kevin Kelly, Peter Lemanquais, David Vaughan, Kevin Tracey and Paul Ruffles.



Speaker Tony Jamieson with CIBSE Republic of Ireland Branch Chairman Brian Sterling.



Thomas O'Shaughnessy with Darren Dunne.



Pat Minogue with Eoin O' Cionna.



John Cash with Joe Brennan.

Soaring to new levels of indoor climate



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FläktWoods

Versatile Wins Master Retailer Award

Versatile Bathrooms & Interiors of Navan has won this year's prestigious Ideal Standard Master Retailer for Bathrooms Award.

The Award was presented to joint Managing Directors Bill and Catherine Treacy at a lavish ceremony in Grosvenor House, Park Lane, London, recently.

Versatile beat off stiff competition from both Irish and UK-based bathroom specialists, the leading panel of industry experts choosing Versatile on the strength of its distinctive showroom design, the diversity of the product presented, and the quality of the displays. This was hardly surprising given that from conception through to final execution, the showroom took almost three years to complete and involved an investment of €1million.

TV personality Clive Anderson hosted the evening and congratulated Versatile on the achievement, especially since it was the first time the company entered the competition.

Sheila Kilbride of American Standard, who distribute Armitage Shanks and Ideal Standard throughout Ireland, was equally pleased with the Award. "This is a tremendous achievement for Versatile, particularly when you consider that they were up against some of the best bathroom showrooms from all over the UK, as well as Ireland. Obviously, we're very pleased to be associated with them and look forward to further developing our trading relationship over the coming 12 months".



Clive Anderson with Catherine and Billy Treacy at the Master Retailer for Bathrooms awards ceremony in London.

'Product Distributor of the Year'

3D Air Sales Ltd was presented with the prestigious "Product Distributor of the Year" award at a ceremony in Birmingham recently. Sponsored by *ARC News* magazine, the entries are scrutinised by a panel of judges which includes consultants, trade association representatives, and senior industry advisers.

Apart from distributing product to its broad client base in the UK and Ireland, 3D Air Sales is also responsible for a vast range of support services, including technical training, after-sales support, trouble-shooting, warranty back-up, and the compilation and publication of sales brochures and technical literature.

The judges citation read: "This prestigious award is in recognition of the total excellence of 3D Air Sales Ltd in professionally representing Mitsubishi Heavy Industries in the UK and Ireland, and the expertise and dedication of the people who make up the sales and support team".

Contact: Michael Clancy, 3D Air Sales.
Tel: 01 - 450 9433.

Thermo Systems Ltd Wrap-Up

As expected, the liquidator of Thermo Systems Ltd (in voluntary liquidation) has confirmed that a dividend is not expected for the company's unsecured creditors. The reason given is "the low level of asset realisation and the significant level of preferential creditors". The total deficit as per the company's Statement of Affairs dated 13 November 2001 was €1,372,528.

Enviroclear Acquires Bio-Clear

Envirocare Pollution Control Ltd — the Kingspan Group-owned distributor of domestic and commercial sewage treatment plants — has acquired Bio-Clear Environmental Ltd.

The enlarged Envirocare business will represent the Klargester and Titan brands throughout Ireland, providing architects and consulting engineers with advice and practical support in the field of off-mains drainage.

Bio-Clear Ireland Ltd, which is based in Cork, is not a party to this transaction.

SIMULTANEOUS COOLING AND HEATING TO MEET ALL NEEDS

et al.: BS News

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Published by ARROW@TU Dublin, 2003



Air Handling Units



Calorifiers



Fan Coil Units



Radiators



Close Control A/C Equipment



**Chilled Water Refrigerated
Cabinets**

Air Enterprise from Finheat

Long-established as one of the primary air movement suppliers to Ireland's building services sector, Finheat has considerably strengthened that standing through its trading partnership with Air Enterprises of America. Finheat was appointed main agent for the Republic of Ireland approximately 12 months ago but the recent opening of the Air Enterprises Europe headquarters in Dublin, coupled with production facilities coming on stream in association with Edpac International in Cork, have underpinned the scope, flexibility and quality of the solutions now available.

"This is the perfect trading partnership for us", says Pat Byrne, Director of Sales, Air

Enterprises Europe. "Finheat is recognised and well-respected as one of the core companies serving the air movement sector in Ireland and we are confident that together we will make significant market inroads over the coming 12 months".

"Finheat has always aligned itself with market-leading, quality brands, typical examples from the current portfolio being Gilberts, Diffusion and Wilo", says Pat Keane of Finheat. "Air Enterprises sits comfortably in this company with the product range on offer perfectly complementing our existing line-up.

"Our objective with Air Enterprises is to provide custom-designed and engineered air handling solutions to a very high specification. To achieve

this we intend to work very closely with consultants and contractors, to liaise with them through seminars and discussion groups, and to take on board their concerns and opinions with a view to devising and establishing a best practice formula in relation to air handling in general.

"Feedback to date from such sessions suggests

that the importance and standing of air handling within the building services sector as a whole is not as it should be. The perception is not one of a high-tech, high-spec market segment. We aim to redress this imbalance and invite feedback from consultants and contractors — directly by 'phone, email or face-to-face — to assist us in doing so."

Contact: Pat Keane,
Finheat. Tel: 01 - 623 42...
email: sales@finheat.com

AcTech Noise Control & Anti-Vibration

AcTech Europe Ltd offers an extensive range of noise control and anti-vibration products catering for the industrial, building, architectural and OEM sectors. The company provides complete acoustic solutions, including initial noise surveys, recommendations, design and installation for specific applications.

AcTech has recently been awarded the design, manufacture and installation of several prestigious contracts including:-

- Ballyfermot Senior College (TV studios and multi-purpose hall);
- Waterford Local Radio WLR Beat FM (10 studios);
- ESB Baldoyle (screens and enclosures);
- INTEL IR6 (40 conference rooms);

AcTech's goal is to provide a complete acoustic package from the initial design and testing through to installation and commissioning of contracts. AcTech Europe Ltd offers a one-stop-shop to provide custom acoustic solutions to suit all requirements.

Contact: Paula Lonergan, AcTech. Tel: 045 - 851 500;
email: plonergan@actech-group.com



Pat Keane, Director, Finheat with Pat Byrne, Director of Sales, Air Enterprises Europe.

Bathrooms, Taps & Mixers

With a world market value of €10 billion, bathrooms, taps and mixers represent a significant portion of the building services sector.

Next month *BSNews* will focus on this growing market segment with statistical analysis and trend information based on the recently-published BSRIA Report.

Contact: Joe Warren
Tel: 01 - 288 5001
email: joe@pressline.ie

Punchy Package from Aervent

The new TurboProp fan unit from Vent-Axia, which is available in Ireland from Aervent Group, is a compact yet powerful performer offering 70% more pressure while taking up the same space. Neatly slipping into the same duct-space as a conventional long-cased axial fan, the TurboProp is a simple answer to the growing need for higher pressures to deal with the technical demands of higher efficiency filtration and longer duct runs.

TurboProp incorporates a pair of matched external-rotor-motor axial fans, mounted co-axially within a single conventionally-proportioned casing.

"This arrangement delivers the performance benefits of a contra-rotating unit at the cost of a conventional long-cased axial – it opens up a whole new sector of the ventilation market," says Aervent's Jim Bollard, "and its quieter too".

The overall dimensions are such that the TurboProp is easy to fit in place of existing fans which need to be replaced or upgraded to enhance the performance of already-installed systems of ductwork. There's no need for a "hatchet job" on the ductwork or surrounding structure to accommodate a bigger axial or centrifugal unit.

Commercial kitchen

installations and COSHH ventilation systems are increasingly routine examples of this requirement for better-performing replacement fans, where the mantra has become "more airflow, more filtration".

