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### BS News

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et al.: BS News

# BSNews

MECHANICAL & ELECTRICAL BUILDING SERVICES

DECEMBER 2004

*Seasons greetings  
to all our readers*



**3D Air Sales (Ireland) Ltd,**  
Unit 8 Greenhills Business Centre,  
Greenhills Industrial Estate, Tallaght, Dublin 24.  
Tel: 01 - 462 7570 Fax: 01 - 462 7611  
email: micclan1@eircom.net [www.3dair.co.uk](http://www.3dair.co.uk)



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# BSNews

MECHANICAL & ELECTRICAL  
BUILDING SERVICES

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**READERSHIP DATA**

BSNews (formerly Irish Building Services News) is Ireland's only dedicated Building Services magazine providing coverage of heating, ventilating, air conditioning, refrigeration, sanitaryware, plumbing, maintenance, energy and environmental industries. It is the only publication catering exclusively for these industries and its circulation includes members of the following:-

Chartered Institution of Building Services Engineers (CIBSE); The Mechanical Engineering & Building Services Contractors' Association (MEBSCA); The Association of Consulting Engineers of Ireland (ACEI); The Mechanical Engineering Contractors' Association; The Institute of Domestic Heating Engineers (IDHE); The Institute of Plumbing; The Register of Environmental & Gas Installers of Ireland (REGII); The Irish Home Builders Association (IHBA); Builders Merchants/Trade Supply Outlets; Irish Property & Facilities Managers Association.

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

**OPINION**

## Lack of Margin Compounded by Raw Material Cost Increases

At a time when all sectors of the building services industry are suffering from margin erosion, an already difficult situation is being further compounded by steep rises in the cost of raw materials. For instance, recently-published Metal Exchange indices show that, during 2004 alone, the price of steel has risen by more than 50%; that for copper by 45%; and aluminium by 15%.

These raw material price increases have impacted on virtually all building services sectors, but most notably on the refrigeration and air conditioning industries. A substantial percentage of the materials used in any chiller unit are copper, steel and aluminium. As a result of these sharp cost increases it should be inevitable that chiller and other HVAC equipment manufacturers' product prices will also rise. Nonetheless, such is the price-driven nature of building services in Ireland that this is not happening.

Surely in the face of the foregoing everyone in the marketplace should not just be holding prices, but significantly increasing them. Yet the reality is one of still falling prices. It is imperative that this insanity stops. Unless the industry itself puts a genuine value on the products and services it provides, it cannot expect those who benefit from the fact to do anything other than take full advantage.

### SEASONS GREETINGS

BSNews wishes all our advertisers, contributors and readers a very happy, peaceful Christmas and a prosperous New Year.

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AIR CONDITIONERS

Rules: Competition open to anyone over the age of 16. One entry per person. Entries must be received by 14/01/2005

## Another First For Sauter

For many years Sauter has been instrumental in pioneering innovative developments in valve drives, setting industry-standard benchmarks which others have sought to emulate. Thanks to Sauter Universal Technology (SUT), it has standardised its drive technology to simplify its application. Now comes news of yet another major breakthrough — a new generation of purely mechanical drives which allow more functionality than ever before with even fewer types.

Industry demand for ever-smaller drives with even better performance prompted Sauter to apply SUT technology to actuators with high pushing forces of up to 2500N. In doing so Sauter has created a new platform technology — with just one basic mechanical platform for all types of drive — which now forms the basis for the new AVM234, AVF234 and AVN224 generation of drives.

For instance, where 49 types were previously manufactured, only five are now required. Moreover, seven accessory components now take the place of the previous 45. Even more important still is that the extended functionality and modular structure of the new units makes for a possible 10,800 application variants as opposed to the 533 of the past generation.

This new generation of Sauter drives covers all required conditions of use. It will fit all other makes of valves and is IP66 rated, thereby allowing for installation in outdoor and other potentially wet applications without the need for a separate waterproof cover. The range includes device designs with mechanical or electrical manual adjustment and also with or without spring-return action, and with a safety function as per DIN 32730.

Another critical benefit of the new design is ease of installation. The patented drive valve coupling eliminates the need for tools as it will automatically connect the drive to the valve spindle on contact. The drives are also designed to be self-stroking. It could not be simpler.

Contact: Trevor Casey, EPH Controls.  
Tel: 01 - 021 - 434 6238;  
email: [trevorcasey@ephcontrols.com](mailto:trevorcasey@ephcontrols.com)



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## Bolton Street Students Excel



Ben Costelloe, Senior Lecturer, DIT Bolton St with Michael McEnerney, Chairman, Republic of Ireland Branch CIBSE, and Niall Tracey, winner of the CIBSE President's Prize at the presentation in London in October 2004

Niall Tracey, a 2004 graduate of the DIT Bolton St Honours Degree in Building Services Engineering, has achieved first place in the Chartered Institution of Building Services Engineer's President's Prize. This competition, for excellence in project work, is open to graduates of university level Building Services Engineering courses in the UK, Hong Kong, Ireland and Australia. Graduates from Hong Kong and London universities were placed second and third respectively.

Success in international competition is not new to DIT Bolton St. Graduates of this Honours Degree programme have

already achieved high placings in the two competitions open to building services engineering graduates. While the CIBSE President's Prize was won by Niall Tracey this year, Gavin Power was placed second in 2001 and Darren Walsh won first prize in 2000.

In the Heating and Air Conditioning Journal (HAC) Graduate Awards (an international building services engineering graduate competition) DIT Bolton St graduates have had remarkable success. Ruth Kelly and Ciara Ahern were placed first in 1999 and 2001 respectively and Eric Crowe, Emer Voyles and Brian Heffernan were placed in the final five in 2002, 2003, and 2004 respectively.

## Envirocare Triumph at Plan Expo

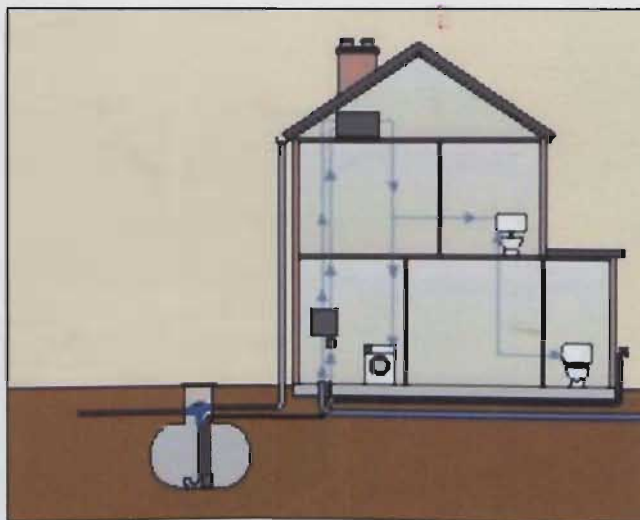
Envirocare, a leading supplier of sewage treatment and water management solutions, has recently won the "Best Sustainable Product" category for its Envireau Rainwater Management System at the recent PlanExpo.

In short, Envireau collects rainwater from the roof, filters out leaves and debris, and stores it in either an underground or above-ground tank. Tank capacities can vary from 3,000 ltr to 54,000 ltr with water drawn off via a silent running submersible pump, passing through a series of filters for use in a variety of non-potable applications as and when required.

When rainwater is not available the system automatically switches to mains water, thereby ensuring a constant water supply. With additional filtration rainwater may also be converted to potable use.

Standard features include silent-running stainless steel submersible pumps; a 3-stage filtration system; a display unit with level gauge and status indicator; an integrated control unit with plumbing; and electrical controls at a single point. Applications include houses, schools, supermarkets, petrol filling stations, hotels, horticulture centres and many others. Using its bespoke computer programme, the Envireau technical team can design a tailor-made scheme optimising storage capacities and detailing the likely financial savings.

An "Economy" version is also available for roof areas up to 100 sq m and can be used on buildings up to two storeys high. It has been specifically designed for the self-build, volume house builder and Housing Association markets.



A typical schematic of the Envirocare Envireau Rainwater Management System



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[www.consolidatedpumps.com](http://www.consolidatedpumps.com)



## New VRF Products From LG



LG has unveiled a whole portfolio of new products such as the Universal outdoor unit, Multi M, Multi F (Fdx), Multi V VRF, Ecovent and a wide selection of suitable and adaptable controls which will come on stream over the coming months.

Complementing this development is a new training and technical support programme. To begin with, LG will open its own dedicated Training Academy in the early part of 2005 in a bespoke building local to its UK headquarters. The LG Training Academy will offer all types of courses, ranging from basic introduction through to advanced commissioning and trouble-shooting.

"We see training as essential if we are to meet and anticipate market needs", says Austin McDermot, Managing Director of Core Air Conditioning, LG's distributor for Ireland, "and this continuous development — to all recognised standards — is an integral part of our long-term approach".

The LG corporate strength includes dedicated research areas such as SR motor and controllers; linear compressors; multi-split wall mounted types; internet central controller; plasma heat exchanger; and heat recovery ventilators. The company's own €70 million dedicated research and development centre in Seoul features r&d labs for high elevation environment; psychrometric testing and quality. In fact, LG spends in the region of €4.5 million every day on product research and development.

LG's manufacturing process of its air conditioning product range centres on vertical integration with all key components — such as heat exchangers, compressors, PCBs and motors — manufactured by LG.

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

## Greenline Bund Guard For Manotherm

The newly-available GreenlineBund Guard from Manotherm was designed for use in bunds around oil filled tanks, plant or machinery. It comprises an automatic pumping system which discriminates between oil and water, allowing clean water to be pumped away leaving oil safely contained.

A bund must be water-tight to fulfill its purpose and will inevitably collect rainwater. Oil will float on top of the retained water and, if the bund contains too much water, the oil may overflow the wall and pollute the surrounding area.

Already well-proven as reliable and cost-effective, it is a low-maintenance system which can be linked to other remote-monitoring and alarm systems.

