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## BS News

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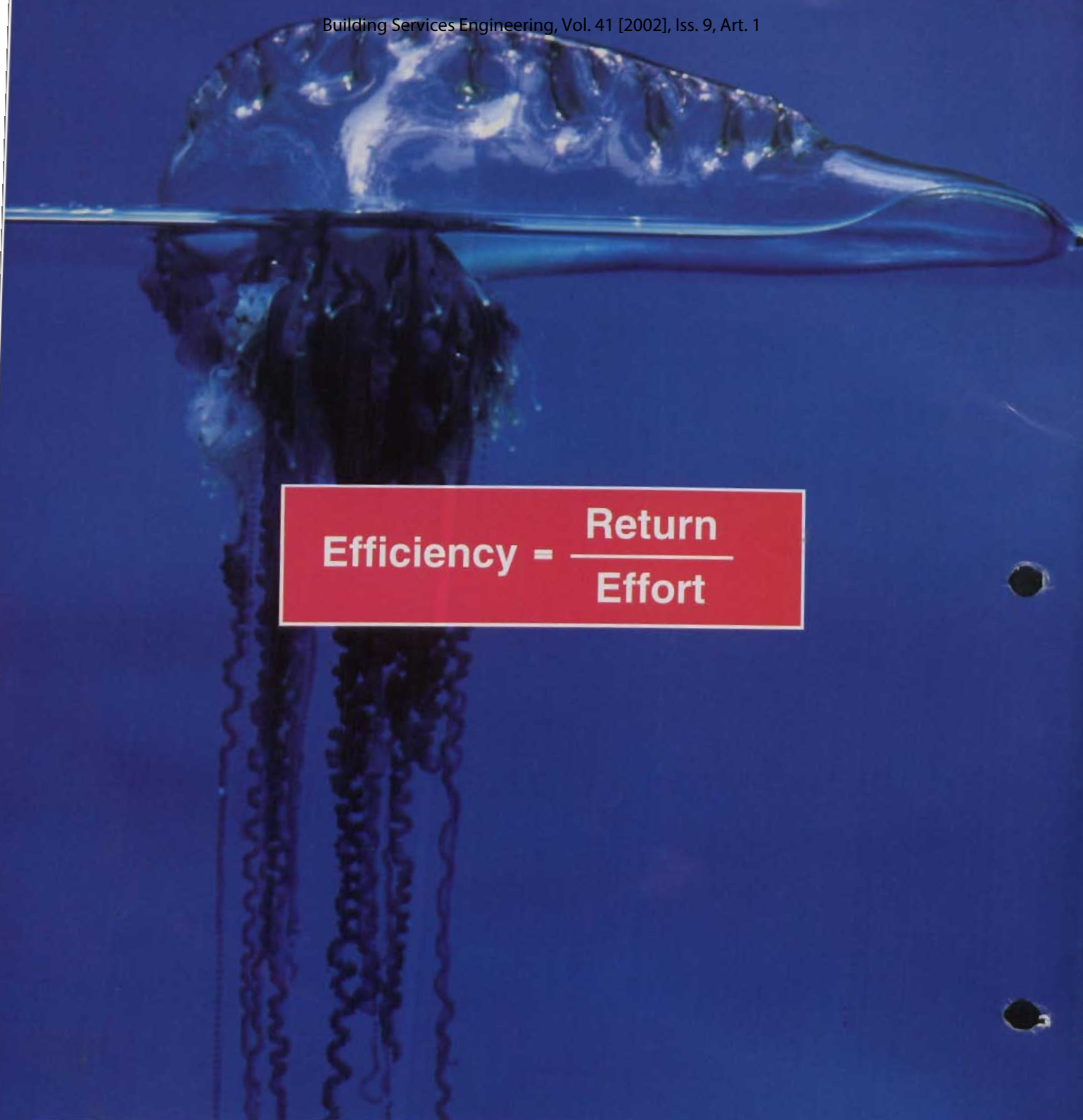
# BSN News

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OCTOBER 2002

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# BSNews

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BUILDING SERVICES

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## Cover Picture

This month's cover picture — taken by Mark Reddy of Ronnie Norton Associates during a photo-shoot for Lycris-Byrne earlier this year — has just won a Diamond Award in the Irish Professional Photographers Association (IPPA)/Royal Sun Alliance competition. It now becomes part of the Fujifilm Masterpiece Collection 2002. Mark actually won the overall Fujifilm Masterpiece Award last year.

## Skillnets — An Opportunity Not To Be Missed

Upskilling a company's workforce is critical to maintaining competitiveness. Upskilling an entire industry sector makes that entire sector more professional, competitive, effective and capable of meeting client's needs.

However, the cost of upskilling by way of training initiatives can be expensive. Enter Skillnets, the enterprise-led body which was set up specifically to help fund industry training programmes.

The first Training Networks Programme took place in 1999/2002 and was extremely successful, the refrigeration sector of the building services industry taking full advantage of all the funding offered. Indeed, it already has its new timetable in place for the coming programme.

So, why don't other industry sectors do likewise? A new €15 million fund has just been made available and applications are now invited from companies wishing to come together to decide what training they need, how it should be delivered, and in what time-frame.

Skillnets is tailor-made for all sectors of the building services industry. Show some initiative, get the ball rolling on behalf of your sector ... don't let it to someone else!

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# Fläkt Woods Launch New Brand Identity

The Fläkt Woods Group has launched its new brand identity following the formation of the group in February of this year, through the merger of Fläkt and Woods Air Movement. The new identity has been designed to reflect Fläkt

several well known brands including Solyvent, American Fan Company, Veloduct and Coiltech.

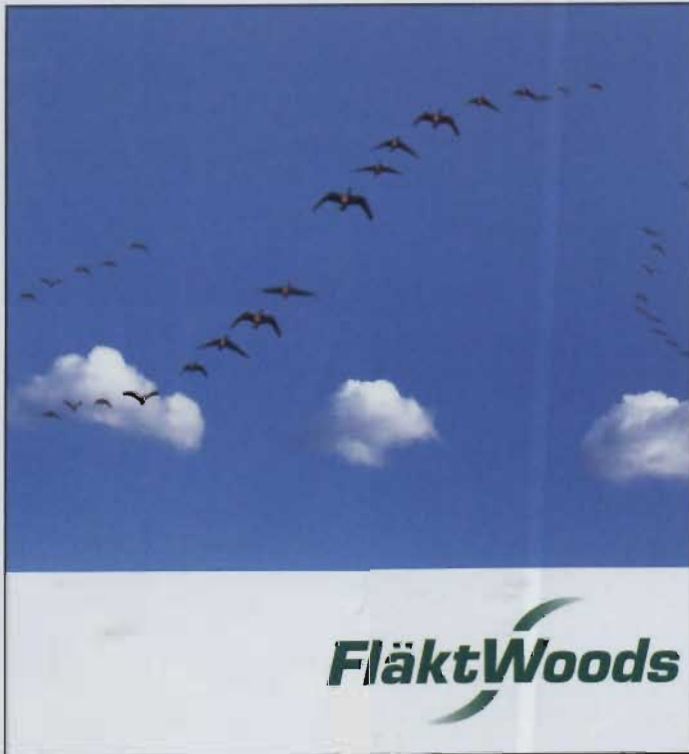
Chief Executive Hannu Paitula stated: "The new identity represents the creation of a successful global brand in the air

customer-focused teams throughout the Group.

Fläkt Woods (Ireland) remains at Belgard Road, Tallaght, Dublin 24 and Cleve Business Park, Monahan Road, Cork. They are now in a leading position in the industry, and the merger has strengthened their presence in the marketplace. They offer a vast range of products

and services including Fläkt Air Handling Equipment, Woods Fans, and are still agents for Siemens Controls, Climaveneta Chillers, and Cylon Building Management Systems. They also have a vast number of service contracts nationwide and with service technicians based in Dublin and Cork, can offer a 24-hour callout system nationwide.

Contact:  
Fläkt Woods (Ireland) Ltd.  
Tel: 01 - 405 7300;  
[www.flaktwoods.com](http://www.flaktwoods.com)



Woods market leadership in the supply of climate control and ventilation products, fans and heat exchangers and will be seen in all future branding by the group.

The new branding is part of the Group's strategy of providing competitive products and services to the highest international standard. Through the merger of two of the worlds leading names in the air management industry, Fläkt Woods also owns

management industry. Fläkt Woods are now in the perfect position of providing creative solutions for customers throughout the world.

Fläkt Woods is now capable of offering individual solutions for a considerable range of air management applications including buildings, industrial, commercial, hygienic processes, tunnels and power generation by drawing on its unrivalled source of technical expertise and

## AcTech at World's Biggest Land Rover Show

AcTech manufactures acoustic materials for the architectural and building services industries but also manufactures noise treatment kits for Land Rover, providing products which deal with absorption and anti-vibration to improve sound quality in the entire range of Land Rover vehicles. Pictured is AcTech's stand at the recent Land Rover Owner Show held in the UK and which attracted more than 40,000 visitors.

Contact: [ctking@actech-group.com](mailto:ctking@actech-group.com)







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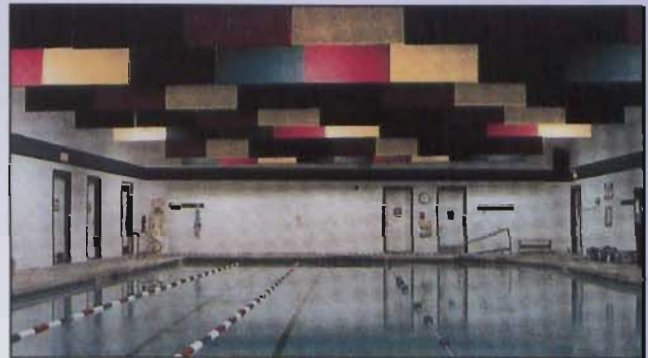
# AcTech

*A trans-global company improving sound quality*

**AcTech Europe Ltd** is a wholly-owned subsidiary of **VenTac & Co Ltd** which was founded in 1972. **AcTech** was officially launched in May 2001. The NCRL Laboratory facility is the test ground for many of **AcTech's** innovative products.

**AcTech** Europe Ltd is dedicated to improving sound quality within the building services and architectural industries by: — Identifying Noise Sources; Analysing Data; Product Development; Manufacturing Capability.

**Acoustic Ceiling Baffles** are the solution for any large space that has reverberation problems. These baffles are lightweight, Class A fire-rated, colourful and easily installed from overhead structures.



