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This new range of glanded pump is suitable for mechanical building services applications such as Heating, Air Conditioning and Refrigeration. (-10 to +140°C). Available in single, twin or end-suction configuration, the new hydraulic design enables high efficiency operation and lower operating costs. Features include: standard frame IEC motors, bi-directional mechanical seals, cast iron impellers and IP 55 rating throughout the range.

Wilo Engineering Ltd
Enterprise Centre, Childers Road, Limerick, Ireland
Tel: 061-410969 Fax: 061-414728
E-mail: sales@wilo.ie Internet: www.wilo.ie
As we went to press the Health and Safety Authority, the Construction Industry Federation, the Irish Congress of Trade Unions, and FAS issued a reminder concerning the new construction safety regulations.

Two relevant compliance deadlines have already passed. From 1 January last, all employees newly recruited into the sector were required to have attended the FAS Safe Pass training course, all scaffolders were required to carry a card displaying their skills details, and all Project Supervisors Construction Stage (PSCS) were required to make arrangements to ensure that only CSCS card-holders are recruited for scaffolding work. Also from that date, all sites with more than 20 workers were required to actively facilitate the appointment of a safety representative to facilitate effective consultation.

From 1 May last, the Safe Pass requirement was extended to apply to all workers on new sites.

The next deadline which is looming is 1 July next, by which time all crane drivers, banksmen, advanced scaffolders and telescopic handler drivers must be CSCS cardholders.

Last year, 22 people — including four children — died in accidents involving construction-related activities while the first four months of this year alone have seen eight fatalities. While not directly named by trade or profession, the spirit of the Regulations — and their intention — applies equally to all those involved in building services.

Be sensible, be careful, and support this excellent initiative.
The Royal Institute of the Architects of Ireland (RIAI) has called on all political parties to commit themselves to taking “three simple steps” to revolutionise the quality and choice of housing in Ireland. Toal O’Muire, RIAI President, said that most of the debate on housing in Ireland has focused on the question of supply; it is now essential to direct the attention of the incoming Government to the issue of quality and choice. In this context, the RIAI will shortly publish an extensive policy document on housing. Mr O’Muire explained that the steps being proposed by the RIAI, which have a minimal financial impact on delivery, are:
- The streamlining of existing residential guidelines to facilitate better design quality and improve choice;
- The adoption of a new national standard for design of roads and open spaces in residential areas;
- Opening up access to new building methods and materials used elsewhere in Europe.

Toal O’Muire explained that, at present, inherited “rules of thumb” are being applied as guidelines, setting out an arbitrary variety of requirements and standards. This is causing confusion and uncertainty as to what is expected from developers and the building team when designing and building new housing developments.

Turning to the issue of new building methods and materials, Toal O’Muire said that, at present, manufacturers and importers are experiencing delays of up to 18 months in securing certification from the National Standards Authority of Ireland (NSAI)/Irish Agrement Board (IAB), the body responsible for Agrément Certification in Ireland. Some of these materials and methods could help to:
- Reduce the cost of new housing
- Speed up the construction process
- Make our homes much cheaper to run by being more energy-efficient

“The RIAI would support any initiatives which would give architects and developers access to sustainable, quality products and will work with the relevant bodies to move this forward” Toal O’Muire concluded.

CIBSE Annual Golf Outing

The CIBSE Annual Golf Outing will take place at Hermitage Golf Club on Friday, 21 June 2002. Tee times are 7.30am to 2pm with dinner and presentation of prizes commencing at 8pm.

Participants will compete for the PJ Doyle Trophy in a four-person team event/singles stableford competition.

Entry fee is €500 per team (golf only) and €40 per person for dinner.

Contact: Gerry Baker, Tel: 01 - 626 1144; Paddy Clonan, Tel: 01 - 837 3637.
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Saint-Gobain Pipelines’ presence in the Irish market has been boosted with the opening of its own dedicated office and warehouse complex at Tallaght, Co Dublin. Saint-Gobain Pipelines now offers its complete ranges of ductile iron pipes, fittings, valves, couplings and adaptors, access covers, gullies and grates, and cast iron above and below ground drainage systems through one locally-focused service. John Flannery, General Manager explains: “We now offer a range as yet unprecedented in Ireland. As a result of continual investment in research and development, we offer many exclusive, innovative products for the Irish water and sewerage, telecommunications, highways, civil engineering, construction and housing markets. “Our commitment to the Irish market is clear: we are a competitive and customer-focused business delivering world-class products through a professional local service. The new business aims to become the first choice for buyers and specifiers of these products, drawing on the strength of an experienced and dedicated team of specialists, all based in the Irish market and operating out of a Dublin sales and distribution base. “We also offer site visits from experts, drawings and soil surveys, and an emergency service for those needing pipe quickly”. To complement the ductile and cast iron ranges, Saint-Gobain Pipelines Ireland also offers a large selection of steel and copper tubes, fittings and valves from leading suppliers. Contact: John Flannery, Saint-Gobain. Tel: 01 - 01 452 7522; Web: www.saint-gobain-pipelines.co.uk
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Published by ARROW @TU Dublin, 2002
Air Conditioning Products

Aermec was established in 1962 as a specialist air conditioning manufacturer for third parties. From the outset it enjoyed considerable success, making a name for itself through innovative new portfolio of over 300 individual items.

Aermec engineering design skills are very much evident in the company's air handling units for centralised systems. There is a complete range of especially at low speed.

Particular attention is paid to dimensions and overall size to enable easy and convenient installation in all residential and commercial environments.

Aermec is unusual in that it manufactures virtually every single component for every product in-house. All materials are sourced from approved suppliers and personnel undergo rigorous training and refresher courses every year. Considerable sums are spent annually on research and development, in addition to similar amounts on the constant upgrading of manufacturing processes and production equipment.

"Having taken this exceptional product range on board", says Keane, "we have also embraced much of Aermec's business philosophy. For instance, all our technicians and field engineers have already undergone extensive training on the product range, while we have also devised a supplementary training programme to ensure regular continuous upgrades".

Design Air continues to provide support long after installation. A dedicated team of highly-qualified engineers provides full after-sales service, along with planned maintenance and preventative maintenance programmes. Engineers are on call 24 hours a day, seven days a week. Fully computerised maintenance is provided from the company's base with all diagnostics, analysis, preventative maintenance, etc being controlled and activated from there.

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Design Air Limited,
IDA Business Park,
Carraigaline, Co Cork.
Tel: 021 - 437 6590; Fax: 021 - 437 6591.

email: desair@indigo.ie
Mitsubishi Electric Appointments

Brian Murphy
Mitsubishi Electric Ireland has appointed Brian Murphy Product Marketing Manager with responsibility for a number of flagship products including NEC-Mitsubishi and Mitsubishi Electric Air-conditioning systems.

Gavan McKenna
as Marketing Executive, having previously worked as a marketing manager with the Westpac Financial Services Group in Australia. Gavan holds a degree in Business and Legal Studies from UCD and the Higher Diploma in Marketing Practice from the Smurfit Graduate School of Business.

Wavin Surface Drainage

A unique formulation of polymer concrete is the basic ingredient of the new Wavin PolyChannel surface drainage systems. The Wavin PolyChannel range can cater for a diverse variety of environments, from domestic footpaths and driveways to industrial areas of high-imposed loading and airport runways. The two main systems in the Wavin PolyChannel range are the SK and SKS systems. The SK is a general-purpose drainage channel with a protective galvanised steel edge. This is an extremely versatile, 100mm nominal width channel. It comes with a full range of accessories, including a wide range of grating options, to ensure an exceptional water removal rate.

Equally cost-effective and easy to install is the SKS, heavy-duty channel with a boltless locking device. Providing surface drainage for all load classifications without any road or pavement construction. Its armour-coated grating, secured at four fixing points per half metre using the boltless PolyLock system, provides exceptional durability and the strength to withstand the heaviest traffic.

Cool Gel From Hevac

Cool Gel is a new heat-dissipating spray from Hevac which helps to prevent damage to components and surrounding materials during soldering, brazing and welding. The unique gelled formula sticks to surfaces without dripping or running off. It is clear, non-staining, leaves no residue, and requires no cleaning up. It protects painted and finished surfaces, wood, plastic and fibre board, and can also prevent buckling and distortion of this sheet materials.