The same logic applies to new systems, where the TurboProp is equally cost-effective when high pressure-development is a design essential.

Available in diameters of 450, 500, 560 and 630mm and case lengths of 375 and 520mm, TurboProp units develop useful working pressures of up to 800Pa, and deliver up to 6440m³/h.

Finished in super-durable black epoxy, electrically protected to IP65 for indoor and outdoor use, and



The new Vent-Axia TurboProp from Aervent.

continuously-rated for temperatures of up to 70°C, TurboProp is a tough performer too — backed by Vent-Axia's comprehensive guarantee and in-depth technical support.

Contact: Jim Bollard, Aervent.
Tel: 01 - 456 8200; email: sales@aerventgroup.com

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Tel: 01 - 456 8111; Fax: 01 - 456 8108; email: sales@thermelec.ie

THERMELEC

Coolair and Daikin Offer AC Labelling Compliance

From 1 July 2003, new European Commission regulations intended to save power and cut greenhouse gas emissions require the display of energy labels on all electrically-driven room air conditioners of less than 12kW cooling capacity for domestic and commercial applications.

The need for regulation of energy consumption is clear in view of the anticipated near-50% increase in demand from hotels, offices, small businesses and households alone by 2010.

Energy labelling is part of a wider European Climate Change

Programme that targets energy efficiency as one means of reducing CO₂ emissions in order to meet the Kyoto proposals.

"The objectives" according to Brendan Kilgallon of Coolair, "are to improve customer awareness by insisting on energy labels for domestic and commercial equipment, and to encourage manufacturers to improve technology by setting minimum energy efficiency levels. Refrigerators, freezers, washing machines, tumble dryers and dishwashers are already covered – and now air conditioners will be

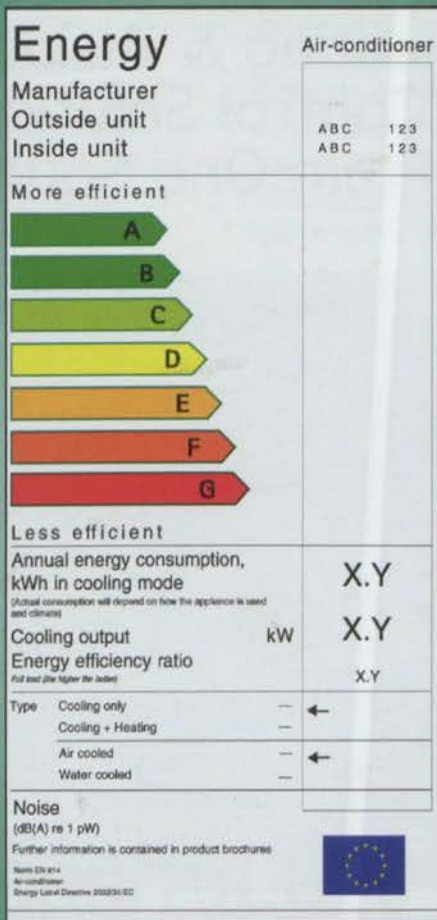
added to the list (although air-to-water and water-to-water heat pumps, and equipment with cooling capacities above 12kW, are excluded).

"Colour-coded labels will divide single duct split and multi-split appliances into seven categories. In the case of air-cooled splits, the green-arrowed Category A indicates the highest energy efficiency ratio (above 3.2 EER) – while for Category G, a red arrow indicates the lowest energy efficiency (2.2 EER).

"Equipment will be required to display the appropriate energy label in a clear and visible manner – and manufacturers must be able to support their claims with evidence of testing procedures and their findings. It will thus become a simple matter for purchasers to compare different types of unit, and to determine which would be the most economical answer to their needs.

"The Daikin range currently includes more A-class products than any of our competitors, while the low-ranking models are generally old and soon due for replacement. Against this background consultants and contractors would do well to look to the Daikin range of air conditioning as it will guarantee compliance with the new Regulations".

Contact: Brendan Kilgallon, Coolair.
Tel: 01 - 451 1244;
email: info@coolair.ie



'No Bills from the Sun'

Following the success of Ireland's first Solar Conference and Study Tour in Tralee last year, Sustainable Energy Ireland's Renewable Energy Information Office will be hosting "See the Light — No Bills from the Sun 2003" at the Botanic Gardens, Dublin, on 19th-20th June.



The conference will explore how solar technologies (active solar thermal, solar photovoltaic, heat pumps) and passive solar architecture are applied successfully here and abroad.

A study tour in and around Dublin will complete the conference by demonstrating to delegates exemplary Irish solar projects. The conference will be followed by "Sun Day", an open exhibition and event on solar energy in the Botanic Gardens on Saturday 21 June.

Contact:
Tel: 023 - 42193;
email: renewables@reio.ie;
website www.sei.ie

Monitoring Air Flow

Manotherm has just released the new Dwyer Series 641 air velocity transmitter. Ideal for monitoring air flow, this compact transmitter uses a heated mass flow sensor that allows for precise velocity measurements at various flow rates and temperatures.

The Series 641 air velocity transmitter is an extremely versatile unit for nearly all air flow applications. Units

have adjustable span and digital filter for signal damping. Each Series 641 has 16 field-selectable ranges from 0-250 to 15,000 FPM (0-1.25 to 75 MPS). The optional LED produces a complete, low-cost solution for local indication of air flow.

Applications include exhaust stack flow monitoring, air control in drying processes, HVAC air velocity measurements and fan



Dwyer Series 641 air flow monitor from Manotherm.

supply and exhaust tracking.

There is a standard model and also an LED option. Stocked probe lengths are 15.2mm, 30.5mm and 45.7mm.

Other probe lengths are available upon request.

Contact: Bob Gilbert, Manotherm.

Tel: 01 - 452 2355;

email:

manotherm@eircom.net.

Win a Sanyo DVD Reader competition

Enter our reader competition and you could win a fantastic DVD player in our prize draw. Simply answer the questions and complete the details, copy and fax back to BSNews on 01 288 6966.



1) Who is the new Republic of Ireland Football Manager?

- a) Bryan Robson ☐ b) Roy Keane ☐
c) Brian Kerr ☐

2) Where do the England Rugby Union team play their home games?

- a) Lansdowne Road ☐ b) Twickenham ☐
c) Millenium Stadium ☐

3) What country does Sanyo originate from?

- a) Japan ☐ b) Saudi Arabia ☐ c) U.S.A. ☐

4) What is the name of the Sanyo 3-pipe VRF system?

- a) The 4-Way Eco Multi ☐ b) The 2-Way Eco Multi ☐
c) The 3-Way Eco Multi ☐

5) Approximately how many BTU/hr to 1kW are there?

- a) 3412 ☐ b) 4231 ☐ c) 1234 ☐

Name: _____

Company: _____

Address: _____

Postcode: _____

Email: _____

Tel: _____

Fax back to BSNews on 01 288 6966

Rules: Competition open to anyone over the age of 16. No limit to the number of entries made.

Sponsored by

SANYO
AIR CONDITIONERS

As part of an ongoing process of product innovation and development, the Grundfos range of in-line pumps has been completely re-thought in every detail, leading to significant increases in the scope of applications, efficiency, performance and reliability.

The critical features and corresponding user benefits of the new range are as follows:—

- Lower thrust on motor bearing which leads to longer bearing lifetime;
- Stronger shaft/coupling leading to longer lifetime for shaft seal;
- Cataphoresis treated impeller, motorstool and pump housing which means improved resistance to corrosion and longer lifetime;
- More models means

Grundfos Re-Thinks In-Line Pumps

► Reliability — shaft

All in one unit — no alignment — no unbalance



Larger shaft diameter — Higher Shaft Stiffness Ratio

► Longer bearing and shaft seal lifetime

solutions for virtually any application;

- Compact design means easy replacement of other model makes;
- Comprehensive range includes constant and variable speed pumps, in both single and twin-head versions. All models in the

range are available in speed control versions.