**Rigid Self-Supporting Stone Wool Panels** offer excellent acoustic absorption, lined with pastel-coloured glass tissue on the visible side and natural glass tissue on the reverse side.

**Acoustic Diffusers** are ideal for wall and ceiling applications in band, choral and music facilities requiring acoustical performance. Diffusers are constructed of rigid E-glass and are moulded in a one-piece shape. They are lightweight and easily installed.



**FOR FURTHER INFORMATION PLEASE CONTACT:**

**AcTech Europe Ltd, Fitzwilliam House, Industrial Estate, Blessington, Co Wicklow.**

**Tel: 045 - 851 500; Fax: 045 - 851 501;**

**Email: [sales@actech-group.com](mailto:sales@actech-group.com); Web: [www.actech-group.com](http://www.actech-group.com)**



# Small Arrival Broadens Sanyo Family

Sanyo has expanded its range of room air conditioning with the release of the new 600 x 600mm Mini Cassette. Forming part of the 'SAP' room air conditioning range, it utilises the existing portfolio of outdoor condensing units. By offering both heat pump and cooling only versions with R407c refrigerant it meets all current environmental needs. However, by offering R22 heat pump compatibility, it can be retrospectively fitted onto an existing system.

Like all the units in the Sanyo 'SAP' range, the heat pump facility comes complete with auto-changeover function and

the cooling only is fitted with head pressure control, "We believe that omitting low ambient control on a cooling only unit in Ireland is a false economy", says Barry Hennessy, Sanyo Ireland Sales Manager, "as a single callout or icing up problem can erode any profit made on a small split system installation. Some manufacturers can't even offer it as an option, mainly due to their equipment being designed for installation in other parts of the world, We offer it as standard.

"Although the new cassette is part of the SAP range, the quality is such that it can compete



The new Sanyo 600mm by 600mm mini-cassette, now available from Sanyo Ireland

against many manufacturers commercial ranges", continued Barry. "As with any of our units, it is manufactured to the highest production standards and offers the flexibility for which the Sanyo brand is renowned".

With a capacity of 9000 to 18000 btu/hr (2.7 to 5.2kw), the "SAP-XR" 600 x 600mm range is an

attractive and economically-viable alternative to standard wall mounted units. The cassette comes with drain lift pump, offers pipe runs of up to 20 meters, and can be operated by infrared remote control, thereby offering flexibility at every stage, from design to operation.

Contact: Barry Hennessy, Sanyo Ireland. Tel: 01 - 456 8910.

## New HQ Building at Spencer Dock

Treasury Holdings has received planning permission for a 300,000 sq ft building at Spencer Dock which will house PriceWaterhouseCooper's new headquarters building. The new HQ is scheduled for occupancy by early 2004.

Treasury expects to generate up to 500 direct construction jobs at this landmark development within a matter of months, with an additional 500 indirect jobs being created through sub-contractors and suppliers on the site.

Spencer Dock will be serviced by trains, buses, LUAS, DART and will have direct access to the south side of the river by a new bridge designed by Spanish architect Calatrava. Two hotels, a large number of apartments (including social and affordable), restaurants, shops, pubs, a health centre and educational facilities are also planned for the site.



Schematic of PriceWaterhouseCooper's new 300,000 sq ft headquarters for which Treasury Holdings has just received planning permission



# Questions About Plastic Pipe Systems?

The newly-founded initiative for plastic pipe systems — "Aktionsgemeinschaft Pro Kunststoffrohrsysteme" (AGPK) — is available immediately to provide information regarding plastic and multilayer composite pipes to prospective users of these systems. AGPK is a cooperative group of leading European manufacturers of plastic and multilayer pipes,

system operators, companies providing crosslinking services, and raw material producers.

The objective of AGPK is to inform plumbers, designers, instructors and commercial, local and private builders, about the advantages and applications of plastic and multilayer pipe systems in domestic applications. Questions and inquiries submitted to AGPK will be answered rapidly via

Internet and e-mail.

As an additional service to AGPK-News, an online information letter will be dispatched by e-mail to prospective customers. AGPK has a presence on the internet under [www.agpk.de](http://www.agpk.de) and [www.agpk.com](http://www.agpk.com). The web site provides information about plastic pipes and their processing, trade fair schedules, company innovations, sector news, and links to provide fast

access to the websites of the cooperating companies.

The AGPK (Aktionsgemeinschaft Pro Kunststoffrohrsysteme) was founded June 2002 in Düsseldorf. The founding companies include Basell, Becker Plastics, Beta-Gamma-Service, Borealis, Comap, Fränkische, Friatec, Solvay and Wavin. More companies will be added. AGPK remains open to further interested manufacturers and system vendors of systems with plastic and multilayer pipes.

Contact: [info@agpk.de](mailto:info@agpk.de)



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## Trane Mini-Atom Air Handling Units

IAQ (Indoor Air Quality) is an ever present issue in building services application designs. With this in mind Trane researched the market requirements and has now launched a new, smaller range of air handling units with air volumes from 0.1 to 1.2m<sup>3</sup>/s.

Electrical connections to the heater batteries, direct and belt-drive fans are via an external flush-mounted terminal box which reduces installation time and provides a neater external appearance.

Standard units comprise an inlet flange/flexible or damper, EU2/3 flat



The Mini-Atom is manufactured with an aluminium frame, double-skinned panel enclosing 25mm of CFC free foam insulation. The standard finish is galvanised steel, with mushroom coloured plastisol finish available as an option. All units are supplied with ceiling-mounting brackets as standard, and floor-mounting rails as an option.

prefilter, LPHW or electric heater and fan.

To cater for the varied needs of system designs, options such as bag filters, chilled water coils and intake or discharge plenums are available. A DX version of the Mini-Atom is also available on request.

Contact: Maria Furlong, Customer Sales Support, Trane Ireland. Tel: 01 - 460 6030.

## Dwyer Series UV Ultra-Pure Flowmeter

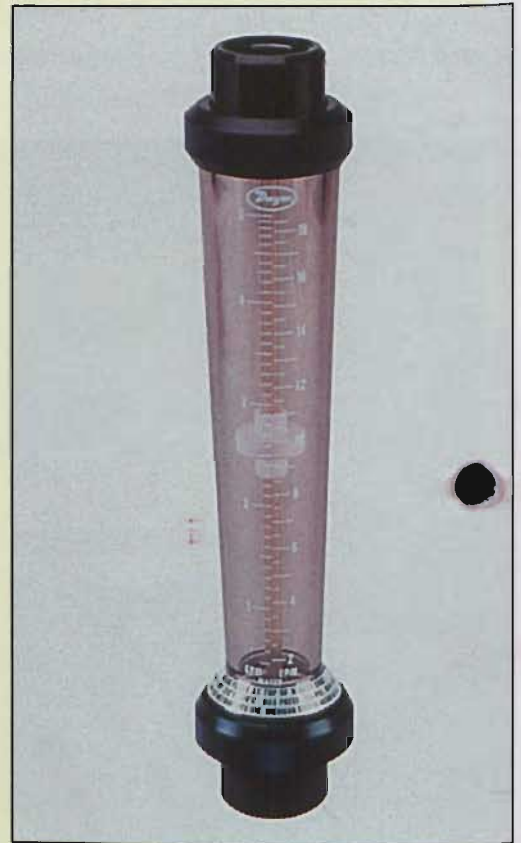
Setting a new standard in the industry, the Dwyer Series UV Polysulfone Flowmeter from Manotherm is the first laboratory-grade, high-accuracy ( $\pm 2\%$  F.S. accuracy), high-temperature, high-pressure, 12", ultra-pure flowmeter on the market.

With a polysulfone body, except for a FPM O-ring and Virgin PTFE float, this highly corrosion-resistant instrument is an excellent choice for monitoring numerous ultra-pure fluid applications such as deionized and reverse osmosis water systems. The Series UV is also ideal in wastewater treatment and other industrial applications where corrosive liquids are present.

Models offered in this dual-scaled series have flow ranges of 0.25 to 2.5 GPM (1 to 9.5 LPM), 0.5 to 5.0 GPM (2 to 19 LPM), 1.0 to 10.0 GPM (4 to 38 LPM), and 2.0 to 20.0 GPM (8 to 76 LPM). New ranges include 3.0 to 30.0 GPM (12 to 112 LPM) and 4.0 to 40.0 GPM (20 to 150 LPM).

The 2% high-accuracy is achieved by a unique float design that allows a 6" scale to be incorporated in a 12" body for greater resolution. In addition, newer methods of manufacturing give greater control of float design. This design will also be the first to offer an ultra-pure range from 0.25 GPM to 40 GPM. Easy to install and clean, the Series UV offers optional panel mount polysulfone fittings and a protective polycarbonate shield.

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





# **Buderus GB112 Series Wall-hung Condensing Boilers**



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# UPGRADE

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## Energy Authority to Spearhead Drive to Reduce CO<sub>2</sub> and Greenhouse Emissions

Sustainable Energy Ireland is to spearhead the drive to reduce the environmental impact of energy production and use and the levels of greenhouse gas emissions. This year Ireland will consume 15 million tonnes of oil equivalent (MTOE) of energy, costing consumers over €7 billion and emitting over 45 million tonnes of CO<sub>2</sub>. Ireland's energy-related CO<sub>2</sub> emissions arise from transport (28%); housing (27%); industry (25%); other buildings (16%); and agriculture (3%).

Sustainable Energy Ireland has also published

its five-year strategy document, which outlines the new Authority's priorities and targets. Its remit relates to three main areas:

- improving energy efficiency;
- advancing the development and competitive deployment of renewable sources of energy and combined heat and power;
- reducing the environmental impact of energy production and consumption.

During the period of the five-year strategy Sustainable Energy

Ireland will be responsible for the expenditure of €223 million through its operations and programmes, which are being funded under the Economic and Social Infrastructure Programme of the National Development Plan. The Authority will also advise the Government on policies and aims measured at stimulating sustainable energy policies and actions by public bodies, the business sector, local communities and individual consumers.



Pictured at the launch of Sustainable Energy Ireland were David Taylor, Chief Executive, Sustainable Energy Ireland; Dermot Ahern, TD, Minister for Communications, Marine and Natural Resources; and Professor Frank Convery, Chairman, Sustainable Energy Ireland.

## Interclima 2004

Interclima 2004 will be held at Paris Expo Porte de Versailles on Tuesday 3, Wednesday 4, Thursday 5 and Friday 6 February 2004. Product presentations will be as follows.