Contact: Hevac Dublin.
Tel: 01 - 419 1919;
Hevac Cork.
Tel: 021 - 432 1066.

Contact: Wavin Ireland.
Tel: 01 - 841 5000.

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New Noncontact Temperature Measurement

To replace existing traditional contact temperature probes with noncontact infrared temperature measurement, Manotherm has introduced the Dwyer Model IL In-Line Infrared Sensor. The Model IL provides the advantages of infrared temperature measurement in a compact, low-cost, integrated sensor. Designed for easy integration into a 4-wire system, the IL can easily replace contact probes with a J-type thermocouple or with a 0-5 volt output. The electronics are protected by a rugged NEMA 4 (IP65) stainless steel housing, allowing the sensor to function in ambient temperatures to 160°F (70°C). The Model IL is designed to measure target temperatures ranging from 32 to 932°F (0 to 500°C). The distance-to-target ratio is 4:1 optics at 90% energy. The unit is powered by 12-24 VDC at 20mA.

Industries which benefit from infrared thermometers are plastics, primary and secondary metal, pulp and paper, glass, semiconductors, petrochemical, utilities and electrical inspection, automotive, asphalt and cement, textiles and food processing.

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

Willo Pumps recently published a new comprehensive design handbook entitled The Rainwater Technology Handbook – Rainwater Harvesting in Buildings. The book is written by Klaus W. König, a leading independent architect and consulting engineer who has specialised in rainwater systems.

The handbook is an excellent source of information for engineers considering the use of rainwater for use in toilets, washing machines, irrigation and sprinkler systems, etc. This practice reduces the amount of mains water required significantly, with obvious benefits from both an economic and environmental viewpoint. The handbook is illustrated with actual examples from around Europe and the world, such as the Millennium Dome in London, The Sony Centre in Berlin, and the Year 2000 Games Olympic village in Sydney, Australia.

Sections on guidelines, new technology and equipment, design concepts and fundamentals combine to offer a complete design aid and reference source.

Copies of the handbook are available from Willo Engineering Ltd. Contact: Tel: 061-410963; e-mail: sales@wilo.ie Web: www.wilo.ie

Dwyer Noncontact IL In-Line Infrared Sensor from Manotherm
Mitsubishi Electric's air conditioning systems are the product of an irrepressible drive to create more comfortable living and working environments.

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AIR CONDITIONING SYSTEMS
Swirl & Variable Diffusers From Ventac

Swirl diffusers are designed for air-conditioning of room with floor to ceiling heights from 2.6 to 4m and temperature difference between supply and room air of +10k to -10k. Due to the rotary swirling motion of the air discharge, induction of room air occurs very quickly. Swirl diffusers are suitable both for comfort as well as industrial air-conditioning. Swirl diffusers consist of plenum box made of a galvanised sheet steel and diffuser face. Diffuser face is made of sheet steel painted in RAL 9010 or any RAL colour upon customer's request.

Variable diffusers are designed for rooms with changing thermal loads which require different conditioning (heating, cooling). They are suitable for rooms with floor-to-ceiling height of up to 15m and recommended temperature difference between supply and room air +10k and -10k. Required conditioning is achieved by the means of adjusting the blade angle. This can be done manually or they can be motor driven. Variable diffusers consist of a plenum box made of galvanised sheet steel and diffuser. Diffusers are made of sheet steel or sheet aluminium (OD-11) and powder painted in RAL 9010 or any RAL colour upon customer’s request.

Contact: Mark Moran, Ventac.
Tel: 045 - 851 500; email: mmoran@ventac.com

Galway Apprentice Wins National Plumbing Award

David Nolan (22) from Barna, Galway is this year’s National Apprentice Plumber of the year and winner of the Wavin Cup. David is employed with Ralph O’Malley, Ballybane, Galway and studies at the Athlone Institute of Technology. His win puts him in contention to represent Ireland at the World Skill Olympics, which will be held in Switzerland in 2003.

David is pictured here receiving the Wavin Cup from Larry Carr, Managing Director, Wavin Ireland (left) and John Smartt, Assistant Head of Construction Studies, DIT at the Aer Rianta/Department of Education and Science National Apprentice Competitions held in Dublin last month.

Larry Carr pictured with David Nolan and John Smartt
A breath of fresh air.

Heating, ventilating & air-conditioning solutions - all under one roof.
Construction Prices Slowdown

A marked slowdown in construction prices last year has been confirmed by the Society of Chartered Surveyors (SCS), which has just published its latest Tender Price Index. The Index shows that construction prices rose, on average, by only 4.74% for 2001. This is a significant reduction in the rate of increase seen in recent years. The slowdown in pricing levels is all set to continue for 2002, according to the Quantity Surveying Division of the Society of Chartered Surveyors, which prepared the Index.

"Tender returns during the early months of 2002 would seem to indicate that this record is continuing", says Conor Hogan, Chairman of the SCS Quantity Surveying Division. "However, there is a perceived increase in confidence emerging and it will be very interesting to see how this affects the present trend".

The SCS Tender Price Index will continue to monitor these trends and plans to publish the results for the first half of 2002 by the end of this August.

Bord Gáis has signed an historic agreement to develop a natural gas spur pipeline linking the Isle of Man to the Second Interconnector between Ireland and South West Scotland. Welcoming the agreement at a special ceremony in the Isle of Man, Gerry Walsh, Chief Executive, Bord Gáis, outlined the significance of this project, both for Ireland and the Isle of Man: "This project, which is subject to Ministerial approval, was made possible because of our €1.4 billion network development programme which includes a Second Interconnector from Ireland to South West Scotland. The Second Interconnector, which is currently under construction and which will ensure long-term supplies of gas for the Irish market, provides the opportunity for us to bring this connection to the Isle of Man in a very cost-effective manner."

This connection to the Isle of Man is part the Bord Gáis overall network development programme. This includes a 200km Second subsea Interconnector pipeline from Scotland to Ireland; a 320km pipeline linking Dublin, Galway and Limerick; a 150km pipeline from Mayo to Galway, connecting the landfall site for the Corrib Gas Field to the Irish transmission network at Galway; and pipelines to the North West, including a 170km pipeline from Gormanston to Belfast and a 115km pipeline from Belfast to Derry.
Fernox Solutions for Leaking Pipes

Fernox's Leak-Fix emergency repair tape — available in 2.5m reels from Hevac — is ideal for the temporary repair of flexible and rigid pipes, providing a durable seal in less than 10 minutes. It is also suitable for use on drinking water (WRAS approved), is non-hazardous and non-irritant. Once wrapped around the pipe, the product will self-vulcanise to provide a durable seal that will last until a more permanent repair can be made. Unlike other forms of temporary repair, Leak-Fix can be applied without the need to cut off the water supply. When it comes to permanent repairs, Hevac has Fernox's Fix-It. This is a 2-part epoxy putty that provides a permanent and durable repair to metals, glass, ceramics, plastics and wood and will effectively repair holes in radiators and leaks in pipes. Fix-It is said to be easy to mix and clean and almost effortless to mould into shape for application. It has excellent adhesion properties, even on wet and underwater surfaces, and will harden like steel in approximately 20 minutes. It can then be sawn, drilled, filed, sanded and painted after just one hour. Fernox Fix-It is available from Hevac in easy-to-use 50g tubes and is resistant to shock, vibration and temperatures of up to 150°C, as well as most household chemicals.

Contact: Hevac Dublin. Tel: 01 - 419 1919. Hevac Cork. Tel: 021 - 432 1066.

Rapidly expanding ventilation distributor currently has a vacancy for

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Suitable candidates should ideally have some computer knowledge and be willing to join a team of dedicated professionals serving the ventilation industry. Full training will be provided to the right candidate complete with an attractive remuneration package. Please forward a curriculum vitae to the Managing Director at the address below.

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The Republic of Ireland Branch of the Institute of Plumbing held its annual presentation of medals and certificates to plumbing apprentices in the Red Cow Moran’s Hotel last month in conjunction with the PHEX exhibition.