Also new from Manotherm is the Greenline Separator Alarm. Time-wasting

inspections and unnecessary emptying are completely eliminated with this new device. The electronic system constantly monitors the level of oil in the separator, automatically gives a warning when pre-set levels are exceeded, and so replaces the inconvenience and uncertainty of visual inspections.

As the most advanced unit of its type, the Separator Alarm uses microprocessor technology with BASEEFA approved intrinsically safe circuitry for use in Zone 0 (hazardous areas). The system can be adapted to suit any size and make of separator, is self-contained, and easy to use.

Contact: Bob Gilbert, Robert Gilbert or Noel Walsh, Manotherm.  
Tel: 01 452 2355;  
email: [info@manotherm.ie](mailto:info@manotherm.ie)





## Double Quality Marks for Delta Filtration



Delta UltraSeal Bag Filter

Delta Filtration's Delpleat Delta UltraSeal Bagfilters have been determined to comply with the requirements of Underwriters Laboratories Inc and are classed as UL900 Class 2. Delta Filtration now has the authorisation of Underwriters Laboratories

Inc to carry the UL logo on these products.

In another related development Delta Filtration has been authorised to carry the "Guaranteed Irish" logo on all its own-manufactured products.

This is timely news for Delta Filtration as it has

just completed a major expansion of its factory space to include a new warehouse facility in Kilmallock town, bringing the total factory space to 120,000 fsq ft.

Coinciding with this expansion is the installation of a new state-of-the-art mini-pleating machine. This new machine, from Samsung in Korea, has the ability to mini-pleat both glass paper and synthetic filter media and will double the existing output of mini-pleated filters. The machine is currently being bedded in at the factory in Kilmallock and full production will commence in January 2005.

Contact: Donal Lynch, Delta Filtration.  
Tel: 063 - 98829;  
email: [d.lynch@deltafiltration.com](mailto:d.lynch@deltafiltration.com)

## DDDA Appoints McLaughlin



Dublin Docklands Development Authority has appointed John McLaughlin as Director of Architecture. He joins from Building Design Partnership (BDP) in Dublin.

# Believe



**1 in every 7 air conditioners sold globally is an LG unit**  
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**Core Air Conditioning Tel: 01 - 409 8912**

LG Distributor for the Republic of Ireland





## 3D Air Sales Joins HRP Group



HRP Managing Director Mandy Pirgrim pictured with John Roe, Managing Director 3D Air Sales and the directors of the new combined operation, including Michael Clancy from 3D Air Sales (Ireland)

3D Air Sales Ltd, the specialist distributor of Mitsubishi Heavy Industries air conditioning products, has joined leading refrigeration and air conditioning wholesaler HRP Group Ltd. In

announcing the completion of the acquisition, HRP Managing Director, Mandy Pilgrim, paid tribute to 3D's success: "3D has been extremely successful over the last seven years in

establishing Mitsubishi Heavy Industries as a major brand of high-quality split and VRF air conditioning systems. Their skills, knowledge and experience as a specialist distributor will combine well with the outstanding wholesale and distribution operations of HRP."

John Roe, Managing Director of 3D said: "HRP and 3D are ideally placed to take advantage of the huge potential now presented for dramatically-increasing split system and VRF sales, with a full range of competitive, top specification Mitsubishi Heavy Industries

products. This opportunity also extends to expanding specification sales through consultants, developers and national accounts."

Michael Clancy, Managing Director of 3D Air Sales in Ireland, is equally enthusiastic about the development. He now joins the new board of directors and will play a major part in the development of the combined operation as a whole, in addition to specifically looking after the Irish marketplace.

Contact: Michael, Clancy, 3D Air Sales (Ireland).  
Tel: 01 - 462 7570;  
email: micclan1@eircom.net

## Ganly's Choose Unico

Having assessed the overall mechanical and electrical requirements for the recently-opened 9600 sq m (100,000 sq ft) Ganly's Home Value Hardware store in Athlone, heating consultant Harry Rea proposed the Unico System to the consulting engineers Curley Smith & Associates.

With separate bathroom, heating, tile, household, lighting and electrical showrooms each requiring individual heating and cooling, the need for a high-performing, flexible, solution was paramount.

The Unico System fully integrates with the overall interior design

concept of the store and the interior design of the various showrooms. It is virtually silent in operation and delivers both heating and air conditioning, combined with fresh air, through small unobtrusive outlets at ceiling level.

The compact modular air handlers fit conveniently into the ceiling void and, when combined with system zones and modulating condensing gas boilers, deliver a solution that is ideal for the application.

Contact: Eamonn Fidgeon, EJ Fidgeon.  
Tel: 044 - 84883  
email: ejfidgeon@ejfidgeon.com



Keith Simpson and Associates (KSA), one of Ireland's leading planning consultancies, has been chosen as the 2004 winner of *The Sunday Times* Power100 Company of the Year and Supplier of the Year for small and medium enterprises.

*The Sunday Times* Power100 Index is a national competition which identifies the top 100 companies in Ireland. It is jointly run by *The Sunday Times* and market research company Deep Insight.

KSA is a full-service planning consultancy which was established in February 2000 and is based in Swords, Co Dublin. It has a multi-disciplinary professional staff covering a wide range of disciplines.



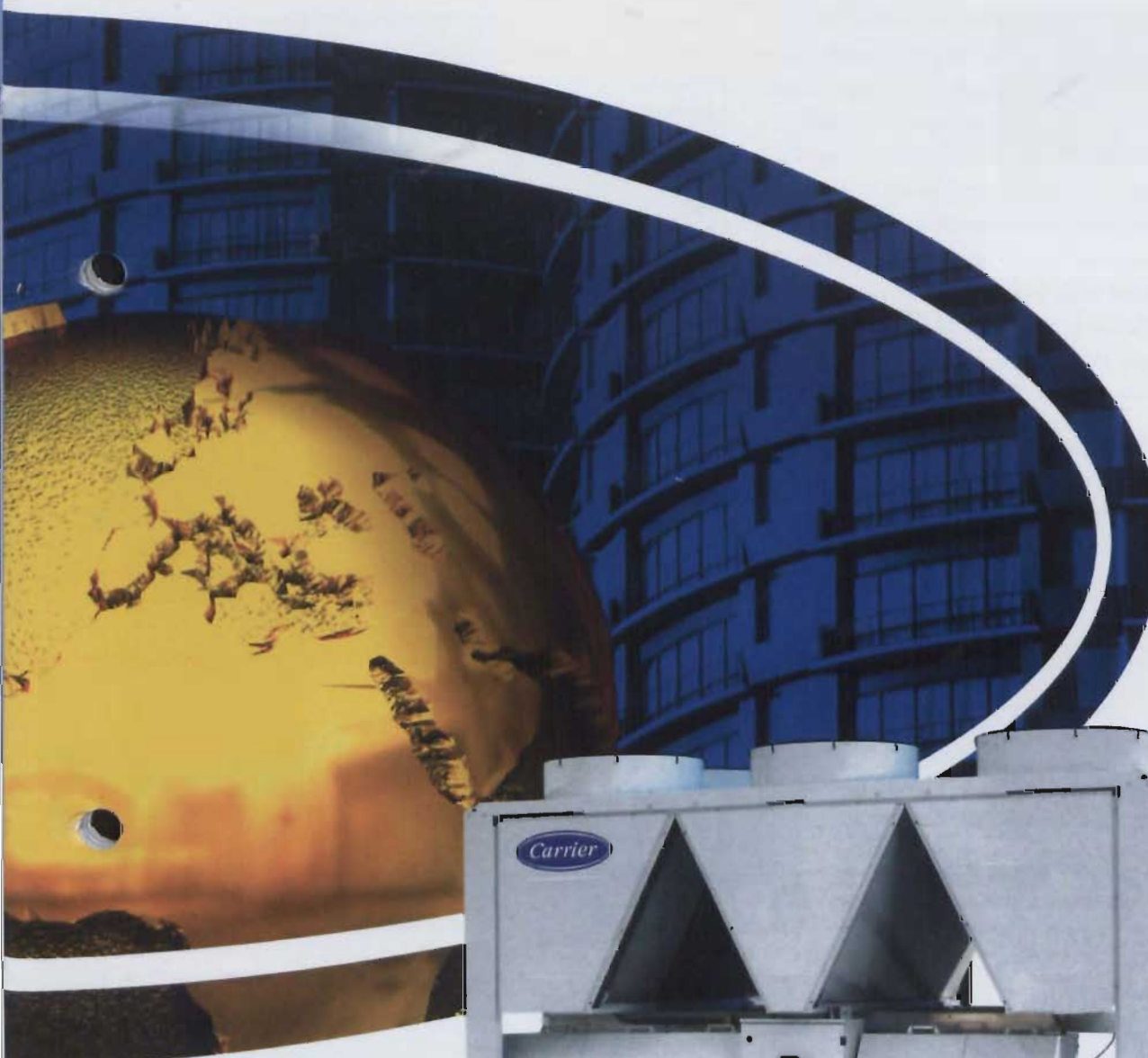


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## Interclima + Elec Home & Building

Interclima + Elec home&building is an innovative new trade event that covers all the trades involved in finishing and smart buildings. It is the product of two major events in the building services sector — Interclima and Elec Home & Building — which focuses on electrical installation and smart buildings.

The objective of Interclima + Elec home&building is to offer decision-makers in the field of residential, service sector and industrial building a comprehensive range of complementary technical solutions covering requirements in the fields of comfort, hygiene, energy performance, protection of the environment, safety and security, and the integration of communication systems and multimedia networks.

Held in conjunction with Idéo Bain, Interclima + Elec home&building will take place from 31 January to 3 February 2006 at Paris Expo Porte de Versailles.

## RDL Seeks Sales Manager

Refrigeration Distributors Ltd, one of Ireland's leading wholesale refrigeration companies, has an immediate vacancy for a highly-motivated person to cover the area north of Galway to Wicklow (including Northern Ireland).

