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et al.: BS News

BSN News

MECHANICAL & ELECTRICAL BUILDING SERVICES

APRIL 2002

ENERGY SHOW 2002
PREVIEW
&
OFFICIAL CATALOGUE

Bathroom & Plumbing Equipment
Lycris-Byrne Steel & Copper Cylinders
DIT / IDHE Student Awards
Haier Technical Presentation

Innovation in Pumping Technology

Wilo TOP-E range

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

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- Infinitely variable performance
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BSNews

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BUILDING SERVICES

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Readership Data

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

Chartered Institution of Building Services Engineers (CIBSE); The Mechanical Engineering & Building Services Contractors' Association (MEBSCA); The Association of Consulting Engineers of Ireland (ACEI); The Mechanical Engineering Contractors' Association; The Institute of Domestic Heating Engineers (IDHE); The Registered Heating Contractors Association; The Maintenance, Energy & Environmental Technology Association (MEETA) which incorporates energy managers and maintenance managers; The Energy Conservation & District Heating Association; The Institute of Plumbing; The Irish Home Builders Association (IHBA); Builders Merchants / Trade Supply Outlets; Irish Property & Facilities Managers Association.

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

It Was Only A Hiccup!

There is no denying that activity levels dipped towards the end of 2001 and that the beginning of 2002 was slow enough.

However, recent weeks have proved that it was but a brief hiccup, activity levels at the actual construction stage — along with the drawing board — increasing considerably.

That is not to suggest that we are about to see a return of the boom times over the coming year, that is highly unlikely.

Nonetheless, what the industry will experience is sustained levels of trading activity. Hopefully, this will generate a feeling of confidence and optimism, which in turn will impact on payment schedules and profit margins.

Money has been tight in the first quarter with credit days taken extending once again in some cases to the pre-boom days of 100 and 120 days. This practice has not become widespread as of yet, and everybody has to work hard to ensure that it is nipped in the bud.

Apart from genuine trading factors, other issues are also impacting on margins. Insurance costs are undoubtedly the most obvious. The CIF has made a strong plea to Government on the matter and the chief executives and principals of all building services companies should make representation at local level with their sitting TDs. With the election looming there is every chance that they may just listen that bit more.

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Yorkshire Pressfit Fittings

Yorkshire Pressfit is a range of fittings manufactured from copper and gunmetal, allowing the fast, efficient and heat-free jointing of copper tube. A comprehensive range of fittings is available in sizes from 15mm to 54mm.

Yorkshire Pressfit fittings rely on pressure from a press tool to achieve a sound joint without the need for solder, adhesives or any additional jointing materials. The tool compresses the fittings and the 'O' ring seal on to the tube on two planes, giving the joint interlocking and frictional restraint.

Yorkshire Pressfit fittings have been developed by IMI Yorkshire Fittings to

deliver major cost saving benefits by making the jointing process fast and efficient, significantly reducing jointing and installation times.

They are designed for use in hot and cold water services, heating and chilled water applications.

The changes in construction techniques and systems, coupled with health and safety regulations and water supply regulations, all impact the plumbing and heating industry. These effect both working practices and jointing methods. The Yorkshire Pressfit range of fittings has been designed to address many of these issues, providing

specifier and installer with significant advantages over alternative methods of jointing.

Yorkshire Pressfit fittings have been tested and found to be suitable for use within tubes to EN 1057 at temperatures up to 110°C. The maximum working pressure for Yorkshire Pressfit fittings is 16 bar.

The heat-free nature of the jointing process is one of the major benefits of the Yorkshire Pressfit system, removing the necessity to apply for hot work permits, and eliminating the possibility of flame damage in refurbishment projects.

Yorkshire Pressfit fittings also save time

immediately after installation has taken place. As the jointing process requires no additional materials, such as adhesives or fluxes, the allowance for curing time or the requirement to flush the system to remove flux residues before commissioning is no longer needed, further cutting the installation time.

"In line with our commitment to manufacture to the highest quality levels," says IMI's Conor Lennon, "Yorkshire Pressfit fittings comply with all relevant British, European and International standards.

"The current programme of standard harmonisation may affect the standards relevant to the Yorkshire Pressfit range. IMI Yorkshire Fittings is actively involved in drafting this and other new European standards and has members on the relevant European standards committees.

"Whatever the developments, we guarantee that our products will always meet the latest and highest standards."

Contact: Conor Lennon, Irish Metal Industries.

Tel: 01 295 2344;

Fax: 01 - 295 2163;

email:

conor.lennon@irish-metalindustries.com



Yorkshire Pressfit from Irish Metal Industries.

Never seen never heard

Bathroom design is changing, and as a result, consumers are no longer bound to the constraints of the traditional exposed cistern and floorstanding WC. Geberit's installation systems herald the advent of modern bathroom design, utilising wall hung technology, and with it, the design freedom to provide solutions in even the smallest of rooms.

Suitable for both domestic and commercial applications, Geberit's range of DUOFIX frames sit discretely behind a wall and will support most manufacturers wall hung WCs, washbasins, bidets and urinals.



Each Geberit Duofix frame can be installed quickly and easily. Shown here with system rail, the elements are fixed to two rails, secured to the wall and floor. Water supply and drainage can easily be installed and connected.



The units are now ready for cladding.

Stockists of

- Villeroy & Boch
- Imperial Bathrooms
- Sphinx
- Jacuzzi
- Airbath
- Acomo
- Daryl
- Koralle

- Merlyn
- Coram
- Ferrara
- Hansgrohe
- Sirrus
- Mira
- Acova

■ GEBERIT

The completed job. Once cladding has been fixed - tile onto the finished surface and connect the sanitary ware fixtures. All operating parts except the dual flush plate are hidden behind the wall.



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TECHNICAL INFORMATION HOTLINE - 01-6160372

ASSOS GLASSLINED CALORIFIERS



Assos exclusively manufacture calorifiers for the production and storage of hot water. They are the most modern and technologically advanced in Europe today. Manufactured according to German DIN standards their quality is recognised by competitors to be the highest in this sector. Assos calorifiers are glass lined calorifiers with a 4 kW immersion. A 65mm non-CFC polyurethane insulation @ a density of 40 kg/m³ minimises

heat losses. All calorifiers come with either no coil, 1 coil or 2 coils. Each Assos calorifier comes pre-fitted with a magnesium anode which protects the calorifier against corrosion as corrosion will attack the anode firstly, and side flange for the cleaning of the coil on an annual basis. The large side flange permits easy cleaning while the flange on the top of the calorifier allows for the servicing and replacement of the anode.

Technical information hotline
01-6166150



heatmerchants

BRANCHES NATIONWIDE

WWW.HEATMERCHANTS.IE

Myson Towel Warmers

Elegant and stylish, Myson towel warmers will enhance the appearance of any bathroom. Economical and efficient, they also add to the comfort of the room, as well as keeping towels warm and dry.



From the classic range of Myson towel warmers.

There is a wide range of standard units of different designs to choose from, or you can have one manufactured to your own personal requirements. These modifications include size, shape, colour, changes to tapping size and position, dezinc proof units, and copper panel radiators.

Myson operates stringent quality controls to ensure that the highest standards are maintained, with every unit being pressure tested before leaving the factory.

Bringing together quality and craftsmanship, designed and manufactured by the market leader, Myson Towel Warmers are available nationwide.

Contact: Vincent Broderick, Potterton Myson (Irl) Ltd. Tel: 01 - 459 0870; Fax: 01 - 459 0880; email: post@potterton-myson.ie

MFP Water-Saving Replacement for Siphons

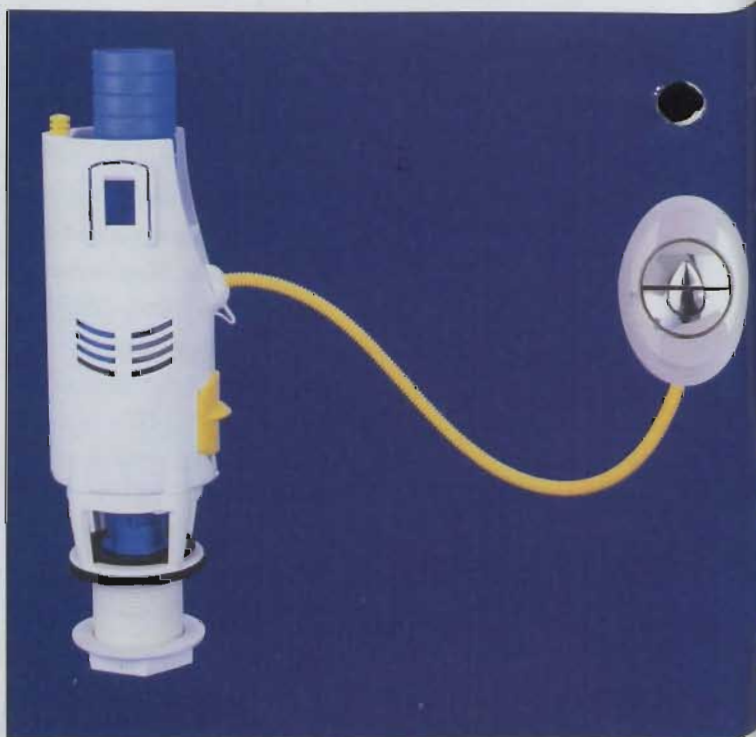
Multikwik Ltd has launched a new retrofit flush valve called Multiflush, which can replace a siphon and provide two flush volumes. The Multiflush flush valve fits existing BS cisterns and is operated by a button located over the hole for the handle.

The new valve is as easy to fit as a siphon, with the same standard screw thread fixing to the cistern. It has an oval body to allow ball valves to work even in the thinnest of cisterns. The push button is fitted over the hole for the handle and a clip-on cable connects this to the flush valve. The

chrome button can be located left right or top. The two flush volumes can be adjusted without tools and ensures the valve flushes the right amount of water for the existing cistern and WC bowl.

The Multiflush has been tested to 200,000 times (equivalent to a family of four for 30 years) and dual flush valve provides water savings of up to 30%. It is available from most plumbers merchants.

Contact: Dudley Foster, MFP Sales.
Tel: 01 - 628 0691;
Fax: 01 - 628 0318;
email: sales@mfp.ie.



The Multikwik Multiflush valve from MFP Sales



“Plastic has its uses. I use it all the time to buy copper.”



For further information, please contact the UK Copper Board, 30/34 New Bridge Street, London EC4V 6BJ.

Tel: 0044 2070 724000; Fax: 0044 2070 724020; www.ukcopperboard.co.uk

Published by ARROW@TU Dublin, 2002

Simple Effective Controls for Bathroom Underfloor Heating

Danfoss easy-to-install, self-acting temperature controls that are ideal for individual floor-heated rooms or smaller mixed under-floor/radiator systems are now readily available to installers through main heating supplies merchants. These controls — Danfoss FHV valves fitted with either FJVR or RA2000 sensor elements — provide the most simple, cost-effective and accurate way to achieve either constant floor surface or room temperature.

Underfloor heating, with annual market growth of 20 - 30% a year, is fast becoming a significant and profitable part of the Irish heating market that installers cannot afford to ignore. Firmly

established in mainland Europe for three decades, it offers a number of user advantages over conventional "wet" radiator systems.

Perhaps the most important of these is that underfloor heating greatly enhances comfort levels by spreading warmth evenly across the entire room and from the floor upwards. Also, without the need for radiators, it provides additional usable room space, improves interior aesthetics, eliminates a major problem in room redecoration, and allows greater flexibility with furniture placement.

A return-mounted Danfoss FHV-R valve with its self-acting

FJVR temperature limiter is a long-proven control method that is easy to use and simple to install. It requires no wiring, is completely trouble-free, costs nothing to run and provides the most satisfactory, energy-efficient modulating control, providing a constant floor surfacing temperature. This is a very important feature in, for example, bathrooms with ceramic tile floors. No other controls can do this in the same way.

With the FHV-R and the FJVR sensor, small underfloor heating systems, e.g. for extensions, bathrooms or conservatories, can be added directly to existing radiator systems very easily

and can be a source of valuable additional earnings for installers.

The Danfoss FHV-R, used in conjunction with the plug-on FJVR sensor element, is a basic two-connection valve that is supplied in two versions — with an air vent and bleed key. The two similar FHV-A models, used with the widely-proven Danfoss RA2000 sensor, provide accurate room temperature control plus the additional advantage of being quickly and accurately presettable for the correct flow rate. All products are supplied with compact, customised and easy-to-fit wall enclosure boxes and covers within which the valve fits and all connections are made. A special optional mounting tool equipped with a spirit level is available if desired.

Danfoss, unique with its long UFH experience and in being able to provide the total range of underfloor heating controls, can be relied upon for proven products and quality support. Details of FHV valves and other controls are available on request.

For further information contact, Brian F. Maguire, Danfoss Ireland Ltd. Tel: 01 626 8111 E-mail: marketing@danfoss.ie



Danfoss FHV valves are fitted with either FJVR or RA2000 sensor elements

Do you want flexibility of design but currently are at the mercy of the products you use? The solution,



Multikwik is proud to introduce triaqua, their latest range of WRAS approved concealed bathroom systems.

Modular & Rail Installation Series

The Modular Series from triaqua comprises of individual pre-assembled load bearing support frames that can accommodate the various sanitaryware products in the market today, such as WC pans, bidets, urinals, washbasins and shower/baths.

The frames can be fixed to a wall by four fastening points with height adjusting legs and depth adjusting arms. Alternatively, they can be incorporated into triaqua's Rail Installation Series that provides multiple design combinations that fosters a bathroom's window, door and floor layout, and furniture.

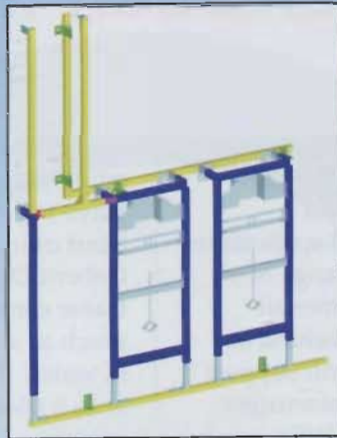


Dual Flush Cistern & Washbasin incorporated into the Triaqua rail installation series

Benefits

The benefits derived from these systems are their ability to:

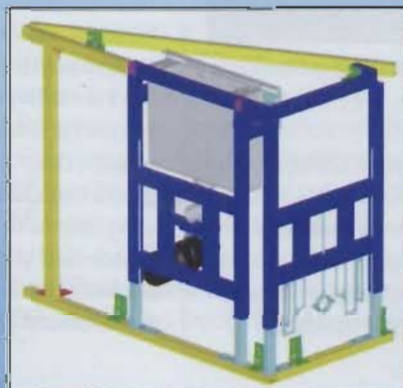
- Hide the necessary piping that needs to run behind the plinth on which the bathroom furnishings, such as washbasins and toilets, stand.



- Create open shelf units, which provide storage space with most bathroom items stored close at hand.
- Provide insulation against noises emitting from the cistern or piping network.



- Construct half-wall and/or full walls to divide or reshape the bathroom.
- Create any corner, diagonally on walls or in the centre of the room, as part of the design feature.



- Allow each design combination to create space just where it is needed most, creating freedom of movement.



The combination of each Series eliminates any necessary rework or variable joint techniques commonly associated with conventional methods. No longer do you have to individually custom-make support structures on site for sanitary units. The versatility and simplicity of the system specifies only one installer where once two to three tradesmen were required.

The ease and quickness of design and installation, minimal training and supervision requirements mean that installers/plumbers become more productive and have greater control over the finished product.

The enormous design possibilities are derived from the system utilising every square inch of a bathroom. This means being able to enjoy luxury in the smallest of spaces, whilst at the same time making a simple bathroom come to life!



MFP Sales Ltd
 Lucan
 Co. Dublin
 Tel: 01 - 630 2600
 email: sales@mfp.ie

Geberit: Never Seen ... Never Heard

Founded in Switzerland in 1874, Geberit has over 100 years experience in sanitary systems and is regarded as market leader in advanced plumbing technology across Europe with a strong reputation for both innovation and quality. Every year, Geberit invests a substantial amount of its turnover into research and development of new and innovative products.

Bathroom design is changing and, as a result, consumers are no longer bound by the constraints of the traditional exposed cistern and floor-standing WC. Geberit's installation systems herald the

the smallest of rooms.

Suitable for both domestic and commercial applications, Geberit's range of Duofix frames sit discretely behind a wall and will support most manufacturers wall-hung WCs, washbasins, bidets and urinals.