The air-conditioning, ventilation, and refrigeration sectors will be grouped together in Hall 7.

The renewable energies sector will have a very high profile. It will have its own visual identity and it will be located in the heart of Hall 4, which will also house the majority of boiler manufacturers.

In addition, Interclima's successful partnership with bathroom show Idéo Bain has resulted in a new sector at the show. Located between Idéo Bain and Interclima's heating sector, it will be known as the "The Smart Plumbing Space". This area will have its own visual identity and will be located in Hall 2.2. It will bring together all the products, solutions and services called on by installers in their everyday work such as tools; vehicles and fittings; IT tools; plumbing materials (pipes, connectors, seals, ducts, fixings); and training organisations, press and technical publishing.



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## Aervent – New Name ... Same Strength in Depth



Following the acquisition of Dan Chambers Ltd by Season Control earlier this year, the Aervent Group was formed to incorporate the business of both concerns. Taken together, the combined product portfolios means that Aervent can now provide total solutions for all heating, ventilating and air conditioning requirements. However, to successfully deliver these solutions also requires an equally-dedicated and quality-conscious team of people. This Aervent also has in abundance, the majority of whom are pictured (left) with TV football pundit John Giles, at a recent company presentation.

## Digital Facilities Guide for Mechanical Installation



Zutec has completed a Digital Facilities Guide for all mechanical installations on the redeployment of essential buildings by McKenna Engineering for LUAS at the St James's Hospital site.

The project was funded by LUAS and involved the demolishing and rebuilding of the mortuary, old boilerhouse and laundry at St James's Hospital in order to clear a line of track through the hospital. McKenna Engineering carried out the mechanical installations on the new buildings, a project that was valued at over €1 million.

"Electronic document management systems are more than just systems for filing and tracking documents", said Brian

McGuire, Managing Director, Zutec.

Kieran Timmons, Senior Project Manager, McKenna Engineering said: "Normally, we provide the client with literature on all the equipment we supply, including physical drawings of the system, schematics, floor plans etc. Zutec's Digital Facilities Guide has enabled us to digitally store and process potentially millions of pages of drawings, Operation & Maintenance (O&M) literature, project documents and images. This information can then be accessed and viewed remotely by personnel with authorised access".

Contact: Sinead Branagh, ZuTec  
Tel: 01 - 410 0600.



# KVR-16

## Advanced *INVERTER* Technology

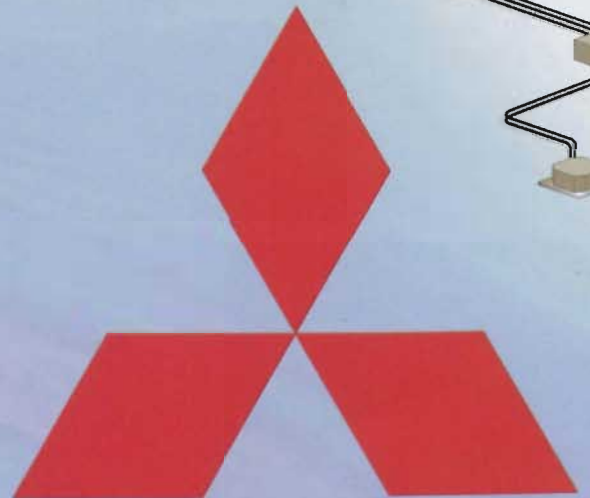
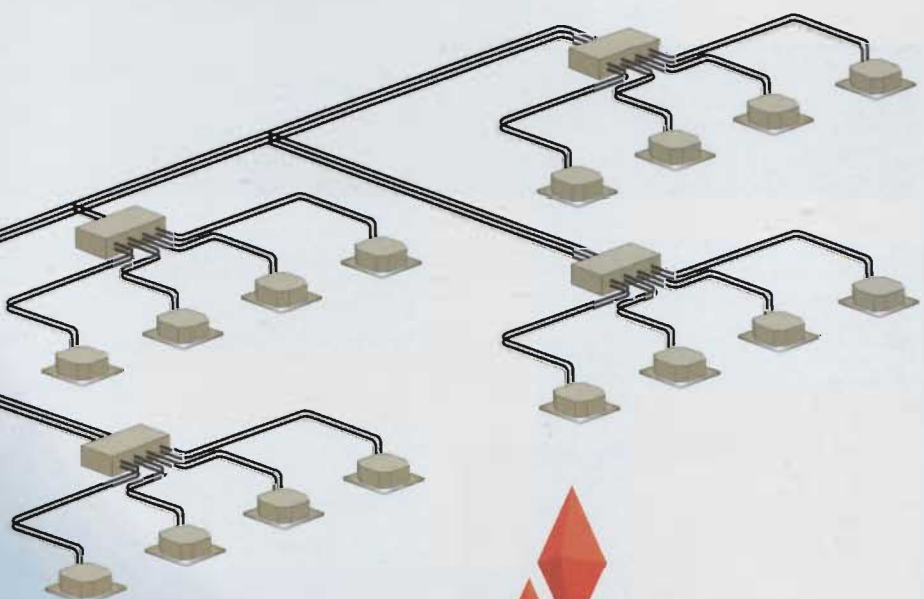
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G O L F N E W S

# Hevac Golfing Silver

Hevac held its 21st annual golf outing in Hermitage Golf Club recently with 90 taking to the fairways and 120 sitting down to dinner later that evening. The participants included a mix of mechanical contractors, consultants, suppliers and overseas guests.

Those who went out early in the day were somewhat unlucky in that it rained for a time, those out later in the day playing in far more comfortable conditions. With the regular 10th out of action at Hermitage on the day, there was no car for the traditional hole-in-one competition. Instead, the temporary winter 10th was used with the prize being a full set of Calloway Golf Clubs. However, no one made the hole-in-one.

As usual, the Hevac hospitality left nothing to be desired, right down to the Tipperary Crystal gift left for every single person present at the dinner table.

As is now customary, virtually the entire party adjourned to Morans Red Cow Hotel after the meal and presentation of prizes in Hermitage. There are even reports of early morning risers the next day coming down to breakfast only to discover fellow-guests who had yet to go to bed!

All in all it was an enjoyable and memorable occasion for all concerned.



Denis O'Sullivan, 2nd Class 2 with Declan Kissane



Overall winner — Wesley Dempsey (centre) receiving the Selkirk Cup and prize from David Jones, Selkirk and Declan Kissane, Hevac



Declan Kissane with Tod Aherne, 2nd Back Nine



Declan Kissane with Ger Malone, 2nd Class 1



Tony Concannon, 3rd Class 2, with Declan Kissane

|                              |       |                   |             |
|------------------------------|-------|-------------------|-------------|
| <b>Overall Winner</b>        |       | Wesley Dempsey    | 37 Points   |
| <b>Class 1</b>               | 0-15  |                   |             |
|                              | 1     | John Quinn        | 35 Points   |
|                              | 2     | Ger Malone        | 31 Points   |
|                              | 3     | Martin Madden     | 30 Points   |
| <b>Class 2</b>               | 16-18 |                   |             |
|                              | 1     | Tom Wiley         | 36 Points   |
|                              | 2     | Denis O'Sullivan  | 35 Points   |
|                              | 3     | Tony Concannon    | 33 Points   |
| <b>Class 3</b>               | 19+   |                   |             |
|                              | 1     | Colm Devin        | 33 Points   |
|                              | 2     | Ollie Callaghan   | 31 Points   |
|                              | 3     | Brendan Ryan      | 30 Points   |
| <b>Front 9</b>               | 1     | Mick Sammon       | 17 Points   |
|                              | 2     | Noel Casey        | 17 Points   |
| <b>Back 9</b>                | 1     | Bernard Kavanagh  | 17 Points   |
|                              | 2     | Tod Aherne        | 16 Points   |
| <b>Nearest Pin</b>           |       | Paddy Fitzgerald  | (8' x 7")   |
| <b>2nd Hole Nearest Pin</b>  |       | Des Meehan        | (15' x 11") |
| <b>Longest Drive</b>         |       | John Quinn        |             |
| <b>Guests &amp; Visitors</b> | 1     | Vincent Broderick | 43 Points   |
|                              | 2     | Ron Petersen      |             |
|                              | 3     | Peter Keane       |             |
| <b>Staff</b>                 |       |                   |             |
|                              | 1     | Tom Cashman       | 28 Points   |
|                              | 2     | Tony Murphy       |             |
|                              | 3     | Declan Kissane    |             |





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Austin McDermott, Managing Director

**W**hile relatively young in company terms — Core Air Conditioning was established in 1996 — the combined knowledge and experience of company personnel represents something like 120 years. Moreover, the diversity and all-embracing nature of this knowledge base and experience means that virtually all possible permutations are catered for. This is an invaluable resource and one which Managing Director Austin McDermott has effectively applied to the marketplace to carve out a significant market share of the air movement sector.

Quality of service coupled with quality products from brand-leading names — Carrier, Liebert Hiross, Haier and Puma — is the cornerstone upon which success to date has been achieved.

Core Air Conditioning is ultra-professional in its dealings with suppliers and clients alike, yet somehow manages to do so in a friendly, flexible manner. Structured systems do not mean rigid practices. Indeed, Core's ability to adapt and change to devise the most appropriate solutions to suit individual situations is well known.

The extensive scope of the product portfolio facilitates this approach. Individually, any one of the principals represented offers a myriad of air movement solutions. Taken together, they are a formidable armoury in satisfying clients' needs.

Core Air Conditioning is all about partnerships ... the partnership between management and installers; the partnership with clients; and the partnership with suppliers. Effectively, Core Air Conditioning acts as the conduit through which the clients' needs are matched with the appropriate suppliers products to provide the most effective, energy-efficient, air movement solutions.



Dave Hill, Sales Engineer with Andrew McEvitt, Sales Manager



Caroline Cooke, RLC Administrator with Anita Kane, Service & Parts Co-ordinator, and Antoinette McDermott, Office Manager  
<https://arrow.tudublin.ie/bsn/vol41/iss9/1>

Puma is a UK-based ventilation equipment specialist dealing in supply air, permanent extract and heat recovery units. It is a relatively small, dedicated company concentrating on packaged air handling for general ventilation applications where energy savings and environmental-friendly engineering design feature prominently. Airflow's range from 0.15 to 1.1 m<sup>3</sup>/Sec - 0 to 250 Pa ESP.