A generous remuneration package is on offer to the successful candidate who will have had prior experience in the refrigeration industry.

Replies in confidence to:—

Pat Cummins, Managing Director, RDL, UJ2 Marina Commercial Park, Centre Park Road, Cork.

## MRS Monitoring Devices

Slaney Direct has been appointed distributor for MSR Electronics gas monitoring products and systems for building automation for Ireland. MSR has been at the forefront of this market segment for many years, its innovative product ranges including gas leak detection systems for refrigerants, natural gas, propane, putane and LPG, along with individual transmitters for sensing: carbon monoxidedioxide; nitrogen oxide; ammonia; combustion gases and oxygen

Products are available with analogue or digital outputs and are designed for stand-alone operation or integrating into a building automation system.

Other features include options with LCD display, as well as versions with Lonworks and radio communications.

Applications include car parks and tunnels, garages, refrigeration plants, laboratories, heating systems, offices and assembly areas.

Contact: [slaneydirect.co.uk](http://slaneydirect.co.uk)

## Whelan Corcoran Smith Move

Award-winning architects Whelan Corcoran Smith celebrated 25 years in business recently, along with their move to new hi-tech offices in Swords, Co Dublin.

Addressing a crowd of around 250 guests, An Taoiseach, Bertie Aherne TD congratulated Whelan Corcoran Smith on their success and on the significant input the firm has had on the architectural make-up of North County Dublin and surrounding areas.

Whelan Corcoran Smith are currently embarking on number of major commercial construction projects with a combined value in excess of €60 million in Swords alone, and projects valued at over €200 million in the Greater Fingal area.



Gerry Smith with Ciaran Corcoran, An Taoiseach, Bertie Aherne TD, and Francis Whelan at the Whelan Corcoran Smith new premises in Swords, Co Dublin recently

## Honeywell Gets Sensitive

Honeywell has introduced two compact, self-calibrating wall sensors for CO<sub>2</sub> and dual CO<sub>2</sub>/temperature sensing. The new C7110 series sensors are more cost-effective than Honeywell's existing AQS series and can enhance the efficiency and versatility of building control systems while improving user convenience.

Their styling, physical dimensions and mountings are identical to Honeywell's established T7460 and T7560 series of wall modules, so ensuring aesthetic and physical compatibility. The simpler of the two new models has a CO<sub>2</sub> sensor while the other has sensors for CO<sub>2</sub> and space temperature monitoring.

This second model features a setpoint adjustment dial of the "Celsius Relative" type (-5 to +5 °C) which can be easily replaced with a "Celsius Absolute" type (12 to 30°C). This model also includes an occupancy bypass button and an occupancy LED; overrides can be triggered either by pressing the bypass button or controller's internal programming.

Contact: Honeywell. Tel: 0044 1344 656 443; email: [HVACProductsUK@honeywell.com](mailto:HVACProductsUK@honeywell.com)





# BTU At Woodbrook

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<b>Overall Winner</b>		Brendan Keaveney	(7)	39.5 Points
<b>Class 1</b>	0-12			
	1st	Michael White	(11)	36 Points
	2nd	John Lavelle	(8)	35 Points
	3rd	Michael Matthews	(6)	34 Points
<b>Class 2</b>	13-16			
	1st	Derek Whelan	(13)	37 Points
	2nd	Dave Cranston	(15)	35 Points
	3rd	Tony Gillen	(15)	35 Points
<b>Class 3</b>	17+			
	1st	Damien Mooney	(20)	34 Points
	2nd	Dan Chambers	(20)	34 Points
	3rd	Michael Murphy	(22)	33 Points
<b>Front Nine</b>		Ray Byrne		19 Points
<b>Back Nine</b>		Eamonn Walsh		20 Points
<b>Visitor</b>		Brendan Blake	(21)	36 Points



Tim O'Flaherty from sponsors Liberty Air Technology with John Lavelle (2nd, Class 1) and BTU Captain Gerry Tobin



Tim O'Flaherty from sponsors Liberty Air Technology with Brendan Keaveney, Overall Winner and BTU Captain Gerry Tobin



Tim O'Flaherty from sponsors Liberty Air Technology with Michael Murphy (3rd, Class 3) and BTU Captain Gerry Tobin



Tim O'Flaherty from sponsors Liberty Air Technology with Dan Chambers (2nd, Class 3) and BTU Captain Gerry Tobin



**A**s reported in last month's *BSNews*, the inaugural meeting of the Institute of Refrigeration of Ireland took place in the Lucan Spa Hotel, Dublin. Over 160 refrigeration and air conditioning professionals came together to celebrate the occasion which was sponsored by Refrigeration Technology Skillnet.

Having welcomed the attendees, the Network Manager, Enda Hogan, called on five people within the profession to give their views on the need for an Institute. They were Gerry McDonagh (RSL Ireland); John O'Leary (Brian A Flynn); Joe Grealy (Thermo King Europe); Jim Ffrench (Dublin Institute of Technology); and Paul Tingle (Tingle and Associates). Each gave a different perspective on the need for an Institute, representing wholesalers, contractors, manufacturers, educationalists and consultants respectively.

A common theme throughout their presentations was the

need for professionals within the industry to work together to make their voice heard. Decisions are being taken at national and European level with no direct representation from the profession in Ireland. Government departments and state agencies have had no organisation to go to in order to seek input from the profession.

As a result, policies, directives, regulations and standards have been imposed on members of the profession with insufficient forethought as to the practical and economic implications therein. Several speakers made reference to the Pressure Equipment Directive as a classic example.

Seamus Kerr, Chairman of Refrigeration Technology Skillnet, outlined the aims of the Institute and encouraged everyone within the profession to give it their full support. He stressed the fact that it is a learning organisation, a professional body made up of individual members, rather than a



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

trade organisation or interest group.

As such, it will draw its membership from across the profession, whether they are working for contractors, wholesalers, OEMs, consultants, end-users, state agencies or education providers. Membership will also come from every level of the profession, from apprentice up to managing director.

Five grades of membership will eventually be available — student, associate, member, fellow and honorary — though only the first three are open in the early stages of the development of the Institute. Detailed information on the criteria for membership and the application process will be distributed widely and is available from the Institute's new website at [www.instituteofrefrigerationireland.ie](http://www.instituteofrefrigerationireland.ie)

<<http://www.instituteofrefrigerationireland.ie/>> The website also gives general information on the aims of the Institute

which are:—

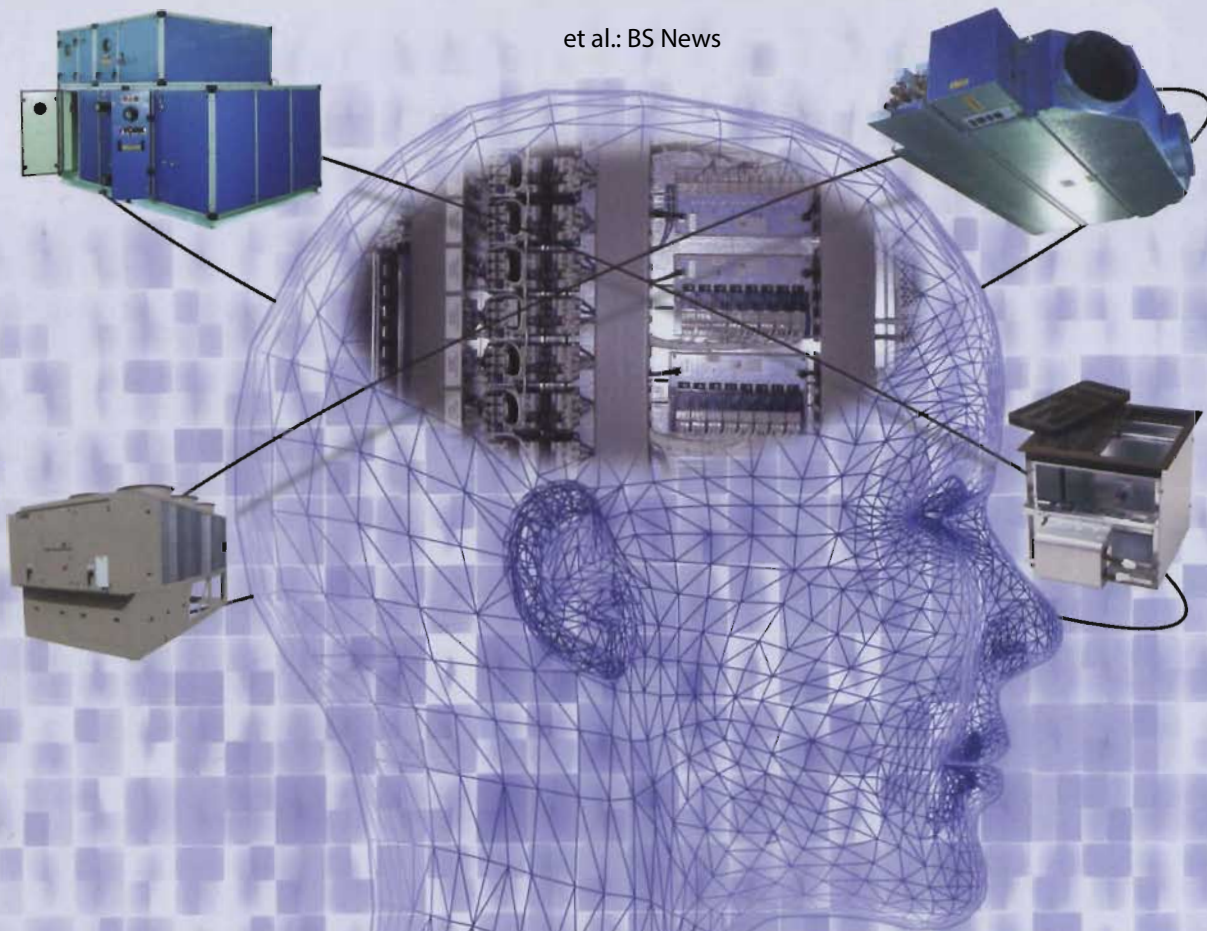
- To promote the general advancement of refrigeration and air conditioning applications;
- To pursue excellence in the provision of refrigeration products and services for the community;
- To provide members with continuing learning opportunities and a means of exchanging ideas;
- To provide members with networking opportunities;
- To establish and maintain standards of education, training and conduct;
- To ensure that the titles for members of the Institute of Refrigeration of Ireland are given to suitably qualified candidates;
- To speak as the authoritative voice of the refrigeration and air conditioning profession in Ireland.