The modern washroom needs to meet the exacting requirements of cleanliness, water usage and ease of maintenance. With this in mind, Geberit has developed a range of flexible WC, urinal and washbasin installation elements to meet these tough new criteria.

The smart and efficient use of water is very much a feature of

conventional WC. By employing the latest valve technology at the heart of its cistern, the Geberit Duofix WC frame can achieve as much as a 30% saving in water. This, coupled with a silent fill valve, ensures a truly efficient flush.

Geberit's range of low maintenance taps continues the water saving theme, with infrared technology to automatically start and stop the water.

The latest infrared technology is also evident on Geberit's urinal frames where vandal-resistant flush actuators conceal a host of intelligent water management features designed to control water usage. Touch-free intelligent operation ensures hygienic, automatic flushing after very use.

Remote control operation allows the washroom manager to adjust flush settings to suit demand and thus keep maintenance to a minimum.

Whether new-build or refurbishment, Geberit's installation systems offer the user and installer countless benefits. Each frame comes fully assembled, ensuring quick and easy installation. With concealed pipework and a clear floorspace, the Geberit bathroom

is both uncluttered and easy to maintain.

With the choice of corner installation ideal for many hotel settings, Geberit Duofix offers a comprehensive range of installation options.

The Geberit range is exclusive to Tubs & Tiles in the Republic or Ireland. Most showrooms have a Geberit system on display with a full demonstration model on display at the new Commercial Centre in Dublin.

Tubs & Tiles branches are located in Athlone, Cork, Dublin, Dundalk, Ennis, Galway, Kilkenny, Limerick, Navan, Naas, Sligo, Tralee and Waterford. For further details on the Geberit system call the Technical Information Hotline at Tel: 01 - 616 0372.

An exclusive range in the Heatmerchants portfolio is Assos. This company manufactures calorifiers for the production and storage of hot water. They are the most modern and technologically-advanced in Europe today. Manufactured according to German DIN standards, their quality is recognised by competitors to be the highest in this sector.

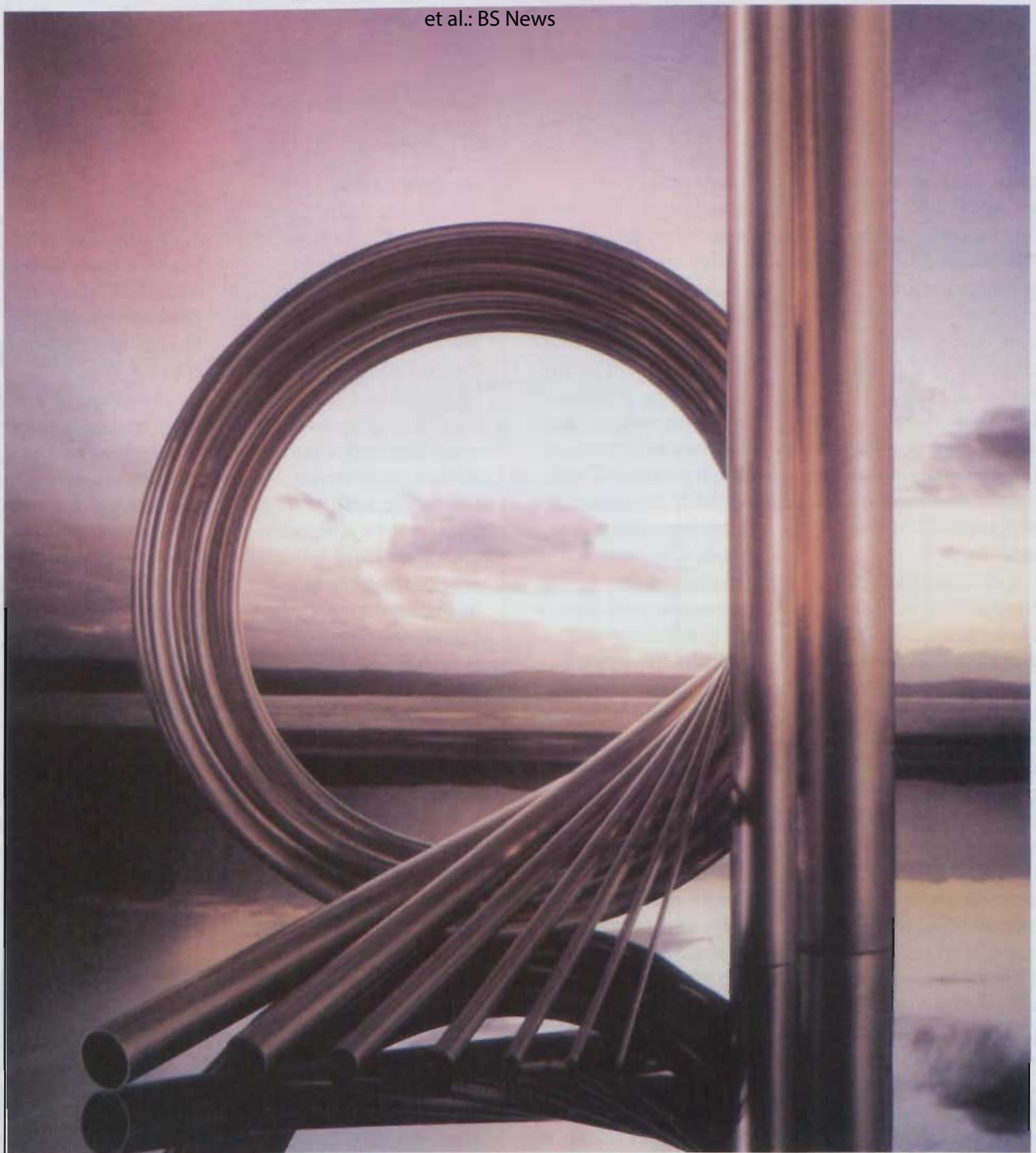
Assos calorifiers are glass-lined calorifiers with a 4 kW immersion. A 65mm non-CFC polyurethane insulation at a density of 40 kg/m³ minimises heat losses. All



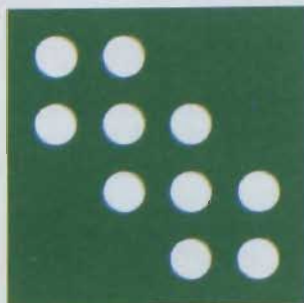
Geberit's installation systems herald the advent of modern bathroom design

advent of modern bathroom design, utilising wall-hung technology, and with it, the design freedom to provide solutions in even

the Geberit Duofix range. Geberit's WC frame demonstrates particularly impressive water savings when compared against a



All our tubes are up to the Mark



**IRISH METAL
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Irish Metal Industries supply a complete range of copper tube for hot and cold water installations, gas services, sanitation, central heating and numerous other building and engineering applications.

All our tubes are manufactured to the stringent requirements of EN : 1057 and we are licensed to engrave them with the coveted Irish Standard Mark which is the registered mark of the National Standards Authority in Ireland. What's more we give a unique **25 year guarantee** against manufacturing defect. So what ever your requirements you'll receive nothing but the best quality, service and reliability with copper tube from Irish Metal Industries.

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Fax: (01) 295 2163

Irish Metal Industries Ltd, 25 Spruce Avenue,
Stillorgan Industrial Park, Blackrock, Co Dublin.

IMI
A subsidiary of IMI plc.

calorifiers come with either no coil, one coil or two coils. Each Assos calorifier comes pre-fitted with a magnesium anode and side flange for the cleaning of the coil on an annual basis. The large side flange permits easy cleaning while the flange on the top of the calorifier allows for the replacement of the anode.

Calorifier sizes range from 100 ltr – 1000 ltr in capacity. The 100 - 120 ltr comes as wall-mounted while the 150 ltr and upwards are floor-mounted. If desired thermostats can be fitted in the calorifier to control the water temperature (Code 323091). They operate up to 10 bar max at 95°C while they have been tested up to 13 bar. An optional 6 kW 3-phase immersion is available with all units. A recirculation connection can also be fitted which allows for a secondary return to be fitted to the system.

For boosting we recommend a either a Grundfos or Wilo booster pump and also an unvented kit which are stocked in the Central Warehouse in Athlone, Co Westmeath.

NB: The 800 ltr – 1000 ltr models are galvanised units and do not come fitted with insulation.

On the broader front Tubs & Tiles also leads the way in bathroom design. At any of its 13 nationwide showrooms you'll find the most up to the minute designs

in bathrooms with something to suit every budget and taste. Tubs & Tiles are the leading retailers of quality bathroom suites in Ireland. Their constant effort to remain as the number one retailer of bathroom suites ensures that they sell the most stylish sanitary ware available in Ireland at value-for-money prices. Choosing a bathroom suite, accessories and tiles is really a fashion business these days.

The bathroom is not just a functional room – it says something about the people who own it. Bathrooms today are a far cry from the gaudy colours of the seventies. Simple colours such as white and pergamon are very much in vogue. What distinguishes the bathroom of the 21st century to the bathroom of yesteryear is the attention to detail in the styling of the suite. Most suites now have mouldings in various styles that give the end customer the ability to create a luxurious bathroom.

But the bathroom of the 21st century doesn't just consist of the bath, basin, bidet and cistern. It encompasses the shower enclosure, fittings, accessories and furniture. More and more people are beginning to realise that the bathroom is an integral part of the home and should be given the same prominence

as other rooms.

In recent years Tubs & Tiles have noticed a marked increase in people visiting their showrooms months in advance of requiring the bathroom suite. Most spend a great deal of time looking at what is on offer and what to accessorise their suite with. Should it be a wooden bath panel and toilet seat or the very latest in quality bathroom furniture? The possibilities are endless at any Tubs & Tiles showroom. Most Tubs & Tiles showrooms feature approximately 25 full bathroom suites, 15 ensuites, 12 working showers, 20 shower enclosures, up to 70 different types of wood

flooring as well as hundreds of wall and floor tiles. Leading brand names featured include Villeroy & Boch and Sphinx. Highly-competent and trained sales representatives are on hand in the showrooms to recommend the ideal bathroom suite and accessories for your requirements. Heatmerchants branches are located in Arklow, Athlone, Bray, Cavan, Cork (3), Dublin (4), Dundalk, Dungarvan, Ennis, Galway, Kilkenny, Limerick, Mallow, Navan, Naas, Sligo, Tralee and Waterford. For further details on Assos call the Heatmerchants Technical Hotline at Tel: 01- 616 6150.

Space-saving Solutions from MFP Sales

The Triaqua modular and rail installation series from MFP Sales will allow each design combination to create space just where it is needed most without compromising freedom of movement within the bathroom.

The combination of each series enables the installer to:

- Create open shelf units for storage space;
- Hide the necessary piping that needs to run behind the plinth on which the bathroom furnishings, such as washbasins and toilets, stand;
- Provide insulation against noises emitting from the cistern or piping network;
- Construct half-wall and/or full walls to divide or reshape the bathroom;
- Create any corner, diagonally on walls or in the centre of the room, as part of the design feature.

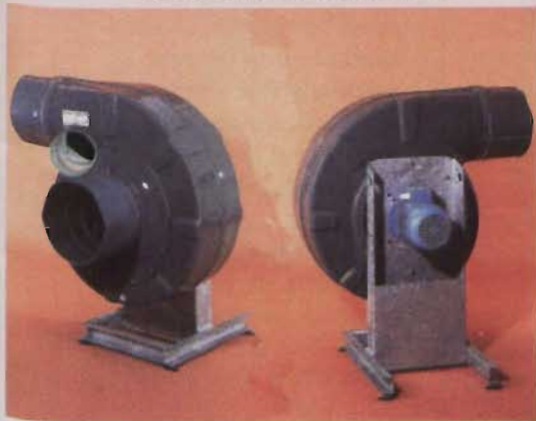
Each Series is designed to be self-explanatory, easy to specify, simple and quick to install, with minimal training and backup service required.

Contact: Dudley Foster, MFP Sales.
Tel: 01 - 628 0691; Fax: 01 - 628 0318;
email: sales@mfp.ie

Ventac Metzsch Plastic Fans

Ventac is now supplying the Mietzsch range of industrial plastic fans throughout Ireland. Mietzsch manufactures a wide range of plastic centrifugal fans such as direct and belt-driven single-inlet fans (type VRE), roof mounted fans (type VRR) and inline fans (type VRK). They also manufacture a wide range of plastic accessories to complement the fan range, including plastic attenuators, ducting, cowls, grilles, etc.

Although Ventac has only been dealing with Mietzsch for the last two years, the trading relationship dates back nearly 25 years. This is because Mietzsch previously manufactured the Geshart range of plastic fans but now markets its range of fans under its own name. Materials used are PVC, PP, GRF and PPEL, along with flame-proof and gas-tight versions. The range is capable of duties from 150 to 150,000 m³/hr and



Mietzsch radial fans Series VRE/VRE-EX from Ventac

pressures up to 4500Pa.

Radial fans of type VRE are used in all branches of industry and agriculture as the applied plastic materials lead to outstanding chemical resistivity. It should be considered, however, that even plastic

materials can be attacked by certain chemicals. Destruction depends on the applied plastic, the attacking chemical, and its concentration, temperature, time of action, etc. Table A permits a first survey.

Explanation of figures — 0 =

mounted. The impeller is balanced dynamically and has been fastened directly on the motor shaft butt. The impeller and casing are of PVC or PPs (other materials on request), made of single components, and assembled by progressive

Chemicals	PVC		PPs
	731	734	
Dilute acids	4	4	4
Concentrated acids	4	2	4
Halogens, dry	2	1	1
Dilute lyes	4	4	4
Concentrated lyes	4	4	4
Alcohols	4	0	4
Esters	0	0	3
Ketones	0	0	3
Ether	0	0	2
Haloalkanes	1	1	1
Benzene	0	0	1
Benzine	4	2	3
Mineral oils	4	2	4
Sea water	4	4	4

not resistive; 1 = partly resistive to not resistive; 2 = partly resistive; 3 = resistive to partly resistive; 4 = resistive.

Delivery of gases with dustiness of < 0.005 g/m³ is possible. Higher dustiness may lead to premature wear and even damage to the fan.

Mietzsch fans are manufactured in two aerodynamic versions, namely 731 and 734. These differ mainly in their impellers. Their state-of-the-art design leads to high efficiency, low sound level and high power density. Safety demands according to VDMA 24 167 are met.

The major constituents of the radial fan are impeller, spiral casing, base, and drive motor. The base is of sheet metal to which the drive motor with horizontal axis is flange-

jointing methods.

Steel components such as screws, hub and hub connection are protected by plastic covers from corrosion, or the applied connecting elements are made of stainless and acid-resistant steel.

The device can be opened on its suction side for cleaning. A condensate outlet has been arranged in its deepest section.

Every fan is supplied as a complete assembly unit. Vibration absorbers and elastic sockets are elements of delivery. A large assortment of special designs and accessories is also available.

A special EX version of electrically-conductive plastic material is used for conveying explosive gas mixtures.

Contact: Mark Moran, Ventac.
Tel: 045 - 851500.
email: mmoran@ventac.com

Modern Aids to Effective Commissioning

As piped services in buildings have grown in scale and complexity, so technology has come to the aid of commissioning

engineers, writes Crane Technical Support Manager, Andy Lucas.

A heating or chilled water system will have been designed to use liquid as a means of heat transfer. The commissioning engineer has the responsibility of ensuring that the system, assuming correctly designed and installed, is "balanced". A balanced system ensures;

- correct volume of water flows through primary and secondary circuits, boilers, chillers and terminal units etc.
- room temperatures are held within a narrow range throughout the building
- maximum system efficiency and energy saving is achieved
- the required indoor climate specified by the

architect is met — maintenance requirements are reduced, and system component life is increased. Flow measurement devices (FMD), either fixed or variable orifice valves or venturi-nozzles, are designed into a system to enable commissioning engineers to take readings of differential pressure which can be related directly to flow rates.

Commissioning engineers have traditionally used manometers, either water-over-mercury (high loss manometer) or fluorocarbon to measure differential pressure. These readings will be required for the larger distribution pipe-work, containing numerous branches and associated valves, and in modern systems, especially those installed in office blocks, large quantities of terminal units. These are generally in the form of radiators, fan coil units and, more recently, chilled beams or ceilings.

The commissioning engineer will need to prepare his pro-forma test schedule prior to visiting site. This will contain commissioning valve references, design flow rates and differential pressures, and a range of

manufacturers valve data. Since a typical A4 sheet of paper will have approximately 33 lines, a system containing upwards of 200 terminal units (quite common in recent times), with each unit having heating and chilled service, the pro-forma test schedule will number 12 to 15 sheets. Obviously, as well as recording terminal units, the commissioning engineer will need to record flow rates for all other parts of the system.