The awards — comprising Gold, Silver and Bronze medals and certificates — are presented to three categories of apprentices, corresponding to the three “off the job” phrases of their apprenticeship. Beginning with Phase 2 which is delivered in the FÁS training centres and continuing on to Phase 4 and 6, which are delivered in the institutes of technology around the country. This year’s apprentice awards were sponsored by a number of industrial associate members of the IoP, namely Wavin (Irl) Ltd; MT Agencies (Irl) Ltd; BSS (Irl) Ltd; George Fisher + GF; and PG Industrial Supplies.

Apprentices from all three Phases are nominated by their instructors and lecturers and are sent a technical plumbing project, designed by the Institute of Plumbing Branch management committee, the complexity of which is matched to the knowledge expected of an apprentice on the particular phase being attended. The projects submitted are then judged by a panel comprising representatives from industry, education, training and the IoP.

The awards were presented on the night by Tony Kite, President of the Institute of Plumbing, who was on his first visit to Dublin. During his speech Tony congratulated the recipients of the awards and said how pleased he was to see such talented young plumbers, who were a credit to their instructors, lecturers and their families, joining...
Students Get Gold, Silver & Bronze

the industry. He also encouraged them to continue their studies and to take an active role in the Institute of Plumbing in the future. The President also presented a Master Plumber Certificate to John Smartt, the first to be awarded in the Republic and only the 28th to be awarded since the introduction of the Master Plumber Certificate by the Institute of Plumbing last June. The Master Plumber Certificate is awarded in conjunction with the Worshipful Company of Plumbers and The City and Guilds Institute.

On receiving the Certificate, John said how pleased he was that recognition at Master Craftsman level in plumbing now existed for the first time outside of mainland Europe. He also announced that as Assistant Head of the Department of Construction Skills, DIT with responsibility for Plumbing & Refrigeration, he was confident of launching a revised 2-year, part-time, Advanced Plumbing/Mechanical Services course this Autumn, which could lead to successful students being awarded the Institute's Master Plumber Certificate.
The Unico System has been manufactured in the USA for over 20 years and is used extensively throughout the States in varying climates – from the extreme cold of Alaska to the humid heat of Florida. Since its introduction to Ireland many homes and businesses have enjoyed the superior comfort and energy savings of The Unico System.

The Unico System flexible supply tubing is especially designed to fit into the tightest of spaces. The Unico System is a mini-duct central heating and air conditioning system that utilises compact, modular air handlers. Using small (180mm) supply plenum that can run up to 30m in length and small flexible supply tubing (90mm) that can run up to 10m in length any building can have The Unico System fitted. The supply tubing terminates with round plastic or wooden outlets — about the size of a CD — which can be painted or stained to match any décor. A 13-mm by 200-mm slotted outlet is also available.

The Unico System provides a better level of comfort than conventional HVAC systems or split systems. It's quieter and draft-free - because it works on the principle of aspiration instead of diffusion and provides even temperatures (with less than a 1.5°C variation) from ceiling to floor and wall to wall.

The Unico System is available as heating only (hot water coil and blower), air conditioning or heat pump (heat pump coil and blower), chilled water (chilled water coil and blower) or any combination as required. Any manufacturers boiler or condensing unit may be used. Air conditioning, ventilation and plumbing contractors are delighted with the speed and ease of installation. Consultants, engineers and architects are specifying The Unico System as it sets new standards in performance and comfort. It gives greater flexibility in design as no radiators or under floor heating are required. (You can combine a Unico System and under floor heating if required.) If you design it we can heat and cool it!

Main advantages of The Unico System:
- No radiators or under floor heating
- No split systems
- Draft free even temperatures
- Air filtration
- Fresh air if required (up to 100%)
- Use any manufacturers boiler or condensing unit
- Geothermal option
- Three outlet types, match any décor

Three different models:
- Model 1218 – 3.3kW to 5kW cooling, 3kW to 8.5kW heating
- Model 2436 – 7kW to 10kW cooling, 8kW to 17kW heating
- Model 4260 – 10kW to 17kW cooling, 11kW to 25kW heating.

Full heat load calculations, design and layout and commissioning are performed for each job at no charge. Training courses are offered at regular intervals.

Contact for full details:
Eamon Fidgeon or Andy Dolan, Unico System Ireland.
Tel: 044 84881.
Web: www.unicosystemireland.com
Irish soccer team manager Mick McCarthy recently unveiled Mitsubishi Electric's latest air conditioning products and future marketing plans at a special gathering in Portmarnock Golf Club. Most of the company's dealer network were present and the occasion was also used to present the annual dealer awards. As always, the business sessions were professional and to the point, the social aspects being lively and entertaining. Dealers and guests present availed of the opportunity to put questions to Mick McCarthy who was honest and forthright in his responses.

On the product front there were three key presentations — the City Multi S Series, the Lossnay range, and City Multi Controls.

City Multi S
The new City Multi S Series was designed with small to medium scale City Multi projects in mind. Its principal benefits are low noise operation; energy saving; labour/space saving; and the fact that it enables flexible system design.

Lossnay
With new buildings becoming more and more airtight for energy conservation purposes, natural ventilation is no longer adequate. Mechanical ventilation is effective, but it causes loss of energy, thereby increasing heating and energy costs. Lossnay solves indoor air quality problems with its fresh air exchanger but with minimum loss of energy through its heat recovery ventilator. A wide range of models is available for different types of applications and Lossnay can be easily integrated into air conditioning system designs.

City Multi Controls
Masa Ando from the City Multi factory in Wakayama outlined the latest developments in controllers for City Multi systems. His address included reference to BC controllers, the MJ-310E centralised controller, and the next generation BMS controller G-50.

A review of the performance of the Irish economy, and the current state of air conditioning industry in Ireland, was also presented, along with the company's marketing plans and objectives for the coming year. Copies of the new advertisement, along with details of the marketing campaigns, were given to all present.
The Italian air-conditioning and refrigeration industry is reportedly very alarmed by a proposed new European regulation that threatens to turn production lines upside down for the third time in just a few years. The bombshell takes the form of a Danish proposal that asks the European Union to ban all the HFC refrigerant fluids currently being used in refrigeration systems. Denmark has gone beyond the Kyoto Protocol on the limitation of carbon dioxide emissions and has unilaterally implemented this ban in its own territory. The proposals are of great importance to Italian manufacturers, who are the European leaders in the sector, and who are fearful that the new regulations could harm a strongly-growing sector. There are 100 Italian manufacturers of equipment and systems for the air-treatment and air-conditioning (members of CO.AER). They employ about 6,000 people and have an annual turnover of Lire 3,500 billion (for the year 2000), 45% of which comes from exports. Industrial and commercial refrigeration system and equipment manufacturers (members of the Unione costruttori impianti frigoriferi) also number around 100 and have about 10,000 employees and a turnover of Lire 3,000 billion (for the year 2000), with about 50% being exported. The European regulation governing refrigerant gases — 2037/2000 — that is currently in force was only published on 29th September 2000, and was automatically adopted as part of the Italian regulations. It responds to the need to gradually eliminate all the substances that could cause a reduction of the ozone layer, and the regulation bans the production of chlorofluorocarbons, carbon tetrachloride, trichloroethane, hydrobromofluorocarbons and hydrochlorofluorocarbons. However, the first restriction on fluids for use in refrigerating and, in particular, climate control machinery, dates from 1995, and takes the form of European Regulation 3093/94. CFCs, which have a major adverse effect on ozone, were abandoned and replaced by HCFCs (R22). European companies operating in the field were forced to redesign their machines and to adjust their production cycles to the new regulations. Now, just five years on, Regulation 2037/2000 has thrown everything into doubt, forcing the companies to re-think production processes and products in order to be able to use HFC fluids that are totally harmless to the ozone layer. However, the adoption of HFCs has opened up new problems. In the first place, the very tight deadlines imposed by the new regulations hinder the ability to offer a rapidly-expanding market new equipment. Then there is the difficulty of finding some components that are suitable for the new fluids, and also the lack of availability of HFCs due to the fact that the chemical industry has been reluctant to invest in their production because of uncertainty over their long term use. Finally, the ban on the use of HCFCs poses serious problems for the maintenance of the existing stock of machines (over 26 million units). As if all this was not enough "further troubles are now in prospect with the Danish initiative", explains Gianfranco Pellegrini, Deputy Chairman of ANIMA (Federazione delle associazioni nazionali dell’industria meccanica e affine - the Federation of national associations for mechanical engineering and related industries), and Chairman of the CO.AER association. "If the Danish proposal is accepted we will have to start from scratch for the third time in just a few years. What is more, the HFC fluids will be replaced by hydrocarbons (isobutane, propane and related compounds) that are inflammable and which will pose considerable safety problems that increase with the size of the system. For example, a domestic refrigerator contains about 100 grams of isobutane, whereas the air-conditioning plant for an entire building contains very many times that amount".