Contact: Enda Hogan, Refrigeration Technology Skillnet.  
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 email: [enda.hogan@dit.ie](mailto:enda.hogan@dit.ie).



John O'Leary, Brian A Flynn with Don Hoban, Fridge Spares; John Ryan, REL; Allen Davies, Anglo-Irish Refrigeration; Mick Nolan, RDI; and Gerry Hoey, ISEP





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- optimised control levels
- reduced running and maintenance costs
- improved fault identification

Be intelligent, leave it all in the hands of York SmartPac

*\*for example, chillers, air-handling units, fan coil units, vav boxes etc*

[www.yorksmartpac.co.uk](http://www.yorksmartpac.co.uk)

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[andrew.mcevirt@ie.york.com](mailto:andrew.mcevirt@ie.york.com)

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# Combining Massive Output with Social Responsibility

**G**rundfos Pumps is one of the world leaders in pump technology, be it for domestic, commercial, industrial or process industry applications, as well as being a major supplier to the water supply and treatment industries.

As part of the Grundfos Group — which employs over 12,500 worldwide — it is forever striving to devise more efficient, high-performing, environment-friendly products. To this end it



The massive Grundfos manufacturing facility in Hungary

invests vast sums each year in research and development while, at the same time, doing likewise in respect of new manufacturing facilities and production techniques.

One of the latest such facilities to come on stream is its Hungarian factory which is located approximately 60 kilometres west of Budapest. *BSNews* recently visited the site and was instantly struck by the sheer scale of the operation. Expecting to find a pretty large facility, we discovered that we had totally underestimated the scale of the complex. What we encountered was not one but two operations —

called GMH1 and GMH2 — which can best be described as a significantly-sized industrial estate by Irish standards. In total, the covered area at the site — when offices, production, warehousing, etc is included — stands at staggering 110,000 sq m.

GMH1 is the Grundfos Group's European competence centre for the production of electric motors and motor components. It occupies 14,000 sq m and employs 143 members of staff. GMH2 is a competence centre for the production of block and inline pumps. It too encompasses 14,000 sq m and has a staff



This modern facility also houses its own dedicated R & D Department

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# Combining Massive Output with Social Responsibility



complement of 143.

Production output for the current year will be in the region of 300,000 stator and rotor units and 30,000 pumps with a value of approximately €65 million.

Moreover, during our visit to the complex Grundfos unveiled plans for the addition of a third factory standing on 7,000 sq m which is scheduled to come on stream next year. It will be dedicated to the production of submersible motors.

Another first is the extension of the Grundfos employment philosophy on less-able personnel. The complex in Hungary is the first Grundfos sheltered workshop outside Denmark. At present 27 less-able people work under special conditions in the sheltered workshop of GMH1.

Production from the Grundfos factory in Hungary forms a very important part of total output for the Grundfos Group. Founded in 1945, Grundfos is renowned the world over as market leader in quite a number of pump industry segments. For instance, it produces something like 10 million pumps (circulator, submersible



The Grundfos range is extensive and caters for every conceivable pump application

and centrifugal types) every year, along with considerable quantities of electric motors, and vast amounts of state-of-the-art electronics for controls for pumps and other systems.

As time unfolds production from Grundfos in Hungary will undoubtedly grow, confirming its standing as one of the more dynamic operations within the Group and also setting out the blueprint for future manufacturing developments in additional locations throughout Europe.

Production output for the current year will be in the region of 300,000 stator and rotor units and 30,000 pumps with a value of approximately €65 million (right).



The manufacturing process operates to the most advanced, quality-controlled production procedures



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# Energy Awards Reward Efficiencies

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With energy costs continuing to increase, greater energy efficiency is now an issue of competitiveness and a business imperative for all companies in Ireland, according to David Taylor, Chief Executive of Sustainable Energy Ireland (SEI), who was speaking at the first Sustainable Energy Awards in Dublin recently. Organised by SEI and sponsored by ESB Customer Supply, the Sustainable Energy Awards attracted an impressive 250 nominated entries.

The awards were devised to encourage, recognise and reward excellence in energy management in the industrial, commercial and public sectors. They focus on the individuals and groups who demonstrate a

commitment to introduce energy management as an integral part in the operation of their business, and provide an opportunity for organisations, regardless of size, to gain public recognition for their achievements in reducing energy use and emissions.

In an address to the award attendees, Noel Dempsey, Minister for Communications, Marine and Natural Resources, said: "I am impressed at the level of participation in the first year of the Sustainable Energy Awards. These awards show what can be achieved through concerted efforts to reduce energy demands and demonstrate that energy management has a lot to contribute at company level. It is also an opportunity to show that, together, we can



Coordinated Energy Management Programme: Overall Winner — Charles Chapman, General Manager, ESB Customer Supply, with John Ryan, Aughinish Alumina and David Taylor, Chief Executive, Sustainable Energy Ireland



Energy Manager of the Year: Winner — Charles Chapman, General Manager, ESB Customer Supply, with Martin O'Connor, Pfizer Ireland Pharmaceuticals, Little Island and David Taylor, Chief Executive, Sustainable Energy Ireland



Energy Service/Supply Company of the Year: Winner — Charles Chapman, General Manager, ESB Customer Supply, with Gerry Hamilton, Patina, and David Taylor, Chief Executive, Sustainable Energy Ireland

achieve national targets under the Kyoto Protocol".

In total, 18 Sustainable Energy Awards were presented across seven categories — Coordinated Energy Management Programme; Electrical Energy Project; Thermal Energy Project; Energy Awareness Campaign; Energy Service or Supply Company; Excellence in

Design or Specification; and Energy Manager of the Year.

The Energy Manager of the Year was named as Martin O'Connor from Pfizer Ireland Pharmaceuticals, Little Island, Cork while the Overall Coordinated Energy Programme of the Year award winner was Aughinish Alumina Ltd.



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119 Psalter Lane, Sheffield  
Yorkshire S11 8YR  
Tel: +44 (0)114 255 6451





## TOTAL ENERGY MANAGEMENT

**E**nergy management is a much-abused term, very often used indiscriminately by companies making all manner of spurious claims. Total Energy Management Ltd is an exception in this respect. To coin a phrase from that well-known TV advert, it does exactly as it says on the tin!

Principals Kevin Devine, Noel Conroy and Peter Sullivan lead a team of experienced, highly-qualified personnel — including a nationwide network of appointed installers — who provide a comprehensive energy management package embracing consultation, design advice, product selection, procurement, installation and commissioning.

Established just four years ago, Total Energy Management has brought a fresh approach to this fast-expanding market segment. Indeed its determination to concentrate on condensing boiler technology as far back as the year 2000 was a pioneering approach which, while ploughing a lone furrow at the time, has given it a head start on much of the competition now that condensing technology is more to the fore.

Critical to its success to date is the professionalism of the support services provided, along of course with the strategic choice of manufacturing suppliers (see panels opposite). All are brand-leading names with a proven pedigree in their respective areas of expertise. The complementary nature of the various ranges ensures that the overall portfolio offers comprehensive energy management solutions for virtually all possible applications.

This partnership approach also includes availing of the vast experience and technical resources of the principals when working on devising tailor-made solutions for specific projects.

Having just taken possession of a purpose-designed warehouse and office complex on the outskirts of Galway, Total Energy Management carries extensive stocks from all its suppliers, along with all relevant spares and accessories.

The premises also houses a lecture/workshop theatre where its own engineering personnel, along with those from its nationwide dealer network, regularly participate in training technology updates and product seminars.



James Ryan with Kevin Devine, Mary Mernagh and Peter Sullivan

This programme also entails groups travelling abroad to suppliers' headquarters for similar educationals.

As the foregoing clearly illustrates, Total Energy Management is a no-nonsense, professional operation that does exactly as the name implies ... devises and delivers total energy management solutions across the entire range of domestic and commercial building services requirements.

### Total Energy Management Ltd

Unit 9, Ballybrit Industrial Estate, Monivea Road, Galway  
Tel: 091 769174 Fax: 091 769485 www.tem.ie





## ATAG

With unit capacities ranging from 15kW to 60kW and up to eight linked for a capacity of 480kW. All ATAG boilers fully modulate their output from 16% to 100%. This has the effect of ensuring that boiler output continually matches the system load. ATAG modular condensing boilers cater for all manner of applications, from the smallest apartment to the largest of commercial applications including Hotels, Nursing Homes, Offices, etc.

TEM also supplies a complete hydraulic solution for cascading boilers for commercial installations similar to the photo shown above. The cascade management system will control the modulation of all boilers combined with the ability to control pumps and valves for the various mixing groups.

While super-efficient and high-performing, ATAG boilers are nonetheless simple to install, commission and service.

## Ygnis

Ygnis was created in 1943 and owes its worldwide reputation to an innovation it pioneered in the 1950s, the reverse flame boiler. Today Ygnis continues to meet all the requirements of modern industrial heating and, since 1996, has produced the Varino, a modulating boiler combining high-level electronic control with remarkable advances in boiler technologies.

Company culture is to provide high-performance products that actually do make measurable contributions to preserving the environment and natural energy resources. Thus Ygnis boilers are conceived to provide optimum output and efficiency with minimum noxious emissions.

## Variotherm

Variotherm has been manufacturing and distributing ecological heating systems for over 20 years. From the outset it has concentrated on technically-advanced heating solutions which provide individuality, originality, functionality, economy and ecology.