From the ~~Business~~ <sup>News</sup> Willis Haviland Carrier invented the basics of modern air conditioning in 1902, Carrier has been the world leader in the manufacture and sale of heating, ventilating, air conditioning, hvac systems and products. Essentially, the history of air conditioning is a history of Carrier, Aquasmart being one of the latest innovative developments to set a new industry benchmark.

When the genius of Willis Haviland Carrier gave birth to modern air conditioning it forever changed the way we live, work and play. He enabled incredible improvements to health care, manufacturing processes, research, building capacities, food preservation, art and historical conservation, general productivity, indoor comfort and much more. He truly created a century of possibilities that is now embodied in the extensive and diverse Carrier portfolio of today. One hundred years later, these same attributes resonate in the 42,000 dedicated Carrier associates that span the globe, and are reflected in the fact that a Carrier unit is shipped every four seconds to all corners of the world.

Liebert Hiross is synonymous with high-performance air conditioning systems. A typical example is the unique Hirovisor concept which allows the user visualise and manage one or more installations of Liebert Hiross air conditioning units, superchillers and UPS, from one central point, the PC, where the software applications run.

The company has also developed a family of high-performance cooling systems, ranging from compact small footprint air conditioning units for network and cellular telecommunications sites, to larger systems for telecommunication switches and internet data centres.

Liebert Hiross is part of the international conglomerate Emerson, which employs 120,000 people in 60 divisions operating in 150 countries.

Liebert has been part of Emerson since 1987 and is the world's leading supplier of environmental and power control systems for critical spaces, and precision air conditioning and power protection systems for telecommunication applications.

When Emerson acquired Hiross, the Italian precision air conditioning manufacturer in 1998, the two companies were merged and Liebert

Hiross formed.

**Liebert**  
**HIROSS**



**Haier**  
■ . . . . .



Haier is the fifth largest manufacturer of consumer goods in the world. Based in Qingdao, China. Last year it produced 5.8 million air conditioning units, enough to supply the entire European market nearly three times over. Its products are sold in over 90 countries with worldwide sales of approximately e7.2 billion in 2001.

New products are produced at a rate of 1.3 per day with an average of 2.5 patents per day being registered. In total it currently offers over 9200 products in 58 lines. All are manufactured to the most stringent quality control standards and comply with all relevant national and international certification and standards.

Core Air Conditioning has selected the most appropriate products for the Irish market from the vast range available.



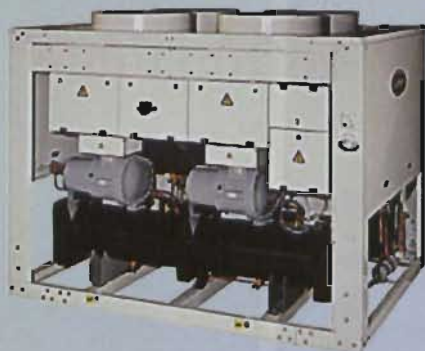


AIR CONDITIONING LTD

Unit A6, Centre Point Business Park, Oak Road, Clondalkin, Dublin 22

Tel: 01 - 409 8912; Fax: 01 - 409 8916;

email: info@coreac.com; Web: www.coreac.com



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Heat Pumps  
Packaged Rooftop Units  
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Controls

Liebert  
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Refrigerant 407c  
Dualfluid  
Free cooler  
Chilled Water  
Upblow/Downblow  
Dx — Water Cooled  
Close Control Air Conditioning

Capacity 4Kw to 100Kw



Supply Air,  
Permanent Extract and  
Heat Recovery Units

Air Flow Range  
0.4 m<sup>3</sup>/s to 5.5 m<sup>3</sup>/s

Haier



Refrigerant 407c  
Cassettes  
Hi-Walls  
Ducted  
Cabinet  
Console  
Mini VRF

Capacity 2Kw to 12.5 Kw



OPTIMUM BALANCE ACROSS THE RISER

Automatic balancing is the modern way of ensuring optimum balance across the entire riser and it is against this background that Danfoss Ireland has introduced the Danfoss ASV automatic balancing valve series.

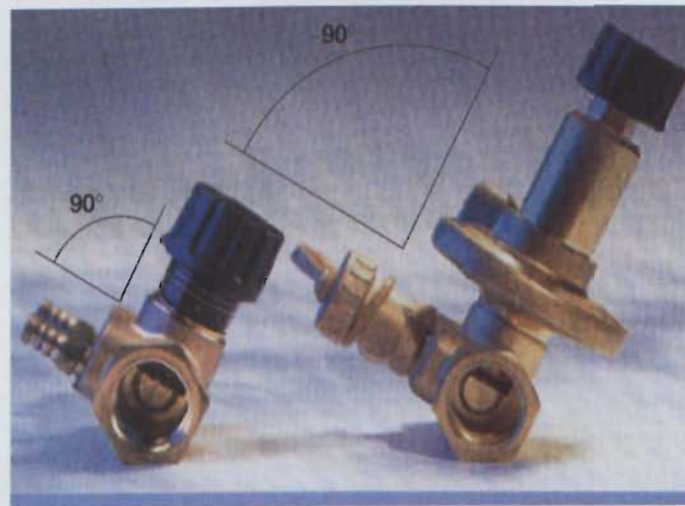
It provides radiator thermostats with the best possible working conditions while reducing noise problems; minimising the cost of commissioning; providing precision at all loads; easy adjustment; and doing away with the need for re-adjustment when expanding the system.

Danfoss ASV consists of two automatic balancing valves and two manual valves. The difference between the balancing valves is that the ASV-PV can be adjusted between 5-25kPa (factory setting 10kPa), and the ASV-P is permanently set for 10kPa.

The manual valves comprise the adjustment valve ASV-I, as well as the shut-off valve ASV-M. Measuring nipples for ASV-M are available as accessories.

The 90° angle between connections and operating elements makes operation simple. The ASV is equipped with a shut-off knob and is available with internal or external thread for threaded and weld-on nipples.

The ASV ensures optimum balance and functioning across the entire riser and is adapted to the normal basis for dimensioning heating systems. Therefore, it can mostly be selected according to pipe dimensions.



The 90° angle between connections and operating elements makes operation simple. The ASV is equipped with a shut-off knob and is available with internal or external thread for threaded and weld-on nipples.

Danfoss ASV is well suited for large systems with significant pressure fluctuations between the extreme points of the system. Moreover, even in systems with relatively low pressure and small pressure fluctuations it will show its strength.

The valves also have a pressure-relieved cone which makes them independent of pump pressure.

Additionally, there is a separate dedicated valve — an automatic flow limiter called the ASV-Q — for one-pipe, constant flow systems. This is especially suited to systems where the necessary data for manual adjustment is lacking. The ASV-Q ensures that the flow never exceeds the set maximum water volume. It is unnecessary to measure and adjust when installing the valves.

Moreover, when renovation or expansion of the system results in changed system data, there is no need for new measurements and re-adjustment. It is also possible to shut off the riser or drain/fill through the drain cock.

“We believe in provided balanced solutions”, says Brian Maguire of Danfoss Ireland. “in ASV we have a product range that provides the optimum balance across the entire riser”.

Contact: Brian Maguire, Sales Manager, Danfoss Ireland. Tel: 01 - 626 8111; email: marketing@danfoss.ie



# Co Meath Golf Club 13 September

Sponsor: Valve Control Systems

|                         |                  |                   |                |
|-------------------------|------------------|-------------------|----------------|
| <b>Winner</b>           | Graham Fay       | (7)               | 42 Points      |
| <b>2nd</b>              | Michael Melligan | (12)              | 39 Points      |
| <b>Class 1</b>          | 1-12             |                   |                |
|                         | 1                | John Lavelle      | (8) 39 Points  |
|                         | 2                | Michael Morrissey | (8) 39 Points  |
|                         | 3                | Tony Delaney      | (7) 35 Points  |
| <b>Class 2</b>          | 13-18            |                   |                |
|                         | 1                | Joe Warren        | (13) 37 Points |
|                         | 2                | Michael McGlynn   | (13) 36 Points |
|                         | 3                | Liam Stenson      | (16) 35 Points |
| <b>Class 3</b>          | 19-28            |                   |                |
|                         | 1                | Frank Field       | (20) 31 Points |
|                         | 2                | Liam McDermott    | (20) 30 Points |
|                         | 3                | Frank Treacy      | (24) 30 Points |
| <b>Front 9</b>          | Gerry Phelan     | (22)              |                |
| <b>Back 9</b>           | Eamonn Vickers   | (22)              |                |
| <b>Visitors</b>         | Peter Farrelly   | (22)              | 34 Points      |
|                         | Robin Machin     | (scr)             | 32 Points      |
| <b>Christmas Outing</b> | Hermitage        |                   | 6 December     |

Please contact Caroline Ruddy at 01 - 837 6076 for timesheets



Pic 1: Bob Daly with Gerry Phelan and Brendan Bracken, BTU President  
 Pic 2: Bob Daly with Eamonn Vickers and BTU President Brendan Bracken  
 Pic 3: BTU Captain Des Prendergast with Overall Winner Graham Fay; BTU President Brendan Bracken; and Gerry Tobin, Honorary Secretary  
 Pic 4: Bob Daly, Valve Control Systems, sponsors with Michael Morrissey and BTU President Brendan Bracken



# THE 2-WAY

THE NEW MYSON TRV 2-WAY IS SET TO MAKE YOUR LIFE SO MUCH EASIER. SINCE THERE'S NO NEED TO CHECK THE DIRECTION OF THE WATER FLOW,

# THAT'S

COSTLY CALL-BACKS DUE TO "SNAGGING" WON'T BE PUTTING PRESSURE ON YOUR TIME OR YOUR BUSINESS. BUT HERE'S WHY THE COMPETITION IS REALLY RATTLED.

# GOT THE

ONLY THE NEW MYSON TRV 2-WAY'S UNIQUE ENGINEERING ALLOWS THE VALVE TO OPERATE CORRECTLY AT ALL DIFFERENTIAL PRESSURES, IN EITHER FLOW DIRECTION, WITHOUT LOSS OF PERFORMANCE.

# COMPETITION

SEND WATER THE WRONG WAY THROUGH AN ORDINARY TRV, AND IT'LL RATTLE. WHO NEEDS THAT KIND OF PRESSURE? FIT THE NEW MYSON TRV 2-WAY, AND ENJOY A QUIETER LIFE.