This question is of vital importance to manufacturers in the sector and was discussed in great depth at the recent Mostra Convegno EXPOCOMFORT (MCE) in Milan.
Lennox Appoints Airconditioning Technology

Lennox Industries — one of the world’s leading manufacturers of heating, ventilating, refrigeration and air conditioning equipment — has appointed Airconditioning Technology Ltd (ACT) distributor for the Republic of Ireland. ACT already has a strong presence in the ac and heating sector throughout Ireland and the addition of Lennox to its extensive portfolio means that it can now provide a comprehensive, all-embracing, solutions package.

Airconditioning Technology Ltd was started in February 1998 by Philip McEvitt and Raymond McCormack. Philip has worked for a number of market-leading ac brands for many years, while Ray had run his own contracting firm for over 15 years. Both have extensive experience in all aspects of applied and unitary airconditioning and have used their combined knowledge to set up ACT as a distributor of air conditioning products. ACT is based in Northwest Business Park in Blanchardstown, Dublin 15, and has a satellite office in Crowe Street, Dundalk. The sales and service staff cover the 32 counties from both offices.

Over the last four years ACT has grown exponentially and now employs 19 people in Dublin and Dundalk. To service its customers ACT has a team of highly-qualified engineers constantly on 24-hour call. All service engineers are qualified refrigeration engineers and regularly attend manufacturers’ training/educational seminars. Sales of product are covered by Philip McEvitt, Ray McCormack, Daren Lowndes and Keith Gore. Gary Duff is Service Supervisor.

ACT provides full technical and service back-up, with an in-house CAD design facility which can offer full working drawings for projects.

ACT has supplied air conditioning products to many prestigious clients including TV3; Benchmark; Tesco; Dunnes Stores; Penneys; AIB; OPW; The Coombe Hospital; St James Hospital; The Grand Hotel, Malahide; Elan; The West Bar; and Whirlpool.

ACT’s philosophy is simple — provide the right product for the right project. Too often suppliers shoe-horn the project into the available equipment without regard to the cost, running cost, noise levels and controlability of the system.

With a range as extensive as that of Lennox, ACT can now tailor a bespoke solution for all types of customer needs, whether it is a one megawatt chiller for an office block, or a 10kw close control unit for a comm’s room.

Once the system is installed ACT will maintain it, offering a flexible service contract with 24-hour callout.
Since it first started manufacturing from Marshalltown Iowa in 1895, Lennox has developed into a significant global heating, ventilating, refrigeration and air conditioning manufacturer with sales of US$3.2 billion (approx. €3 billion) and 23,000 employees worldwide.

Having gained a strong foothold in the USA, Lennox recognised the opportunities available in Europe and opened a manufacturing facility in the UK. This was just over 40 years ago and, since then, it has gone from strength to strength opening two plants in France — at Mions and Longvic — as well as one in Spain and the Czech Republic. Through a range of direct sales operations and appointed distributors, Lennox has a presence across the whole of mainland Europe, including Russia and the Middle East.

Today Lennox UK forms an important part of the Lennox Europe organisation, which has a turnover of US$300 million (approx. €2.85 million) and more than 1,000 employees. Its combined manufacturing space extends to some 55,000sq m (592,000 sq ft) from which it produces a successful range of HVAC products including packaged rooftop systems, chillers, air handling units, fan coil units, packaged boiler plant rooms, air-cooled condensers, dry air coolers, warm air heaters, split systems and refrigeration products.
Lennox condensing units cover capacities from 6kW to 400kW

Operating from an 11,000sq m (120,000sq ft) facility in Northampton, Lennox UK is responsible for the production of Linea, one of three unit types available in the successful European packaged rooftop range. Over the past 12 months the Northampton factory has doubled its manufacturing capability for fan coil units which includes the established Quantum Waterside and Airside units, as well as the recently-introduced Slimline model and a unit specifically designed for hotel applications, the Quantum U. Lennox UK also produces a range of induction units.

Additionally, Lennox operates three industry-recognised testing facilities ... at Northampton in the UK, and Longvic and Mions in France. The Northampton test centre, which has been commended by BSRIA as one of the most sophisticated currently operational in the UK, is used to compare fan coil sound levels and measure heating, cooling and airflow performance. This is frequently used to prove product capability or for the development of non-standard units for specific projects prior to order. The Longvic facility, thought to be the largest of its kind in Europe, has been developed to test packaged rooftop units up to 250kW. Lennox's chiller test stand at Mions is used to perform functional tests on all packaged chillers between 10kW and 500kW cooling capacity.

Lennox is committed to a philosophy of working with customers to help design and specify the most appropriate system for each application. The lowest first-cost option is not always the best solution and Lennox is able to evaluate entire life cycle and all hidden costs to ensure the right decision is made.

Lennox liquid chillers are available in air-cooled and water-cooled versions.
Product Range

Packaged Rooftop Units
As the world leader in rooftop technology, Lennox products offer one of the lowest life-cycle costs of any commercial units on the market today. Available from 20kW to 200kW the Smart, Linea™ and Flexy™ range of rooftops offer improved performance, efficiency and flexibility providing comfort control solutions for a wide range of applications.

Condensing Units
Lennox supplies a comprehensive range of condensing units with capacities ranging from 6kW to 400kW and key features including low-noise options; R407C cooling only; and R22 heatpump.

Packaged Indoor Units
For indoor vertical applications Lennox offers two ranges of ducted indoor units that include the vertical floor-standing Compactair, with cooling capacities from 20kW to 92kW, and the horizontal ceiling-mounted Flatair range with cooling capacities from 9.8kW to 28kW.

Fan Coil Units
The Lennox portfolio includes the Quantum Waterside (2.5kW – 6.4kW), Quantum Airside (1.99kW – 6.55kW), and the Quantum Compact (2.16kW – 7.55kW), all independently tested and certified by Eurovent, as well as the Quantum Slimline (1.55kW – 4.36kW) and the Quantum U (2.24 – 4.0kW).

Packaged Chillers
The Lennox range of liquid chillers are available as air-cooled or water-cooled units, in three core ranges: EcoLean (7kW – 80kW), EcoLogic (80kW – 350kW) and EcoMax (300kW – 1500kW). Benefiting from the latest scroll, screw and reciprocating compressor technology, units are designed to provide maximum cooling efficiency with low running costs and power consumption.
Managing Energy Usage, Efficiency & Quality

In recent years there have emerged a number of new intelligent energy management systems which can, in addition to monitoring, provide optimisation and control for all sources. Furthermore, some can monitor and control power quality and reliability in sensitive installations and can allow the remote asset management of energy enterprises on a worldwide basis using Web-enabled technology. The possibilities allowed by these developments are only now beginning to be implemented. Hence the CIBSE evening on the subject recently presented by Hugh O'Kelly.

Hugh works for ESB within Engineering and Commercial Business Unit (E & CB). He is a Chartered Engineer (Electrical) and also holds a Bachelor of Science degree in Information Technology. He has worked with ESB for over 25 years holding a number of positions, and previously for six years with a number of engineering and contracting companies.

In 1995 he was responsible for establishing ESB's Power Quality Solutions activity and is currently manager of this group. This seminar was intended for end users, specifiers and engineers involved with systems design and lasted approximately 60 minutes, followed by a brief questions and answers session. All persons attending the course received a CPD certificate.