It is therefore no surprise that commissioning engineers are readily embracing the advent of the latest generation of computerised commissioning systems (CCS).

The CCS uses a transducer to convert differential pressure into an electric signal. Early CCS units would display either the differential pressure in various units (typically kPa, mm or insH₂O) or, for a limited number of products, usually those products marketed by the CCS manufacturer, a flow rate would be displayed.

The latest systems come ready programmed with almost all possible valve options. Not only do they contain virtually all the recognised valve manufacturers details, all valve sizes and types are also pre-programmed.

The latest Crane Perfector 2000 CCS allows for commissioning valve references, predetermined hand

wheel settings for load simulation, manufacturer's valve data and design flow rates, all to be pre-programmed or downloaded from a PC into the unit, thus negating the need for pro-forma test schedules in paper form. Flow rate percentage of design is readily calculated and displayed by the Perfector.

The Perfector offers a more practical method of recording results bearing in mind that the measuring instrument (manometer or CCS) is being connected into a water system. Once recorded, the results can be down-loaded to a PC, which allows for the printing and editing of test results.

There is an old adage that says: "the jobs not done until the paper work's completed", and the latest Perfector 2000 certainly speeds up the process of issuing commissioning reports. A relatively few years ago, the commissioning engineer and his assistant would have had trouble communicating with each other between floors and metering stations, but the advent of the mobile phone has meant that communication is no longer a problem. A combined mobile phone and CCS ... Now that's an idea!!!!!!

Andy Lucas is Technical Support Manager for Crane Fluid Systems and can be contacted on Tel: 0044 1473 277400; email: alucas@crane-ltd.co.uk.



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Energia — Providing Energy for Business

Energia, a subsidiary of the Viridian Group plc, is the largest and longest-established independent energy supply company in Ireland. The Viridian Group has all-Ireland energy interests in Energia, Northern Ireland Electricity, Huntstown Power, which is developing a power station near Dublin and the Moyle Interconnector, which links the Irish and Scottish electricity grids.

Energia seeks to offer significant savings in Ireland's newly-liberalising electricity market and currently supplies in excess of 450MW to over 500 large industrial and commercial customers throughout Ireland.

However, it intends to provide cost-saving offers to the entire business community as the pace of deregulation accelerates.

Much like "Carrier Pre-Select" in the telecommunications industry, business electricity users can simply nominate their preferred supplier, receive power through the national grid, and be billed accordingly from the tariff agreed with

their supplier.

In the months and years to come, the eligible customer base will gradually be expanded to include all businesses throughout Ireland, and finally, the residential sector. Energia intends to play a positive role in making this a reality.

The effect of deregulation is to allow competition in the generation and supply businesses.

ESB/EIRGRID will continue to operate the distribution system and the transmission network leading into premises.

Therefore, all metering services and quality of supply issues are unaffected, regardless of the electricity supplier company.

Energia has a number of service offerings, specifically designed around market research findings in the Irish marketplace. They extend from analysing present and future energy needs, to building and operating on-site generation.

Energia offers customers well-defined services and energy solutions. The duration of contracts can range



Alan Cooke, Senior Key Account Manager with Gary Ryan, Head of Sales and Marketing; and Alan Mulcahy, Key Account Manager/Munster region.

from a year to five years, depending on an individual organisation's requirements. The majority of customers currently opt for between one and two years with the option for immediate contract renewal at the end of the desired period.

As further market liberalisation takes place and as new and independent national generation facilities come on grid in 2002, this will provide Energia with alternative choices of electricity generators, at home and abroad, from which they will be able to buy and supply

electricity to the Irish marketplace.

Moreover, Huntstown Power Company is a wholly-owned subsidiary of the Viridian Group. The company is building a 343 MW CCGT power station at Huntstown in North County Dublin, which is on target for completion in 2002. This will result in even more significant savings for customers as early as late 2002, and provide Energia with a solid competitive advantage in the marketplace.

Contact: Sheila Flanagan, Energia.
Tel: 01 - 647 5941.
Stand No:C2

Cheque mate et al.: BS News



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Tel +44 114 255 6451

Renewable Energy Solutions from PET



Pure Energy Technology (PET) provides renewable energy solutions for buildings which are based on three different alternatives:

- Electricity from wind and solar sources;
- Heating from ground source and solar;
- Hot water heating from solar.

PET has established a number of agencies for key components for green electricity

systems for buildings. In addition, PET has developed a control system that makes electricity generated from wind and solar sources a really practical possibility in domestic and commercial buildings.

PET has a comprehensive website which is divided into a products section and an information section which explains "how it all works". See www.pet.ie.
Stand No: H14.

Controls Saving you Energy

Danfoss present a wide range of controls which can ensure energy savings in domestic, commercial and the industrial applications.

Danfoss, time, temperature, and zone controls offer room temperature control where and as you need it, while weather compensators ensure a reference to outdoor conditions to avoid overheating and an effective use for energy. Savings of up to 20% can be achieved with these simple and easy-to-install controls.

The dedicated designs of Danfoss Variable Speed Drives (VLT®) applied to pumps and fans ensures optimised running conditions with the built-in "sleep mode" and Automatic Energy Optimisers (AEO).

Adap-Kool® Control and Monitoring PC based system for Refrigeration and Air Conditioning has seen results of 30% to 40% energy savings when applied in supermarkets and water chillers, etc, while the system ensures control temperature accuracy of food and process product to meet the demands of hygiene health and safety, HCCAP and other such standards.

Finally, Danfoss displays an extensive range of automatic controls, pressure transmitters, temperature sensors, soft starters, solenoid valves, motorised valves, etc, designed for the tough conditions in the wider industrial market, with international approvals and advanced production technology to ensure a high quality product for each applications.

Contact at the Stand: Brian F. Maguire, Sales Manager, Heating Controls Division; Eddis Savage, Refrigeration & Air Conditioning Division; and Ed Keating, Sales Manager, Industrial Process Controls Division.
Stand No: D2



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South Ring West Business Park, Cork. Tel: (353) 021 - 432 1066. Fax: (353) 021 - 432 1068

Fortum Energy Solutions

Fortum Energy Solutions (FES) is a tailored combination of specialised technologies and products; engineering services; operation and maintenance services; products and expert services, e.g. energy risk management, energy project development and equity participation. FES is built on Fortum's more than 70 years' experience of a

wide range of power plant types at highly-competitive markets in over 100 countries.

Customers include power plant owners, developers of energy projects, energy-intensive industry, and medium-sized industries.

Services provided include:

- Operation and maintenance services for power plants and industry;

- Other power plant performance services like Gas Turbine Care, Transformer Care and Remote Support Services;
- Technical and commercial analyses of energy solutions, project management and design services;
- Power plant projects and refurbishments;
- Delivery of energy from industrial CHP or biomass plants

FES also offers a partnership approach in maintenance to ensure high plant availability and reliability through TOPMaint procedures and systems. These include contracted maintenance; special maintenance; and condition management.

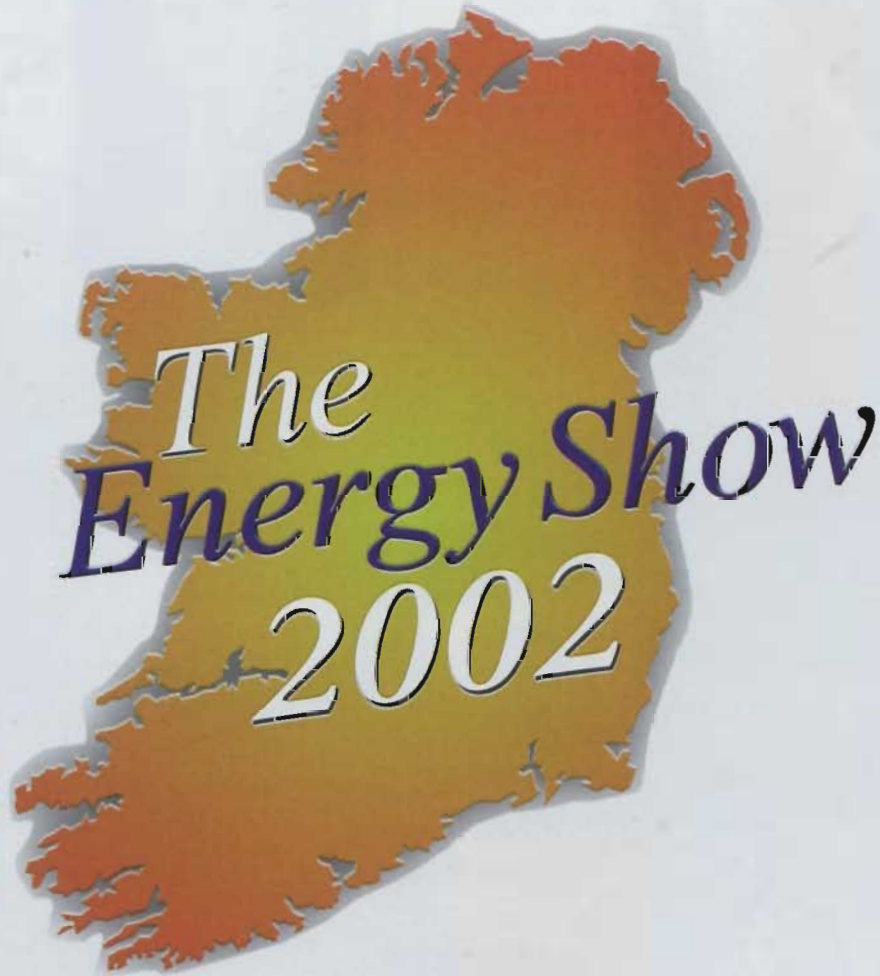
The product range includes also unique oil management services called FILM, providing information, advice and solutions that are truly proactive ... maximising maintenance effectiveness and minimising costs.

What added value does FES bring to the customer? ... it releases management resource from non-core activity; it reduces risk associated to the availability of the power plant; and reduces/optimises the running and overhaul costs of the assets.

At Energy Show 2002 Fortum Energy Solutions will present a wide range of FES products, but concentrates mainly on Operation and Maintenance Services and on Film product. Specialists from the peat fired Edenderry Power Station — which was designed and built by Fortum and is now operated and maintained by Fortum O&M (Ireland) Ltd — will be in attendance on the stand, along with other FES personnel. Stand No: D6/D7



Official Catalogue



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EXHIBITION & WORKSHOPS

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

Dates: Wednesday 15 May 2002 — 9am - 7pm
Thursday 16 May 2002 — 9am - 6pm

presented by



The Irish Energy Centre 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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Message from The Minister

I have great pleasure in welcoming you to The Energy Show 2002. As Minister of State for Energy at the Department of Public Enterprise, I published the Green Paper on Sustainable Energy in September 1999, which outlined an extended remit for the Irish Energy Centre. The timing of the show is therefore very apt with the recent establishment of the Irish Energy Centre as an independent statutory body, Sustainable Energy Ireland.



Recent years have also seen a dramatic change for energy users and producers in Ireland. New choices, new opportunities and indeed new threats were presented by the opening of the electricity market. Additionally, the Government's Green Paper on Sustainable Energy and the National Climate Change Strategy signals the national strategies and sectoral targets to meet our Kyoto Protocol greenhouse gas abatement commitments.

Energy efficiency and renewable sources of energy are essential partners in this objective — efficiency reduces our demand for energy; renewables increase the sustainability of our energy supply.

The ever-widening scope of the Energy Show, which has established itself as the showcase for energy efficiency products and services, now also embraces an increasing number of renewable energy technologies.

The Energy Show brings together hundreds of exhibitors who present a vast array of innovative products and services to all those with an interest in, and responsibility for, energy across the commercial, public, industrial, renewable and domestic sectors.

The exhibition will demonstrate that moving towards sustainable energy can represent a commercial opportunity through the increased market for certain technologies on the one hand, and the reduced energy cost base for industry and commerce on the other.

Put simply, The Energy Show is about making sustainable energy pay.

May I finish by wishing all show participants a successful and enjoyable time at Energy Show 2002

Mr Joe Jacob, T.D.
Minister of State at the Department of Public Enterprise

Useful Information

Opening Hours

Wednesday, 15th May — 9.00am to 7.00pm

Thursday 16th May — 9.00am to 6.00pm

Official Opening

The official opening of the Energy Show 2002 will be performed by Minister Joe Jacob, TD, Minister of State at the Department of Public Enterprise

Organisers Office

Located to the right of the main entrance

First Aid

Please contact the Organisers Office

Press Office

Please contact the Organisers Office for all Press information

Catering

Situated at the back of the hall

Parking

Car parking exists for over 1,000 cars in the RDS Complex.

Lost Property

All enquiries regarding lost property should be made through the Organisers Office.

Telephones

Public telephones are located to the left of the main entrance

Taxi Service

Taxis numbers are:

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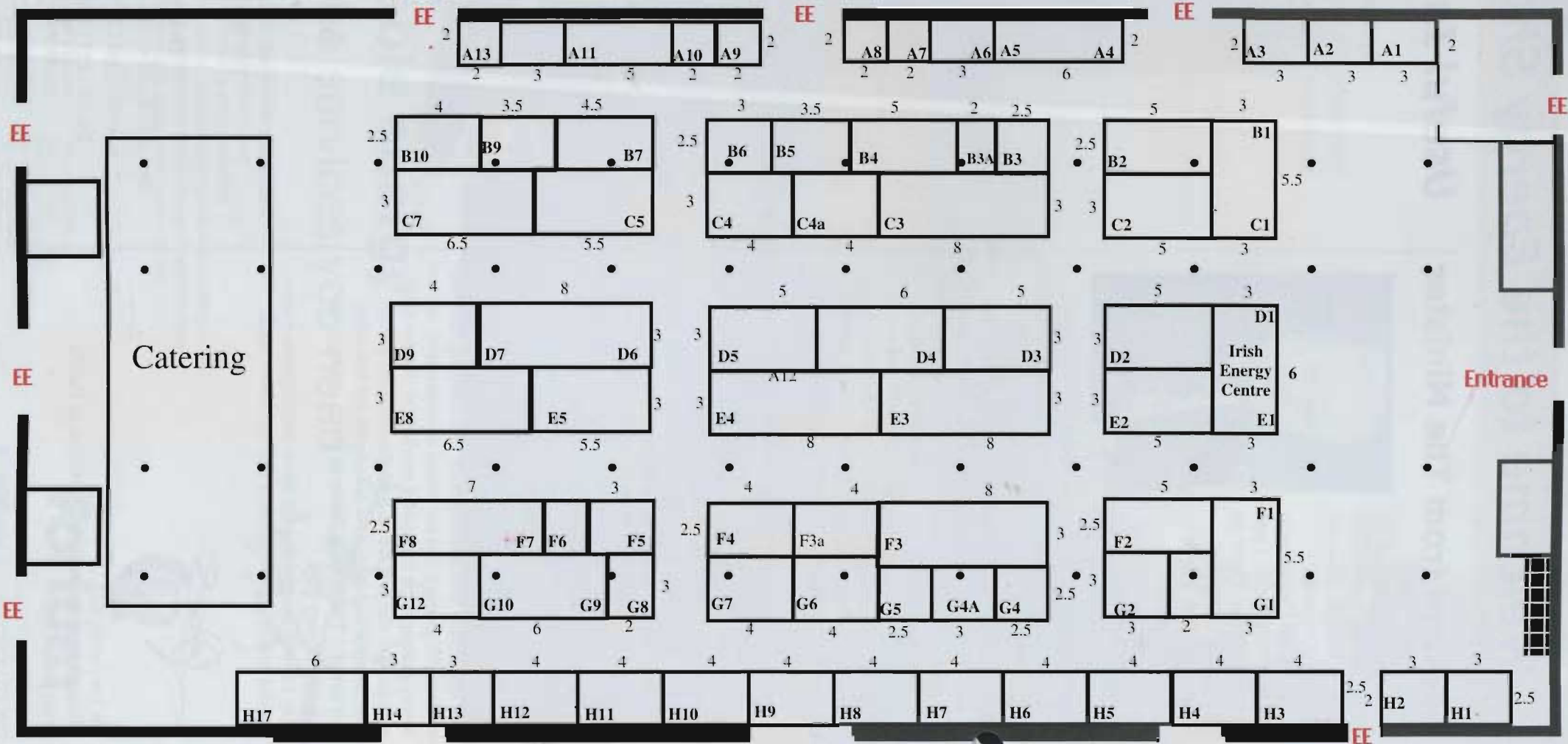
Tel: 01 - 295 7418; Fax: 01 - 295 7417;