# RATTLED



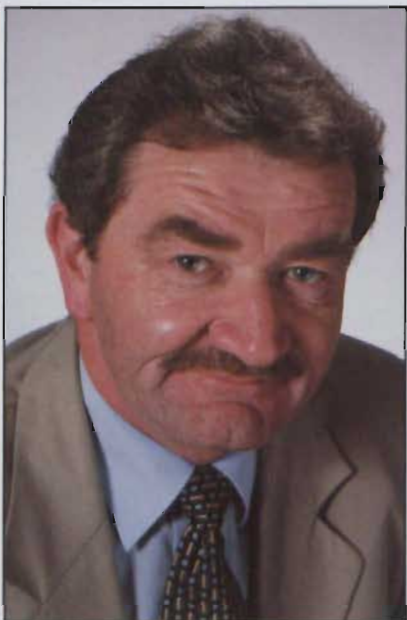
**MYSON**  
**TRV 2WAY**







# Achieving Excellence in a Competitive Environment



**Whatever kind of organisation you work in – hospital, bank, university, insurance, airline, factory, professional services, property – competition is rife: competition for customers, competition for resources, competition for funds. Very few people remain to be convinced that quality of goods/services is the most important of all competitive weapons. Moreover, attention to quality within an organisation improves performance in reliability, delivery and price resulting in savings that impact on the bottom line, writes Denis Browne, Quality & Administration Manager, Irish Estates. Tel: 01 - 704 1400.**

**A** quality product or service is one that consistently meets the customers' requirements.

Some organisations have so well fine-tuned their capability to meet their customers' requirements, time and time again, that they have created, in the marketplace, a reputation for excellence. It is to these organisations that we must turn our attention and follow in their paths. If your organisation wishes to achieve its own reputation for excellence, you need to implement an effective quality system based around the following nine vital elements:—

#### Leadership

Leaders need to establish a future vision for the company and act as role models in achieving that vision. The most important input that senior managers have in implementing and sustaining a quality plan is the desire to make it happen. They must support the plan enthusiastically and demonstrate that it is important, both to the company and to themselves personally.

Leaders need to establish values for everybody to embrace and they must lead by example. Communicating that vision with passion will inspire the people around them. Then, with a strong management system, they can drive the organisation towards that vision, making frequent reviews along the way to ensure that they are making progress in the right direction and that they are bringing their people along with them.

#### Policy & Strategy

To develop a strategy the first thing required is information. The next step in moving forward is to develop a strategy. Strategic planning simply means organising how you are going to get from where you are now (current position) to where you want to be in the future (your vision).

To develop a strategy the first thing required is information, which is gained by:

- Market analysis
- Competitive analysis
- Customer surveys
- Employee surveys
- Asset utilisation

- Employee productivity
- Organisational costs

The answers to the following vital questions must also be found:—

- What are the external opportunities and threats facing the organisation?
- What are the internal strengths and weaknesses?
- Can you exploit your strengths to capitalise on opportunities?
- Are your weaknesses leaving you exposed to external threats?
- How do you minimise your weaknesses?

#### Importance of People

To implement your strategy you need people with the required skills doing the right job at the right time. It is vitally important to involve your people in analysing the barriers that prevent them from achieving their objectives. If your people are involved in improvement teams and empowered to make decisions they will embrace your vision. It will also provide valuable opportunities for collecting feedback on how they are performing. Information can be shared by establishing formal and informal dialogues across the organisation. Feed them results so they know if they are making progress towards that all important vision and don't forget to reward and recognise the champions to motivate them further and also to challenge others.

#### Resources

All resources — finance, buildings, capital assets, materials, equipment, technology, information, knowledge — need to be managed systematically, using well-planned approaches and well-structured implementation plans.

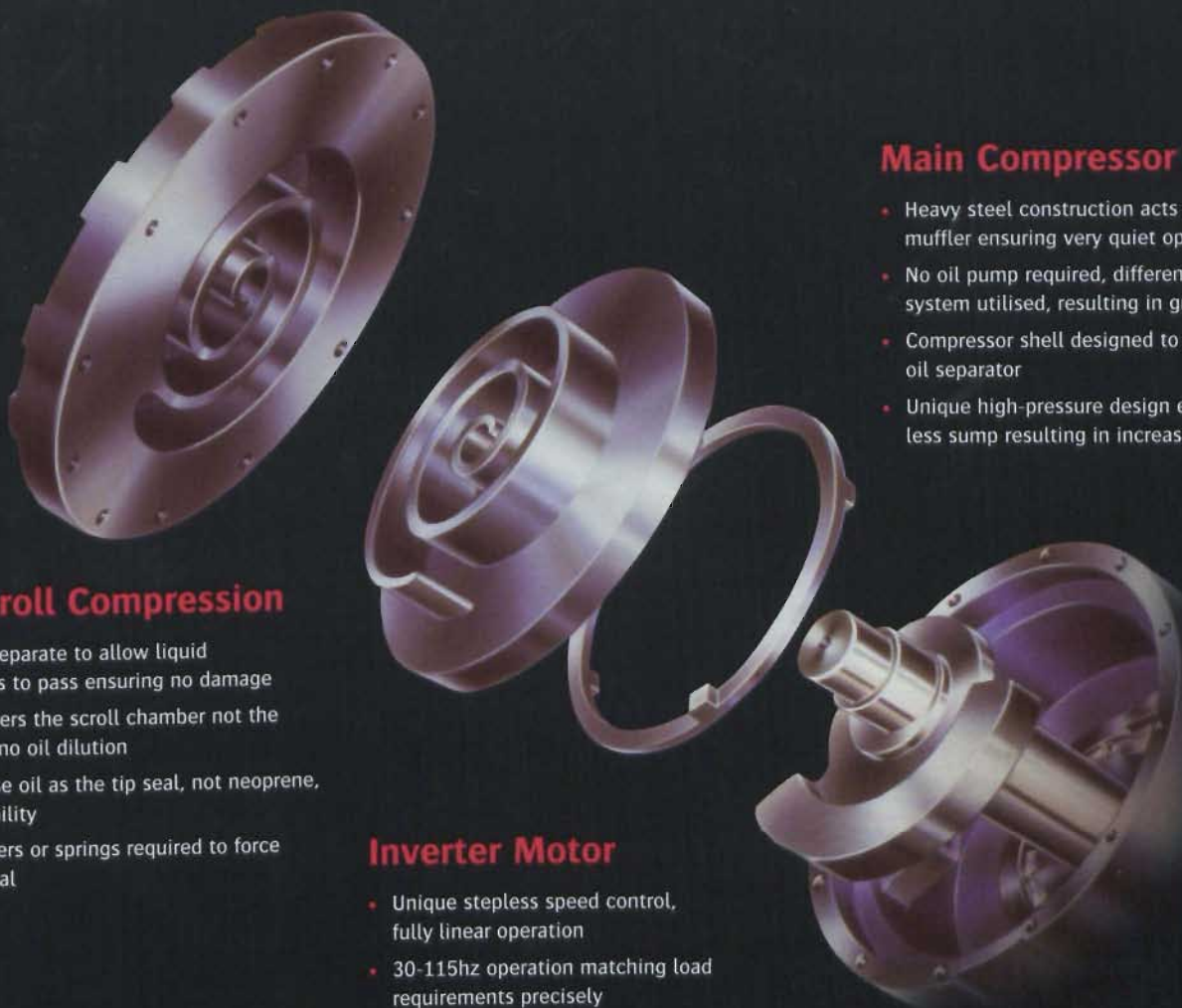
To know how effectively you utilise your resources you need to be able to answer the following questions:—

- How much down time is lost and why?*
- Sure everybody is busy, but are they busy being efficient and effective, or are they busy limiting damage, putting out fires, propping up ineffective outdated systems?

*Are you getting as much out of your technology as you should?* — The strategy must include the compilation of a high-level document for the coming year containing mission-critical



# Not all VRF systems are inverter.



## Scroll Compression

- Scroll profiles separate to allow liquid refrigerant slugs to pass ensuring no damage
- Suction gas enters the scroll chamber not the sump ensuring no oil dilution
- Scroll tips utilise oil as the tip seal, not neoprene, to ensure reliability
- No thrust washers or springs required to force scroll tips to seal

## Main Compressor Body

- Heavy steel construction acts as a noise muffler ensuring very quiet operation
- No oil pump required, differential gas pressure system utilised, resulting in greater reliability
- Compressor shell designed to act as effective oil separator
- Unique high-pressure design enables an oil less sump resulting in increased reliability

## Inverter Motor

- Unique stepless speed control, fully linear operation
- 30-115hz operation matching load requirements precisely
- High temperature motor design ensuring greater operating tolerance

Hitachi believe that truly inspirational design leads to the most innovative and effective product technologies, and an integral underpinning of the design and manufacturing procedure, is our belief in the need to protect the global environment. Performance, cost and environmental responsibility are not mutually exclusive considerations but rather a powerful combination.

That's why we invest over 6% of our total global sales turnover directly into research and development, with almost 17,000 of our 330,000 employees focused exclusively on the development of technologically advanced products, you can be sure Hitachi Air Conditioning will continue to lead where others follow - Hitachi Inspiration.

Hitachi VRF technology has been designed to fulfil the parameters of good system design; occupant comfort, ease of installation, speed of response, the ability to cope with evolving building layouts, and of course environmental considerations.

For example the unique Hitachi Pressure Scroll Compressor, fitted in the Set Free VRF range, meets the design criteria we set our engineers: reliability, performance and energy efficiency. The result... a linear controlled inverter, high-pressure scroll compressor, constant lubrication through differential pressure control, robust construction and only 5 moving parts.

A truly inspired design.

To find out more about the Hitachi High Pressure Scroll Compressor and our range of Set Free VRF systems (Heat Pump: 5,8, 10,12,16,20HP and Heat Recovery: 8, 10HP) please contact your local Hitachi distributor to receive a catalogue or arrange a visit.

As we say, not all VRF systems are inverter; indeed not all inverter systems are the same.

For more information visit our website at [www.hitachiaircon.com](http://www.hitachiaircon.com)



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**HITACHI**  
Inspire the Next



goals to be achieved. Each goal should be broken down into projects with specific objectives. Each objective should have an owner and some key indicators chosen against which to measure success.

Set targets — an objective should always be something that you can measure in Euro, in time, in percentages, and should always be timely. Open-ended objectives tend to stay that way — open ended, so objectives need to be realistic ... miracles will have to wait for another day.