Specific topics covered were:

- Cost optimisation in deregulated energy markets;
- Voluntary load curtailment and CHP;
- Automatic price optimisation;
- The influence of Power Quality on the bottom line;
- Remote asset management;
- Energy Information Services (EIS);
- Networked monitoring systems;
- Internet-based systems;
- Data sharing, access and security.
The Property Manager & The Development Process

There was a time when property management was a straightforward business involving the maintenance and upkeep of investment properties and ensuring that rents were collected, buildings cleaned and maintained, and the contractors paid. In those days it was common for the management company to become involved only when the building had been completed. However, the last 15 years have seen dramatic changes in the quality and type of buildings produced, the systems incorporated into them, the complexity of their design, and the ever-increasing demands of the tenants who will occupy them.

Large-scale commercial developments now tend to comprise numerous buildings on a site with shared access, car parking and services, all of which must be managed and designed in a way that meets the individual tenant's requirements.

The market is becoming more competitive and prospective tenants are finding themselves in the driving seat, particularly outside the central business district. Given their international nature, tenants are demanding management information much earlier in the process than was heretofore the case. They want to know:

- What the building will cost them in terms of rent, rates, insurance, service charge and other outgoings?
- That all safety documentation, information and procedures will be in place on moving in;
- That draft Tenant Handbooks will be available for inspection;
- That management systems will be in place within the development upon completion. In other words, tenants want all of this information prior to occupation. They want to reduce their exposure to risk and to eliminate as many variables in the decision-making process as possible before committing.

Certain developers have been quick to realise the competitive advantage available to them by providing this information and have moved to retain management companies earlier in the process. However, there is another equally-important matter for developers to consider and that is the longevity of the scheme. In other words, that the buildings look at their best not only on completion but throughout the life of the asset and it is important to realise that, decisions made at the design stage, will have a direct bearing in this regard.

The property manager has a unique insight in this area in that, unlike other professionals in the design and build process, the property manager will have an ongoing relationship with the building and has, through experience, developed a greater understanding of the suitability of building finishes and the
operational requirements for building systems. They have also developed an holistic view of such large-scale integrated projects and the need for flexibility both in design terms and also the ongoing operation of the finished development. This experience has been built up over years of front-line contact with incoming tenants and the corresponding difficulties experienced in trying to deal, retrospectively, with the legacy of poorly specified finishes or poorly-integrated systems.

These issues are much more than just a headache for the property manager as they can prove extremely costly for the developer to rectify and invariably lead to a souring of relationships between all concerned.

The property manager sits at the centre of all of the disciplines ranging from architectural, engineering, project management and legal, and can provide a unique overview of the end result. This overview helps the property manager to provide invaluable advice to ensure that many of these costly mistakes/omissions are captured and remedied at source. The property manager's role during the design process can include the following:

- Reviewing proposed legal documentation to ensure that the provisions for service charges are appropriate to the proposed scheme;
- Liaison with the architects and design team to ensure that the finishes used, particularly in the entrance ways, staircases, toilets and public areas, can be cleaned and maintained to the highest standards in a cost-effective way;
- Liaison with the engineers to ensure that the building systems are compatible with, and support the needs of, the most likely leasing structure, i.e. single let/multi-let, and support the interests of good estate management;
- Ensuring that management documentation is drafted and available to the prospective tenants including draft service charge budgets, tenant handbooks, fire and general registers, etc;
- To be available to meet prospective tenants and to incorporate their individual needs into both the proposed management regime and, where possible, into the building systems themselves.

The involvement of a suitable property manager earlier in the design and build process will greatly assist in providing a user-friendly facility, free from many of the sometimes niggly, sometimes significant start-up problems associated with so many projects. But more than this, it adds key expertise, unavailable within existing design teams, at critical times, in areas of tenant requirements and legal matters, and also helps to grease the wheels of the dealmakers by providing necessary tenant documentation and liaising with perspective tenants to provide them with the comfort of knowing that the developers' and letting agents' promises will be delivered on completion of the scheme.

Buildings are becoming more complex; tenants are becoming more international in make-up and more powerful in a competitive market; their requirements are more demanding and consequently they are less tolerant of mistakes than in the past. Therefore, the case for the inclusion of the property management function at the earliest opportunity has become all the more compelling.
Advanced Air Conditioning Management Systems from Daikin

Daikin, an innovator of air conditioning systems, now presents a new series of VRV systems utilising the ozone-friendly refrigerant R407C. Daikin is the sole air conditioning company in the world that manufactures every component, from refrigerant to complete air conditioning systems, itself. Driven by a commitment to offer the best for people as well as the environment, the company has been inspired to develop new systems that makes the most effective use of energy resources, while also protecting the ozone layer.

Daikin, the first in the industry to develop a VRV system, has now enhanced the R407C with the Plus Series that features an upgraded capacity of up to 30 horsepower, a new addition to the R407C VRV system to further refine all of the features of the R22 VRV system. This new refrigerant signals the start of a new era in air conditioning for the 21st century.

Daikin’s control systems feature sophisticated technology that ensures highly-precise and efficient air conditioning control. Intelligent Touch Controller — This is a highly-advanced central control air conditioning system that gives complete control of the air conditioning equipment. This “all-in-one” graphic controller mounts neatly on the wall while not taking up any space in rooms like that of BMS-style systems. Intelligent Touch Controller — with its touch-screen and colour LCD display — gives ease of use for any user. With Daikin’s unique DIII-net wiring and this all-in-one system, this small wall-mounted unit can be installed in no time. Intelligent Manager — This is a dedicated system that enables anybody to easily control all the VRV

System functions. It represents a dedicated system that employs Daikin’s unique DIII-net data communication method, which allows it to provide complete monitoring and control of VRV System functions. The Intelligent Manager ensures easy use of effective centralised air conditioning control for small and medium-sized buildings, or buildings without BMS.

BACnet Gateway — This is an integrated control system for connecting the VRV System with a BMS. Utilising the BACnet data communication protocol, it serves as an open system that provides a seamless connection between the VRV System and BMS. This allows for the creation of a variety of control and monitoring systems that feature linked operation with other installations, and remote monitoring over telecommunications lines.

Contact: Paul O’Neill, Coolair.
Tel: 01 - 451 1244;
Fax: 01 - 462 3434;
email: info@coolair.ie
Honeywell and McCool have your future all mapped out

In the world of building control technology, improving the working environment, conserving energy and raising fire and security standards are paramount.

Honeywell building controls can match the needs of any building precisely, from individual controls to a fully-integrated management control and protection system. Now, with McCool Controls and Engineering Ltd as sole Honeywell HVAC Solutions Partner, the broadest range of technological solutions has opened up in the Republic of Ireland.

Honeywell’s reputation for quality and reliability is second to none, while McCool’s established position in the Irish building controls industry, with branches in Dublin, Cork and Limerick, ensures a strong and healthy working relationship with all existing and future customers.

If you would like to know more contact:

McCool Controls and Engineering Ltd,
Unit 12 Docklands Innovation Park,
East Wall Road, Dublin 3.
Tel: 01 - 855 0542; Fax: 01 - 855 0546
Cork – Tel: 021 - 438 2055
SystemLink — Revolutionising Building Management Control