email: margaret@bizex.ie



Energy Show 2002

2



Exhibitors and Stand Numbers

<i>AEA Technology - Future Energy Solutions</i>	G12	<i>Hevac</i>	C7
<i>Air Technology</i>	A7	<i>Ingersoll Rand Co. Ireland</i>	B1/C1
<i>Albar Associates</i>	A9	<i>Irish Energy Centre</i>	D1/E1
<i>ATC Electrical & Mechanical</i>	C5	<i>Irish Energy Management</i>	G12
<i>Atec Engineering</i>	H13	<i>Jenbacher</i>	E3
<i>Atlas Copco Ireland</i>	F1/G1	<i>Keston Heating Products</i>	B7
<i>Becosolar</i>	H6	<i>Lectron Joules</i>	A4/A5
<i>BG CoGen</i>	D5	<i>Logstør</i>	B5
<i>Bord Gais</i>	D5	<i>Lycris-Byrne Copper & Steel Cylinders</i>	E2
<i>BP Solar</i>	H6	<i>M T Agencies Ireland</i>	C4a
<i>Breezair Ireland</i>	G9/G10	<i>McCool Controls & Engineering</i>	F3
<i>Brotherhood Aircogen</i>	D4	<i>Morgan-Hope Industries</i>	G7
<i>Casey Technology</i>	B6	<i>Nedalo</i>	G5
<i>City of Dublin Energy Management Agency</i>	C3	<i>Noel Walsh Limited</i>	B5
<i>Concord Boiler Engineering</i>	B2	<i>Parkersell Lighting Services (Irl)</i>	H3
<i>Crystal Air</i>	D3	<i>Peter Brotherhood</i>	D4
<i>Cylon Controls</i>	F4	<i>Power Logic</i>	B10
<i>Daikin VRV</i>	D3	<i>Precision Heating</i>	C4
<i>Dalkia</i>	H3	<i>Pure Energy Technology</i>	H14
<i>Danfoss (Ireland)</i>	D2	<i>Rhopoint Systems</i>	A2
<i>Dunstar Energy - The Solterra® people</i>	B3	<i>Riomay Solar Energy</i>	G8
<i>Econopower</i>	G7	<i>RVR</i>	G4
<i>Edina</i>	E3	<i>S & C Electric Company</i>	D9
<i>Edina</i>	H15	<i>Schneider Electric Ireland</i>	B10
<i>EiMeter</i>	A9	<i>Setsquare</i>	A4/A5
<i>Energia</i>	C2	<i>Shamrock Solar Energies</i>	F2
<i>Energy ICT</i>	A4/A5	<i>Sinergy</i>	F5
<i>Energy Ireland</i>	A10	<i>SmartKontrols</i>	G2
<i>Energy Services</i>	G12	<i>Solar Plus</i>	H2
<i>Environmental Efficiency</i>	A6	<i>Spirax-Sarco</i>	H5
<i>EPH Controls</i>	F7/F8	<i>Standard Control Systems</i>	E8
<i>ESB</i>	E4	<i>Stark Softwear International</i>	G12
<i>ESB Independent Energy</i>	B4	<i>SWS</i>	A1
<i>Fortum O&M (Ireland)</i>	D6/D7	<i>Team (Energy Auditing Agency)</i>	B9
<i>Gardner Energy Management</i>	A3	<i>Telemecanique</i>	B10
<i>Greenstar Energy Management</i>	A8	<i>Thermpak Systems</i>	A12
<i>Hamworthy Heating</i>	C7	<i>Viessmann</i>	C4
<i>Harold Engineering</i>	B1/C1	<i>Wärtsilä Ireland</i>	E5
<i>HDS Energy</i>	A11	<i>Water Monitoring</i>	A13

Exhibition Principals and Stand Numbers

▶ **AEA Technology - Future Energy Solutions** Stand: G12

Building 154, Harwell, Didcot, Oxfordshire OX11 0RA, England
 Tel: 0044 1235-433 513 Fax: 0044 1235-433 378
 Contact: Mr Tony Duffin - Business Manager
 Email: tony.duffin@acat.co.uk
 Future Energy Solution's experience is recognised worldwide by clients who value unbiased advice on energy. We provide consultancy services in fields including: Energy Efficiency / Renewables: Wind / Solar / Biomass / Energy from Waste / Landfill Gas / Wave & Tidal Power / Carbon Trading / Due Diligence.

▶ **Air Technology** Stand: A7

5 Victoria Mill, Fowke Street, Rothley, Leicestershire LE7 7P, England
 Tel: 0044 116-230 1750 Fax: 0044 116-230 1751
 Contact: Mr Darren Webb - Sales Engineer
 Email: darren.webb@airtechnology.co.uk
 Air Technology Ltd. founded in 1987 has established itself as the leading provider of practical energy saving solutions, trouble shooting and project management in the fields of compressed air, water and inert gases. Our services are commissioned the world over by all types of industry. Air technology is ready and equipped to satisfy business clients from small independent sites to large multinationals. Some of our clients in Ireland- Irish Energy Centre, Wyeth Medicare, Irish Glass, Aughinish Alumina, Fedral Mogul(Champion Spark Plugs), Dairy Gold.

▶ **Albar Associates** Stand: A9

Meridian House, Road One - Winsford Industrial Estate, Winsford, Cheshire CW7 3QG, England
 Tel: 0044 1606-861 351 Fax: 0044 1606-861 643
 Contact: Mr Mike Dorgan - Partner
 Email: mike@albar-energy.co.uk
 Website: www.albar-energy.co.uk
 Albar features its ATLAS 2000 energy monitoring and reporting system and the Web/Net Logger with its e-mail capabilities. With ethernet communications, these powerful systems will assist users to control the affect of increasing energy costs and also identify areas to increase profitability. See also the EiMeter, a range of cost effective current transformers and the Profile energy recorder.

▶ **ATC Electrical & Mechanical** Stand: C5

Unit 7 Airtown Road, Tallaght Industrial Estate, Tallaght, Dublin 24, Ireland
 Tel: 01-462 5111 Fax: 01-452 0887
 Contact: Mr Ciaran O'Reilly
 Email: ciaran.oreilly@atc.ie
 Website: www.atc.ie
 ATC Electrical & Mechanical will be exhibiting a range of electrical and water Door Curtains for use in commercial premises, such as entrances to Hotels, Shops, Sports Centers and Warehouse Doors in factories where cold draughts are a problem and are causing very high energy costs. We will show that these cold draughts represent 80% of heat losses and this problem can be solved by correctly installing a Frico Door Curtain.

▶ **Atec Engineering** Stand: H13

UNIT T1 Stillorgan Industrial Park, Stillorgan, Co. Dublin, Ireland
 Tel: 01-295 9990 Fax: 01-295 9922
 Contact: Mr Aidan Cruise - Managing Director
 Email: info@atec.ie
 Website: www.atec.ie
 Atec Engineering Ltd. are suppliers and installers of underfloor heating systems and underfloor heating control specialists. We provide a properly managed and controlled system. See our stand for more details.

▶ **Atlas Copco Ireland** Stand: F1/G1

Kylemore Road, Bluebell, Dublin 12, Ireland
 Tel: 01-450 5978 Fax: 01-456 7686
 Contact: Mr Joe Newman - Business Line Manager
 Email: joe.newman@atlascopco.com
 Website: www.atlascopco.com
 Atlas Copco introduced first Variable Speed Drive compressor in 1994. Introduced the first 100% oil free VSD compressor in 2000. Compressor regulator is specifically designed to interact with the VSD, and engineered to skip damaging resonant frequencies. Complete package is compliant with EMC 8/C9/EEC. Atlas Copco offer the completely integrated variable speed drive solution.

▶ **Becosolar** Stand: H6

8/10 Speedwell Units, Nelson Road, Dartmouth, Devon TQ6 9SZ, England
 Tel: 0044 1803-833 636 Fax: 0044 1803-835 379
 Contact: Mr Rob Adams - Managing Director
 Email: radams@becosolar.com
 Website: www.becosolar.com
 Becosolar are distributors in the UK & Ireland for BP Solar, manufacturers of monocrystalline, Polycrystalline and Amorphous Silicon PV (solar electric) Modules. We specialise in PV systems, manufacturing our own range of controllers and building custom PV power supplies for industrial, commercial and domestic uses.

▶ **BG CoGen** Stand: D5

Unit1 Arena House, Arena Road, Sandyford Business Park, Dublin 18, Ireland
 Tel: 01-602 0068 Fax: 01-602 6520
 Contact: Mr Frank Daly - Business Development Engineer
 Email: bgcogen@bge.ie
 Website: www.bgcogen.com
 BG CogGen, a division of Bord Gáis, is one of Ireland's leading Combined Heat and Power (CHP) technology providers. Currently BG CoGen owns and operates approximately 25% of Ireland's installed CHP electrical capacity. BG CoGen's growing client list includes: Guinness Ireland, Carbery Milk Products, Lakeland Dairies, FMC Biopolymer, Millipore Ireland B.V and the Civic Offices Dublin.

▶ **BG CoGen** Stand: D5

Unit 2200, Cork Airport Business Park, Kinsale Road, Cork, Ireland
 Tel: 021-432 4670 Fax: 021-432 2954
 Contact: Mr Cathal Gallagher
 Email: bgcogen@bge.ie
 Website: www.bgcogen.com
 Details available on stand.

Bord Gais

Stand: D5

PO Box 51, Gas Works Road, Cork, Ireland
Tel: 021-453 4000 Fax: 021-452 4001
Email: abrowne@bge.ie
Website: www.bordgais.com
Bord Gáis is responsible for the supply, transmission and distribution of natural gas in Ireland. Through its on-going programme Bord Gáis supplies natural gas to 70 key population centres and more than half a million Irish homes and businesses with access to one of the most convenient and economical fossil fuels.

BP Solar

Stand: H6

8/10 Speedwell Units, Nelson Road, Dartmouth, Devon TQ6 9SZ, England
Tel: 0044 1803-833 636 Fax: 0044 1803-835 379
Contact: Mr Ron Adams - Managing Director
Email: info@becosolar.com
Website: www.becosolar.com
BP Solar are represented at the Energy Show by Irish distributors, Becosolar. BP Solar manufacture modules for clean electricity generation.

Breezair Ireland

Stand: G9/G10

Retagh, Carrick-on-Suir, Co. Waterford, Ireland
Tel: 051-641567/1850 511 239 Fax: 051-641 072
Contact: Mr John Lawton - Sales Manager
Email: info@breezair.ie

Website: www.breezair.ie

Breezair Ireland is the sole agent for the Breezair range of evaporative coolers. We distribute a product that is making big inroads in the supply of cooling to the industrial and commercial sector. We also provide mobile industrial coolers for sale and hire.

Brotherhood Aircogen

Stand: D4

Werrington Parkway, Peterborough, PE4 5HG, England
Tel: 0044 1733-292 450 Fax: 0044 1733-292 460
Contact: Mr Ian Hopkins - Business Development Manager
Email: clare.brown@aircogen.co.uk
Brotherhood Aircogen design, manufacture and install CHP Solutions for a wide range of commercial and industrial appellations. A responsive cradle to grave service is provided, extending from site surveys, through turnkey installations, to fully inclusive maintenance and monitoring contracts.

Casey Technology

Stand: B6

Abbey Bussines Centre, Abbey Street, Kilkenny, Ireland
Tel: 086-244 0729 Fax: 056-70 041
Contact: Mr Conor Casey
Email: caseytechnology@ireland.com
Casey Technology provides resource management solutions to consumers in the manufacturing, commercial and public sectors. Our product range includes - TYMAX

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City of Dublin Energy Management Agency **Stand: C3**

Unit 32 Guinness Enterprise Centre, Taylor's Lane, Dublin 8, Ireland
 Tel: 01-410 0562 Fax: 01-410 0576
 Contact: Ms Edel Giltenane- Project Officer - Dr Gerry Wardell - Director
 Email: edel.gilteneane@codema.ie
 Website: www.codema.ie
 CODEMA offer specialist advice for energy planning in new urban developments and housing, which is implemented by promoting an integrated approach to energy, environment and sustainable development. CODEMA are also proactive in developing innovative tools for the promotion of water conservation such as water efficiency labelling and guidelines for professionals

Concord Boiler Engineering **Stand: B2**

Marrowbone House, 58 Marrowbone Lane, Dublin 8, Ireland
 Tel: 01-453 2727 Fax: 01-453 3849
 Contact: Mr Jim Byrne - Sales Engineer
 Email: jimbyrne@concord.ie
 Details available on stand.

Crystal Air **Stand: D3**

Unit 3, Butterstream Business Park, Clane, Co. Kildare, Ireland
 Tel: 01-629 0113 / 045 893 228 Fax: 045-893 229
 Contact: Mr Domnick Ward - Director
 Email: info@crystalair.ie
 Website: www.crystalair.ie
 Crystal Air Ltd. is a major installer of heat pump and heat recovery air conditioning systems. A provider of maintenance and service agreements to ensure efficient operation of energy saving systems in domestic, commercial and industrial applications. Visit our Daikin display stand.

Cylon Controls **Stand: F4**

Clonshaugh Industrial Estate, Clonshaugh, Dublin 17, Ireland
 Tel: 01-245 0500 Fax: 01-245 0501
 Contact: Mr Stuart Aynsley - Marketing Director
 Email: askus@cylon.ie
 Cylon controls design develop and manufacture control systems for the automation of building services, including heating, ventilation, air conditioning, refrigeration, lighting and electrical loads. Cylon systems are supported across Ireland by a network of local approved Cylon system integrators.

Daikin VRV **Stand: D3**

Unit 3, Butterstream Business Park, Clane, Co. Kildare, Ireland
 Tel: 01-629 0113 Fax: 045-893 229
 Contact: Mr Dominic Ward - Director
 Email: info@crystalair.ie
 Website: www.crystalair.ie

Daikin VRV air conditioning offers end users substantial savings in energy costs, the application of innovative inverter technology ensuring efficient performance throughout the systems operating cycle. Visit their authorised dealer, Crystal Air Ltd. to experience some of the benefits of 40/45% less power consumption than the norm.

Dalkia **Stand: H3**

Arena House, Arena Road, Sandyford Industrial Estate, Dublin 18, Ireland
 Tel: 01-213 0725 Fax: 01-213 0820
 Contact: Mr Christophe Ploux - Managing Director
 Email: cploux@dalkia.ie
 Website: www.dalkia.com
 Dalkia - a global energy manager. Dalkia, the European leader in energy management, delivers energy and integrated services in 29 countries. Dalkia's Irish contracts include service agreements with major corporations.

Danfoss (Ireland) **Stand: D2**

Unit 1A, Nangor Road Business Park, Dublin 12, Ireland
 Tel: 01-626 8111 Fax: 01-626 9334
 Contact: Ms Tracy O'Connor - Marketing Co-ordinator - Mr Brian F. Maguire Sales Manager Heating Controls /HVAC Product Division
 Email: sampson@indigo.ie
 Danfoss is a leading producer of precision mechanical and electronic components and of intelligent "mechatronic" devices. The company has modern factories on four continents, sales companies and representatives in more than 100 countries and about 19,000 employees worldwide. The company's products are helping to conserve energy, increase industrial efficiency and improve living standards worldwide. Come visit us on stand no. D2

Dunstar Energy - The Solterra® People **Stand: B3**

1 Kent Street, Clonakilty, Co Cork, Ireland
 Tel: 023-35 165 Fax: 023-35 174
 Contact: Mr Richard Kenny - Technical Sales
 Email: dunstar@eircom.net
 Website: www.solterra.ie
 Dunstar Energy - the designers of Solterra® geothermal heating systems. The Solterra team have over 14 years experience in renewable energy heating systems in both Ireland and abroad. Use free solar energy stored in the ground to heat or cool buildings year round.

Econopower **Stand: G7**

123 Willow Park Road, Glasnevin, Dublin 11, Ireland
 Tel: 01-864 6679 Fax: 01-814 0187
 Email: econopower@oceanfree.net
 Details available on stand.