This high-level document then needs to be communicated in such a way that it cascades down through the organisation into departmental, team and individual objectives. Everybody in the organisation should have a good understanding of what is expected of them and the date it is expected by.

Don't be afraid to ask for feedback and to hear suggestions. It is from people on the ground dealing with our customers that we hear the most salient information in terms of our products or services, new products and

effectively key indicators need to be put in place for regular measurement and then continuously reviewed and improved. Measure, analyse and review results Identify what is going right and why it is successful so that you can keep doing it and transfer it onto other areas. Likewise, if things are starting to go wrong you need to find it and fix it before it impacts on the customer.

#### People Results

Happy people make happy customers. Survey your people to identify problem areas and address them. Other important, but indirect, indicators of people satisfaction are absenteeism, turnover, attrition — monitoring these statistics can give you an early warning signal that something is not right. Celebrate with your people when they are doing well. An effective system of communication with your people can ensure a two-way flow of information. A good recognition system will ensure that you say thank you to the people who go the extra mile.

Once gathered and collated, the information should be shared with your people so that they can know the progress that has been made and that your new quality system is really working. They must be assured that they are making it work.

#### Society Results

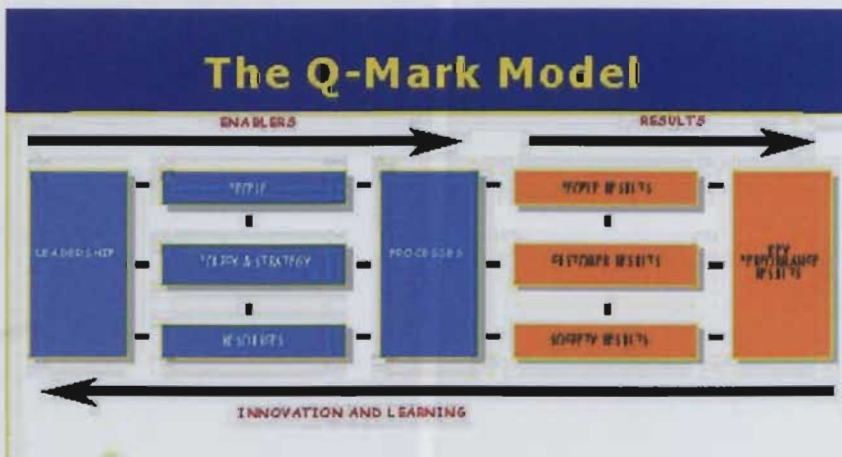
Under Corporate Social Responsibility companies are beginning to look at areas where they can make a positive contribution to society. Is your business having a negative impact on your neighbourhood, e.g. litter, poorly-maintained landscaping, hazardous emissions, etc?

Appropriate neighbourhood involvement and support is also important. Consider how you might create jobs locally, support local schools or sports teams, assist with fund-raising for local groups, donate unwanted office furniture and pc's to local charities, and lend support to staff who are involved in local charitable groups.

#### Key Performance Results

Whatever the mission of your organisation you need key performance results if you are to succeed. Depending on the type of organisation, results can cover a wide range of areas, including financial, market share, asset utilisation, customers gained, customers lost. Results need to be compared against your targets. This way you can identify the reasons for any variations and recognise trends as they emerge. Results should also be compared against your competitors, as well as the market leaders, in your particular business.

Finally, a word from Ron Collard's book *Total Quality Success through People*. "Achieving quality standards within organisations is about attitudes at all levels. Quality is not just about systems, is not just about using specific techniques and tools ... quality is about the attitude of mind of all the individuals within organisations, it is about winning the hearts and minds not only of them but also of customers who must come to believe that the organisation produces goods or services which meet their specific requirements. Creating an environment and implementing a programme which recognises the crucial importance of attitudes in an organisation is the key to the long-term success and profitability of that organisation." ■



services coming on the market, new customer demands as well as information on what our competitors are doing.

#### Processes

If leadership is the start of the quality initiative then key business processes are the core.

A key business process is a mission-critical transformation that changes something raw (materials, people, data) into something that adds value to the customer. By mapping out your key business processes and aligning your organisation to them you can become truly customer focused.

In order to establish if your key business processes are working

#### Customer Results

Satisfied customers keep coming back with more and more business. They also tell other prospective customers if they are happy with the service. Don't ever assume your customers are happy ... measure their satisfaction! Do you know what delights your customers? Have you asked them? What your customer thinks of your product or service is much more important than what you think yourself. Customers are a wonderful source of suggestions for improvement.

If you are getting poor results in your satisfaction ratings it is essential to know the root cause. When you get excellent results make sure you can link it to a change in your process so that you can repeat the success.



# *A Quantum Leap Forward from The World's Largest AHU Manufacturer*

- ▶ Airflows up to 30m<sup>3</sup>/s
- ▶ Unique Rigid Framework
- ▶ Low Leakage Design
- ▶ Cold Bridge Free
- ▶ Factory Engineered Controls
- ▶ UK Manufactured



# **NEW**

## *Quantum Climate Changer from*





# Potterton Myson Celebrations

**P**otterton Myson Ireland recently celebrated 30 years of customer service with merchants from across the country at a dinner in the Berkley Court Hotel, Dublin.

Customers were treated to a chronological tale of a presentation from the companys' inception in 1972 and the continued expansion to its current leading role in the heating market in Ireland. The theme of "Innovation Through Technology" was detailed in the recent product introductions by the company under both the Potterton and Myson brands.

Potterton recently introduced the Promax and Powermax high-efficiency appliances bringing the latest hot water technology to an already extensive range. Myson also recently announced the arrival of the new underfloor heating product.

Potterton Myson Ireland were joined on the night by colleagues from Baxi Potterton in the UK and by senior staff of Myson Radiators.

The event proved to be a great success and allowed colleagues and competitors alike to enjoy a social gathering at which the message was a "thank you" for the first 30 years, and a look forward to the next 30 years.



Clem Cullen, Aidan O'Shaughnessy Group with Colm Barrett, Potterton Myson Irl



Douglas and Brendan Boucher, H & V Sales



Above: Brendan Ryan, A & R Supplies with Tony Kelly, Potterton Myson Ireland



Ciaran McDermott, Potterton Myson Irl with Martin Wright, Myson Radiators



Left: Liz Baker, Myson Radiators with Vincent Broderick, Potterton Myson Ireland



# Buderus Condensing Technology Turns Up the Heat

Buderus, the European market leader in condensing boilers which is distributed in Ireland by C&F Quadrant, has been steadily improving its products over the last 20 years. This has resulted in a boiler concept featuring state-of-the-art technology and excellent efficiency.

All boilers are CE approved, manufactured to the highest ISO standards, and comply fully with all international and national standards.

Buderus condensing boilers have little in common with conventional boilers. Up to 25% higher output is obtained by extracting the latent heat from the water vapour produced when gas burns. The latest Buderus condensing boilers also have modulating burners, enabling them to

achieve efficiencies as high as 109% (on net calorific value).

Typical example is the Buderus GB 112 range which is designed for use with central heating and indirect hot water systems. This unit gives considerably increased outputs while cutting fuel bills by up to 30% at the same time. Lower energy consumption not only saves money – emissions of CO, CO<sub>2</sub> and NO<sub>x</sub> are also substantially reduced. With Buderus what is good for the indoor climate is also good for the outdoor climate.

Buderus boilers use room temperature, not water temperature, to control the modulating burner. With a room thermostat controller installed, the boiler constantly matches heat output to demand. The room thermostat

measures the air temperature three times a second and relays the result to the Universal Burner Control. This minimises temperature fluctuations in the room, which translates directly into greater comfort. It also means lower energy costs; increased efficiency; lower emissions; fewer starts; less wear; and reduced thermal stresses.

For instant hot water, the introduction of a 3-port diverting valve to the system facilitates hot water priority.

Buderus wall boilers are exceptionally reliable. The parts and components meet the highest European quality standards, while easy enclosure removal facilitates rapid installation, strip-down and maintenance. Modular design using proven components means little goes wrong.

The GB 112 series is the range of condensing boilers which includes 22kW, 29kW, 43kW and 60kW central heating boilers.

To heat larger areas it is also possible to opt for a cascade configuration, in which a number of Buderus boilers are connected together. With modern individually modulating boilers this is generally a good deal more economical than a single large boiler.

Contact: C&F Quadrant.  
Tel: 01 - 630 5757  
Web: [www.cfquadrant.ie](http://www.cfquadrant.ie)

## Buderus GB 112 Benefits & Features

*Self-venting* — Air separator and float valve in one, integrated into top of heat exchanger, obviating need for additional air vent;

*Glow plug ignition* — Makes the boiler less sensitive to external disturbances and ensures a smooth start-up;

*High fan pressure up to 70 Pa resistance can be overcome* — Long flue length possible;

*UBC* — The microprocessor-controlled Universal Burner Control(UBC);

*Boiler output can be set on UBC* — The maximum boiler output can be adjusted to match the installation;

*Boiler water temperature can be set on UBC* — The boiler water temperature for the central heating system can be set to a lower maximum;

*Gas rate can be modulated down to 30% of rated output* — Both comfortable and economical at low heat demand (which is the case 80% of the time);

*Special ceramic burner* — Ensures ultra-clean combustion;

*Aluminium silicon heat exchanger* — Optimum heat transfer;

*Well-insulated enclosure* — Exceptionally quiet, high safety, low heat loss;

*Variable-speed fan for correct gas/air mixture* — Quieter, cleaner and more economical.

| TYPICAL CONSUMPTION<br>[m <sup>3</sup> per annum]                |  | SAVING<br>[m <sup>3</sup> per annum] |
|--|--|--------------------------------------|
| Conventional boiler<br>Efficiency = 77%<br>(net calorific value) | Nefit modulating condensing boiler<br>Efficiency = 109%<br>(net calorific value) |                                      |
| 1000   | 622  | 378                                  |
| 1500   | 982  | 518                                  |
| 2000   | 1343   | 657                                  |
| 2500   | 1704   | 796                                  |
| 3000   | 2065   | 935                                  |
| 3500   | 2426   | 1074                                 |
| 4000   | 2787   | 1213                                 |
| 5000   | 3508   | 1492                                 |
| 6000   | 4230   | 1770                                 |



# New Wholehouse Ventilation Fans From VenTac

SP Minifan from VenTac is a new generation of air extract systems designed to provide a completely flexible multi-extraction point ventilation system for residential properties. It comprises three model sizes — ST, HI and TB. Each model includes a powerful 3-speed (as standard) centrifugal fan which is designed for efficient air extraction within ducted installations. All units have been designed and developed to maximise airflow performance and minimise in-duct and radiated noise levels.