Detailed design changes which have led to greater pump efficiencies include the new rigid shaft/coupling which results in smaller tolerances; the new improved design of the impeller and pump housing; and the lower energy consumption achieved by including Eff1-rated motors as standard in every model.

Eff1 rating is now accepted as the world-standard accreditation programme governing high efficiency motors.

The definition of what constitutes a high efficiency motor was first laid down in the "Energy Policy Act" as instituted by the US Congress and the EU has now agreed an almost similar definition for Europe.

As the name implies, high efficiency motors offer considerably-

improved efficiency compared to standard motors — Eff2 or Eff3 classification.

Together with the hydraulic improvements, the motors contribute to making Grundfos in-line pumps some of the most efficient and reliable in the market. This means higher efficiencies than conventional motors, especially during part-load operation which is almost always the norm within a pump system.

This high level of efficiency means reduced heat generation and therefore a lower cooling requirement in the motor, which in turn means that a smaller ventilator is required. With the fitting of a smaller ventilator, the noise level is reduced. At the same time motor bearings benefit from the lower operating temperature, thereby prolonging their service life.

The reduced heat generation also means that less motor lubricant is required, thus saving time and money in the maintenance budget.

Grundfos Ireland has just introduced the TP(D) and TPE(D) in-line circulator pump range as Phase 1 of a major replacement programme with Phase 2, covering the remainder of the extensive portfolio, scheduled to come on stream later in the year.

Contact: Gordon Barry, Grundfos (Irl).
Tel: 01 - 295 4926;
email: gbarry@grundfos.com



A range of in-line pumps available from Grundfos

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- ✓ Air Volumes up to 2.5m³/s



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- ✓ Air Volumes up to 2.5m³/s



Minislim and Slimline Air Handling Units (MSA, MSB & SL)

- ✓ 10 Sizes
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High Pressure Centrifugal In-Line Fans (BS)

- ✓ 4 Sizes
- ✓ Air Volumes up to 9m³/s

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aervent group

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Tel: 01 - 456 8200 Fax: 01 - 456 8210

email: dublin@aerventgroup.com www.aerventgroup.com

Cork Office

Unit 2, Young Line Industrial Estate, Tramore Road, Togher, Co Cork

Tel: 021 - 432 0203 Fax: 021 - 432 0210

email: cork@aerventgroup.com

Hevac Multi-Brand Strength

Hevac has always been to the forefront in domestic boilers in Ireland, pioneering the introduction of technological advancements and genuine product innovations by way of its association with market-leading brands. Today's portfolio is no exception, the Sime, Ravenheat and Keston ranges being a typical case in point. Taking **Sime** first, the Sime Format System is manufactured to the highest quality standards and has achieved all necessary accreditation and approvals.

Compact, reliable, efficient and economical, Format System boilers are fully modulating with two models ranging in outputs from 9kW to 23.4kW, and 11.5kW to 28.8kW for bigger homes. All have a built-in frost stat. All models have

multi-directional telescopic flue but there is also a range of other flueing options to offer extra flexibility. Format System boilers are easy to install and have the option of pre-fixing jig with spacing plate and plug-in electromechanical timer. Sime Format System boilers are available in both natural gas and LPG models.

Turning to **Ravenheat**, this is an award-winning UK-based company operating throughout Europe.

Everything from product design through to raw materials purchasing, manufacturing processes and final delivery is IS 9001 certified, with every boiler being 100% function tested and run for 15 minutes before final panels are fitted.

The result is an extensive range of innovative products which deliver optimum performance while minimising energy usage. Typical example is the CSI System(T) condensing boiler. This unit incorporates a unique innovation whereby two thermostats are fitted to the boiler, one of which controls output to the hot water tank or allows water to get as hot as the user requires. Then, when the hot water has reached temperature, the second

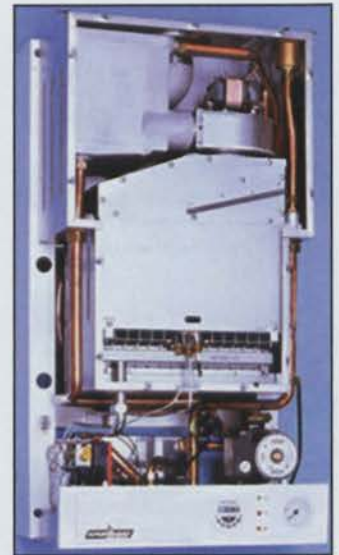
thermostat runs the boiler in condensing mode to provide room heating.

Apart from the obvious energy savings which accrue, the system also ensures that flue emissions of nitrous oxide and carbon dioxide are kept to a minimum.

The CSI System(T) range is available in natural gas and LPG, both of which are SEDBUK A rated. Also available from Hevac are the Ravenheat RSF 84E(T) and RSF 100E(T) fully modulating boilers. Built to exacting IS 9001 standards, the boilers carry the European CE mark and are designed for higher domestic hot water flow rates of 10.1litres and 12.2litres per minute at 35° rise respectively. Both models have top flue outlets which can be terminated left, right, rear or vertical. They have an option of flue intake distances of up to 29m air intake/exhaust and are very popular where outlet flueing arrangements are restricted.

Like the rest of the Ravenheat range, these models come with the option of a built-in 7-day digital timer (T) models, or non-timer models DSF 84E and RSF100E.

Completing the line-up is the high-efficiency **Keston** range. The Keston Celcius 25 is a



Cut-away section of the Ravenheat CS185 from Hevac

fully modulating gas condensing boiler with ultra-high efficiency of up to 90% and the ability to reduce energy costs by 30%. Being fully modulating, the one model is suitable for practically any size home. For the Keston 25 a small diameter (50mm) muPVC standard kitchen wastepipe is all that is required for the flue and air intake. Flexibility is guaranteed as the flue can be extended up to 20m from the boiler, either vertically or horizontally.

In addition, the Keston DUET is designed to comply with Chess HR2 (2000) recommended best practice system specification.

Keston Boilers also provide a 38kW to 100kW range for larger domestic and commercial applications, together with a modular system for outputs of up to 400kW.

Contact: Tony Murphy, Hevac.

Tel: 01 - 419 1919;

email: tonym@hevac.ie



Keston Celsius 25 from Hevac.



Wall hung gas boilers

Format System

Available in Natural Gas and LPG



Muirfield Drive, Naas Road, Dublin 12. Tel: 01 - 419 1919 Fax: 01 - 458 4806 email: info@hevac.ie

South Ring West Business Park, Tramore Road, Co Cork. Tel: 021 - 432 1066/7 Fax: 021 - 432 1068

Potterton — at the Forefront of Domestic Heating Technology

Generations of heating engineers and end users alike have long associated the Potterton name with top quality, high specification products that are easy to install and reliable in service. Founded over 150 years ago and with more than five million boilers installed, Potterton has entered the 21st century at the forefront of domestic heating technology as part of Europe's largest heating group.

All Potterton products benefit from world-class manufacturing skills and one of the largest and most experienced research and development teams in the industry. They are designed to be inherently reliable and to meet the most demanding user needs.

Potterton's aim is to provide the very highest levels of customer satisfaction. Over many years in Ireland this has been achieved through a combination of quality product, excellent after sales service, and a team of experienced engineers to back up the product on site and in telephone support to the installer. In addition, spare parts for current and past product offerings are readily available to the service engineers providing additional comfort to the end user.