Edina **Stand: E3**

142a Slaney Close, Dublin Industrial Estate, Glasnevin, Dublin 11, Ireland
 Tel: 01-830 7788 Fax: 01-830 7422
 Contact: Mr John Fitzsimons - Projects Manager
 Email: john-fitzsimons@edina.ie
 Edina Ltd., based in Glasnevin, Dublin is the major installer of gas-engine combined heat and power units in Ireland, with almost twenty projects. The company is the



Lycris-Byrne

Copper Cylinders

High-pressure
Glass-lined Steel Cylinders

Stainless Steel Cylinders

Heat Exchangers

Calorifiers

Pre-plumbed Combination Units

Rapid Replacement Heater Batteries

Scale Inhibitors

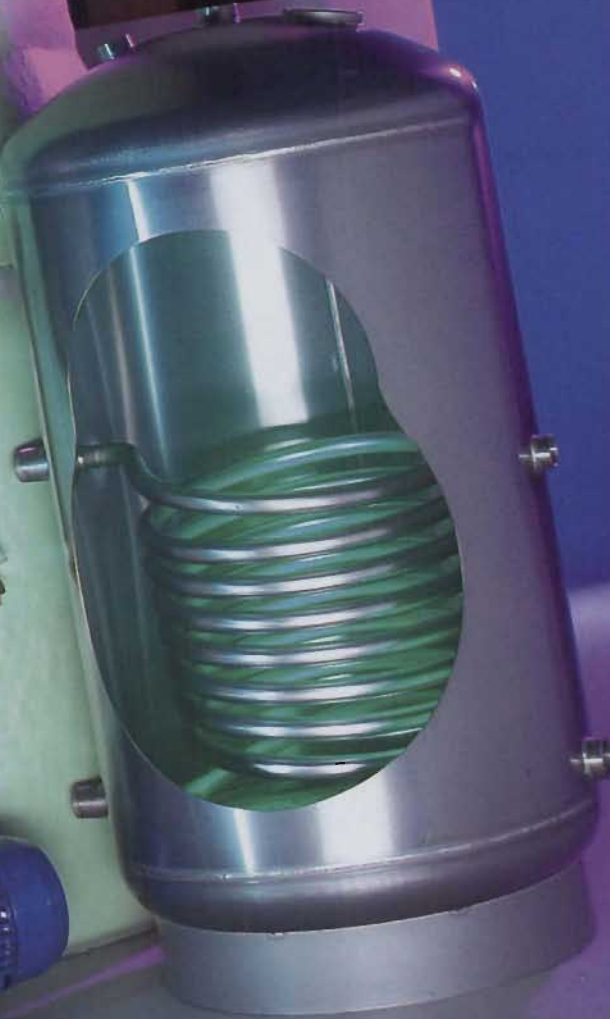
Water Softeners

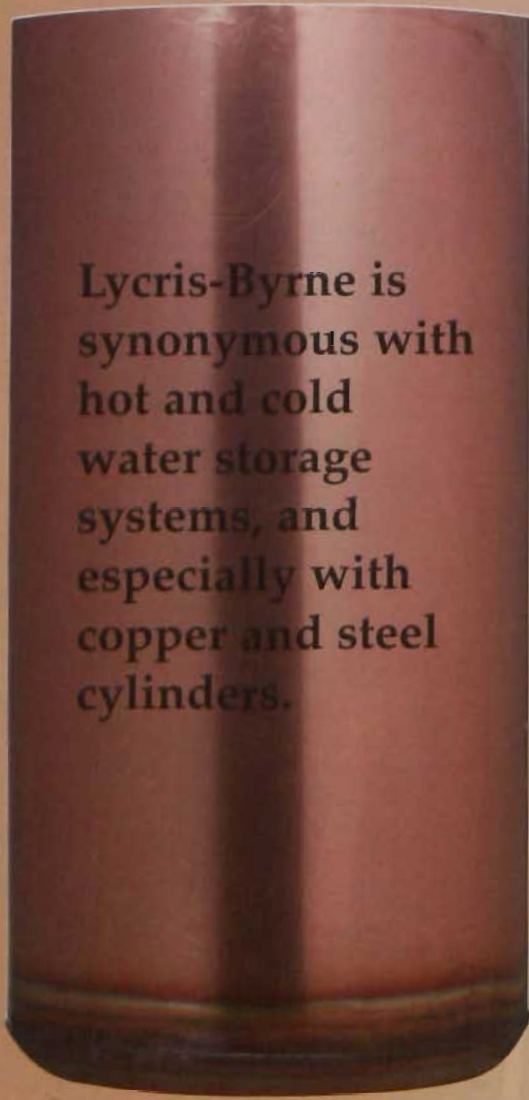
Water Purifiers

Wall-mounted Flat
Hot Water Storage Tanks

Solar Collectors

Technical Support





Lycris-Byrne is synonymous with hot and cold water storage systems, and especially with copper and steel cylinders.

Lycris-Byrne has been to the forefront in pioneering new designs and new manufacturing techniques for nearly 20 years, the driving objective being to produce cost-effective solutions for a fast-expanding, technology-led, industry sector.

As the market requirements changed and became more demanding, Lycris-Byrne developed ever-more-inventive, customised solutions which have set new standards to which the overall marketplace now aspires.

Consequently, the Lycris-Byrne of today is much more than a copper and steel cylinder manufacturer. These products still form the heart of the basic product range but, in the manner in which they have been developed into more sophisticated products and systems that sets Lycris-Byrne apart from the competition. Technical excellence, coupled with experience and the application of high-spec technology, has resulted in a unique portfolio capable of providing all manner of customised solutions, no matter what the requirement.

Common to all is a dedicated focus on achieving maximum energy

efficiency, coupled with optimum performance, through the use of sustainable materials and manufacturing techniques.

Lycris-Byrne operates from purpose-designed premises in Bray, Co Wicklow, where continuous year-on-year investment in manufacturing plant and equipment has made it one of the most advanced production units of its type in Europe.

This capability is further complemented by the dedicated R&D team who work to keep the company at the cutting edge of new product development. They also form the backbone of the advisory and technical support services provided. As one would expect, all procedures are accredited to ISO 9002.

As the foregoing illustrates — and is clearly detailed in the accompanying information — Lycris-Byrne is not just about products and systems but about providing solutions for all manner of water/heating-related building services requirements. While there are standard products and systems, the ultimate strength of Lycris-Byrne is that devising customised, individual solutions is equally standard practice.

No More 'Furring'

With up to 70% of European households affected by the "furring" of pipes, boilers, heating elements, shower heads, faucet's, etc, the need for anti-furring solutions has never been greater. Once again Lycris-Byrne has the answer in the Watercryst system. A key benefit is that no chemicals are involved ... it is a natural strategy which also requires no energy.

Watercryst works on the basis of biomineralization whereby pellets were developed that set off the process of furring by way of catalysis. On the surface of the catalyst pellets tiny lime particles are generated and then are carried along and washed away with the water.

It operates trouble-free — and maintenance-free — for many years, even at temperatures up to 80°C.

Glass-Lined Steel Hot Water Storage Cylinders

With the increased incidence of acid rain, and the general increase in corrosion caused by the decrease in water quality, the only real long term solution to hot water storage is glass-lined steel cylinders.

Lycris-Byrne now offers a range of glass-lined steel hot water storage cylinders, of patented all-welded construction, for domestic and industrial use. There are three major advantages in using glass-lined steel cylinders.

Firstly, these cylinders are particularly suitable for use in areas of high corrosion. Secondly, they can be used in unvented or vented systems without all the expensive control valves and fittings, as the unit can operate at up to 10 Bar, with the normal temperature and pressure relief valve supplied.

Thirdly, these cylinders can be used in place of existing copper hot water storage cylinders using standard BSP connections.

Easy-Fit Pressurised Corrosion Free Water System

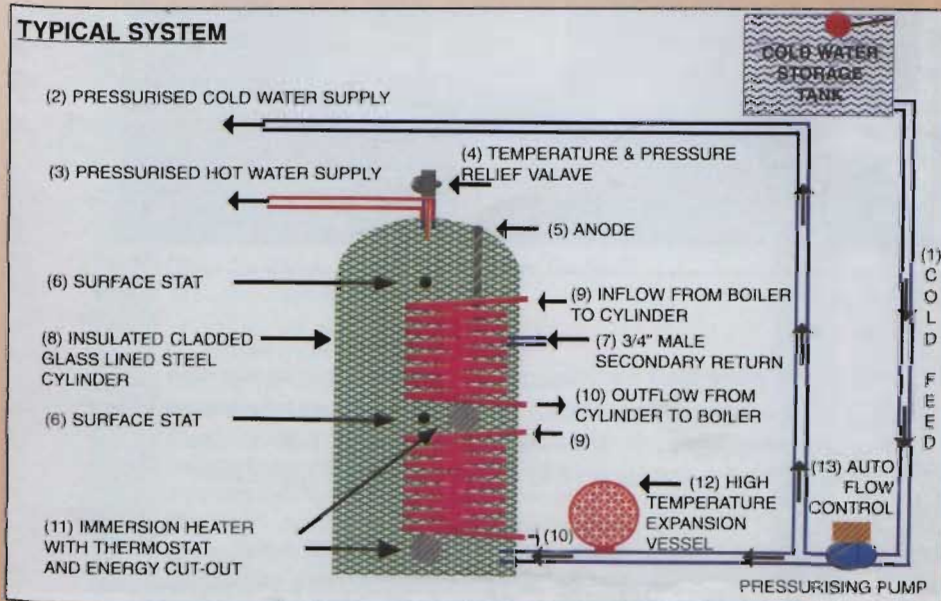


It is simple and easy to replace an existing hot and cold domestic water system with a Lycris-Byrne glass-lined steel hot water storage cylinder and fully automatic stainless steel quiet pressurising pump.

This system eliminates the need for electric power showers and the system can be expanded at a later stage (another bathroom) without any further changes to the pump or cylinder, as both hot and cold water are permanently pressurised.

The changeover from a flow to a pressurised flow can be achieved in less than a day. These cylinders can be used in place of the traditional copper hot water cylinder, using standard BSP connections.

Capacities range from 90 litres to 1500 litres.



Customised Pre-plumbed Combination Units



Conceived by Lycris-Byrne, these pre-plumbed combination hot and cold water storage units are designed primarily for apartments. Delivery to the outgoing hot and cold supplies may be gravity feed or pump. Each unit comprises a cold water storage tank mounted over a copper cylinder (hot water storage), relevant isolation valves, energy cut-out (for extra safety), electric immersion heaters, internal feed, and expansion piping. The unit insulated to ESB "Gold Shield" standard, the lid for the storage tank is un-insulated.

Wall-mounted Flat Storage Tank



With a depth of just 315mm (12"), the pressure-resistant electrical flat storage tanks are an ideal solution if the installation space is restricted. The ideal water heater for all small and single apartments. Lycris Byrne electrical flat storage tanks are available with a nominal capacity of 70, 100, 120 and 150 litres. Also available for use with boilers.

Solar ... Sustainable ... Clean

Everyone knows that the earth's energy resources are limited and that every combustion process produces harmful CO2. Legislators — and society in general — want heating and water-based systems that are sustainable and based on renewable resources. The answer is solar power. A typical solar heating system can save approximately one ton of CO2 emissions per household, per year, in addition to reducing overall energy consumption and saving money. Lycris Byrne, the specialists in hot water preparation, now offer a system which provides benefits which are more than the sum of the total of its parts.



Heat Exchange Kits

Lycris-Byrne plate heat exchanger kits are available in various sizes. The most popular is the 25 kW unit. Each heat exchange kit comes complete with a bronze circulating pump, two control thermostats, and a stainless steel copper-brazed copper heat exchanger.

Nationwide Insulations Ltd, T/A Lycris-Byrne Copper & Steel Cylinders, Fairgreen Road, Bray, Co Wicklow.

<https://arrow.tudublin.ie/bsen/vol41/iss4/1>; Tel: 01-286 5794; Fax: 01 - 286 1213; email: lycrisby@iol.ie

sole agent for Jenbacher gas engines and has service/spare parts departments. We also provide diesel generators for sale and hire.

Edina **Stand: H15**

142a Slaney Close, Dublin Industrial Estate, Glasnevin, Dublin 11, Ireland
Tel: 01-830 7788 Fax: 01-830 7422
Contact: Mr John Fitzsimmons - Project Manager
Email: john-fitzsimmons@edina.ie
Details available on stand.

EiMeter **Stand: A9**

Meridian House, Road One - Winsford Industrial Estate, Winsford, Cheshire CW7 3QG, England
Tel: 0044 1606-861 351 Fax: 0044 1606-861 643
Contact: Mr Mike Dorgan - Partner
Email: mike@albar-energy.co.uk
Website: www.albar-energy.co.uk
Details available on stand.

Energia **Stand: C2**

Merrion House, 1/3 Fitzwilliam Street, Dublin 2, Ireland
Tel: 1850-363 744 Fax: 01-661 8100
Contact: Ms Sheila Flanagan - Sales & Marketing Executive
Email: sheila.flanagan@energia.ie
Energia, a subsidiary of the Viridian Group, is the largest independent energy supply company in Ireland. Energia offers significant savings to Ireland's newly liberalising electricity market and currently supplies in excess of 450MW to 500 large industrial and commercial customers throughout Ireland. Energia's customised pricing options will be further increased this year with the opening of their 350 MW CCGT Huntstown Power Plant.

Energy ICT **Stand: A4/A5**

10 Edenderry Road, Belfast BT8 8LD, Northern Ireland
Tel: 048 90-491 188 Fax: 048 90-491 199
Contact: Dr. Nick Wells - Managing Director
Email: nwells@joules.com
Website: www.joules.com
Energy ICT European market leader in energy monitoring systems, providing both the hardware and software solution for most applications. New Web enabled systems now make monitoring even easier. With many utility suppliers and multi-nationals throughout Europe utilising the systems we can offer the most modern and reliable systems available today.

Energy Ireland **Stand: A10**

Deramore House, 76 Main Street, Moira, Co. Down BT67 0LQ, Northern Ireland
Tel: 048 92-619 933 Fax: 048 92-619 951
Contact: Mr Owen McQuade - Director
Email: owen.mcquade@laganconsulting.com
Website: www.energyireland.net
Energy Ireland is a leading provider of information services to the Irish Energy sector. The company organises the major "Energy Ireland" conference in Dublin each June. This brings together all the main energy players North and South. The company also publishes the authoritative Energy Ireland Yearbook.

Energy Services **Stand: G12**

8 Ballycurreen Industrial Estate, Kinsale Road, Cork, Ireland
Tel: 021-432 0480 Fax: 021-432 0379
Contact: Mr Stephen Flint - Director
Email: info@iem.ie
Energy Services Ltd. was established in 2001 out of its parent company Irish Energy Management Ltd. The Company has an extensive record of providing energy solutions for the industrial, commercial and public sectors. The firm's work is recognised as leading edge and innovative. We have the ability to provide a full range of services including Energy Advisory, Measurement and Control and Power Management.

Environmental Efficiency **Stand: A6**

48 Main Street, Bray, Co Wicklow, Ireland
Tel: 01-276 1428 Fax: 01-276 1561
Contact: Mr Bob Sutcliffe - Director
Email: energy@iol.ie
Website: www.environ-consult.ie
Environmental Efficiency are long established consulting engineers with over 350 projects behind us, we are the most significant commercial providers of energy efficiency audits and environmental consultancy in Ireland. Our experience includes the Pharmaceutical, Chemical, Construction, Timber, Food and Dairy, Printing, Electronics and Engineering Industries.

EPH Controls **Stand: F7/F8**

5 Doughcloyne Court, Doughcloyne Industrial Estate, Wilton, Cork, Ireland
Tel: 021-434 6238 Fax: 021-434 1271
Contact: Mr Trevor Casey
Email: eph@indigo.ie
Details available on stand.

ESB **Stand: E4**

Lower Fitzwilliam Street, Dublin 2, Ireland
Tel: 01-702 7498 Fax: 01-702 7332
Contact: Mr Dave Reynolds - Key Account Manager
Email: sean.walsh@mail.esb.ie
Website: www.esb.ie
Details available on stand.

ESB Independent Energy **Stand: B4**

Unit 2, Woodford Business Park, Santry, Dublin 17, Ireland
Tel: 01-862 8342 Fax: 01-862 8350
Contact: Ms Susan Whyte - Marketing Specialist
Email: susan.whyte@esbie.ie
Founded in 1999 ESB Independent Energy is an independent subsidiary of the ESB and the largest independent supplier to the Irish liberalised electricity market. As a supplier of first choice, ESB Independent Energy offers customers a unique combination of competitive price and premium service.

Fortum O&M (Ireland) **Stand: D6/D7**

Communications House, Presley Way, Crownhill, Milton Keynes, Buckinghamshire MK8 0EF, England
Tel: 0044 870-830 4700 Fax: 0044 870-830 4799
Contact: Ms Anne Muilu - Business Intelligence Manager
Email: anne.muilu@fortum.com

Website: www.fortum.com

Fortum Energy Solutions, forerunner of innovative and environmentally friendly approaches, backed by extensive support and experience, for the development, design, construction, operation and maintenance of a wide range of CHP and fuel applications. Film, a unique and proactive approach to maintenance of oil systems, from turbines to transformers, Fortum has the solution.