Minifan was specifically designed for ease of installation. When required, the fan assembly can be removed for cleaning without the use of special tools. All units include the option of up to four ducted inlet connections, exhausting to a single ducted outlet connection.

To complement the



Minifan air extraction systems.



Akor wholehouse heat recovery system

Minifan range, VenTac has also just introduced the Siroc self-regulating wholehouse ventilation fan. This unit provides a complete residential/commercial ventilation solution for bathroom, utility room, toilet and kitchen air extract applications.

All models are manufactured in tough shock-resistant ABS plastic and include four inlet and one exhaust port. The airflow at each respective inlet port can be precisely controlled and configured to the desired airflow by means of integrated airflow valve regulators. With boost and normal speed options (as standard), the Siroc wholehouse ventilation system provides cost-effective, powerful and easy-to-use single air extract solutions for any given residential property.

The Siroc system can be

purchased as a fan only or within standard residential property kit arrangements, which include all corresponding ducting and valves.

The third system to complete the S&P range of wholehouse fans from VenTac is the Akor wholehouse heat-recovery fan. This product not only provides powerful air

extraction, but also includes the facility for fresh air input with a heat recovery facility. Similar to both the Minifan and Siroc, the Akor is designed to provide one single air extraction and supply solution for residential properties. However, the Akor unit includes an efficient "cross-flow" style heat exchanger which provides the heat transfer from the exhaust air to that of the fresh-filtered incoming supply air.

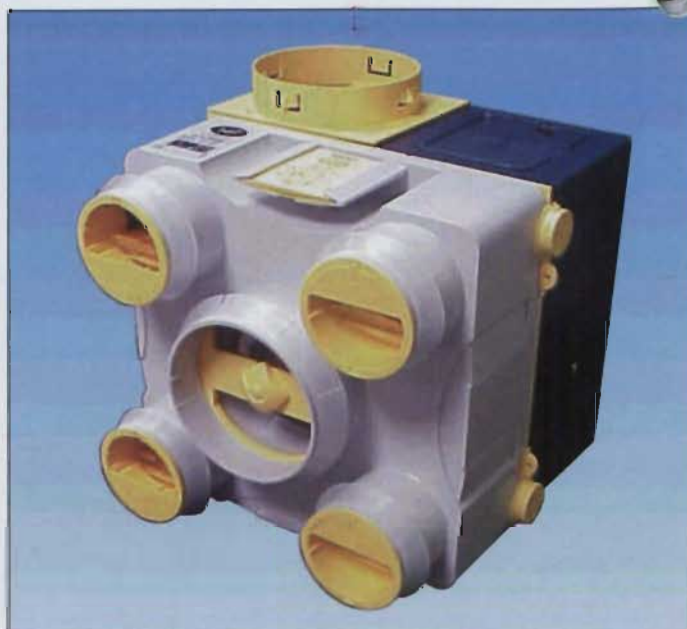
The Akor product/system includes the option of a multitude of control variations, all of which can be operated via remote-mounted switches.

Available as a standard product or in a kit format, the Akor system provides one of the most comprehensive exhaust/supply residential ventilation systems available.

Contact: VenTac Sales Office.

Tel: 045 - 851500;

email: sales@ventac.com



Siroc self-regulating wholehouse ventilation fan



# BSNews

brings you ...



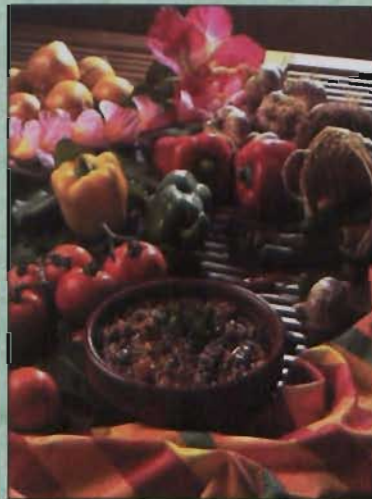
*New Business Introductions*



*An Eye to the Future*



*Balanced Comment*



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# World Plumbing Conference – Missed Opportunity for Ireland

By John Smartt, Chairman, Republic of Ireland Branch, Institute of Plumbing

**W**ith over 300 delegates representing 26 countries attending the World Plumbing Conference in Berlin earlier this year, it was most disappointing that I was the only person from Ireland to participate. This, in my opinion, represents a missed opportunity for the Irish plumbing industry, especially with much of the development currently taking place in the plumbing sector happening on a global scale.

As an island nation sitting on the edge of Europe I think that we ignore such developments at our peril. I respectfully suggest that, in order to monitor and capitalise on plumbing developments in the future, the Irish plumbing sector as a whole needs to make sure it is represented on the World Plumbing Council, and to make sure that it actively participates in the next World Plumbing Conference which is scheduled to take place in Sydney, Australia, in March 2005.

While acknowledging that the Irish plumbing sector is made up of many constituent parts — contractors (large and small); consultants; designers; manufacturers; agents; distributors; and education and training organisations — I still see no reason why we cannot ensure effective, all-industry, representation.

As a possible solution I believe that the Republic of Ireland Branch of the Institute of Plumbing is ideally placed to represent the interests of the Irish plumbing industry on the World Plumbing Council. We here in Ireland have much to

offer, a great deal to gain, and nothing to lose by actively participating in this type of forum. This year's conference covered the entire industry, with a mix of product exhibits and training workshops catering for all needs. The overall theme was

"Water, Heat, Air", with international experts making various presentations on water quality and public health; air hygiene and air conditioning; climate protection; and energy efficiency.

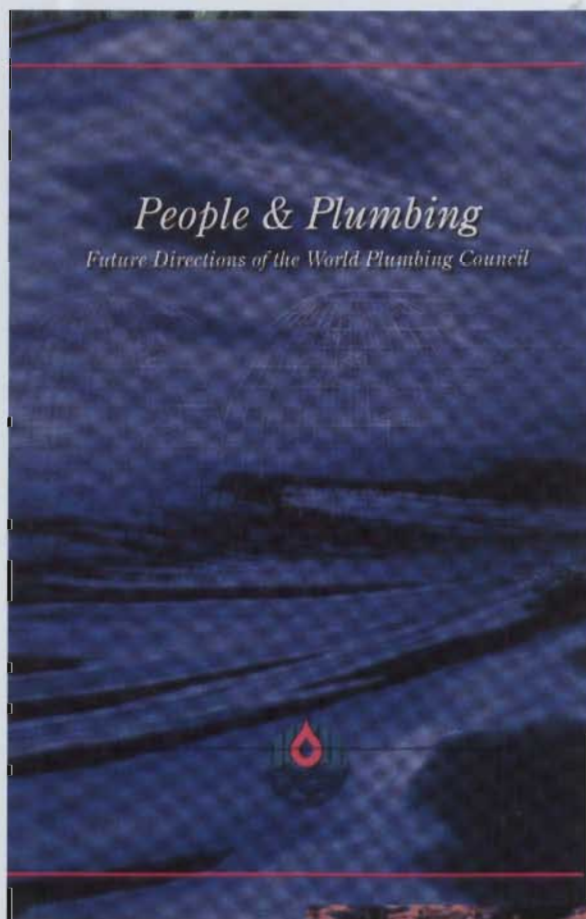
Also discussed was the future direction of the World Plumbing Council, training, and information technology.

SmartHouse, part of an exhibition running in tandem with the conference, featured heavily in all activities throughout the four days. SmartHouse demonstrated how energy can be saved in a number of areas, while also illustrating how remote access to appliances can simplify the servicing regime.

Full details of the conference and all the subjects covered

can be found on the World Plumbing Council website at [www.worldplumbing.org](http://www.worldplumbing.org)

In the meantime, talk to your colleagues, encourage debate and discussion, and please revert to me with ideas and suggestions. It is time to stand up and take our place on the world stage ... if we don't, we will be left behind.



**As an island nation sitting on the edge of Europe I think that we ignore such developments at our peril**



## Edina Wins Power Contract at Dublin Airport

Following a competitive bidding process advertised in the European Journal, Edina Ltd was recently selected by Aer Rianta to carry out a turnkey, 3MW, combined heat and power (CHP) project at Dublin Airport.

Aer Rianta already has two existing Jenbacher CHP Modules at the airport — one 600kW and one 1MW — which have been running successfully for eight years and five years, respectively. Edina is the agent in Ireland for the Austrian-based Jenbacher gas engine company and has built up a strong relationship with airport staff where it now services both CHP and diesel generators in Dublin, Cork and Shannon airports. Edina has also won another important contract in Cork, again following European Journal competition. It has just been selected to install a 143kw CHP unit to

provide electricity and heat for the Leisureworld Complex in Bishopstown Cork. The hot water produced will help to heat the swimming pool.

Edina has also successfully completed a number of small-scale CHP projects (range < 500 kw) such as Camden Court Hotel (92 kw), Navan swimming pool (143 kw) and Drogheda waster water treatment facility (162 kw). Edina is the major installer of gas engine CHP units in Ireland with almost 30 machines in place throughout the country. Overall, the company is having another successful year with a total of seven major projects in progress.

Edina Ltd was established in 1985 to supply and service standby diesel generators. Today, it has grown to be one of the most experienced companies specialising in industrial power

generation, in Ireland. It has expanded its business into the areas of combined heat and power using reciprocating gas engines, as well as mains paralleling and generator hire. Annual turnover is €10 million and it employs 30 people based in Dublin and Cork.

The client base consists of leading Irish and multinational businesses. Edina's highly-trained staff, combined with dedicated management, provide the most professional service.

In industrial, commercial, educational and other sectors of the economy, the name Edina has become synonymous with quality and engineering excellence. All client's power needs are met, while Edina also provides engineering and service support.

In 1996, Edina extended its business into Northern Ireland by setting up Edina Lisburn, which caters

specifically for the Northern Ireland market. This was recently extended further with the opening of Edina Manufacturing, a new 60,000sq ft factory that currently employs 25 people.

Edina now offers products and EPC capability (turnkey projects) in the following areas —CHP (Gas Engines); Diesel Generators; Generator Hire; Service and Spares.

Edina specialises in co-generation plants using gas reciprocating engines and gas turbines (range 70kW - 10MW) in single units or in multiples. It also provides a full range of diesel generators, with mains paralleling facilities.