The current product offerings reflect the tradition of quality and innovation that is best summarised in the expression "intelligently applied technology". The

product ranges on offer are:

Potterton Suprima

A wall-mounted gas boiler, Suprima L offers a wide range of boilers from the same compact case size. The lightweight cast iron heat exchanger means low lift weights and ease of installation. The range covers all domestic applications while the larger model (35kW) can be linked to power larger properties;

Potterton Profile

Profile L offers a proven solution for applications where a wall-hung cast iron boiler is required in a wide range of outputs. It is especially suitable for potentially troublesome replacement applications on older systems;

Potterton Performa System

The Performa System range comprises gas fired, wall mounted system boilers combining elegant designs with sophisticated electronic monitoring and controls. There are four models available — Performa System 12e for the starter home; Performa System 18e for the average-sized home; Performa System 24e for larger homes; and Performa System 28e for substantial homes.

Potterton Performa Combi

There are three models in the Potterton Performa wall mounted combination gas boiler range — the

Performa 24 for starter and smaller homes; Performa 28 for most heating and domestic hot water requirements; and Performa 28i which provides near instantaneous domestic hot water by means of a compact on-board vessel (within 8 seconds for 35°C rise @ 7 l/m);

Potterton Kingfisher

Kingfisher Mf L is a floor standing gas boiler range. Its fanned-flue design complies with the strictest requirements of the Building Regulations. In CF L mode it offers adjustable flue positioning to more easily marry up to existing flues. All models are the same compact size — 290mm wide;

Potterton Osprey

The Potterton Osprey 2 CFL floor standing gas boiler range is one of the most reliable on the market and complies with all relevant Building regulations requirements;

Potterton Promax

The Promax wall mounted high efficiency boiler range features the very latest in heat exchanger technology. There is also a revolutionary ceramic burner and an advanced micro-processor which enables up to 19% more heat to be drawn from the same amount of fuel used in a standard efficiency appliance. Its A Class SEDBUK rating means the lowest possible running costs;



Potterton Performa gas fired, wall mounted, combination boilers come in three models — Performa 28i; Performa 28 and Performa 24.

Potterton Powermax

The Powermax HE is the first of the next generation of solutions to domestic central heating and hot water problems. It is a high efficiency central heating and unvented hot water appliance which exceeds all the latest performance, efficiency and environmental requirements;

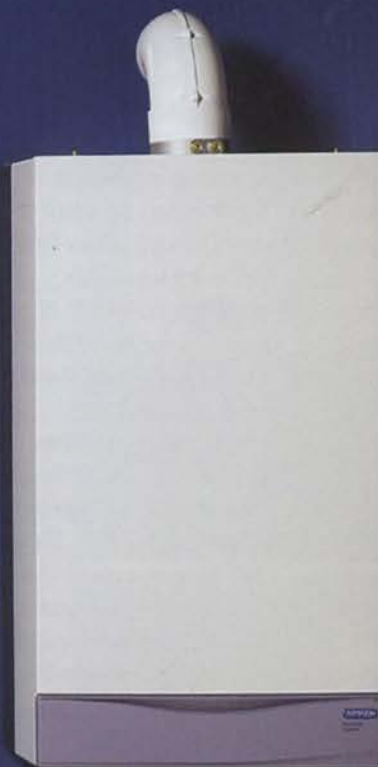
Potterton Statesman

The Statesman L range floor standing oil boiler offers solutions for most oil boiler requirements and provides state-of-the-art design, excellent performance, reliability and ease of installation. In addition to this extensive product offering, next month the company will introduce the new range of Potterton Commercial boilers. This will include the Paramount wall-hung, high-efficiency, range and the Euro-condense floor-standing, high-efficiency, boilers. Contact: Potterton Myson (Ire). Tel: 01 - 459 0870; Fax: 01 - 459 0880; email: post@pottertonmyson.ie

The Complete Boiler Range

et al.: BS News

Product Information
www.potterton.co.uk



Fixed tool unit, 14 gauge zinc steel

672

995

intelligently applied technology

moveable 14 gauge zinc steel units lockable castors

800

POTTERTON

Potterton Suprima
Potterton Profile
Potterton Kingfisher
Potterton Osprey
Potterton Performa System
Potterton Performa Combi
Potterton Promax
Potterton Powermax
Potterton Statesman

Potterton Myson (Ir) Ltd
Belgard Road, Tallaght, Dublin 24

Fax: 01 - 459 0880

email: post@potterton-myson.ie

Keston High-Efficiency Domestic Boilers

Keston Celsius 25 is a fully-modulating wall mounted gas condensing boiler designed for domestic installations. Highly efficient and SEDBUK A rated at 90.4% with peak efficiency of 97%, the boiler can save up to 30% on fuel bills as it is compact in size, room-sealed, and has a small diameter flue which can be extended up to 60 metres in length. The unit can be sited practically anywhere, even in a standard kitchen cupboard. The boiler modulates between 7kW to 25kW. For larger homes there are models modulating from 11kW to

55kW (see Keston C40 and C55 below).

For heating and hot water storage, the Keston Duet combines the ultra-high efficiency Keston Celsius 25 gas condensing boiler with the Keston Spa hot water storage cylinder. This product won the prestigious *H&V News* awards for the "Best Domestic H&V Product of the Year 2002".

The unvented hot water storage cylinder in this integrated system is available in 125, 150 and 200 litre sizes providing lashings of hot water as and when required. Contained in one floor



Keston Celsius 25 from Heatmerchants.



Cut-away section of the Keston C55 from Heatmerchants.

standing compact unit the room-sealed appliance can be installed practically anywhere.

For larger homes and commercial premises Keston Boilers developed the Keston C40 and Keston C55 fully-modulating wall mounted gas boilers.

SEDBUK A rated and offering up to 99% efficiency, these boilers are pre-wired, pre-piped and pre-assembled for quick and easy installation. The C40 modulates between 11kW and 44kW and the C55 between 14kW and 55kW. Both appliances can be installed in conjunction

with the Keston Spa unvented hot water storage cylinder available in 125, 150 and 200 litres.

For large commercial installations any heating output can be achieved using the modular system. Specially-designed boiler house rigs containing two, three and four appliances are available for ultra-easy installation on-site.

All models are available in both natural gas and LPG.

Keston boilers are available from Heatmerchants.

Contact: Branches Nationwide:
www.heatmerchants.ie

KESTON BOILERS

HIGH EFFICIENCY DOMESTIC & COMMERCIAL BOILERS

CONDENSING BOILERS FOR ALL APPLICATIONS

Keston Celsius 25 – For Domestic Installations

Keston Celsius 25 is a fully modulating wall mounted gas condensing boiler. Highly efficient and SEDBUK A rated at 90.4% with peak efficiency of 97%, the boiler can save up to 30% on the fuel bill as the Celsius 25 is compact in size, room sealed and has a small diameter flue which can be extended up to 60 metres in length. The unit can be sited practically anywhere even in a standard kitchen cupboard. The boiler modulates between 7kW to 25kW. For larger homes there are models modulating from 11kW to 55kW, see Keston C40 and C55 below.

Keston Boilers For Larger Homes & Commercial Premises

For larger homes and commercial premises Keston Boilers developed the Keston C40 and Keston C55 fully modulating wall mounted gas boilers.

SEDBUK rated A and offering up to 99% efficiency, these boilers are pre-wired, pre-piped and pre-assembled for quick and easy installation. The C40 modulates between 11kW and 44kW and the C55 between 14kW and 55kW. Both appliances can be installed in conjunction with the Keston Spa unvented hot water storage cylinder available in 125, 150 and 200 litres.

For large commercial installations any heating output can be achieved using the modular system and specially designed boiler house rigs containing two, three and four appliances are available for ultra-easy installation on-site.