Gardner Energy Management Stand: A3

1 Tailor's Court, Broad Street, Bristol, BS1 2EY, England
Tel: 0044 117-917 7010 Fax: 0044 117-917 7011

Contact: Mr Ken McFeeters - Sales Director

Email: zoe@gemtrap.co.uk

GEM Ltd.'s patented Orifice Venturi "Gem Steam Trap" has no moving parts. It is therefore a more efficient than mechanical traps, permanently saving 10 to 50%. The ultimate in reliability - all GEMs are guaranteed for 10 years.

Greenstar Energy Management Stand: A8

7 Cherry Avenue, Ennis Road, Limerick, Ireland

Tel: 061-452 069 Fax: 061-452 069

Contact: Ms Jeannette McCrossan, Sales & Marketing

Email: jeannette@greenstarsystems.ie

Greenstar are distributors for Miro-save...a revolutionary new energy management product. Miro-save is a sophisticated integrated boiler management control unit, designed to increase boiler efficiency in heating systems resulting in reduced running costs and lower pollution. Features include load compensation, self-learning intelligence, system diagnostic facility, boiler size unlimited, 3 years research and development, 1500 field tests and a 2 year warranty.

Hamworthy Heating Stand: C7

Fleets Corner, Poole, Dorset, BH17 0HH, ENGLAND

Tel: 0044 1202-662 510 Fax: 0044 1202-662 544

Contact: Mr Paul Lines

Email: chris.lincoln@hamworthy-heating.com

Website: www.hamworthy-heating.com

Hamworthy Heating will be supporting their agent, HEVAC Ltd., with a wide range of heating products on display. The products include the new pre-mix high efficiency range of boilers, covering outputs of 65kW through to 3960kW. Also on show will be the Purewell Classic, cast iron atmospheric boiler and the latest in instantaneous water heaters.

Harold Engineering Stand: B1/C1

214 Harolds Cross Road, Dublin 6W, Ireland

Tel: 01-497 1039 Fax: 01-497 8091

Contact: Mr Stephen Whelan - Director

Email: dwhelan@haroldeng.ie

Details available on stand.

HDS Energy Stand: A11

Celbridge Ind Estate, Celbridge, Co Kildare, Ireland

Tel: 01-627 1011 Fax: 01-627 1015

Contact: Mr Alan Fox

Email: info@hds-energy.com

Website: www.hds-energy.com

Details available on stand.

Hevac

Stand: C7

Muirfield Drive, Naas Road, Dublin 12, Ireland

Tel: 01-419 1919 Fax: 01-458 4806

Contact: Mr Karl Carrick - Commercial & Industrial Manager

Email: karlc@hevac.ie

HEVAC Limited, agent for UK based Hamworthy Heating Limited, will be exhibiting a wide range of heating products, including the new pre-mix high efficiency range of boilers, covering outputs from 65kW through to 3960kW. Also on show will be the Purewell Classic, cast iron atmospheric boiler and a range of Hamworthy flue products.

Ingersoll Rand Co. Ireland Stand: B1/C1

PO Box 500, Celbridge, Co. Kildare, Ireland

Tel: 01-817 9487 Fax: 01-817 9489

Contact: Mr David Wolahan - Sales Manager

Email: david_wolahan@ingerrand.com

Details available on stand.

Irish Energy Centre

Stand: D1/E1

Enterprise Ireland, Glasnevin, Dublin 9, Ireland

Tel: 01-836 9080 Fax: 01-837 2848

Contact: Ms Brenda O'Brien - Corporate Marketing Executive

Email: brenda.obrien@irish-energy.ie

Website: www.irish-energy.ie

The Irish Energy Centre is Ireland's national energy agency. The Centre will be established as a statutory body, Sustainable Energy Ireland, the Centre promotes and assists environmentally and economically sustainable production, supply and use of energy, in support of Government policy, across all sectors of the economy. Its remit relates mainly to improving energy efficiency, advancing the development and competitive deployment of renewable sources of energy and combined heat and power, and reducing the environmental impact of energy production and use, particularly in respect of greenhouse gas emissions. The Centre is funded by the Irish Government under the National Development Plan 2000-2006 with programmes part financed by the European Union.

Irish Energy Management Stand: G12

8 Ballycurreen Industrial Estate, Kinsale Road, Cork, Ireland

Tel: 021-432 0477 Fax: 021-489 3790

Contact: Mr John Maloney - Director

Email: info@iem.ie

Website: www.iem.ie

Details available on stand.

Jenbacher

Stand: E3

142a Slaney Close, Dublin Industrial Estate, Glasnevin, Dublin 11, Ireland

Tel: 01-830 7788 Fax: 01-830 7422

Contact: Mr John Fitzsimons - Projects Manager

Email: john-fitzsimons@edina.ie

Details available on stand.

Keston Heating Products

Stand: B7

Unit B6 Cookstown Business Centre, Cookstown Industrial Estate, Tallaght, Dublin 24, Ireland

Tel: 01-462 1753 Fax: 01-451 7613

Contact: Ms Angela Forde - Director

Email: keston@focus-ireland.com

Keston Boilers will exhibit our range of Domestic, Commercial and Industrial condensing gas boilers

together with the Rotex System 70 under floor heating system. All of our systems are high efficiency and environmentally friendly. We will display our new Keston DUET- a boiler and indirect hot water cylinder - pre plumbed and pre wired, which will cut installation costs considerably.

Lectron Joules Stand: A4/A5

10 Edenderry Road, Belfast BT8 8LD, Northern Ireland
Tel: 048 90-491 188 Fax: 048 90-491 199
Contact: Dr. Nick Wells - Managing Director
Email: nwells@joules.com
Website: www.joules.com
Details available on stand.

Løgstør Stand: B5

74 Avondale Court, Blackrock, Co. Dublin, Ireland
Tel: 01-288 8885 Fax: 01-288 8885
Contact: Mr Torben Bang - Area Manager
Email: nwl@esatclear.ie
Website: www.logstor.com
The worlds leading manufacturer of preinsulated pipe systems for district heating and for the transport of fluids including steam in the process, pharmaceutical, chemical, hydrocarbon and food industry. Pipes are available with carrier pipes of steel, copper pex and stainless steel and all conform to EN253.

Lycris-Byrne Copper & Steel Cylinders Stand: E2

Fairgreen Road, Bray, Co Wicklow, Ireland
Tel: 01-286 3794 Fax: 01-286 1213
Contact: Mr Chris Byrne - Director
Email: lycrisby@iol.ie
On Show:- The award winning patented pre-plumbed combination units, glass lined steel cylinders with patented built-in descaler/water softener, stainless steel cylinders, copper cylinders, positive and negative head pumps, heat exchangers, solar panels and collectors, show stopper "wall mounted" 120 litre high or low pressure rectangular hot water unit, only 320 mm.

M T Agencies Ireland Stand: C4a

Unit 4 Jamestown Business Park, Jamestown Road, Finglas, Dublin 11, Ireland
Tel: 01-864 3363/832 1550 Fax: 01-864 3371
Contact: Mr Frank Loughran - Sales Representative
Email: mtagencies@eircom.net
On display will be the new unique* and innovative range of Hydroflame® requires no gas, flue or chimney, is simple to install, completely safe and has extremely low running costs. Three distinct styles are available to suit all room designs, the Hydroflame Inset, Hydroflame Freestanding and Hydroflame Stove. To view the new Hydroflame range take the time to visit stand no. C4a.
*Patent pending.

McCool Controls & Engineering Stand: F3

Unit 12 Docklands Innovation Park, East Wall Road, Dublin 3, Ireland
Tel: 01-855 0542 Fax: 01-855 0546
Contact: Mr Finn McCool - Managing Director
Email: mail@mccoolcontrols.ie
McCool Controls stand as the leading HVAC Control System company in Ireland, through supply of quality products and top class engineering services. We are the

main Irish supplier of Cylon BMS equipment, which combined with our selection of top quality field controls provides our clients with the perfect solution for environmental control and energy management.

Morgan-Hope Industries Stand: G7

20/22 Old Park Lane, Southport, Merseyside PR9 7BG, England
Tel: 0044 1704-506 066 Fax: 0044 1704-506 069
Details available on stand.

Nedalo Stand: G5

The Mount, 2 Woodstock Link, Belfast, BT6 8DD, Northern Ireland
Tel: 048 90-730 197 Fax: 048 90-730 187
Contact: Mr Steven Lyle - Regional Manager
Email: steven.lyle@nedalo.co.uk
Website: www.nedalo.co.uk
Nedalo are one of the leading suppliers of Small Scale CHP in Europe. Eight out of Ten CHP units sold in the north have been installed and maintained by Nedalo. All systems are tailored to generate maximum savings for the customer and also to look after the environment with minimal emissions.

Noel Walsh Limited Stand: B5

74 Avondale Court, Blackrock, Co. Dublin, Ireland
Tel: 01-288 8885 Fax: 01-288 8885
Contact: Mr Noel Walsh
Email: nwl@esatclear.ie
Website: www.logstor.com
Details available on stand.

Parkersell Lighting Services (Irl) Stand: H3

Unit 2, Cookstown Enterprise Park, Dublin 24, Ireland
Tel: 01-451 1277 Fax: 01-451 1975
Contact: Ms Geraldine Steele - Business Development Manager
Email: gsteele@parkersell.ie
Website: www.parkersell.com
Parkersell Lighting Services is the largest lighting maintenance company in Ireland providing planned lighting maintenance / energy conservation to major clients, with nation-wide coverage.

Peter Brotherhood Stand: D4

Werrington Parkway, Peterborough, PE4 5HG, England
Tel: 0044 1733-292 200 Fax: 0044 1733-292 300
Contact: Mr Ray Bowell - Regional Sales Manager
Peter Brotherhood Ltd. is one of the world's leading suppliers of power generation equipment for renewable energy, energy from waste and combined heat and power plants. Our product range includes steam turbines, gas compressors, package CHP systems and alternative energy systems. We have exported machines to more than 100 countries worldwide.

Power Logic Stand: B10

Maynooth Road, Celbridge, Co Kildare, Ireland
Tel: 01-627 4030 Fax: 01-627 0859
Contact: Mr Mark Keogh - Marketing Activities Manager
Email: mark_keogh@ie.schneider-electric.com
Details available on stand.

Precision Heating Stand: C4

Unit 19 Airways Industrial Estate, Santry, Dublin 9, Ireland
Tel: 01-842 8763 Fax: 01-842 8820
Contact: Mr Alan Hogan - Manager
Details available on stand.

Pure Energy Technology Stand: H14

Ballygrennan, Bruff, Co Limerick, Ireland
Tel: 061-382 882 Fax: 061-382 883
Contact: Mr Gerry O'Rourke - Director
Email: gerry@pet.ie
Website: www.pet.ie
On-site Renewable Energy in Three areas. 1) Electricity Generation, Wind, Solar PV, CHP. Pure Energy have developed an electronic controller to make this feasible in the absence of Net-metering or Grid connect. 2) Space Heating, Geothermal heat pumps and Solar Collectors. 3) Hot Water, Solar collectors and GSHP.

Rhpoint Systems Stand: A2

Holland Road, Hurst Green, Oxted, Surrey RH8 9AX, England
Tel: 0044 2476-388 706 Fax: 0044 2476-388 706
Contact: Mr Steve Robinson - Power Systems Engineer
Email: steve.robinson@rhpoint.co.uk
Website: www.rhpoint.co.uk
Rhpoint Systems are suppliers of power quality and energy monitoring systems and services. These systems provide visibility of power networks to identify problems of inaccurate measurement, harmonics, unexplained breaker operation, overheating, etc. Trending this data using our unique predictive maintenance software gives advance warning of power failures providing major cost savings.

Riomay Solar Energy Stand: G8

1 Brighton Mews, Harrison Row, Rathgar, Dublin 6, Ireland
Tel: 01-490 2119 Fax: 01-295 9348
Contact: Mr Ray Shanks
Email: rshanks@oceanfree.net
Website: www.riomay.com
The Riomay Solar Energy System utilises state of the art Thermal Vacuum technology, economically converting solar energy into hot water. Riomay products are used globally in commercial buildings, industrial hot water systems, domestic applications and swimming pools.

RVR Stand: G4

Killorglin, Co Kerry, Ireland
Tel: 066-976 1666 Fax: 066-979 2936
Contact: Mr Brian Mulhare - Sales Manager - Mr. David McConnell - Sales Representative
Email: bmulhare@rvr.ie
Website: www.rvr.ie
RVR Limited manufactures air handling units and overhead infra-red radiant gas heaters at their new factory in Killorglin, Co. Kerry. RVR are also exclusive distributors for the Man range of high efficiency condensing gas boilers and stainless steel calorifiers suitable for domestic and commercial applications. Nationwide service back-up. We can also be contacted on 01-661 4803

S & C Electric Company Stand: D9

6601 N. Ridge Blvd., Chicago IL, 60626, USA
Tel: 1 773-338 1000 Fax: 1 773-338 7020

Contact: Ms Alice Cegielski - International Business Development Analyst

Email: ACegielski@sandc.com

S&C electric Company is a U.S. based specialist in the field of electric power switching and protection products and services. The S&C product line is extensive, and includes all types of switching and protection equipment for substations and overhead and underground distribution systems, distribution automation and power quality products, epoxy components, sensors and electronic controls.

Schneider Electric Ireland Stand: B10

Maynooth Road, Celbridge, Co Kildare, Ireland
Tel: 01-627 4030 Fax: 01-627 0859
Contact: Mr Mark Keogh - Marketing Activities Manager
Email: mark_keogh@ie.schneider-electric.com
Website: www.schneiderelectric.ie
Cutting Electrical Costs with Information. With a Power Logic System from Schneider Electric Ireland and integrating other products such as (Micrologic & Altivar) variable speed drives and power distribution products, you can improve productivity, cut costs and maximise on your capital investments. Visit the Schneider Electric stand B10.

Setsquare Stand: A4/A5

10 Edenderry Road, Belfast BT8 8LD, Northern Ireland
Tel: 048 90-491 188 Fax: 048 90-491 199
Contact: Mr Paul Hodgkinson - Electrical Engineer
Email: nwells@joules.com
Website: www.joules.com
Setsquare experts in lighting and water controls, Setsquare design, manufacture, supply and install. The Liteminder, InfraPod and Setlite are presence and photocell control systems. DAYLUX adds dimming of controllable luminaires to presence detection, whilst remote and override options facilitate control. A new fully programmable addressable system is also now available.

Shamrock Solar Energies Stand: F2

Unit 1, Clonroad Business Park, Ennis, Co. Clare, Ireland
Tel: 065-686 8468 Fax: 065-686 8469
Contact: Mr Fergus Blake - Director
Email: blake.f@shamrocksolar.com
The energy expert on - thermal solar panels for domestic water in old and new buildings for heating support. Modular heating systems with different combinations of renewable energy sources (pellets, wooden furnaces, heat pump systems using different energy reservoirs. Photovoltaics. We provide consultation, planning, systems designed as a kit and fitting.

Sinergy Stand: F5

Station Road, Strines, Stockport, Cheshire SK12 3AQ, England
Tel: 0044 1663-764 833 Fax: 0044 1663-765 885
Contact: Mr. Brian Jones - Managing Director
Details available on stand.

SmartKontrols Stand: G2

8/9 Horsted Square, Bell Lane Business Park, Uckfield, East Sussex TN22 1QG, England
Tel: 0044 1825 769 812 Fax: 0044 1825 769 813
Contact: Ms Renata Colla - Marketing Co-ordinator
Email: renata@smarkontrols.co.uk

Website: www.smartkontrols.co.uk

Smartkontrols unique modular system of intelligent HVAC controls brings building owners and operators guaranteed performance, energy efficiency and lower lifetime costs. Easy to use, Smartkontrols' system is suitable for all types of building, large or small. Smartkontrols is represented in Ireland by agents RST Controls Ltd.

Solar Plus

Stand: H2

Brook Lawn, Lower Deerpark, Boyle, Co. Roscommon, Ireland

Tel: 079-62 601 Fax: 079-63 164

Contact: Mr David Meikle

Email: info@solarplus.ie

Website: www.solarplus.ie

Solar Plus have created a unique very modern, slim, aesthetically pleasing, efficient solar panel using evacuated tubes to create an affordable system developed in Ireland for the Irish and European climates. Primarily used for heating water in numerous applications such as houses, swimming pools, offices etc.