Edina's Projects Department provides complete turnkey installations using CHP modules, which supply electricity, hot water and steam. CHP projects can also provide air conditioning by means of absorption cooling. On award of contract, an Edina Project Team is assigned on the basis of both experience and expertise. This team combines all the skills necessary to progress the programme of works from initial feasibility studies through to final commissioning and performance tests. Training of customer staff is also provided, along with comprehensive service contract options. A data transmission system allows both Edina and customer to remotely monitor and control the engines.

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## HIGH - EFFICIENCY PUMPS

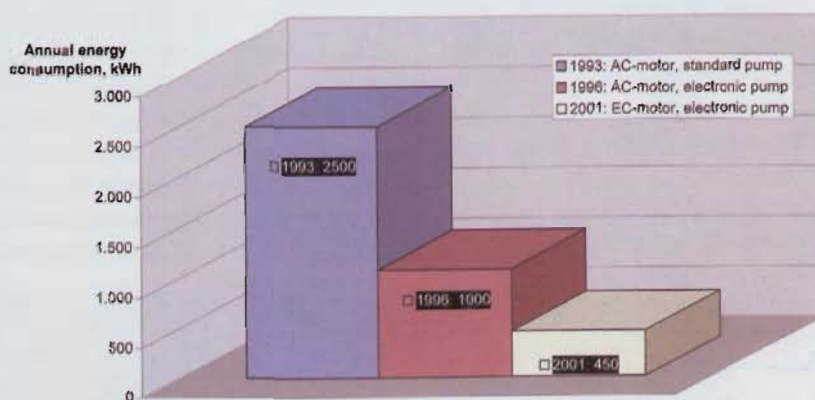
# Wilo Stratos – '80% Energy Demand Reductions'

**A**round 70 to 90 million heating pumps are in use throughout Europe. Although they are not frequently considered to be high energy consumers, the sheer magnitude of their use does in fact result in colossal electricity consumption. They account for 35 to 50 billion Kw/Hr every year – corresponding to around one percent of the annual primary energy requirement of a country the size of Germany.

The most common type of circulating pump installed today is the glandless pump design. These pumps have the advantage that they are maintenance-free and practically noiseless. However, this must be paid for with the lower efficiency of the glandless motor. This in turn has a direct influence on the primary energy cost – and thus also on the operating costs. If we take into account that apart from the high number of circulating pumps in a building, these units also have a very high operating duration (heating pumps up to around 6,000 operating hours per year), it is possible to see an enormous savings potential which is dormant. This can now be realised with the next generation in pump technology.



Development of the energy consumption of average heating circulating pumps



Wilo GmbH has developed the new Stratos range of pumps, which combine the advantages of glandless technology with a quantum leap in efficiency. Thanks to new motor technology and an innovative wet space encapsulation, the Wilo-Stratos enables the energy demand to be reduced by up to 80% in comparison to standard glandless pumps. With this revolutionary technology, Wilo has delivered the world's first wet runner pump with ECM-technology for use in heating and cold water applications. ECM stands for Electronic Commutated Motor (Motor with permanent magnet rotor). This motor design is used for the first time in Stratos pump drives and has the following advantages:

- Halving the power consumption P1;
- Clearly improved motor efficiency at full load and part load operation;
- Improved hydraulic efficiency;
- Reducing the annual energy consumption with the aid of electronic power adaptation by up to 80 percent;
- Reducing size and weight;

- Temperature range -10°C to +110°C for heating and cold water applications.

The high efficiency both at part load and at the full load operation is especially a clear advantage, since heating pumps can run at part load range up to 98% of their total operating time.

### Reduced lifecycle costs

Normally, products with higher efficiencies and thus lower energy consumption are more expensive to manufacture and this is reflected in a higher sales price to that of conventional products. Up to now, the extra costs due to the electronics have made market introduction difficult. However, the situation has clearly improved with the availability of compact converters and advances in the field of power electronics and microelectronics. The extra capital costs are now paid back within a short period of time thanks to the clearly-reduced operating cost afforded by the new EC-motor technology. Contact: Tony Cusack, Wilo Engineering. Tel: 061 - 410963; email: sales@wilo.ie





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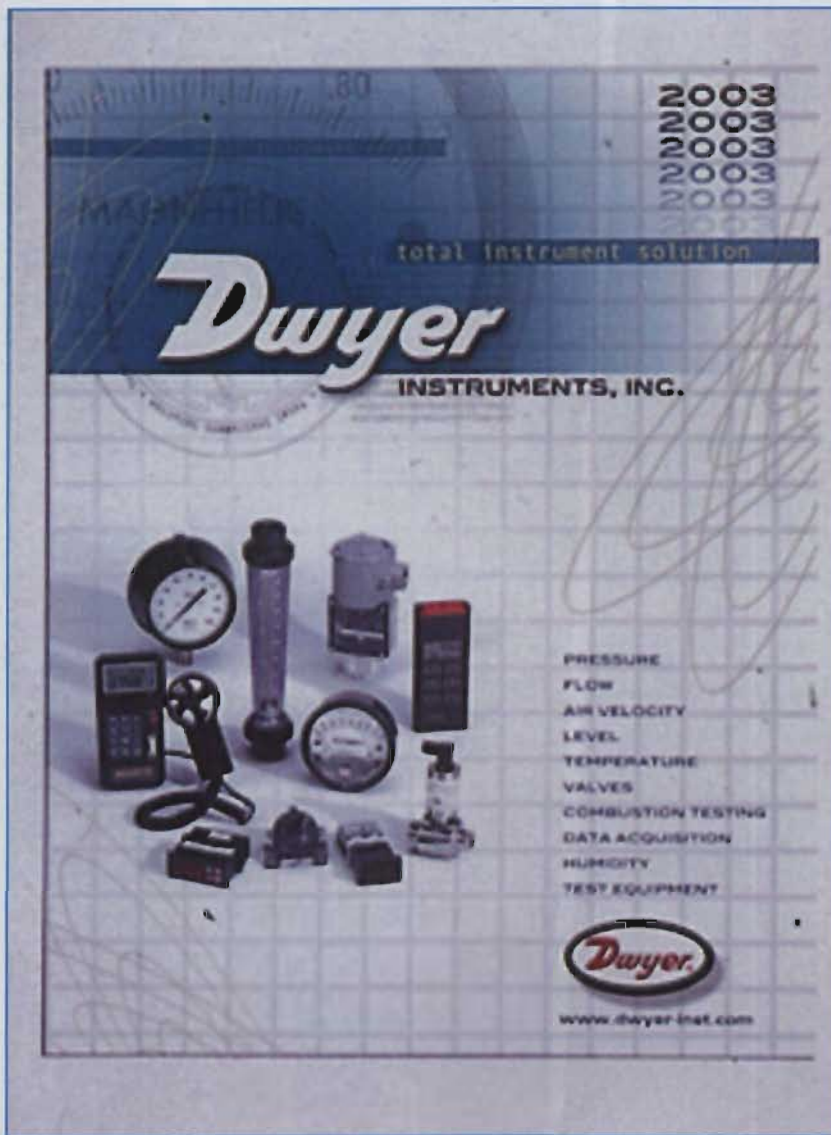
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# Dwyer Instruments, Inc.



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- Air Conditioning, Heating, Ventilating, Refrigeration
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- Laboratory-Research/Development
- Power Generation
- Food Processing/Storage
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- Proximity Controls • Love Controls

## Pressure

**GAUGES:** Differential pressures from 60 Pa to 21 bar; pressures from 9 bar to 689 bar. **SWITCHES:** Differential pressures from 25 Pa to 345 bar; pressures from 30" Hg vacuum to 551 bar. **TRANSMITTERS:** Differential pressures from 2.5 Pa to 21 bar; pressures to 413 bar; 2-, 3- or 4-wire operation. **TRANSDUCERS:** I/P 2- or 4-wire. **MANOMETERS:** Liquid and digital.

## Flow

**FLOWMETERS:** 5 cc/min. to 2832 LPM air; 5 cc/min. to 75 LPM water; brass or stainless steel metering valves. **SIGHT FLOW INDICATORS:** 12 mm to 50 mm NPT; 25 mm to 200 mm flange connected; single and double windows; plain, spinner and flapper type; bronze, cast steel or 316 stainless steel bodies; tube type with integral glass cleaning mechanism. **FLOW MONITORS:** Fume hood monitors/alarms. **SWITCHES:** Liquid flows from .1 LPM water; air flows from 4.3 LPM (pipes) and 1.5 MPS (ducts). **TRANSMITTERS:** Air flows from 1 to 60 MPS. **TUBES:** Self-averaging sensors for air or liquid flows.

## Level

**INDICATORS:** 6 mm to 50 mm NPT. **LIQUID LEVEL SWITCHES:** Float, displacement, diaphragm, radio frequency and torque tube types; pressures to 138 bar, temperatures to 400°C; side, top, suspension and chamber mounted; explosion-proof. **DRY SOLID LEVEL SWITCHES:** Diaphragm type; explosion-proof. **TRANSMITTERS:** Radio Frequency, piezoresistive, submersible and ultrasonic types.

## Temperature

**INDICATORS:** Bi-metal and handheld digital thermometers; -50°C to 500°C. **TEMPERATURE SWITCHES:** Bulb and capillary, bi-metal and immersion types; -51°C to 277°C. **TRANSMITTERS:** -55°C to 400°C, 2-wire operation. **SENSORS:** RTD, thermocouple and thermistor types; -251°C to 482°C. **CONTROLLERS:** Analog and digital indicating; microprocessor based; 1/16, 1/8 and 1/4 DIN; alarm relay, retransmission and PID outputs. **RECORDERS:** Temperature or process inputs, -29°C to 93°C, electric or pneumatic inputs, 0.25VDC to 5VDC or 1 bar to 1 bar.

## Valves

**GLOBE VALVES:** Bronze or 316SS bodies, 2-way or 3-way, 12 mm to 50 mm NPT. **BUTTERFLY VALVES:** Cast iron or aluminum bodies, wafer or lug style, 50 mm to 406 mm, AWWA. **CONTROL VALVES:** 2-way or 3-way, pneumatic or electric operation; self-acting temperature control valves. **VALVE OPERATORS:** Pneumatic actuators and positioners; hand-levers and manual gear operators. **VALVE POSITION:** Indicators, switches and transmitters. **JORDAN** steam pressure regulators and Bestobell steam traps.

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