All models available in Natural (town) gas and LP gas.

Keston boilers are available from Heatmerchants. Contact you local branch for further details.



Branches Nationwide
www.heatmerchants.ie



Incorporating

heatmerchants

Gas & Oil Parts

ARKLOW GALWAY ATHLONE KILKENNY BRAY LETTERKENNY CASTLEBAR LIMERICK CAVAN MALLOW CLONMEL NAAS CORK (3) NAVAN DUBLIN (4) PORTLAOISE DUNDALK SLIGO DUNGARVAN TRALEE ENNIS WATERFORD

Ferroli Advanced System Boiler Technology

The Ferroli Temptra II system boiler from Heatavent is a highly-efficient, room-sealed, fanned-flue, gas-fired domestic boiler that offers significant advantages over more conventional boilers.

Said to be one of the smallest units on the marketplace, the Temptra II nonetheless contains key system controls and components within its neat compact casing which would normally be installed separately from the boiler. These include the circulating pump, expansion vessel, automatic air vent, and air separator.

This makes for a very cost-effective boiler which is easy and quick to install, requires significantly-reduced space (no feed or expansion tanks are required in the loft) and, with the many flue options available, can be installed virtually

anywhere in the home. Capacities range from 40,000 Btu up to 100,000 Btu with both natural gas and LPG models available.

Designed for use with either traditional vented or unvented hot water cylinders, all models feature automatic electronic ignition, high-efficiency copper heat exchangers, fully-modulating burners and frost-protection control.

Every Temptra model meets the highest European standard of manufacture and carries the CE approval mark.

Another Ferroli boiler in the Heatavent product line-up is the **Modena** combination boiler range. Small, lightweight and unobtrusive, all models incorporate AutoMiser, the latest ignition and boiler control system. Effectively, what it means is that the boiler automatically sets its own output each time heat is called for and then modulates, ensuring optimum performance.

AutoMiser also ensures maximum economy across the full spectrum of the boiler, an important advantage, particularly with larger-output models. Self-regulation is also a major aid in reducing fuel bills and keeping CO₂ and Nox levels to a minimum.

Controls for heating and hot water are easily-

accessible behind a drop-down flap on the front of the boiler. There is also a simple-to-use diagnostics panel which enables the householder to readily assess the operating condition of the boiler. This very often eliminates unnecessary service call-outs.

Modena models include a frost protection system. Domestic hot water flow rates — Modena Model 80: 9.7litres/min; Modena 102: 12.3 litres/min.

Heatavent has a purpose design training centre and provides comprehensive nationwide after-sales service and a full range of spare parts for all boiler ranges.

The GN boiler is a new heating generator with high efficiency for central system as well as sanitary hot water production suitable for burners using oil or gas.

The boiler body is built by cast iron sections joined together by means of biconical nipples and tie rods. Section fins are especially developed to achieve the best efficiency of the boiler in order to save on fuel consumption. The boiler body insulation is provided by mineral high-density fibres that minimise the body heat loss.

Capacities range from 80,000 Btu to 850,000 Btu.

Turning to the **Sigma** cast-iron domestic gas-fired boiler range there is a model to suit every



Ferroli Temptra II gas-fired domestic boiler system from Heatavent

application from 30,000 Btu to 100,000 Btu.

Sigma is one of the smallest and lightest cast iron boilers on the market, measuring 6000mm high, 400mm wide and 220mm deep. Weight of the larger models is only 35Kg.

The lightweight cast iron heat exchanger is engineered for long life and absolute reliability.

Simple to handle and install, they are the ideal replacement for old balanced flue boilers. Rear fanned-flued for maximum siting flexibility, they can be easily fitted out of sight inside a standard kitchen cupboard.

However, there is also a wealth of flue options so that Sigma can be sited virtually anywhere in the home.

Contact: Sales Department, Heatavent. Tel: 01 - 450 8166; email: sales@heatavent.ie



Ferroli Modena combination boiler from Heatavent



Heatavent (Ire) Ltd, Greenhills Road, Walkinstown, Dublin 12.
Tel: 01 - 450 8166; Fax: 01 - 450 8501



Ferroli is one of the world's largest manufacturers of advanced heating appliances. Its eight European plants produce over 400,000 domestic boilers every year and many thousands of commercial boilers with outputs up to 42 million Btu/h.

RANGE

Tempra System Gas Boiler

Sigma Cast Iron Gas Boiler

Modena Combination Gas Boiler

Arena Condensing Gas Boiler

GE1 Cast Iron Range

GN1/GN2/GN4 Cast Iron Range

Ferroli Tonga Towel Rail



Tempra System Gas Boiler



GN Cast Iron Boiler

— NEW RANGE OF BOILERS SOON TO ARRIVE —

For information relating to any Ferroli product contact:

Heatavent Sales Office —Tel: 01 - 450 8166

Patrick Kavanagh, Technical Representative

Tel: 087 - 799 5080



Planned Preventative Maintenance – Why?



Liam Keighery is Maintenance Superintendent with Irish Estates. He lectures on the Irish Property & Facilities Management Association Course and has 24 years experience in the industry covering a wide range of building services including CHPs, ice bank air-conditioning systems and chilled ceiling controls, as well as the more usual array of mechanical plant. Tel: 01 - 704 1400.

Is it true that companies expend vast sums of money in such an unproductive way that it justifies the saying "They might as well have burned it"? Regretfully, the answer to this is "yes". Some companies do this in a number of ways. However, I will briefly discuss planned/preventative or inspection maintenance contracts, which can qualify for an award under the heading "Burning Money". The reason for this is that all too often maintenance projects are not implemented and executed in such a manner that achieves the primary objective.

In my management role over many years in the building services industry across a wide property portfolio, I have come to view maintenance contracts as an excellent investment and a means to ensure efficient operation of plant provided they are implemented, executed and supervised by competent and experienced technicians, including the management team covering the various disciplines.

Unfortunately, it appears that value for money in relation to maintenance contracts is now becoming the exception rather than the rule.

Modern buildings can only be efficiently maintained provided the contractor who is offering the service has the in-depth knowledge and experience to cover all the various disciplines.

Unfortunately, standard maintenance contracts are very often treated as retention fees which enable the contractor to turn up on site to compile a list of various additional works which are extra to the contract.

The reality of the situation is that the contracted maintenance is seldom executed effectively due to the simple fact that it would be impossible for a contractor to do the work for the price quoted.

This is most unsatisfactory and has not evolved overnight. It has taken many years of hard work by a large proportion of the professional advisors playing one contractor off against the other to attain such a low price that the work could not possibly be carried out. Clients are badly advised in the first place and this has led them to believe that "free lunches" really do exist.

This leads to what I call the "lose lose" situation ... the clients money/equipment and the contractors' credibility. As we can see the theory of how the contract should be implemented and the actual implementation can lead to disaster. It is always important to remember that theory falls half way between hypothesis and law. So it is important to bear in mind when dealing with maintenance contracts the old socialist, Lenin, who once said: "Trust is great but control is much better".

So does all plant and

SANYO

AIR CONDITIONERS

600 x 600 Mini Cassette

The **Sanyo SAP-XR** mini cassette is designed to fit perfectly into a standard ceiling grid - no tile cutting required. Available in three capacities, 2.7, 3.1 and 5.2kW cooling only and heatpump, it offers a fresh air knock-out, condensate lift pump and infra-red control*. All this at a price that makes cassettes affordable even on the tightest budget the **Sanyo SAP-XR** simply offers a lot more.

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* Low ambient kits as standard on all cooling models



Heating coil in an air handling unit showing obvious signs of filtration neglect

equipment benefit from maintenance? The answer to this question is no. There is a large amount of plant and equipment in all modern facilities that does not benefit from maintenance. One only has to look at the many reports produced on the subject by the various professional bodies.