Spirax-Sarco

Stand: H5

Charlton House, Cheltenham, Gloucestershire GL53 8ER, England

Tel: 0044 1242-521 361 Fax: 0044 1242-535 277

Contact: Mr Kieran O'Keeffe - Regional Sales Manager

Email: debbielake@spiraxsarco.com

Website: www.spiraxsarco.com/uk

Spirax-Sarco, specialises in pipeline controls and instrumentation, provide knowledge, service and products for the control and efficient use of steam and other industrial fluids. The product range includes boiler controls and systems, flowmetering, heat exchange packages, controls valves, quick fit steam trap stations, condensate recovery systems, pipeline ancillaries, clean steam generators and humidification systems.

Standard Control Systems

Stand: E8

Standard House, Riverview Business Park, New Nangor Road, Clondalkin, Dublin 12, Ireland

Tel: 01-429 1800 Fax: 01-492 1801

Contact: Mr Sean O'Toole - Development Manager

Email: info@standardcontrol.ie

Website: www.standardcontrol.ie

Standard Control Systems, at the forefront of providing Intelligent Building & Energy Management Systems since 1984, have relocated to a new state-of-the-art premise in Clondalkin. Here, they are introducing specifiers and their clients, a who's who of worldwide manufacturers, health care centres, pharmaceutical companies and leisure facilities, to new and exciting technologies. These include mobile BEMS access, WEB BEMS functionality, LON, MODBUS and BACnet interfaces

Stark Softwear International

Stand: G12

Sentinel House, 10/12 Massetts Road, Horley, Surrey RH6 7DE, England

Tel: 0044 1293-776 747 Fax: 0044 1293-820 361

Contact: Ms Elisa Davey - Marketing Manager

Email: edavey@stark.co.uk

Website: www.stark.co.uk

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SWS

Stand: A1

Shinagh House, Bandon, Co Cork, Ireland

Tel: 023-41 271 Fax: 023-41 304

Contact: Mr Declan Waugh - Environmental Manager

Email: declan.waugh@sws.ie

Website: www.sws.ie

SWS Group are experienced service providers in the energy sector. We provide a full range of strategic services for the development and optimisation of renewable energy projects. Our services include project management, resource and technical assessments, financial feasibility and grid connection assessments, planning and public consultation, Environmental Impact Assessments and research and developments, particularly in the areas of wind and biomass developments.

Team (Energy Auditing Agency)

Stand: B9

34 The Forum, Rockingham Drive, Linford Wood, Milton Keynes MK14 6LY, England

Tel: 0044 1908-690 018 Fax: 0044 1908-690 019

Contact: Mr Keith Garner - Customer Account Manager

Email: dwilliams@teamenergy.com

Website: www.teamenergy.com

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Telemecanique

Stand: B10

Maynooth Road, Celbridge, Co Kildare, Ireland

Tel: 01-627 4030 Fax: 01-627 0859

Contact: Mr Mark Keogh - Marketing Activities Manager

Email: mark_keogh@ie.schneider-electric.com

Details available on stand.

Thermpak Systems

Stand: A12

Unit 15 Dunlop Ind Units, 8 Balloo Drive, Bangor BT19 7QX, Co. Down, Northern Ireland

Tel: 0044 2891-463 737 Fax: 0044 2891-463 797

Contact: Mr Ivan Johnson - Managing Director

Email: thermpak@dnet.co.uk

Website: www.thermpaksystems.co.uk

Thermpak Systems Ltd, is a company firmly committed to innovative technology and to development of effective solutions to overcome the deficiencies of traditional systems for heat exchange processes. Continued client satisfaction defines the major air of our quality policy based on ISO9001

Viessmann

Stand: C4

Unit 6 Hortonwood 32, Telford, Shropshire TF1 4EU, England

Tel: 0044 1952-670 261 Fax: 0044 1952-670 103

Contact: Mr Alan Hogan - Manager - Precision Heating

Email: pch@viessmann.com

Website: www.viessmann.com

Viessmann Ltd., one of Europe's largest heating equipment manufacturers will be showing their range of condensing boilers, both domestic and commercial, and the range of solar products, including the Bitosol solar panels, Vitodens condensing boilers and Bitocal heat pumps. There are represented by their distributor - Precision Heating of Dublin

Wärtsilä Ireland

Stand: E5

54 Broomhill Drive, Tallaght, Dublin 24, Ireland
Tel: 01-462 6700 Fax: 01-462 6722
Contact: Mr Tom Lanigan - Power Plant Manager
Email: tom.lanigan@wartsila.com
Website: www.wartsila.com

Wärtsilä is the leading designer and manufacturer of reciprocating engine power and CHP plant, delivering more than 2000mw of power each year to more than 45 countries and now offers Biomass fuelled plants. In Ireland, service, spares and sales are available through our Dublin office and workshop.

Water Monitoring

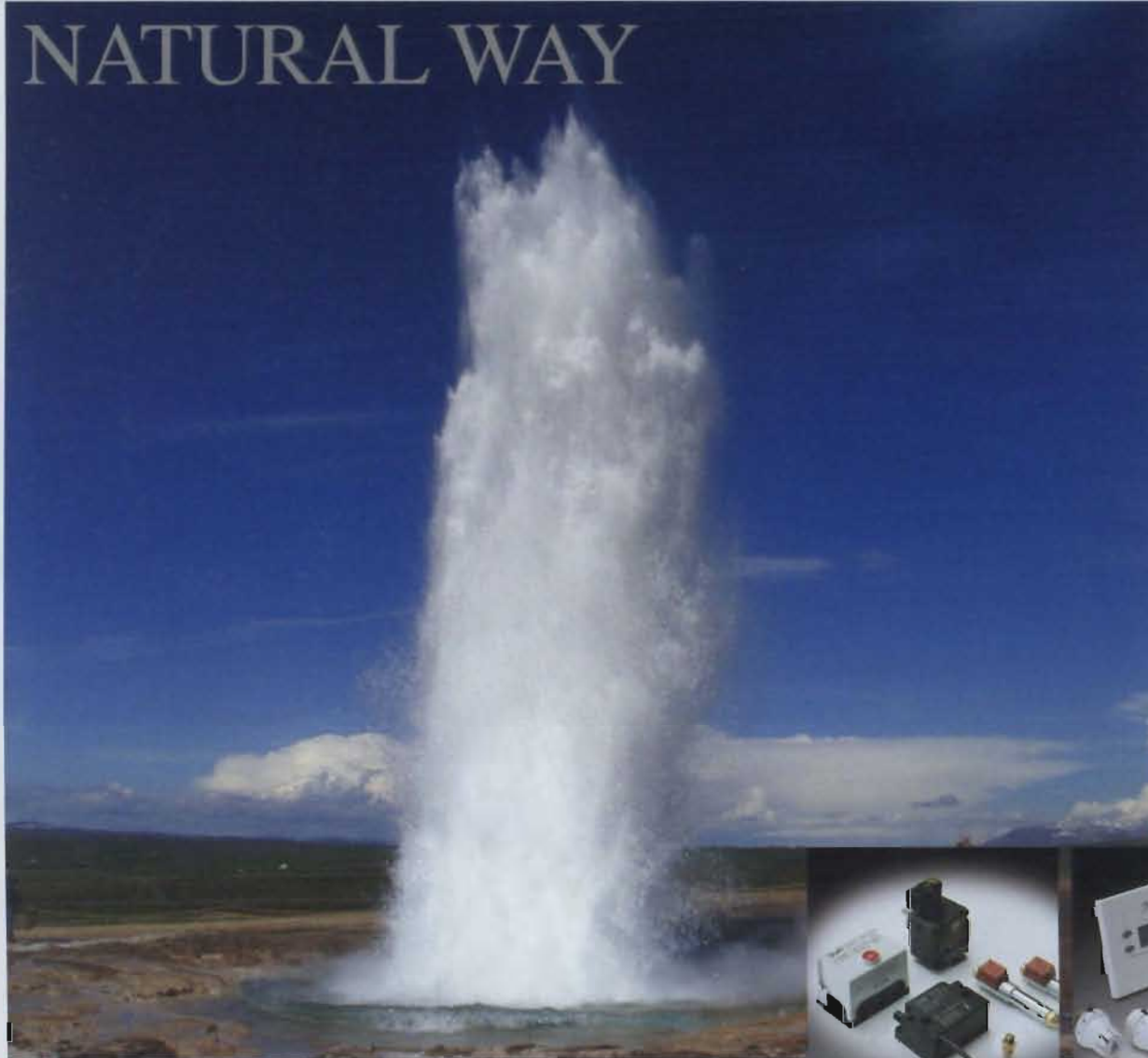
Stand: A13

Cortnahoe, Thurles, Co. Tipperary, Ireland
Tel: 056-34 545 Fax: 056-34 362
Contact: Mr P J Ryan
Email: pj@ryangroup.ws
Details available on stand.

NOTES



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Haier Dealer Technical Presentation

Subsequent to our report in the February issue of *BSNews* that Core Air Conditioning would shortly be introducing the Haier range to Ireland, the company held a technical presentation on the products in Dublin last month which was attended by representatives from its dealer network.

The day-long session covered all aspects of the Haier portfolio, from pricing strategies through to technical information and applications capability.

"Today's meeting was held to introduce the Haier product range to our dealers", said Core's Austin McDermot. "Apart from our own personnel, representatives from Haier were also present to answer questions on both technical and marketing issues. The day proved extremely beneficial and product will begin to appear on the marketplace as of now." *BSNews* will include detailed product information on the entire range in our next issue, including the MRV, miniVRF system. Contact: Austin McDermot, Core Air Conditioning. Tel: 01 - 294 3110; email: info@coreac.com



Above: Andrew McEvitt, Core AC with Ted Berry, New Century (Haier); Austin McDermot, Core AC; and Jon Croker and Jason Roberts, both of New Century (Haier).



Left: John Black with Peter Bruce, Eamonn Fidgeon, Andy Dolan and Patrick Barton



Left: Aidan Burke with Adam Whelan, Daniel Blackburn, Donal Delaney, Colin Blake and Alex Moore.

Chester Beatty Lights The Way

The CIBSE half-day lighting seminar in the Chester Beatty Library last month proved particularly successful with a large cross-section of architects, consultants, interior designers, product suppliers and students attending.

The session began with an introduction to museum and gallery lighting by Paul Ruffles and he was followed by Bob Venning who spoke on office lighting.



Chris Clarke with Carina Rowney



Speakers — Bob Venning with Kevin Treacy, Paul Ruffles, Greg Traynor and David Farren



Industry father-figures Sean Mulcahy and Eoin Kenny looking very relaxed



Padraig Daly with Declan Devlin and Andrew Bryant



Martin Stapleton with Brian Geraghty

Thereafter there was a coffee break with the final session concentrating on the actual task of lighting the Chester Beatty Library itself. Paul Ruffles once again took to the rostrum with David Farren also delivering a paper.

While the presentations were obviously very useful, those in attendance gained much more additional information, understanding and knowledge from the lively questions and answers session.

The afternoon very naturally concluded with a tour of the Chester Beatty Library.

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Email: joe@pressline.ie**

Match Play Pairings

Match	1	Tony Delaney	V	Mick Carroll
Match	2	Sean Smith	V	Jim Nolan
Match	3	Gerry Tobin	V	Graham Fay
Match	4	Brian Kearney	V	Brendan Keaveny
Match	5	Eamonn Vickers	V	Larry McEttorick
Match	6	Joe Warren	V	Joe Hogan
Match	7	John White	V	Jim Bollard
Match	8	Frank Lynch	V	Dave Harris
Match	9	Dave Cranston	V	M O'Doherty
Match	10	Gerry Phelan	V	Bob Daly
Match	11	Dermot Ryan	V	Mick Melligan
Match	12	Mick Wyse	V	E McGrattan
Match	13	Michael Kearney	V	Brendan Bracken
Match	14	Padraig Gillen	V	Vincent Broderick
Match	15	Terry Maher	V	G Hutchinson
Match	16	Garvan Evans	V	J Lavelle

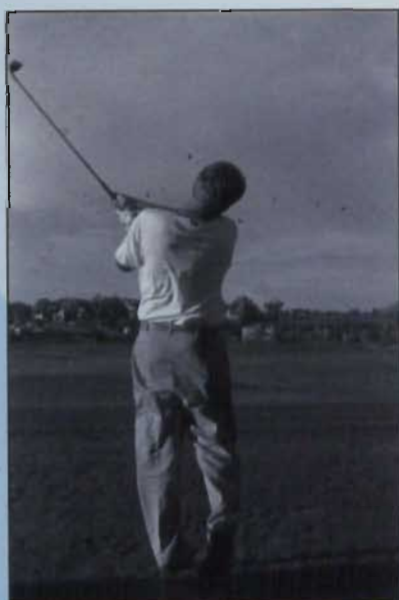


All Matches to be played before commencement of play at the Castle on the 16 May.

Home player must notify organiser of result before 16 May.

Portmarnock Results

Sponsor: American Standard



Overall Winner	Frank Lynch	(15)	41 Points
Class 1	0-12		
	1	Dermot Ryan	(9) 36 Points
	2	Eamon McGrattan	(12) 35 Points
	3	Eamon Vickers	(9) 33 Points
Class 2	13-17		
	1	Gerry Phelan	(14) 34 Points
	2	Brian Kearney	(15) 32 Points
	3	Dave Cranston	(13) 32 Points
Class 3	18-28		
	1	P Gillan	(21) 40 Points
	2	G Evan	(20) 33 Points
	3	J Bollard	(20) 33 Points
1st Name	John Duignan		19 Points
2nd Name	Mick Wyse		18 Points
Visitors	Damien Maloney		33 Points



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GRUNDFOS 

Energy Workshop at Hewlett-Packard



Hewlett-Packard (Manufacturing) Ireland in Leixlip was the venue for a major national workshop on how large industry in Ireland can become more energy efficient. The workshop, which was organised by the Irish Energy centre, was attended by representatives from some of Ireland's largest manufacturing companies and largest consumers of energy. The Leixlip workshop was designed to provide a practical update for companies on the important role that an energy manager can play in helping a company to effect best practise in energy consumption and, as a result, improve the bottom-line profitability of the company. Pictured at the workshop were : David Morton, Senior Training Consultant, NIFES Consulting Group; Pat Kirwan, Facilities Operations Manager, Hewlett-Packard; and Andrew Parish, Project Manager, Irish Energy Centre.

Insurance Costs are Out of Control – CIF

Arising from an internal survey of its members, the CIF has clear evidence that insurance premia are spiralling at an alarming rate. Employers and public liability insurance for construction increased by 40 – 45 % in the year 2001.

Furthermore, premia are expected to rise by 45 – 50 % in the year 2002. This is a crippling increase for many companies.

This level of increased cost cannot be absorbed by the industry. It is now adding significantly to construction price inflation and is being passed on to construction industry clients. A feature of the Irish insurance market is the very high cost of awards and the equally-

high level of associated legal costs. CIF urges the Government to act on the recommendations of the first McAuley Report of April 1997 and of the second McAuley Report of March 2001.

The McAuley Reports recommend the establishment of a Personal Injuries Assessment Board (PIAB) using a fast-track mediation and arbitration service to settle personal injury claims arising under employers liability and motor policies as an option to avoiding the more expensive and lengthy legal process. A reduction in fees can have a huge impact on the final cost and, therefore, on insurance premia. There is, therefore, huge scope to reduce the cost of settling claims without reducing payments to claimants. The Government decided to establish the PIAB in March 2001 and set up an interdepartmental implementation group to progress its establishment. However, as yet, the PIAB has not been set up despite the general agreement that it could have a major impact on reducing legal costs in the settlement of personal injury claims. CIF recommends the immediate establishment of the PIAB, dealing with Employers Liability (EL), Public Liability (PL) and motor personal injury claims without further delay.

Trane Appoints Ryan Sales Engineer



Conleth Ryan, Sales Engineer with Trane Ireland Ltd

Conleth Ryan joined Trane Ireland Ltd in February 2000 after graduating from the Dublin Institute of Technology (DIT) Bolton Street with a degree in mechanical engineering. He then worked briefly in both technical support and service departments to gain some hands-on experience before travelling to Lacrosse, Wisconsin to attend Trane's renowned Graduate Training Program. There he successfully completed an intensive 22-week course, learning more about heating, ventilating, air conditioning and refrigeration.

Since his return, Conleth has been promoted to the position of sales engineer and is now working with many of Ireland's leading designers and contractors, significantly contributing towards Trane's continued growth.