SystemLink, established in 1997, designs, manufactures and distributes a range of new patented climate control products that are revolutionising how domestic and commercial heating and air conditioning systems are configured. SystemLink products generate significant savings and dramatically reduce the complexity associated with traditional methods of installing and configuring zoned heating systems. The company’s systems are suitable for installation in new and refurbished domestic dwellings, and all commercial and industrial buildings. The primary function of an energy management system is to create a satisfactory environment and, just as importantly, to provide data which may be used to minimise running costs. Cost benefits are a result of ensuring that energy is expended only when and where it is required. Deciding on how best to zone the facility is dependant on a number of factors, including position of doors, location of heating-generating equipment, whether air-conditioning is planned, the number and layouts of offices, etc. If air-conditioning is to be installed, it is critical that the energy management system can override any existing control of the units, to ensure that the EMS retains complete control of space heating and cooling. SystemLink’s approach is simple. A user-friendly PC interface is centrally located and available to authorised personnel, allowing instant monitoring and easy alteration of set energy management plans throughout the premises. The main information screens show all relevant data at a glance for all zones, including temperature setpoint, actual temperature and current status (heating or cooling). Heating plans may be designed as single plans, where one occupancy pattern is the norm over a 24-hour period, or as dual plans where occupancy in an area may vary over a 24-hour period. Desired temperature setpoints may be adjusted at individual zone stats, but only if the plan in that operation at that zone allows local control during that particular period. If it does not, the stat will display a “locked” message. Plans may be designed in table fashion or by drawing the desired setpoints on a 24-hour graph. Plans are allocated to zones by the user at the PC. Multiple buildings may be controlled from one PC, with communication between buildings by simple twisted pair wire or, more conventionally, by a modem on a standard telephone line. A modem is installed as standard in all SystemLink systems, so that software upgrades and diagnostics are possible without the necessity of site-visits. Remote control software allows SystemLink to determine in minutes what part of the complete heating system is causing the problem, so that the correct service agent can be identified immediately. Quality reporting of historical data is also critically important. Full data on each zone is graphed and stored for a period of 100+ days. It may be archived or printed. The cost depends entirely on how much control a client requires and over what equipment. One of the advantages of the SystemControl system is that it may be added to over a period of time without any difficulty so that the cost is spread over a longer period. The equipment types generally controlled are SystemLink units, air-conditioning plant, high load heat recovery units, ancillary boiler equipment, underfloor heating manifolds, and radiator valves. The EMS is also easy to install, using twisted pair wire that can be run in a simple manner. The complete network is low voltage and therefore completely safe to run, even on internal walls. Contact: SystemLink Dublin.
Tel: 01 - 466 4664; Fax: 01 - 466 4666. SystemLink Cork. Tel: 021 - 430 2476; Fax: 021 - 430 2477. Email: info@systemlink.ie; Web: www.systemlink.ie.
The Ultimate Solution for fire safety, security, access control and HVAC BMS applications.

Integrated management systems enable a building to be operated more easily and with greater efficiency, which helps to reduce operating costs and increase profitability. To find out how we can help you manage yours contact.

Siemens Building Technologies Ltd
Fire Safety, Avonberg Industrial Estate, Longmile Road, Dublin 12.
Tel. +353 1 450 8920 Fax +353 1 450 8862
Building Automation, Sirius Engineering Systems, 13 The Westway Centre
Ballymount Avenue, Dublin 12. Tel. +353 1 460 2600 Fax +353 1 450 7968
Tanaiste Opens Standard Control Systems' New Premises

The then Tanaiste, Mary Harney, TD, performing the official opening of Standard Control Systems new premises with Managing Director, Cormac Walsh in attendance

The new premises of Standard Control Systems at the Riverview Business Park, New Nangor Road, Clondalkin, Co Dublin were officially opened recently by An Tanaiste, Minister for Enterprise, Trade & Employment, Ms Mary Harney, TD. Speaking at the opening of the building — which features dedicated workstations and state-of-the-art communications to support the client base both in Ireland and abroad — Ms Harney said: “This investment by the directors represents a vote of confidence in the economy at present, and it will place Standard Control Systems in a good position to take advantage of the opportunities presented by the current economic climate, both here and in Europe.” Ms Harney said she was delighted to note that Standard Control Systems plans for the next three years include an expansion and diversification programme that should see the company grow by 50% on its current size. Standard Control Systems designs, engineers and supplies advanced computerised building control systems which monitor and accurately control all vital utilities and major items of plant such as heating, air conditioning, lighting, metering/monitoring and mechanical and electrical plant. Current operational territories for Standard Control Systems include Ireland, the UK, Europe and Russia, and their expertise is much sought after in the following business sectors — pharmaceutical, industrial, healthcare, educational, commercial, government and public services, and the IT sector.

Standard Control Systems have been at the forefront of using the latest technology to provide new products and services, and they are constantly looking at new areas to develop control systems. The company also provides after-sales service and has set up a sister company, Environmental Process Automation, dedicated to maintaining systems installed by the company.

Standard Control Systems have business partnerships with major companies overseas that have developed a high-quality, energy-efficient and environment-friendly range of products. The company has also gained extensive knowledge in overseas projects. Systems developed and built in Ireland have been exported as far away as Cadbury's and Kodak in Russia.

Standard Control Systems see Europe as a growth area in the coming years, especially since the introduction of the Euro.

Contact: Sean O'Toole, Standard Control Systems.
Tel: 01 - 429 1800;
Fax: 01 - 429 1801;
email: info@standardcontrol.ie

https://arrow.tudublin.ie/bsn/vol41/iss5/1

PAGE 32 B S N E W S M A Y 2 0 0 2
The Wraps Are Off

Daikin Europe’s unique new

VRV Plus Heat Recovery - R407C

The ONLY heat recovery system in the world that is connectable to
32 indoor units and utilises R407C refrigerant

This line up from 25kW to 90kW of cooling covers an
extensive range of 64 indoor units comprising 11
different types and 11 capacities.

For further details of the new range please
contact info@coolair.ie or Tel: 01 - 451 1244
Danfoss has introduced its latest line of AC adjustable frequency drives, the VLT® 8000 AQUA. The VLT® 8000 AQUA drive offers optimised design features and performance capabilities specifically designed for the demands of water and wastewater applications.

The VLT® 8000 AQUA enables one drive series to fulfill all water and wastewater needs. This drive provides both optimised variable torque operation, for maximum efficiency on centrifugal loads, as well as constant torque functionality. These user-friendly drives are designed to be used in both new construction and existing applications using standard motors.

The VLT® 8000 AQUA will communicate with SCADA, telemetry, PLC's and other controllers with its extensive I/O's, Standard RS 485, and optional Profibus, Modbus RTU, and DeviceNet communication cards.

The VLT® 8000 AQUA is easy to set up and operate, provides reduced maintenance, lower energy consumption, and increased system efficiency. Danfoss' unique Voltage Vector Control (VVC plus) principle eliminates the need for motor derating while comprehensive protection of drive, motor, and process equipment is provided.

The VLT® 8000 AQUA can operate with 1,000 feet of motor connected without needing additional filters, and has integrated harmonic distortion protection.

The rugged VLT® 8000 AQUA continues to operate where other drives fail; operating outside the normal constraints of ±10% voltage and 0-40°C temperature, capable of operating under phase loss conditions, withstands switching on the input and output, and handles long motor leads of 1,000 ft as standard.

Plus, the drive can be programmed to auto-restart in the event of power loss. Special features include — Automatic Motor Alternation (allowing one VFD to alternate between two pumps); quick set-up mode for easy commissioning; removable 4-line alphanumeric keypad with built-in Hand-Off Auto (H-O-A) control; AEO (Automatic Energy Optimizer) for increased energy savings; Auto-ramping to prevent nuisance tripping; and Sleep mode (automatically turns off motor when load conditions are minimal) with boost function to prevent short cycling.

Additionally, a special option card is available for cascade control of pumps and fans allowing for control of up to five pumps or fans in either all variable speed configurations or mixing variable and constant speed.

VLT® 8000 AQUA drives are available in IP20 (NEMA 1) or IP54 (NEMA 12) enclosures; 200-240 VAC input 4 – 45 kW (5 to 60 HP), 380-440/480 VAC; 4 – 400/500 kW (5 to 600 HP), and 550-600VAC 1.1 – 220 kW (1.5 to 300HP).

Danfoss is a leading producer of VFDs and other precision electronic equipment including flow meters, dissolved oxygen sensors, nutrient sensors, and level and pressure controls.

Danfoss created the VLT® name when it introduced the world's first mass-produced VFD in 1968. The name has set the standard for quality drives ever since.

Contact: Brian F. Maguire, Danfoss Ireland Ltd.
Tel: 01-626 8111;
email: marketing@danfoss.ie;
Web: www.danfoss.com
Idrosplit is a small water chiller, which connects to your boiler and central heating system to provide both heating and cooling.