Recently, the British Consumer Association did an in-depth investigation into extended warranties and maintenance contracts that were sold by the country's leading electrical outlets, which were in excess of Stg £50m per annum. Their conclusion was that no benefit accrued to the purchaser of these contracts. This is due to the reasons above and is a good example of the importance of having the right professional advice as to what equipment should have a maintenance contract.

In relation to the building services industry where there is a very wide spectrum of equipment, it is extremely important that the person compiling the scope of work has

the necessary depth of knowledge. Very often the client, who does not have the necessary in-house engineering expertise, will nominate a totally non-technical person from their staff to deal with it. This very often proves a costly error in the long term.

If the maintenance is properly executed it will lead to extended plant life and a significant reduction in running costs. Planned Preventative Maintenance (PPM) is work undertaken in order to keep, restore or improve every facility, i.e. every service in the building, to a currently accepted-standard and to sustain the utility and value of the facility. After all, the environmental systems such as air conditioning, heating, cooling, electricity, plumbing and fire protection systems are the veins and arteries of a building. They are essential for the performance of the building and the well-being of the occupiers.

The following is a brief list of equipment that, in my experience, has proven to

require PPM of the highest standard:—

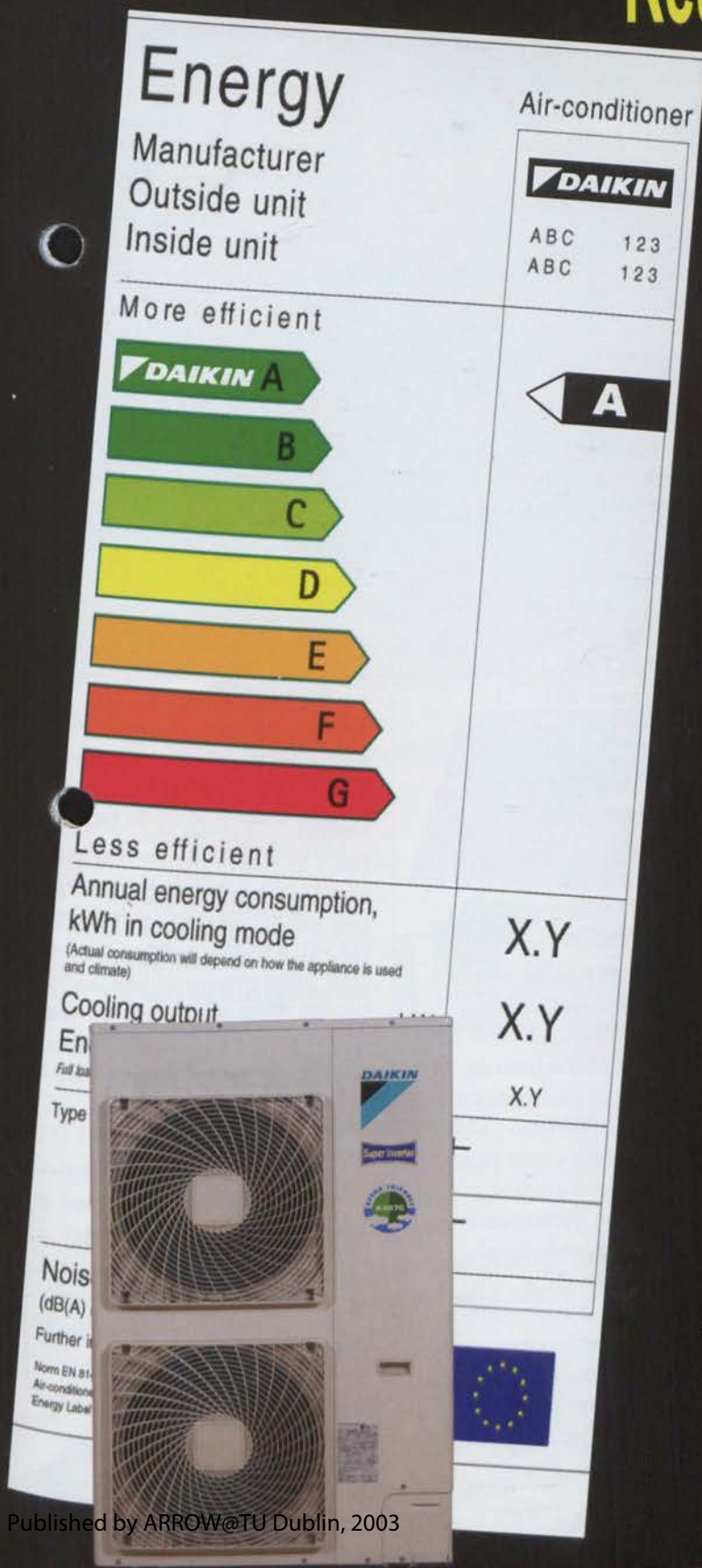
- Generating equipment;
- UPS systems;
- Electrical distribution equipment;
- Chiller and refrigeration plant;
- Cooling towers;
- Boilers;
- Pumps;
- Heat exchangers;
- Air handling units;
- Plumbing systems;
- Solid-state control systems;
- Filtration systems.

The only effective way of ensuring your plant is correctly maintained and all the objectives of the maintenance contract are achieved is to have a contractor whose key management people have the depth of knowledge and experience to cover all the disciplines. I regard this as a prerequisite, and I believe if such management have the know-how there is a very good chance they will control and supervise their technicians and ensure that the work is efficiently executed. It is not possible for any client to check and verify continually what his maintenance contractor is doing or not doing. For this reason the key to success is "Know Your Contractor".

To summarise — if maintenance is not given the priority it deserves, the situation will de-generate into expensive mis-management of what has been initially a costly investment in mechanical, electrical and fire suppression systems.

Daikin Completes HFC Splits & Multi Ranges

Ready For The Countdown To Energy Labelling



From 1st July 2003 the mandatory EU regulation relating to Energy Labelling for all electricity powered heat pump and cooling only air conditioning units up to 12kW capacity comes into effect.

An extended range of R-410A split systems is being introduced in time for energy labelling to complement the unique range of inverter driven Sky Air models. A variety of indoor models for Split, Pair and Multi combinations will position Daikin securely in the top category.

Category A of course.

The application of Daikin's ground breaking DC reluctance inverter technology is accelerating the introduction of additional models with energy efficiency ratios as high as 3.5 in cooling and 4.1 in heating — well above the 3.2 level required of Category A units.

New R-410A split units will be available in sizes between 2.5kW and 6.0kW (10.7kW for Multi splits) with indoor unit noise levels (sound pressure) as low as 32dBA.

coolair 

THE AIR CONDITIONING COMPANY

25 Cookstown Industrial Estate, Tallaght, Dublin 24.

Tel: 01-451 1244 - Fax: 01-462 3434 -

email: info@coolair.ie

DAIKIN



Achievement Awards Category Winners (1 of 2) — Denis Treacy and Paul Anderson, Rye Valley Foods, Carrickmacross, Co Monaghan receiving the winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group.



Super Large Steam Category Winner — David Killian, ESB Aghada Generating Station, Whitegate, Co Cork receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI.



Small Steam Category Winner — David Moran, Sylvan Ireland, Navan, Co Meath receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.

Industry Urged to Prepare for Carbon Tax

The Chairman of Sustainable Energy Ireland (SEI) has urged the industry to prepare to meet the challenge of a changing energy market, which includes the introduction of a tax on all carbon dioxide emitting fuels as part of the government's National Climate Change Strategy.