Variotherm heating systems create discreet economical, ecological and healthy heating for all living/working environments. Options include designer warmth in the form of heated walls, baseboard heating, ducted channel heating, underfloor heating, and even tiled stoves.

## ROCA

Established in 1917, ROCA is a leading Spanish-based manufacturer of sanitary ware, central heating boilers and ceramic tiles.

Best known for its designer range of bathroom fittings it has a large and fast growing presence in the European wall-hung boiler market.

Total Energy Management is proud to promote this range of conventional, modulating and pre-mix condensing gas boilers with outputs from 12kW to 33kW. T.E.M also sells the ROCA stainless steel tank-in-tank calorifiers with sizes from 60L to 1000L.

## Aquagas

Aquagas direct-fired condensing hot water heaters are designed to meet the hot water needs of domestic, commercial, industrial and process industry requirements. They have a proven 20-year track record in all manner of applications with an established reputation for efficiency, reliability and performance excellence.

Aquagas hot water heaters are suitable for use with vented (cistern fed) and unvented (mains pressure) supplies, typical installations including apartment blocks and large commercial and industrial buildings such as hotels and factories.

## Coming Soon ...

Total Energy Management will shortly introduce a new range of eco-friendly, pre-mix, wall-hung condensing gas boilers with the following individual outputs: 80kW, 100kW, 120kW, 150kW and 180kW.



# Myson Valves Put Finishing Touches To Attractive Radiators

## HEATING & CONTROLS

Anyone with an eye for fashion, art and design knows that the finest of materials still need attention to small details, and the finest of finishing touches, to look their best. A great artist would never display his finest original in a tatty old frame, and a Versace dress will never look chic if worn with a pair of old boots.

Strange as the connection may seem, the same can be said about radiators, especially now that decorative heating products are all the fashion. That is why Myson's new Decorative Range of valves is designed to be the ultimate finishing touch.

The three models in the Decorative Range are

themselves beautifully hand-finished in polished chrome, and are designed to complement Myson's newer, more fashionable products, such as the Column or Décor radiators.

The Column and Décor radiators have become highly popular additions to Myson's range, as the company continues to lead the pack in producing high-quality, fashionable radiators. It is no surprise that the valves, which are available in handwheel, lockshield and thermostatically-controlled models, are following in their footsteps since being launched last year.

There are 11 variants within the range, including angle, straight



Myson decorative chrome radiator valve

for horizontal mounting, and straight for vertical mounting. Although intended for the feature radiator market, the straight for vertical mounting decorative valves are proving a real hit in the towel warmer sector, for those who appreciate the contemporary look.

The polished chrome thermostatic decorative valve incorporates the same highly-accurate, liquid-filled element and 2-way technology as the Myson 2-Way TRV range. The entire decorative range of

valves is suitable for connection to either 15mm or 1/2" bsp pipe.

Each model has a maximum operating pressure of ten bar and temperature of 120°C. The handwheel and lockshield fully comply with BS 2767-10, while the thermostatically controlled valve is quality assured to BS EN215.

Contact: Vincent Broderick, Potterton Myson (Irl).  
Tel: 01 - 459 0870;  
email: [post@potterton-myson.ie](mailto:post@potterton-myson.ie)  
Web: [www.myson.ie](http://www.myson.ie)



Myson has an extensive range of radiators with various models to suit particular applications and interior design requirements





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## Honeywell TRVs — Now With Wireless Control

Honeywell prides itself on the unrivalled reliability of its thermostatic radiator valves (TRVs), used exclusively by many installers to reduce costly warranty call-backs. It is also unique in offering the HR80 wireless controller head which, fitted onto standard TRV bodies as part of a CM Zone wireless zoning system, enables areas of a building to be separated as heating zones without cabling or plumbing pipework changes.

So it is easier than ever for heating installers to split an existing heating system into zones and control every room's temperature automatically from a central controller. Householders can programme up to six time/temperature changes per zone each day – and a different programme.

Each TRV fitted with the HR80 wireless

controller head receives the same programmed set point as every other radiator controller in the same zone. If it is the only head in the zone, then it will be completely independent.

Installing Honeywell's innovative VT117 and VT200 TRVs is easier than most other types, as they feature reversible flow. The defining feature is a unique insert that allows them to be fitted horizontally or vertically at either end of the radiator. They offer complete flexibility of installation wherever the pipework runs, as models for straight pipework are available. These are installed horizontally or vertically at either end of a radiator.

The VT117 model features a wax-filled sensor within a traditional-style fluted head on a nickel-plated



body, while the stylish VT200 has a chrome top and a liquid-filled sensor mounted on a special chrome body. Both valves are easily installed using 15mm copper compression connections.

The local temperature adjustment available on all Honeywell TRVs is also available when an HR80 wireless controller head is fitted: the user simply turns the knob to

override the last value transmitted by the central controller. When the central unit transmits its next set point value, the manually-adjusted setting on the radiator controller is overridden. The HR80 fits onto all the valve bodies above as well as many other valve manufacturers' bodies.

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

## Sunvic Make Control Easy With Simplex

Sunvic's Simplex programmer was developed for the needs of the homeowner or landlord who requires a central heating controller that is simple to use and understand. This programmer provides a 24-hour time-line of manual switches to select the on/off periods for either heating or hot water. This approach allows simple programming of the unit plus ever-quicker modifications to the program if desired.

The wallplate used by both Simplex models follows the industry standard pattern, making the unit ideal for upgrades, fitting directly onto existing backplates

without wiring changes. Temporary changes to regular programmes can be made instantly by means of accessible 1 + 2 hour boost and advance buttons on the fascia of the unit. LED indicators provide the working status of the unit on the Simplex 200 model. The Simplex is powered by two AA Alkaline batteries.

Available in both single channel and 2-channel versions, the Simplex programmer provides completely independent control of both heating and hot water. There is also the option of the Service Sentinel which offers protection against illegal unserviced boilers. This



Sunvic's Simplex programmer is now available from Chronotherm Controls

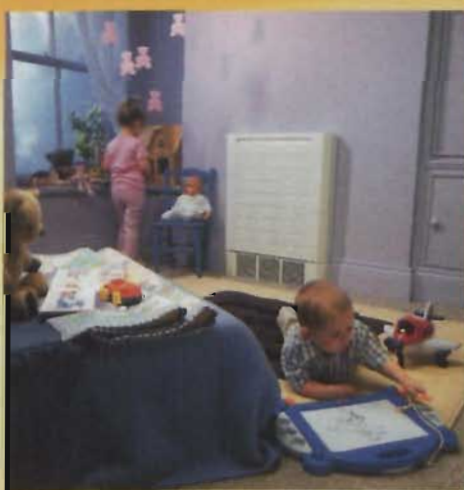
additional feature is a circuit that interrupts the standard programmer control of the boiler after a pre-determined period of time. It can only be reset with a unique recoding key by an authorised engineer after the appropriate service has been carried out.

The Service Sentinel differs from conventional solutions to the problem

of service access by packaging the necessary circuitry and functionality into a standard central heating programmer. This provides an extremely economic solution both from initial capital investment and installation cost.

Contact: Tom Noone, Chronotherm Controls. Tel: 01 - 864 3793; Mobile: 087 - 255 3703.





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# Chappee — A Lifetime of Comfort Assured With Authentic Cast Iron

High quality and extremely traditional, cast iron has always been sought after for its natural qualities.

Guaranteed for life and shock and corrosion-resistant, it is timeless and represents a long investment in gentle, controlled heat and total safety.

The Chappee cast iron range from Hevac represents:

- Long life;
- Quiet operation;
- A financial asset;
- High quality material
- Comfortable, natural heating.

Chappee cast iron radiators are the result of proven technology. Comfort is ensured by the diffusion of optimal heat — aerodynamic shapes for convection; thermal exchange enhanced by the size of the hot air passages; and flat aspect for exceptional radiation.

Comfort is optimised by compact size with maximum output, whatever the size of the rooms to be heated. Cast iron is naturally quiet and does not crack or vibrate with variations in



The Chappee Savane from Hevac

temperature, so there is none of the noise associated with other radiator types.

Cast iron has developed over time and the Savane and Dune 2 models are proof of this. The flat aspect of Savane makes it possible to combine it perfectly with any style of decoration. The elegance of its lines makes it a refined addition to any décor style.

Savane represents the perfect ready-to-assemble radiator. Evolutionary, the radiator can be adapted in height, width and power for all needs in

terms of decor and comfort. Compact, flat and covered with a base coat of protective paint, radiators are easily painted over in the colour of choice. Watercolour, bracing shades or trompe l'œil ... anything is possible.

The new range of cast iron Savane radiators provides various installation options and meets all requirements in respect of quality, comfort, price, choice and safety. Recognised as the cast iron radiator that offers the best value for price and performance, the Dune 2 range is all the time evolving. Adjustable, the

structure of its units ensures a good diffusion of heat in order to respond to the needs of even the largest rooms.

In the same way as Savane, Dune 2 is delivered primer-coated white, thus suiting the requirements of a renovation. Just like its renowned relatives, it comes with the benefit of a lifetime guarantee.

The art deco trend is also very much in evidence in the Chappee range in the form of the Floreal radiator.

Modelled on the style of the decor in old and prestigious houses, this design has been enriched by a model of the same shape but with a smooth finish.

To provide the end-user with the very best in heating, the entire Chappee range of cast iron radiators has a lifetime guarantee, their performance regularly checked by CETIAT. They also conform to the requirements of the European Standard NF EN 442.

Contact: Karl Carrick, Hevac.