THE REVOLUTION IN HOME AIR CONDITIONING

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Fax: 0044 2890 706 901
e.mail: sales@ucr.co.uk
Siemens has been to the forefront of building management technology for many years, introducing innovative new products and technology on a continuous basis. Typical examples of recent developments are Desigo, AlgoRex Fire Sensor, SED2 and the new actuator damper range. Brief details of each are as follows:

Desigo is the new generation of building management systems from Siemens Building Technologies. It covers all applications and all degrees of complexity, from the smallest buildings to widely-distributed complexes. With the modular structure of Desigo Insight, the system can be expanded at any time. An outstanding feature is the consistent application of industry standards in the system structure and components. The software is designed for Windows NT & Windows 2000 standard 32-bit technology, allowing full use of these operating systems. The use of BACnet, LON and Ethernet TCP/IP communication technologies provides maximum flexibility to respond to changes in building use, and helps make better use of manpower. The management station provides powerful, dynamic animated graphics, data analysis and exchange of data with third parties. The open system architecture makes Desigo compatible with all existing and future Siemens Building Technologies automation levels. The AlgoRex fire sensor system comprises a coordinated line of detectors, control units and control panels capable of providing each customer, each application and each environment with the most suitable, cost-optimised protection system. The multi-criteria smoke detectors combine optical smoke detection and heat detection according to the rate-of-rise principle, and a unique feature, neutral network signal evaluation. All AlgoRex smoke detectors employ the same base and, where necessary, can be exchanged simply and cheaply. Detectors which operate by radio transmission are available if cables cannot be installed. Siemens Building Technologies has also introduced a new mid-range of damper actuators. The OpenAir rotary air damper actuators, which include non-spring and spring return versions, have been distilled into three ranges to suit all applications. Available is a choice of 90° rotary actuators with torque ranging from five to 35Nm, together with linear versions providing torque forces ranging from 125 to 440N. Operating voltage is AC24V or AC230V, delivering 2-position, 3-position or analogue (DC0...10V) control signals. The pre-wired actuators are driven by brushless d.c. or synchronous motors, thereby ensuring low power consumption, low operating noise, a high standard of reliability, and long service life. Completing the recent introductions is the SED2. This is the first variable speed drive to be designed and built by a building management controls company. A combination of over 100 years industry experience and the latest technology have been used to achieve a variable speed drive designed specifically for HVAC applications. The SED2 incorporates a universal keypad throughout the 0.37 kW to 90 kW range, enabling fast and easy commissioning and simple operation for the user. Two keypads are available — Basic Operator Panel (BOP) supplied as standard and Advanced Operator Panel (AOP).
With an all new controller and keypad range, the UNITRON 2000 system delivers fuss free installation and low lifetime operating costs. And because you are moving with the times UNITRON 2000 is TCP/IP ready. Serving information by intranet, extranet or the web direct from your building management systems. What could be easier?

For further information contact John O’Driscoll today on 01 2450500

Experience tomorrow’s control today
Dedicated Residential Heating & Cooling System From Heatmerchants

In response to growing consumer interest in air conditioning systems, Advantica and Unionaire International have formed a unique alliance to promote and sell an integrated residential cooling package through Irish distributor Heatmerchants. The Idrosplit comprises a small electric chiller, which can be used alongside a standard domestic boiler and central heating system to provide year-round comfort. Modern fan coils replace conventional radiators to provide high-efficiency heating and cooling.

The Idrosplit system has already been installed at a number of locations and is ideally suited to new build applications, but can just as easily replace an outdated or inefficient central heating system in an old property, to provide a modern solution to home comfort needs. Installation is straightforward and does not require a trained refrigeration engineer.

According to the manufacturers, Idrosplit offers the most cost-effective year round comfort solution for residential homes. Utilising the central heating infrastructure reduces the installed cost, while the selective provision of cooling means that the running costs are also reduced. The environmental impact is also minimised by circulating only water to internal fan coil units and using a small amount of R407c refrigerant.

Contact: Macartan McCague, Heatmerchants Dublin.

Contact: Siemens Building Technologies.
Tel: 01 - 450 8920; Sirrus Engineering Systems.
Tel: 01 - 460 2600.

Contact: Heatmerchants.
Tel: 01 - 616 0510;
Mobile: 086 - 259 3085;
email: macartan.mccague@heatmerchants.ie
Eamon Kent, Heatmerchants Waterford.
Tel: 051 - 877 304;
Mobile: 086 262 8868
In an era when private individuals and corporations alike are under pressure to reduce energy waste, both for cost and environment reasons, zoned central heating is the solution. Providing heat to the areas of a home, or commercial buildings, only when it is required — and controlling both the ambient temperature and hot water generation — is obviously energy-efficient. SystemLink is designed to do just that.

Since July 1998 zoning is a requirement by law in all new buildings. In addition, where a building is over 100sq m, provision must also be made for time and temperature control for both living and sleeping areas. SystemLink energy-saving solutions provide the answer to these problems.

**SystemZone**
A water distribution manifold which eliminates the need for a complex piping systems

**SystemLex & MiniLex**
Pre-configured wiring centre for multi-zone heating and cooling systems

**SystemLink**
Offers flexibility of zone heating and cooling without the need for elaborate valve arrangements so it is the easiest system available to design and install

**SystemControl**
For commercial and industrial applications, SystemControl provides maximum comfort at minimum cost. Is your business competitive? Improve productivity and cut cost by installing a SystemControl energy-saving solution

SystemLink Ltd, Unit 4, Cookstown Industrial Estate, Tallaght, Dublin 24.
Tel: 01-466 4664; Fax: 01-466 4666; email: info@systemlink.ie
Web: www.systemlink.ie
Changing Rooms at Cylon Controls

**Unitron UCU series at a glance**

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<td>VAV terminal units</td>
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<td>3-speed FCU</td>
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<td>Chilled ceilings etc.</td>
<td>UCU8</td>
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Nothing to do with the TV programme, yet Cylon Controls now have the ability to change the way room control matches your needs for each room in a building.

With the introduction of a much wider range of programmable UCU room controllers for the Unitron control system, control strategies can now be tailored to match every need of a room occupant. Variants for VAV terminal units are well established, recently enhanced with a general-purpose version that has proven especially suitable for the new trend towards chilled ceiling applications. These are now joined by controllers tailored for fan-coil units with single or 3 speed fans, with their flexible programming allowing for air volumes to finally be used as a control element in a room strategy. Never before has room control been so flexible, allowing full reign for the imagination of specifiers and end users alike.

Even better news is that the entry cost for this highly adaptable room control has reduced significantly as production volumes have increased, now competing favourably with the more established fixed function controllers that occupants have come to accept in recent years, a factor which Cylon have been keen to pass into the market.

So which applications might benefit from this evolutionary room control? Imagine an office where the environment takes care of itself to the point where occupants barely notice the air conditioning as it matches their needs so ideally. Not only in the ventilation, temperature or humidity control, but also including the lighting. No obtrusive knobs and switches to twiddle on the wall either, as Cylon’s Unitron WebLink allows control of your environment through your company Intranet straight from your PC desktop. This isn’t future perfect; it’s available now from Cylon Controls.

Even better that with virtually maintenance free design, the times when engineers are opening the units or the ceiling over your desk will be rare indeed. You’re more likely to see engineers wandering the building with their Palm™ handheld, monitoring and adjusting performance with technology, not screwdrivers or hammers!

UCU series controllers are compatible with the full range of Unitron controllers, for new installations or expanding existing sites. Contact Cylon Controls or your local Approved Cylon System Integrator to meet your building control needs.

Contact: Cylon Controls
Tel: 01 - 245 0500;
Fax: 01 - 245 0501;
Web: www.cylon-controls.com

With the introduction of a much wider range of programmable UCU room controllers for the Unitron control system, control strategies can now be tailored to match every need of a room occupant.
The multi-featured VLT® 2800 compact frequency converter

Big is not always beautiful. The compact VLT® 2800 drive from Danfoss proves the point. The Danfoss VLT® 2800 is the most compact, feature packed frequency converter on the market. It is purpose designed for side by side mounting in any attitude and offers a wealth of standard software and hardware features usually only found on larger units. The unit is available in 0.37-1.5kW - single phase (200-240V) to 0.55-18.5kW - three phase (380-480V). Don’t wrestle with slower, bulkier alternatives, call Danfoss today for more information on the full range of Danfoss VLT® Drives from 0.37-500 kW.