Presenting the National Boiler Awards which are organised by SEI and sponsored by HDS Energy Group, Professor Frank Convery said: "The energy market in Ireland is facing rapid and demanding change, including price turbulence due to the prospects of war, deregulation, the introduction of carbon energy taxation after the end of 2004, and the proposed EU-wide greenhouse gas emissions trading scheme by 2005.

"The challenge for industry is to prepare for these changes and to ensure that individual firms are using energy efficiently. This can be achieved through a systematic approach to energy management, as well as investment in energy-efficient technologies and plant".

The companies involved in the National Boiler Awards have already made a significant contribution to a reduction in carbon dioxide emissions. The Awards are a much sought-after accolade,

the competition year on year since their inception helping to contribute enormously to the growing professionalism within the sector. A unique situation arose this year in respect of the Achievement Award. When considering the final contenders the assessors were unable to separate the top two and so, for the first time ever, awarded two winners trophies in the one category.

In the past year, the reduction in emissions achieved by the competition entrants has exceeded 110,000 tonnes. Since its inception, over 200 companies have participated in the Boiler Awards and energy savings worth over €25 million have been achieved.

The proposed carbon tax will implement the "polluter pays" principle by allowing the price of different fuels to reflect their environmental impact, and by ensuring that those who use the most polluting energy pay for the environmental damage they cause. Peter Brabazon, Head of Department at Sustainable Energy Ireland said: "The proposed tax will result in a greater awareness among all energy users of the environmental impacts of their behaviour, and of the choices available to them".

smartfit

A fitting solution...

...to an age old problem

CENTRAL HEATING CONTROLS INSTALLATION HAS NEVER BEEN AS FAST OR AS EASY AS THIS

The new Smartfit systems from Honeywell overcome the traditional installation problems by using a combination of low voltage wiring and simple plug-in connections.

In fact, anyone with basic electrical competence can install a Smartfit system, and with less chance of error.

Right first time installation is now a reality, thanks to a revolutionary new system connection box which provides plug-in or simple 2-wire connection for all space heating and hot water controls.



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!

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.

All this, plus the quality and reliability of Honeywell, adds up to happy customers and good business for you.

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Or call FREE on 0800 521121 Ext 2000.



"Energy Efficiency is an initiative backed by the Government."

The Energy Efficiency Hotline 0345 277200

Published by ARROW@TU Dublin, 2003

Honeywell



Definitive Boilerhouse Award Winner — Richard Campbell, DuPont in Derry receiving the winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.



Hot Water Category Winner — Pat Quinn and Stephen Cotter, Intel, Leixlip, Co Kildare receiving the winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.



System Design Award Winner Winner — John Healy, Monery By Products, Crossdoney, Cavan receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.



Service Company Category Winner — Charlie Kerr, South Antrim Boiler Services, Lisburn, Co Antrim receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.



CHP (large) Category Winner — John Cleary, GV Power Ltd, Charleville, Co Cork receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI and Alan Fox, HDS Energy Group, who sponsor the awards.



Boilerperson of the Year Award Winner — Brian McGrath, Merck Sharpe & Dohme, Clonmel, Co Tipperary receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI.



Left: Large Steam Category Winner — Brian Friel, Pfizer, Little Island, Cork receiving his winner's trophy from Professor Frank Convery, Chairperson, SEI.



Left: Achievement Awards Category Winner (1 of 2) — Declan McGoldrick, North Western Health Board, Sligo receiving the winner's trophy from Alan Fox, HDS Energy Group, who sponsor the awards.

Trane 'R Series' Screw Chillers

Trane is one of the largest manufacturers of high-powered screw compressors, producing chillers with screw compressors that ensure reliability, performance and quality. Trane's large water-cooled chillers with a Helirotor™ screw compressor (the RTHA) were first introduced in 1988. This range has since expanded and today includes the following models and capacities:—

- RTWB: 200kW to 740kW;
- RTHC: 500kW to

1440kW.

Key user benefits are reliability, energy efficiency and longevity.

The new Trane™ Helirotor™ screw compressor, used on air-cooled chillers in the 250kW to 1500kW range, benefits from the constant and continuous investment policy covering both research and manufacturing procedures — all ISO 9001 certified — operated by the company.

Improvements have been made to the oil

makes it possible to optimise the heat exchange to the maximum. The refrigeration effect is greater than that generated by a standard direct-expansion system, yet the volume of refrigerant needed for the exchange is smaller.

As for acoustic performance, Trane concentrated its efforts on three main sources of noise — the compressor, the refrigeration circuit and (in the air cooled chillers), the condenser fans. The compressor housing is made of heavy-gauge metal casing, the discharge openings are enhanced, and the addition of shock-absorbers on the base have all helped in reaching the noise level reduction targets.

Additionally, the refrigeration circuit was optimised to reduce the propagation of noise through the system while the condenser fan is of a particularly advanced design.

Trane Series R™ chillers are particularly compact, and can be easily installed in new or existing buildings.

The Tracer™ chiller control microprocessor offers a choice between two directly-accessible operator interfaces, the "Dyna View" interface, a genuine operator/machine interface enabling the user to quickly and simply check the operation of the equipment with an optional "EZ View" display screen, with a simplified display unit.

The Tracer™ chiller control module has

various levels of communication, considerably simplifying the introduction of remote supervision of the chiller or its integration into the Building Automation System (BAS), such as the Tracer Summit™, supplied by Trane.

The Tracer™ chiller control module enables the chiller to continue to operate and produce cooled water even under extreme conditions. While in other chillers the control mechanism causes the equipment to shut down, the Series R™ Trane chillers react with the various components of the system to remain operational before reaching the safety limit.

The COP's on this range of chillers are among the highest on the market and are based on Eurovent-certified performances.

As for environmental impact, Trane screw compressors are optimised to use R134a refrigerant and their energy efficiency reduces any indirect heating of the atmosphere from the production of CO₂.

The Trane™ Series R™ range of chillers is extensive, catering for such diverse applications as comfort air-conditioning in commercial applications; public health; telecommunications; refrigeration for industrial processing (pharmaceutical, food industry, etc); low-temperature refrigeration; and ice storage. Contact: Maria Furlong, Trane Ireland. Tel: 01 - 460 6030; email: maria_furlong@trane.com



Chiller manufacturing at the Trane ISO 9001-accredited factory in Cluses, France.

1500kW.

In 1991, the first Trane screw compressor air-cooled 'RTAA' chillers were introduced, followed by the RTAC and RTAD ranges, in 2000 and 2001 respectively. The second generation of Trane Helirotor™ Screw, air-cooled chillers are said to be even more reliable and efficient, the current models and capacities being:

- RTAD: 250kW to 440kW;
- RTAC: 500kW to

separators, and the new design improves the oil/refrigerant separation rate while considerably reducing the sound level. The electronic expansion valve makes it possible to accurately regulate the flow of refrigerant in anticipation of unstable conditions, thus increasing its responsiveness.

With Falling Film technology, (a Trane patent), the separation of the refrigerant into liquid and vapour that takes place prior to passage through the evaporator

New Efficiency Standards With The Wilo-Stratos

At an enormous development cost, Wilo has applied the principle of the permanent magnet motor — which saves a great deal of electricity — to pumps in which water flows continuously through the motor. The Wilo-Stratos thus represents a breakthrough in the technology of wet-running pumps. It can be used in heating and air-conditioning systems, reduces power consumption by as much as 80% in comparison to conventional pumps, and has even coined a new term for itself: it can with justification be called the high-efficiency pump, writes *Tony Cusack, Managing Director, Wilo Engineering Ltd.*

The market for products that consume electrical power is increasingly characterised by the need to reduce electrical power consumption to the absolute minimum. In many areas "efficiency" has become the magic word of a new generation of products that guarantee the same performance, together with reduced consumption of resources. There are low-energy lights, and in the case of refrigerators, consumers have already become accustomed to including the "efficiency

class" in their buying decision.