Tel: 01 - 419 19 19;

Fax: 01 - 458 4806;

email: karlc@hevac.ie



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# Tackling Electrical Refurbishment Without Electrical Drawings

**Eugene Coyle, DIT Kevin St. Department of Electrical Services Engineering. School of Control Systems and Electrical Engineering. Email: [eugene.coyle@dit.ie](mailto:eugene.coyle@dit.ie)**

**W**hile there have been significant improvements in recent years in social service infrastructure for the provision of community healthcare service to the elderly, local community-based centers are often housed in old convent or school buildings. Although these buildings may retain architectural character, electrical infrastructure is invariably not of a modern or adequate standard and, upon inspection, will certainly not come up to safety regulation requirements. In spite of economic improvements in the Irish economy, budgetary constraints continue to influence, if not dictate, policy decisions of local (more often than not voluntary) community care committees. The choice of whether to refurbish and remain in the older type building, or to relocate to a newly-constructed customised facility, is not always available. Even if the decision has been made to remain in the old facility, the economic outlay required to modernise such buildings can be excessive.

I encountered one such scenario recently when requested to inspect and provide a professional opinion by

way of a written report of a provincial town community services center building. The challenge presented was added to when it became apparent that no electrical installation or service drawings of the existing buildings were available. Some challenging detective work, an able electrician as a companion, and a good deal of patience, would be required.

The centre comprises two principal buildings — an older convent building and a more modern adjoining building with sizable auditorium. The building is multi-functional, with day-care facilities for elderly clients, cooking facilities, several offices and administrative meeting rooms.

It was first necessary to examine the buildings and to determine essential outline detail, from which a set of drawings of existing systems could be compiled. In particular it was necessary to create a Line Diagramme of the electrical distribution system, inclusive of the incoming ESB supply line to the main distribution board, and further feeding the various sub-distribution boards within the main building and the distribution board in the auditorium (**Figure 1**).

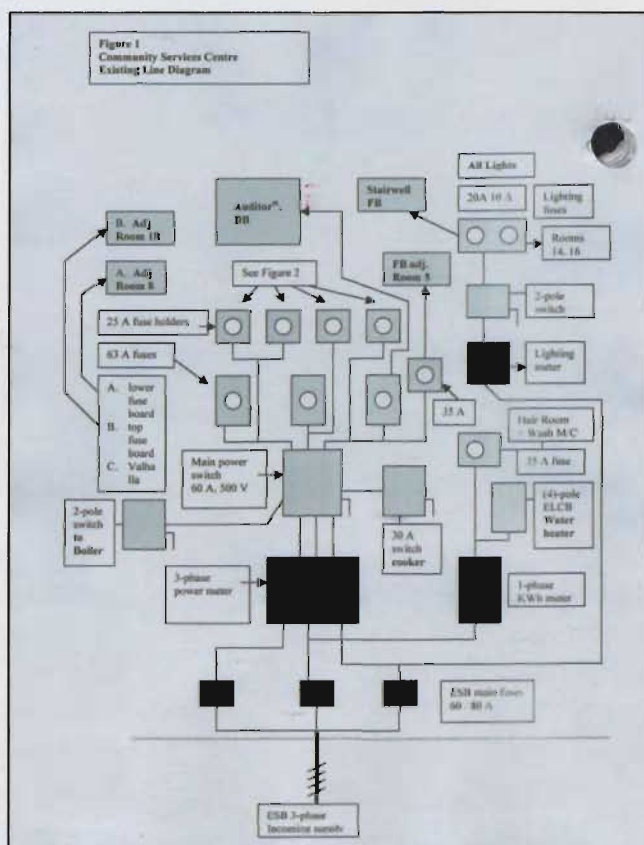
A number of issues

were noted during the course of this study relating to the integrity of the current existing network. In addition to the main distribution board, located on the first floor of the old building, there were five additional sub-distribution boards located on various sites throughout the main building. The auditorium had a sub-main distribution board, located adjacent to the main entrance hall and supplied from the main distribution board of the old building. With minor exceptions, the new installation within the auditorium was of a good standard and

would not require modernisation.

However, the outside cable supplying the hall from the main distribution board would require reinstallation.

Much of the existing installation in the east wing of the main building and further adjoining the auditorium was also considered to be of a reasonably satisfactory standard. Other sections, inclusive of the existing main entrance and general office area, incorporating older elements of installation, would benefit from significant upgrading. This observation further





# Tackling Electrical Refurbishment Without Electrical Drawings



applied to the sections of the installation on the entire first floor of the old building. It would appear that the first floor had not, to date, benefited from upgrading to the same extent as other areas within the buildings.

A study of the existing services within this first floor area revealed a number of anomalies, in particular in relation to the electrical feeds to the sockets within the various rooms. It was noted that a socket located in a small end washroom section of the building was actually supplied from the lighting distribution board, and was being used to service a local portable 3 kW water boiler. The remaining sockets were supplied somewhat haphazardly from various sub distribution boards throughout the building. It was important that this entire section be thoroughly upgraded and rewired.

It was noted that the adjoining walls and rafters linking two pitched roofed elements of the building to a central core area were of substantial size and thickness. While this presented a structurally sound edifice, it would appear to have impeded contractors in their endeavours at making direct line indiscreet cable and trunking routes from the various sections back to the main distribution board.

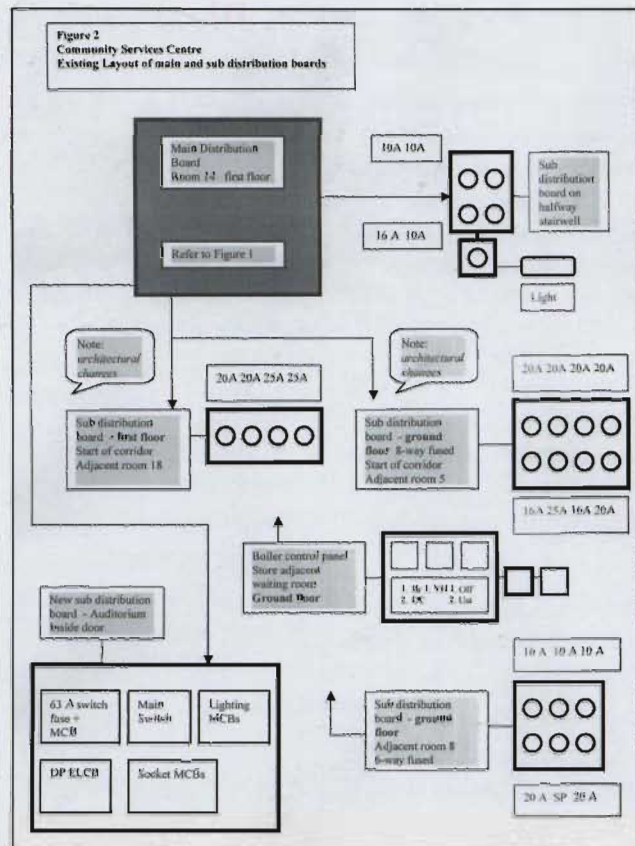
A concrete floor in the area at the top of the stairwell and adjacent to large utility rooms had also been a contributing factor in making access difficult from the corridor area to the distribution board.

## Main Distribution Board

The main incoming distribution board, located in a wall-mounted wooden press enclosure in a first floor room, was in need of extensive modification and modernisation and it was advised that this board be totally redesigned and replaced. The board contained an incoming three-phase electricity supply comprising 80A main fuses, three-phase power meter, and one-phase kilowatt-hour meter and lighting meter, in addition to several items of switchgear such as isolators, fuses and earth-leakage circuit breakers.

The distribution board, while perhaps adequate in serving its purpose some years previously, was by now old and not of sufficient safety or utility standard to meet the requirements of a modern-day facility.

Meetings were held with an electricity supply board representative and it was agreed that the ESB section be redesigned to incorporate a single three-phase meter only with three incoming main fuses.



In addition to renewing the distribution board, it was recommended that it be relocated to a more central part of the building. This would be beneficial from a rewiring viewpoint, enabling better distribution to both the main hall and to various key locations within the main building.

There were two possible options in choosing a preferred location. The first was to relocate the incoming supply to the rear of the building, to a position adjacent the boiler house and close to the hall entrance. The second was to place the new board in the vicinity of a newly-proposed old building main entrance, or more likely in the room above this entrance.

## Sub-Distribution Boards

A layout of the main and sub-distribution boards is shown in Figure 2. The distribution board in the auditorium was of a modern design incorporating miniature circuit breakers in place of older type fuses for lighting and socket circuits. The design was deemed adequate to cater for the electrical load of the building.

It was recommended that a smaller sub-distribution board in an adjacent room be replaced by an equivalent modern board containing miniature circuit breakers.

It was agreed that two further distribution boards could be made redundant and the





associated wiring re-routed back to the newly-proposed main distribution board. The reduction in the amount of sub distribution would make for a more compact and unified system.

A sub-distribution board located on the half stairwell of the old building comprised the central fuse board for most of the lighting circuits in the main building. It is again recommended that this unit be updated by insertion of a modern MCB distribution board. It was considered that it might be preferable to retain its existing location as all of the lighting circuits in the building were routed to this point.

The boiler control panel would remain in its present location, adjacent the boiler room. Minor modifications and tidying of the current panel and its supply switch would be required.

#### **Power sockets & IT communication outlets**

Most, if not all, of the office workspaces — although equipped with one or at most two power socket points and one computer IT socket — would benefit from significant upgrading. Equivalent modern office units will normally be equipped with a wall

trunking containing both power and IT outlets at various points. This will provide diversity in connection location and will further benefit the occupant by reducing requirements in portable extension leads.

Several of the existing telephone cable and IT supplies should be rewired and routed, as many have been run at surface level and are not protected in trunking or hidden from view.

#### **Lighting**

In general the building was well equipped in terms of lighting requirements, with twin five-foot fluorescent fittings available in many office locations. Some of the twin units had only one tube installed. However, the majority of offices appeared adequately equipped in terms of luminosity. That said, the upper floor was in need of modernisation, particularly along the corridor and in the larger rooms. The corridor sections on the ground floor would also require some additional fittings.

#### **Fire Protection / Security**

The buildings had no fire protection, with the exception of some localised stand-alone smoke heads. Major

upgrading would be required in this area. It was noted that a localised security system was being installed to enable monitoring of the outside of the building.