Danfoss Ireland Ltd, Nangor Road Business Park, Dublin 12
Tel: 01 - 626 8111; email: marketing@danfoss.ie or visit www.danfoss.com

VLT® is a trademark of Danfoss A/S
Honeywell Enterprise Building Integrator™

Honeywell Enterprise Building Integrator™ (EBI) lifts enterprise performance to another level. It is a powerful suite of integrated facility management solutions harnessing complete control of an entire facility. Providing a single, seamless, sophisticated control and information base for all building management systems, EBI integrates with other business processes to yield a high return on investment and drive growth through improved productivity and efficiency-gain.

It is the first solution that effectively manages day-to-day operations while providing decision-makers with unprecedented insight into how their facilities are performing.

**Integrated control of core building systems** — EBI provides control of all core building systems — services, security, data capture, asset location and compliance — as well as unrivalled integration of real-time and historical information from different enterprise subsystems. These include key business functions such as manufacturing and process automation, financial and HR databases, environmental controls, and supply chain databases. It can also link to existing systems so preserving earlier investments.

EBI’s open architecture provides a “window” to all data and operations, enabling users at all levels to manage key performance indicators such as reduced operating costs, asset utilisation, optimal maintenance and improve productivity through reliability and reduced downtime. Armed with this information, senior executives can integrate facilities management into their growth strategy; critical decisions can be made quickly, with positive effect on operating margin.

The EBI system technology has been developed alongside Honeywell's Industrial Solutions, which have a well-proven track record around the world in mission-critical applications. EBI is scalable to the size of an enterprise and easily expanded as the organisation grows or becomes more sophisticated.

It uses PC-based client server LAN/WAN-based architecture on Windows NT to provide cost-effective connectivity to any enterprise data infrastructure without the need for proprietary IT hardware. This means that databases and applications can be integrated to provide various local, network and internet client access to monitoring, control, past performance and management reporting/compliance. Each integral software application manages a particular facet of a building, yet works in tandem with the others to cover a total enterprise:

- **Building Management** — integrates and controls HVAC, lighting, hydraulic and energy systems, products and (sub)systems;

- **Security Management** — integrates control and monitoring of electronic access, security management and CCTV at one or more installations. It provides centralised alarming, cardholder management and the ability to acquire and use data from HR databases. It has comprehensive reporting capabilities with pre-configured standard reports as well as the ability to create reports customised to customer needs;

- **LifeSafety Management** — provides primary monitoring and full control of a building's life safety functions, including smoke and fire detection, sprinkler supervision and emergency communications. Its combination of event information, response prompting and tracking, make it an exceptional incident management and regulatory compliance tool;

- **Asset Locator** — monitors real-time location and status of equipment and people for improved asset utilisation and management, more productive personnel and enhanced safety and security;

- **Digital Video Manager** — a scalable, digital closed circuit television surveillance solution that sets new standards in flexibility and performance. Integration with EBI allows for event and alarm activated recording so as to capture the footage needed, when it is needed most. Video images are stored in the DVM database for quick and easy location/viewing using the solution's advanced search capabilities; Whether a school, factory, financial institution, manufacturing plant, hospital or office complex, EBI provides customer centric solutions that guarantee delivery of the information needed to advance productivity and efficiency across an entire enterprise.

Contact: McCool Controls, Dublin. Tel: 01 – 855 0542; McCool Controls, Cork. Tel: 021 – 438 2055.
Fläkt (Ireland) Ltd, part of the worldwide Fläkt Woods Group, is now well established in the marketplace following the merger between ABB Air Handling and Woods Air Movement in February of this year. As part of the Fläkt Woods Group, it has extensive global support and provides a wide range of products and systems for all air handling requirements. The group also owns other strong brands including Solyvent Ventec and American Fans. The Fläkt Woods Group has operations in more than 30 countries, employs over 4000 people and has a turnover in excess of €600 million. It operates through five main business areas — Indoor Climate; Air Distribution; Fans — Building Services and Industrial; Fans — Heavy Duty; and Components. The combination of Fläkt and Woods has strengthened both companies relationships with business partners around the world, and here in Ireland. Fläkt (Ireland) has strengthened its relationship with both Siemens and Cylon — two of its main business partners. The range of industrial and domestic Siemens Landis & Staefa Controls still forms an integral part of Fläkt's product portfolio. Siemens was delighted to transfer its agreement to Fläkt and hopes to continue a long business relationship with the Fläkt Woods Group. Fläkt offers a wide selection of Siemens domestic and industrial controls and has a widespread wholesaler and heating and plumbing customer base nationwide.

Management Systems also form an important unit of Fläkt's portfolio. Cylon is also pleased to carry over its agreement to Fläkt as previously held, and hopes to continue its successful relationship with Fläkt. Both Cylon and Siemens are developing OEM relationships, and are looking towards developing this for the future. Fläkt (Ireland) still carries the following brands as previously held with ABB — Climaveneta Chillers, Dirivent Ventilation and all of former ABB Ventilation Products. Additionally, the Woods range of fans is now a part of its product portfolio.

For more information about these products and the entire Fläkt Woods portfolio, check out website www.flaktwoods.com. The following are the

**Specialists In:**
- Climaveneta Chillers
- Landis & Staefa Controls
- Domestic & Industrial
- Cylon Building Management Systems

**Manufacturers of:**
- Air Handling Units
- Fan Coil Units
- Air Terminal Devices
- HVAC & Industrial Fans
- Dirivent (Warehousing) Systems
- Woods Fans

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Spiralling Fuel Costs Drive €114 Million Increase in Energy Spend

The total energy spend by the industrial and commercial sectors in Ireland has increased by almost €114 million as a result of spiralling fuel costs. That is according to Peter Brabazon of Sustainable Energy Ireland who was speaking on the opening day of Energy Show 2002 in the RDS in Dublin recently.

The Energy Show 2002, organised by Sustainable Energy Ireland (formerly the Irish Energy Centre), is the major two-day national showcase for energy efficiency and renewable energy in Ireland, combining workshops and exhibitions.

Speaking at the show, Mr Brabazon urged all sectors of Irish society — and in particular large industrial users of energy in Ireland — to increase their efforts to tackle the levels of energy consumption in Ireland, and the resulting emissions of harmful greenhouse gases such as carbon dioxide.

Sustainable Energy Ireland estimates that the potential energy savings by the industrial and commercial sectors in Ireland could be over €107 million, through the widespread adoption of innovative energy-efficient practices and technologies. Over 80 companies representing products and services which will assist in this endeavour participated in the Energy Show 2002.

The show was officially opened by Professor Frank Convery, Chairman of Sustainable Energy Ireland, who said: "Innovation begins with ideas, and in a way that is what this show is about. It is a showcase for the business community and the rest of us to see, meet and discuss ideas for the future in a rapidly-changing world. The energy sector in Ireland — both in regard to supply of conventional and renewable energy, and demand management in its various manifestations — will only prosper if there is an innovative, dynamic and competitive business sector driving it."

Professor Convery also spoke about the need for a greater uptake in Ireland of renewable energies. "Every year consumers in Ireland spend over €5 billion on energy. Today almost all of that energy comes from fossil fuels — gas, oil, coal and peat. Ireland is the most import-dependent country in Europe for energy — importing 86% of the fuel we currently use to meet our energy needs. In contrast, however, while Ireland is richly endowed with renewable energy resources, we have yet to make full use of these resources."

He added: "Action needs to be taken to reverse this situation and to encourage the greater deployment of renewable energy resources in Ireland. By increasing our use of alternative renewable energy resources, we can achieve a more secure and stable energy supply for the long term."

Sustainable Energy Ireland, formerly the Irish Energy Centre, was established on 1 May 2002, as a Statutory Authority charged with promoting and assisting the development of a sustainable national energy economy. It has offices in Dublin, Cork and Sligo with a Renewable Energy Information Office located in Bandon, Co Cork.

Sustainable Energy Ireland is funded by the Irish Government under the National Development Plan 2000-2006 with programmes part-financed by the European Union.
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