The market is not only ready for the development of a water circulation pump that dramatically saves energy, but has been demanding it for some time, especially from governments, in the form of new energy-saving regulations. In the same way as the subject of efficiency of typical consumer products has long since become firmly anchored in the buyer's awareness as an important part of the buying decision, it is now encroaching into the area of products that people use all the time without really being aware of it ... such as heating pumps.

Efforts have been going on for years throughout the world to increase the effectiveness, and thus the efficiency, of electric motors. There has long since been a range of Wilo energy-saving pumps but we have now crossed the threshold to a completely new technology.

Electronically-commutated motors with wet-running versions — there has never been anything like it in this performance range before. The basic development, according to Cusack, has long been pointing down this road. A Wilo development team, sometimes numbering up to 20



The Wilo-Stratos with ECM technology offers up to 80% less power consumption due to a doubling of the motor's efficiency

people, worked for three years in order to bring this technology to series production status. At the same time they have succeeded with an innovative combination of motor technology and electronics, also expanding the application area to include both heating and air-conditioning systems.

The principle of the permanent magnet has long been used in conventional electric motors, for example in stepping motors used for the accurate positioning of equipment and machinery. The difficulty consisted in transferring this principle to the heating pump, whose motor area normally must not come into contact with water.

The solution is a sealing system to the stator area, and the particular secret lies in the method of this sealing and the construction of the motor. Here Wilo uses a plastic aperture tube (instead of a plain metal

version), thereby achieving the required level of efficiency. According to the current state of the technology, this product represents the best possible combination of hydraulics, electronics and motor.

Because it delivers so much performance and is also convincing for its flexibility and functionality, the Wilo-Stratos comes with a higher price tag, although with its performance profile this pays for itself within two years.

The Wilo-Stratos in its current version is a commercial application for larger buildings. The decision-making procedures in the area of single- and two-family houses are of course somewhat different but the possibility of enormously-improved economy in heating pumps will soon also become known in this market.

Contact: Tony Cusack, Wilo Engineering.
Tel: 01 - 061 410963.



Creating New Standards in Meeting Customer Needs

Tempair Ltd is a private company established in 1982 as a building services maintenance company. It expanded its activities over the years and now includes the supply and installation of heating, ventilation and air conditioning products.

The main activities of Tempair are:

- Site survey and HVAC system design;
- HVAC equipment sales and installation;
- HVAC equipment commissioning;
- Planned maintenance of HVAC equipment;
- Emergency servicing of HVAC equipment.

Tempair Ltd is a member of the Construction Industry Federation and is also accredited NSAI Standard IS EN ISO 9002. It currently employs 30 people of which 21 are involved in equipment installation, commissioning, maintenance and servicing.

Tempair's marketing slogan — "The Complete

Package" — perfectly represents its all-round ability and commitment to provide for, and to satisfy, the ongoing needs of its clients.

Efficient administration and prompt client response is at the heart of the equipment maintenance and service operation.

Tempair maintenance and service personnel have the skills and experience to cater for an extensive range of building mechanical services equipment which includes:

- Air conditioning water chillers;
 - Air handling units;
 - Boilers (gas and oil fired);
 - A/C terminal units (fan coils, VAV, induction, etc);
 - Split-type and packaged A/C systems;
 - Variable refrigerant volume A/C systems;
 - Computer room close control A/C Systems.
- Ancillary equipment such as pumps, compressed air units, fire

fighting equipment, plumbing equipment, catering equipment, building management systems and electrical and electronic panels and controls are also covered.

Tempair maintenance and service personnel are constantly updated on new technology through a series of refresher courses and ongoing information and training sessions with product manufacturers. They ensure that equipment is used correctly, to the specified criteria, and that it is maintained in a manner that promotes optimum equipment efficiency and reliability, thereby maximising its working lifespan.

Tempair organises clients' reporting systems to suit the specific needs of each client, bearing in mind safety, security and paperwork requirements, in addition to optimising performance outputs and energy usage. Tailored contract procedures and documentation have been devised to achieve that objective. Problems are

therefore speedily identified and quickly resolved.

On the product supply side, Tempair is the sole Irish Distributor for the following:—

Montair Air

Conditioning Products

— A complete range of water chillers and close control a/c equipment, including water chillers and heat pumps with built-in heat recuperation and free cooling systems; Condensers and

condensing units; Close control air conditioners;

Robur — A range of gas fired absorption-type (ammonia/water)

modular chillers for a/c & refrigeration purposes;

Sabiana — Fan coil units (all configurations) and air handling units;

Tempair is also one of the main dealers in Ireland for **Mitsubishi Electric**. Range offered includes split-type ac systems; VRF City Multi Systems; Rooftop ac packages; Lossnay heat exchange ventilators.

"Our business is first and foremost about people", says Managing Director Damien Parlour, "about effective communication...about establishing relationships...and, ultimately — through professionalism, competence and reliability — about consolidating trading partnerships".

Contact: Damien Parlour, Tempair.

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Heard it on the grapevine ...

ANTI-SMOKING

legislation hits golf course ... yes, course it is ... not the club house, not the locker rooms, not the bar ... but the actual course itself! Don't believe me? Give **Mike Sheehan** of Mitsubishi Electric a call ... he has all the details. He even has a Fota (*sic*) to prove it. Nice one Mike!

HAVING taken up skiing in recent years, **Gordon Barry** felt he had progressed enough to embark on a more serious excursion with seasoned skiers early last month. It was a mistake. Not that there was anything wrong with his skiing ... in fact, he did exceptionally well on the slopes. No, Gordon's problem was keeping pace with the *après ski* activities. I understand all Gordon's future skiing holidays will be strictly family-based.

WHERE have all the industry characters gone? This was the burning question posed in conversation during the recent CIBSE Annual Dinner. Quite a number of

individuals I spoke with — **Liam Kavanagh, Robert Holland, Bernard Costello and Eugene Phillips** to name but a few — were bemoaning the demise of industry characters, those individuals who set the place on edge with their antics and general behaviour. In their company there was always a sense of danger, a sense of anticipation. Now, it seems, everything is so serious. Come on you youngsters ... put some fun back into the business.

AS FOR the CIBSE dinner itself, It was an exceptional night which proved once again that this event is the building services industry occasion. With something like 600 in attendance, **Brian Sterling, Kevin Tracey, Margaret Dolan** and fellow-committee members can feel justifiably proud of a job well done. The evening went like clockwork, the formalities and speeches being kept to a minimum.

IT WAS encouraging to see the number of ladies present. Unfortunately, females are few and



CIBSE special awards — Gerry Baker with Peter O'Dowd, Brian Sterling, Kevin Tracey, Bob Venning, Eoin Kenny, Seamus Homan and Eamon O'Brien

far between within the building services ranks but that scenario is now changing ... albeit very slowly. As the Munster CIBSE rep, **Liam Kavanagh** is about to embark on a campaign aimed at secondary school level students to try and entice them in to the industry. Maybe Liam should devise a separate campaign tailored specifically for girls schools.

It was also appropriate that a number of special awards were made on the night. The recipients (see above) were well-deserving, particularly **Gerry Baker** for the golf!

FINALLY, congratulations to **Tony McKinley** and his wife on the birth of their first child boy. Now the real fun begins Tony!

It Was 21 Years Ago Today!



Do you recognise these gentlemen and their partners ... do they recognise themselves! Pictured at a BTU function way back in 1982 were Kate and Sean Smith, Lilian and Gerry Baker, and Evelyn and John Ennis. Haven't they aged well!

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Gems Sensors the "force" in Water & Waste Management



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