#### **Consultant Report**

Upon completion of the electrical services survey of the buildings, an executive summary, detailed report and complete set of electrical layout and service drawings was prepared. This provided a basis by which the community services committee was in a position to issue for tender for upgrading of the electrical network within the centre. The report facilitated tender for a number of options, from partial to complete rewiring of the centre. Quotations for a complete overhaul of the system were typically in the region of €130,000.

The decision to proceed would hinge on total costings associated with additional significant proposed structural modifications to the main entrance area of the building and to restructuring of some of the internal rooms and corridors.

In the event of relocation to a custom-built facility, the building will still most likely be utilised and will require appropriate upgrading.

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# Register of Environmental Gas Installers

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## Year of Progress Makes for Optimistic Outlook

While it would be an exaggeration to say that the domestic contracting sector has finally got its act together, sufficient progress has been made throughout the year to suggest that major achievements are in the offing for 2005.

The publication of the CER consultation document on the drafting of the proposed Natural Gas Safety Bill as we went to press marked the culmination of a great deal of hard work over the last 12 months in particular on the part of all concerned. As in any healthy democratic process, various initiatives have been proposed, debated and argued over. Some have been discarded, some are still being considered, while one or two look like coming to fruition. However, perhaps the most encouraging aspect of all is that relevant parties who should be involved in

the process — contractors, training providers, educational institutes, utility suppliers, product suppliers and regulatory authorities — are now actively engaging with one another. This is a major step forward.

That they don't always see eye to eye on the best way forward is also healthy. This suggests that the vested interests of all are being aired, teased out and, in most cases, leading to a better and genuine understanding of the problems and anxieties of each sector. It may have been a long time coming but the past 12 months in particular have clearly demonstrated that the domestic sector as a whole is finally beginning to mature. It is an excellent basis upon which to go forward. Make it your New Year resolution to actively participate in this process.



## Samuel Sleeveen's Days Are Numbered!

Now that domestic contracting as an industry sector seems to have regained some of its self-respect, the time is ripe to finally rid itself of the Samuel Sleeveen factor. Sleeveen, as older readers will know, is the character who has represented the unscrupulous installer in the columns of *BSNews* over the last 40 years.

He first emerged in the 1960s when oil-fired central heating began to take off; came even more into his own during the solid fuel, back-boiler era; and sank to the deepest depths during the natural gas bonanza.

Driven by the desire for a quick buck Sleeveen knew every short-cut in the book. Poor Ms Fanny McWhinge epitomised the typical ripped-off customer. He conned her out of thousands while leaving her with a disastrous, non-functioning, installation.

Unfortunately, the domestic heating installation sector has attracted more than its fair share of Mr Sleeveens over the years. There is always someone ready to undercut prices to the point of insanity. Corners are inevitably cut, professionalism goes out the window and statutory

requirements in respect of performance and safety are ignored.

However, as developments over the last 12 months have shown, *bona fide* contractors have had enough. A new-found sense of self-respect and professionalism is beginning to emerge and there is no doubt that the days of the Mr Sleeveens are numbered.

Even more important still is the need to convey this message to consumers. The public needs to know that going the cheap, cut-rate route is costly in respect of performance and fuel efficiency. More than anything else they need to understand that it is not safe, especially where gas is concerned.

The time is ripe for the domestic heating sector to finally bury the legacy of the Mr Sleeveen image ... don't waste the opportunity.





# Systemair ... The Straight Way

**W**ith air conditioning now commonplace in restaurants, retail outlets and most commercial buildings, consumer expectations in respect of heating and cooling is very much to the fore. However, to a great extent people at large don't understand that the real issue at stake here is not heating and cooling but rather the quality of the indoor air that we breathe.

On average, people in northern Europe spend something like 90% of their time indoors, consuming between 20 and 30 kilograms of air every day. In the same period they consume about one kilogram of food and approximately three litres of liquid. Still, most people are far more aware of, and concerned with, the risks posed by what they eat and drink and never give a second thought to the quality of the indoor air they are



Air should be served as champagne ... dry and cold

The test chamber for demonstrating air flow movement is unique. In fact, a test demonstrating Systemair's Sinus A diffuser recently won a major international award.

consuming.

Nonetheless, virtually everybody experiences the downside of poor indoor air quality. It is accepted that peoples' performance in poorly-ventilated indoor environments dips significantly, while the incidence of allergic reactions to poor indoor air quality has increased dramatically.

It is against this background that Systemair recently hosted a celebratory gathering to mark its 30th anniversary at its headquarters in Skinnskatteberg, which is located about two hours drive from Stockholm in Sweden. The Systemair network presently consists of 23 companies with over 1200 employees, but that is expanding year on year. All of the MDs of the subsidiary companies, along with journalists from each of the countries they represented, were present.

The occasion was also used to officially open Systemair Expo, and to unveil the new K-fan. Invented 30 years ago, it now has a new "body", thanks to production methods where the parts are being folded instead of screwed together. This gives an elegant, folded and totally tight joint which, together with a lot of improved details, make the overall performance

that much better.

Apart from the tour of the impressive facilities — which included the measuring station, test chamber and actual production facilities — there was also a technical programme with leading industry experts, such as Professor Bjarne Olesen, head of The International Centre for Indoor Environment and Energy at Denmark's Technical University in Copenhagen, delivering papers. He spoke about the indoor environment and its influence on well being and productivity.

Six independent studies have shown that the quality of the indoor air has a measurable impact on productivity. According to the professor, indoor air ought to be perceived as fresh, comfortable and stimulating and comparable with the best outdoor air — or even better. He concluded by saying that air should be



State-of-the-art production facilities are so sophisticated that they disguise the complexity of the processes and make it all seem so simple



# Systemair ... The Straight Way



served as champagne – dry and cold.

Established in 1974 under the name Kanalfäkt, Systemair was built around the then pioneering idea of the circular in-line centrifugal duct fan, which simplified ventilation ducting. The company motto became "The Straight Way", and this has now extended from a product concept to a business philosophy. The range has grown substantially to include many fan types, air handling units, air terminal devices and air curtains.

Over the last 30 years Systemair has enjoyed steady growth, achieved both organically and by acquisition. Combined with substantial reinvestment and an ongoing programme of research and development, it remains competitive and at the forefront of new technology.

From the outset Systemair has focussed on developing ventilation products and systems which can deliver good indoor air quality. There is a strong emphasis on product development,

particularly on air handling unit ranges and the addition of new fan ranges. In support of this — and regarded as equally important — is the selection of products and systems for the given application, and of their correction installation.

To this end Systemair has a comprehensive computer-based selection programme (SSP), which is an easy-to-use tool for choosing a Systemair ventilation product based on standard criteria such as airflow and pressure. All products are thoroughly documented and have interactive diagrammes for airflow and sound property calculations to give a unique overlook of each product. The searchable product index is particularly useful.

Quality has always had a high priority at Systemair and it was one of the first companies in Sweden to become ISO 9001 registered. It was also one of the first to become ISO 14001 registered, reinforcing its commitment to protecting the general outdoor environment. This is one of the primary considerations when it



Systemair's paint shop accommodates vast flow-throughs

chooses suppliers, materials, transportation, etc.

Another important factor in this respect are its clear goals concerning energy consumption and waste. Since the introduction of ISO 14001, Systemair has reduced the amount of waste it produces by 90% and is committed to reducing that still further.

Looking to the future, Systemair opened its new Development Centre last year. Here it can conduct airflow measurements, acoustic measurements in a vibration-isolated room, efficiency measurements on heat exchangers, winding temperature measurements on motors, low velocity measurements on air terminal devices, and heat effect measurements on its heating products. All measurements are performed in accordance with existing AMCA and ISO standards.

Last year also saw the opening of a new department for Technical Sales Support started. The department is set up to serve customers with answers to technical questions such as

mounting and maintenance instructions, wiring diagrammes, declarations of conformity, product pictures, etc. Customers in Ireland can access this facility through Niall Horgan and his colleagues in Systemair's Dublin office.

With today's tight construction schedules product availability has never been more important. In order to provide a prompt delivery service Systemair has invested in substantial stock levels and can deliver within 24 hours throughout Europe.

Typical of the Systemair philosophy, the recent gathering in Sweden focussed more on the generic importance of ventilation rather than particular Systemair products. The emphasis was on the why and how they do things. In that respect it was very refreshing (sic) and an all-the-more informative and successful occasion because of it.



This demonstrates the scale of Systemair's headquarters in Sweden  
Published by ARROW@TU Dublin, 2004



## CIBSE Celebrity Lunch

The CIBSE Celebrity Lunch — held in the Bia Bar, Stephen St, Dublin 2 — earlier this month proved enormously successful.

Over the years the keynote speaker has always been someone who is renowned throughout the building services sector as having made a significant contribution to the development and well-being of the industry. This year was no exception. John

Cuthbert needs no introduction to anyone with building services and it was appropriate, given that he is recently retired, that he should give the address to the very large gathering in the Bia Bar.

Not surprisingly, the tributes were glowing and, all agreed, well deserved. Our photographer was also present and the accompanying photographs capture some of the exciting atmosphere and joy of the occasion.



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# Implications of Disability Discrimination Act (DDA) for Building Owners & Tenants

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**By Jason Finch,**  
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**Area Manager — Facilities  
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In the UK the latest amendments to the Disability Discrimination Act (DDA) came into force on 1 October 2004. These amendments dictate that from this date providers of goods, facilities and services must take reasonable steps to avoid discriminating against disabled people. This in turn means that whoever is defined as a "service provider" must make reasonable adjustments to their premises to ensure that people with disabilities have reasonable access to the services they provide.

It is the term "service provider" that is the key definition in this instance. The legislation can affect both tenants and landlords, depending on the lease structure and occupancy of the building. In the instance of a tenant occupying the whole of the premises it would be usual for the tenant to be responsible. However, with multi-let buildings it will depend on the classification of the users and

tenants whether the responsibility rests with the tenant or with the landlord and, even once this has been established, all may not be clear.

Over the past two years substantial amounts of money have been spent in the UK on upgrading buildings to comply with this amended legislation. While some adjustments have included structural alterations, many have required only modest changes with costs kept to a minimum. Again it is important to stress that the service provider has to take reasonable steps to comply with the legislation and this does not automatically necessitate large structural projects. Typical physical barriers include the steps at the front of a building through to potential lift access to the upper floors, or even the toilet facilities used by disabled people.

Therefore, anyone deemed as a service provider should consider a strategic approach in ensuring that they are compliant with this act through the implementation of an access audit by a specialist who is able to identify existing and potential barriers that will need to be considered.

## Who is a Service Provider?

A service provider is deemed as anyone who provides goods, services or facilities to the public, for example retailers, offices that are public service providers, many of the professions or consultancies that provide access without an appointment, and of course shopping centres. Experience to date in the UK has found that there is a certain amount of ambiguity as to who is deemed to be the service provider.

Who would be deemed as the service provider of a multi-let tenanted building whose tenant mix includes those who are open to the public? There is no clear direction

as to whether the landlord or the tenant is the service provider in this instance and it is probable that this will only be confirmed once a precedent has been set in the Courts.

In the scenario of the tenant being deemed as the service provider this will determine whether they have to reasonably adapt their premises by undertaking physical adjustments to remove physical barriers in the provision of their service offering. It is interesting to note that the Act stipulates that landlord consent for works directly related to compliance with the DDA can not be unreasonably withheld by the landlord and that consent must be granted within 21 days.

If the landlord is deemed to be the service provider then the obligation to adapt the premises will be his. However, if the works are required under the DDA, the adjustments are necessitated by statute and there may be opportunity to recover these costs from the tenants. Naturally, this will depend largely on the wording of the leases in place and again may lead to litigation, with tenants reluctant to contribute to these works.

An additional consequence for landlords and tenants alike will be whether any work carried out under the DDA will be taken in to consideration when assessing improvements at rent review. Alternatively, a loss of net internal floor-space as a result of DDA works could result in a lower rental income. This could subsequently become a contentious issue. Again it is probable that only the Courts will decide.

## Carrying out an Access Audit

It is important to ensure that a person carrying out an access audit has an understanding of any adjustments to the physical



# Implications of Disability Discrimination Act (DDA) for Building Owners & Tenants

et al. BS-News

IRISH ESTATES  
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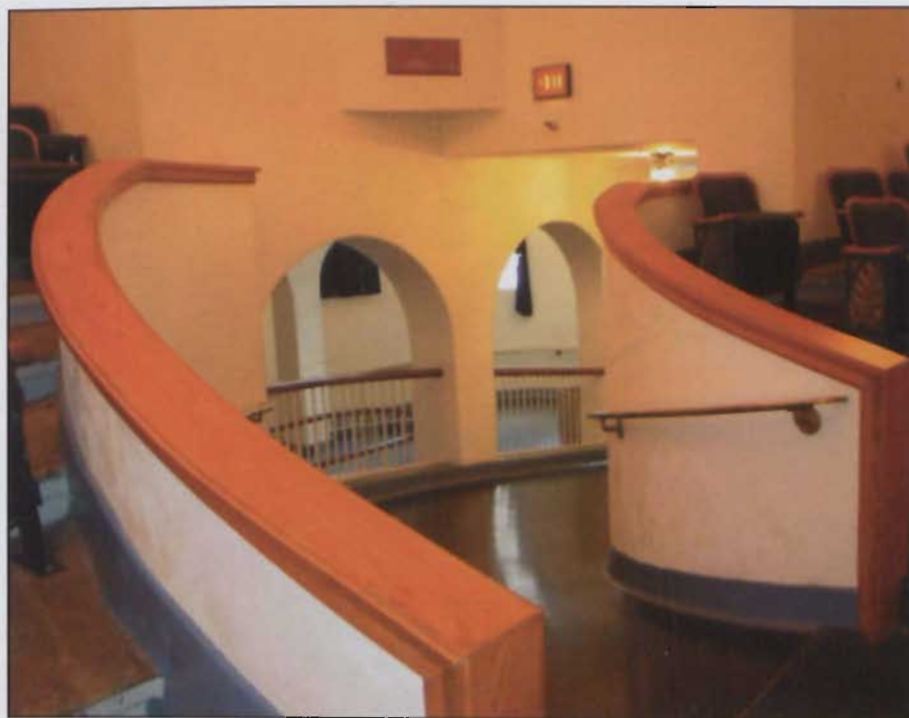
environment, as well as having an understanding of the implications of the DDA. Chartered surveyors trained in this area are in an ideal position to provide the necessary advice through their years of experience in providing consultancy advice and expertise of physical adjustments to buildings and the environment. At Irish Estates this service is carried out by our Building Surveying Consultancy who are well versed on such alterations and are able, through their experience, to provide advice that applies to many situations and types of buildings.

Typically, an access audit of the physical premises would entail assessing such items as lighting, floor finishes, access to toilets, use of the lifts, car park facilities, approach, egress points, reception facilities, circulation, and so on. However, to be truly successful this needs to be carried out in tandem with the scrutiny of the organisation's management policies, practices and procedures to ensure that the best solution is found. Only then can the extent of reasonableness be established.

## Implications in Ireland

So how does this legislation impact on the way we manage property in Ireland? Although the DDA has no legislative implication in Ireland there are many Pan-European or global companies located in this country whose policies are dictated by the legislative guidelines as set down in the UK. Alternatively, many merely follow best practice as determined by their UK-based offices which would entail following legislation that is prevalent to them.

Also, with more organisations adopting a corporate and social responsibility policy, the requirement for providing services that are accessible for all will come



Above: Wheelchair access ramp in a theatre. Right: Even where the original design has not allowed for wheelchair access, these examples demonstrate that there are all manner of options which can be installed as retrofit.

higher up on the agenda and could prove potentially embarrassing if not adhered to.

At the moment, current Irish legislation dictates that accessibility of the built environment for people with disabilities is controlled by Part M of the Building Regulations (2000) entitled "Access for People with Disabilities". Part M of the Building Regulations applies to construction of new buildings after 1 January 2001 and any extension work or renovations carried out after this date. In addition, this section of Part M applies to existing buildings where a material change of use or a material alteration takes place within the premises.

The issue of disability and the individual rights of disabled people has become more topical. It is therefore interesting to note that the government recently published its National Disability Strategy, which involves a number of key elements, one of which is the requirement for public bodies to make their



buildings and services accessible to people with disabilities.

Therefore, to conclude it may only be a matter of time before similar legislation is adopted in Ireland and, in the meantime, there is a distinct possibility that the issue of building accessibility will become more and more prevalent in the management of commercial buildings.



# Plumb Lines

## Heard it on the grapevine ...



## Plumb Lines

### SOLAR PANELS

**COMPULSORY** — Spain plans to take advantage of its sunshine by making solar panels compulsory in new and renovated buildings. The intention is to implement the new policy from January 2005 though critics claim that it will add something like €1300 per dwelling on construction costs. Seems cheap at the price, especially since the average property price in Spain has doubled over the last five years.

### SAINT-GOBAIN GO MILES FURTHER

One of Davies principals, Saint-Gobain's Pipe Division, has signed a contract to supply Japan's Marubeni Corporation with equipment to build a drinking-water pipeline for the Abu Dhabi Water and Electricity Authorities. The contract, worth approximately \$300 million, represents a total of about 410,000 metric tons of pipes. It is the largest ductile-iron pipe contract ever signed by any company in the world.

### WATER NEXT GLOBAL

**BUSINESS** — Oil is the world's biggest industry, followed by electricity, but what's third? The answer is the ultimate necessity, water. The global water business is growing so fast that some analysts say it's the coming century's oil. In the developing world, dirty water is the planet's worst health problem. In developed countries, demand is rocketing while the water infrastructure is crumbling. Apparently, more than half of humanity will be living with water shortages, depleted fisheries and polluted coastlines within 50 years because of a worldwide water crisis. Any wonder that giant corporations are suddenly becoming interested.

### DAVE MADIGAN BOWS

**OUT** — Some people have all the luck. Went looking for Dave Madigan of Coppercraft earlier this month only to be told that he had retired the previous Friday! Enjoy Dave. Meanwhile, pity poor Terry who is now left to carry the can on his own.

### HOT HANDS!



Came across this excellent demonstration of energy transfer recently. Called **Hand Boilers**, they are looped and twisted glass sculptures containing a liquid that will "boil" with the heat from your bare hand. Simply hold the large bulb end in the palm of your hand and, in a few minutes, your body heat will cause the liquid to start to rise. Once out of your hands, it takes a few minutes for the liquid to cool down and return to the large bulb.

### SPOT THE DIFFERENCE

Have you entered our new Sanyo 'Spot The Difference' competition? Over the last 18 months we have had a tremendous response to our Reader Competition but have introduced a new format from this issue (see page 2).

### BATHROOMS BRING

**WELLNESS** — Ever heard of "wellness"? ... no, thought not. Mind you, neither had I until recently. Apparently, it is the new buzzword in bathroom circles. At the forthcoming ISH (Frankfurt, March 2005) "wellness" will feature as a key theme, the concept being that well-being is closely linked with water, hence bathroom products. "Must haves" for your next bathroom include massage loungers, music systems, a lifting bath backrest, showerheads which release minerals, high-tech light effects, etc.

### NOLLAIG SHONA

— Finally, may I thank all our advertisers, contributors and readers for sharing the past 12 months with us. Joe, Louise and I look forward to continuing that relationship into the New Year. Nollaig Shona Dhibh go leir agus bigi curamach agus slán ar feadh na bliana ura





# Works of genius

*Italy, 1501: Leonardo da Vinci decides the world is not yet ready for his latest invention*

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Building Services Engineering, Vol. 43 [2004], Iss. 10, Art. 1

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