Crane — Goodbye Jim ... Hello Bill

The 31st March 2002 was another milestone for Crane Fluid Systems when Jim Wallace took his retirement from the company after over 35 years of service.

Jim has been a loyal and dedicated employee of Crane from the mid-1960s in Belfast, when he opened a Crane branch office, until his recent retirement from whence those heady days are but a distant memory.

Over the years the building services market has changed dramatically but Jim has remained the same

resolute and supportive character as the day he joined Crane (then called the VHF Division, for those with a long enough memory!). He has always provided customers throughout Ireland with reliable and knowledgeable service, and given Crane a first class reputation in the building services and related markets.

Your tenacity, as much as everything else Jim, will be sorely missed. Have a long and happy retirement.

Bill Redfern, with effect from 1 April 2002,



Jim Wallace, recently retired from Crane Fluid Systems

takes over from Jim and will be the contact for all Crane Fluid Systems products in the 32 counties of Ireland. Based in Portlaoise, Co Laoise, Bill is ideally located to serve the entire country.

With a strong engineering background and an excellent



Bill Redfern, new Area Sales Manager for Ireland, Crane Fluid Systems

knowledge of valves, Bill brings over 20 years experience in technical selling to the company.

Contact: Bill Redfern, Crane Fluid Systems, Portlaoise.

Tel/Fax: 0502 70269
Mobile: 0044 (0) 7860 205305

Email: bredfern@crane-ltd.co.uk



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THERMELEC

Grundfos Sarlin Submersible Pumps

Grundfos Sarlin submersible pumps are close-coupled centrifugal pumps with the pump connected to a proprietary electric motor. The pumps are installed submerged in the pumped liquid or, alternatively, are installed dry.

Submerged pump motors are cooled by submergence in the pumped liquid. Dry-installed motors are, depending on pump frame size, cooled either by internal heat conduction from the motor to the pumped liquid, or by means of a cooling jacket.

The pumps are available in sizes varying from 1kW to 600kW motor power. The pumps are grouped in frame sizes, each representing a physical motor size, distinguished by common external and internal dimensions, shape and cooling system.



Grundfos Sarlin submersible pumps.

Each frame size consists of pump families with different physical pump features, with each family having a performance range with pump curves. Individual performance curves or fields each represents a separate pump type with its own unique designation for commercial and technical use.

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

Keep Ahead With Honeywell

The latest range of Honeywell thermostatic valves includes the chrome-top VT200, as well as the VT15 and VT117. All offer energy savings and reversible flow bodies to give unrivalled performance,



VT200 from Honeywell

individual room temperature control and stylish appearance. Brief details of each are as follows:

VT200 Classic Radiator Thermostat — The Classic appeals to home owners with its modern styling blending with any decor and its stylish chrome-plated cap. It is mountable horizontally or vertically on either the flow or return end of the radiator.

Because the valve body design is not sensitive to water flow direction and its radiator tail and copper tube connections are interchangeable, the VT200 radiator thermostat can be mounted horizontally or vertically at either end of the radiator without any possibility of water hammer occurring.

VT117E Radiator Thermostat — VT117E is an adjustable radiator thermostat suitable for use in 2-pipe systems. Because the valve body design is not sensitive to water flow direction and its radiator tail and copper tube connections are interchangeable, the VT117 radiator thermostat can be mounted horizontally or vertically at either end of the radiator without risk of water hammer occurring.

VT15 Radiator Thermostat — The VT15 budget-priced radiator thermostat is also fully reversible which has full CEN approval.



VT117E from Honeywell

V117E Valve body for copper pipework — The V117E valve body is for pumped 2-pipe heating systems with a maximum working pressure of 10bar and is supplied complete with a decorator's cap, adjustable tail, integral, balancing device and 15mm compression fittings.

Wavin World Cup Promotion

Former Irish international John Aldridge turned up in Dublin recently to launch the Wavin World Cup Build Up promotion. This promotion offers plumbers and builders

the opportunity of winning a €6,000 holiday for two in the country which ultimately wins the 2002 World Cup.

From now until the end of July plumbers and builders will be

collecting scratch cards from their local builders merchant with every €50 worth of Wavin above-ground product they purchase.

Each scratch card will hide the name of

one of the 32 qualifying countries. The idea is to collect enough cards to complete a chart showing the path to the final. The closing date for receiving completed charts is 31 July.

Scratch cards are available with all Wavin above-ground products — Wavin Rainwater Systems; Wavin Soil and Waste; Wavin Tigris Pex Pipe; Wavin Soffit & Fascia; and Wavin Radon System.

Running alongside the competition for plumbers and builders, there is also a competition for people working in builders merchants. They have to predict the World Cup pairings right through to the winner. The closing date for this competition is 31 May.



Pictured at the launch of the Wavin World Cup Build Up Promotion are Patrick Atkinson, Marketing Manager, Wavin Ireland; Larry Carr, Managing Director, Wavin Ireland; former Irish international, John Aldridge; and RTE sports commentator, George Hamilton.

Panasonic 25kW Split Systems

BSNews reported on Panasonic's latest range of VRF systems in our February issue and now bring details of the company's new R407C split units. These have been



Panasonic 4-way cassette type U1 Series R407C unit from Walkair

introduced not to replace the existing range, but rather to supplement it. Among the new units is a single compressor condensing unit available in both cooling only and heat-pump models, with cooling duties of 20kW and 25kW, and heating duties of 21.5kW and 27kW heating. These units can be connected to single unit ductable indoor units, or alternatively two, three or four smaller duty cassettes, under-ceiling, high-wall or

built-in units. They are especially suitable for larger open-plan areas, such as supermarkets, etc.

Features of the new range include:

- Extremely Low Noise Fans (from 27dB(A) for 4.5kW cassette);
- Built in condensate pumps for 4-way cassette (750mm lift); 1-way cassette; under-ceiling; and built-in type;
- Auto swing louvres on cassette, under-ceiling, and hi-wall units;
- BMS outputs;
- Shallow height cassettes (240 mm up to and including 7.1kW, 288 mm for

larger duties) Another feature of the cassette units is the facility for high ceiling installations up to 4.2m.

Various control systems are available for the new series. Wired remote controller is standard, with wireless available as an option for all units except ductable type. These units may also be connected to the VRF UM-NET control package, giving a complete centralised control solution for any building's air conditioning needs. Contact: Vincent Mahony, Walkair. Tel: 01 - 456 8070.



VenTac

Air Management Engineers

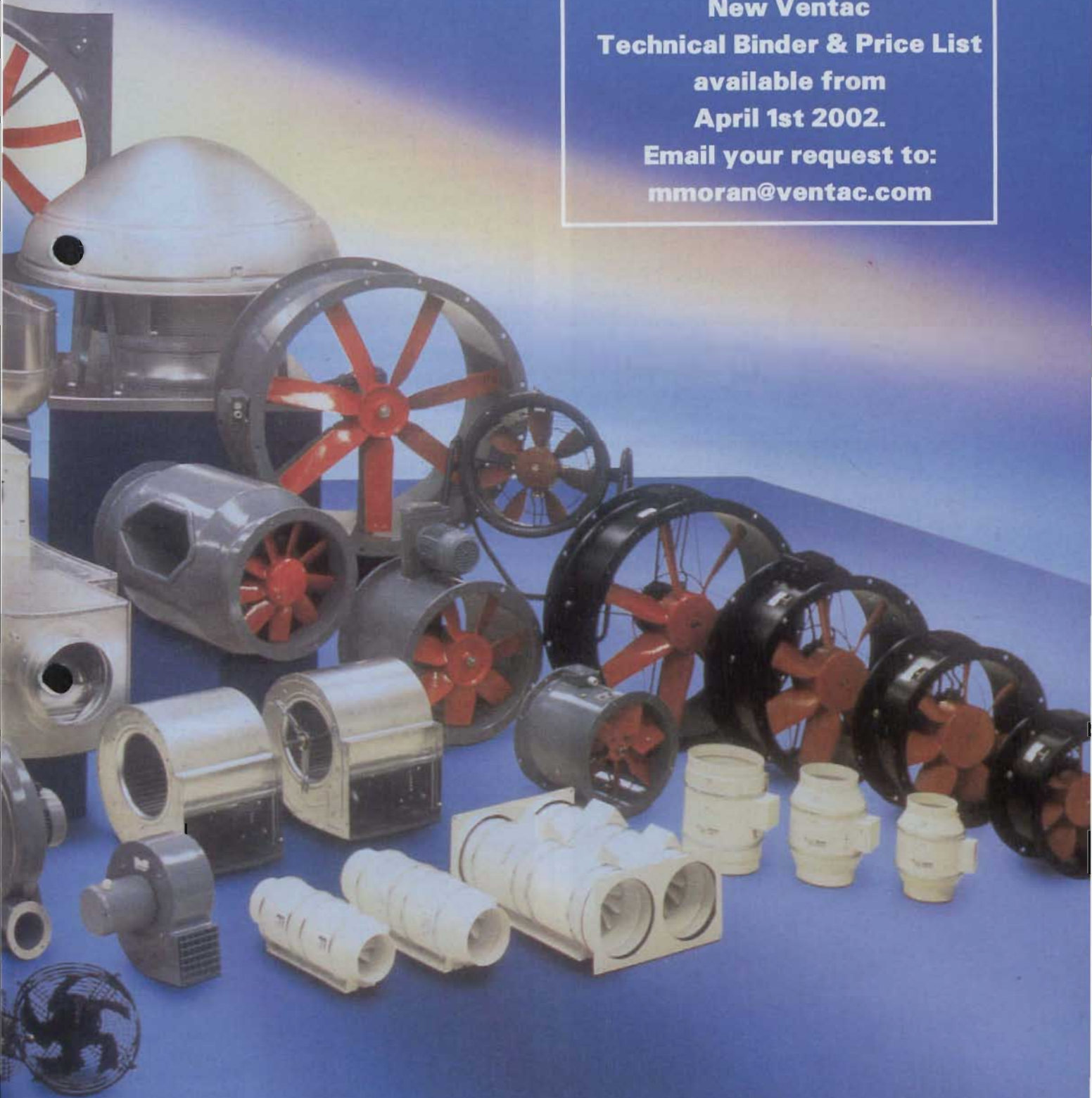
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Dwyer Flowmeters Take The Heat, Any Which Way!

Mount them horizontally, vertically or upside-down. The new Dwyer Series HFH high temperature flowmeters from Manotherm require neither inlet nor outlet straight plumbing.

Designed for rugged hydraulic use, these instruments will withstand temperatures up to 400°F (204°C) and pressures up to 3500 psig (240 bar). Flowmeters employ a sharp-edged orifice that permits exceptionally stable measurements of fluids with viscosities up to 500 SSU.

These in-line flow meters deliver an accuracy of +2.5% across the middle third of their scale. Three models are available — model HFH-2-05 with a scale of 0.5 - 5.0 GPM (1 - 19 LPM); HFH-2-10 with a scale of 1 - 10 GPM (3.8 to 38 LPM); and HFH-4-25



Dwyer Series HFH high temperature flowmeters from Manotherm.

range of 5 - 35 GPM (19 - 130 LPM). Models HFH-2-05 and HFH-2-10 have a 1/2" NPT (F) connection while model HFH-4-25 has a 1" NPT (F).

Designed for water-based fluids, Series HFH incorporates a brass body; Viton seals and a Teflon-coated Alnico magnet. Additional wetted parts are 304SS.

Contact: Bob Gilbert / Brian Harris, Manotherm.

Tel: 01 - 452 2355; email: manotherm@eircom.net.

The Intelligent Motor Controller

Powerboss is the culmination of over 10 year's research and development into the field of optimum motor efficiency. Utilising proven methods of control — which have been successfully applied to commercial and industrial motors for decades — Powerboss now adds a new dimension to motor efficiency by harnessing the very latest in microcontroller technology.

Powerboss (3-phase) can provide numerous immediate and lasting benefits including: — soft start, optimisation, soft stop, improved power factor, lower maximum demand, improved reliability and increased production. A blend of significantly-reduced electricity costs and increased efficiency can provide a very attractive payback proposition.

Powerboss is unique by the extent to which it dynamically adjusts power to the motor as



The new Powerboss intelligent motor controller from Mark Eire

the load changes. Powerboss constantly looks through the motor at the load demand and calculates the exact power required to do the job of work at any instant in time — the power is then applied in less than 1/100th of a second. "Powerboss ... the first truly intelligent motor controller".

Contact: Richard McGrath, Mark Eire.
Tel: 025 - 45334;
email: sales@markeire.com



Pictured at the introduction of the new Project Management National Competence Baseline for Ireland (NCBI), launched by the Institute of Project Management of Ireland were (from left): Ed Naughton, Director, Institute of Project Management of Ireland and Professor Sebastian Green, Dean of the Faculty of Commerce in University College, Cork.

Fernox Flux and Fernox Powerflow



Fernox Powerflow flushing machine from Hevac

Hevac introduced two new Fernox products at the recent Phex exhibition in Dublin — Fernox Flux and Fernox Powerflow. Fernox Flux was developed following two years of extensive research and extended

field trials. It is a heat-activated flux which means that the whole piping system can be cut and assembled before returning the solder to the joints, saving time and money. Also, because the cleaning action is



Fernox Flux — a heat-activated flux from Hevac

only activated during the heating process, the flux does not continue to attack the metal surface after the soldering is complete.

Being non-acidic and non-toxic, Fernox Flux is extremely safe to use and is WRAS approved for both gas and potable water systems. Ideal for copper, mild steel, galvanised iron, silver, tin, zinc and malleable iron. It can also be used with lead-containing and lead-free solder.

Available in tubs of 125ml and 250ml.

Fernox Powerflow is a new flushing machine designed to satisfy the increased emphasis on power-flushing. The units incorporate a number of unique features such as bi-directional direct flushing; acid resistance; a high temperature operation facility (800C); and a 370W/32m head Grundfos pump in 316 grade stainless steel which allows for a domestic central heating system of up to 200lt capacity (about 20 single radiators) to be effectively and speedily cleaned.

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

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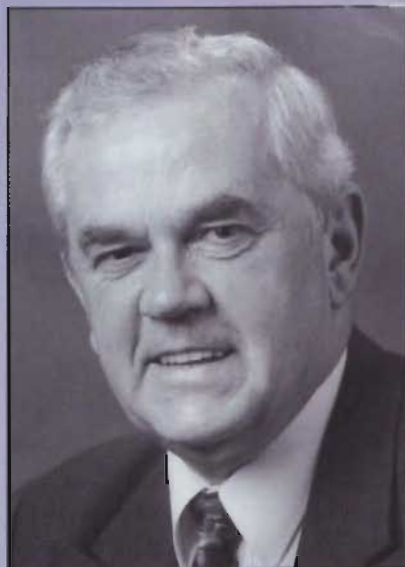
Tel: 288 5001

Facilities Management – What is it exactly and where did it come from?

If it bugged you most, you got landed with the job, that was how Facilities Management was resourced, not only in this country but in many others also. Historically, it was the person in the organisation who was most irritated by workplace environment failures who ended up taking on the chore of ensuring that everyone had a comfortable environment to work in. He/she was the one who made the phone call when the lift broke down or when the coffee ran out. Everyone else felt "well, it isn't my job". This person, although never called a Facilities Manager, was the one who refused to stand by and do nothing about such matters and gradually they evolved into what is today known as the Facilities Manager.

In cases where no one took on the role, management nominated someone to look after this aspect in their spare time. It was seen to be a small chore to ask an employee to do and the perception was that it would not add much in terms of workload. How wrong can you be? Research emerged that showed trends that IT managers, HR managers, financial controllers and office managers were spending up to 48% of their time on facilities-related issues.

Increased competition globally proved to be another driving force for the development of this new profession. Businesses recognised that their building was one of its most costly items on the balance sheet and this in turn encouraged boards of



An explanation of the evolution of Facilities Management as a profession in Ireland by Larry Kane, Managing Director and Ann Sheehy, Marketing Manager, Irish Estates. Larry, Chartered Surveyor and Building Services Engineer by profession, is a Past Chairman and current council member of the IPFMA; Ann is a member of the IPFMA and the Marketing Institute of Ireland.

Tel: 01 - 704 1400

management to ensure that it was cared for properly in order to preserve asset value. At the same time, they recognised that their building was extremely important as a marketing tool. The location, condition and ambience of a building could either support the brand image or be completely at variance with it. The building, its appearance and the facilities offered within it emerged as an attraction or deterrent to highly-

sought-after target workforces.

Small wonder that Facilities Management is rapidly becoming represented at Board level.

So what exactly is facilities management? It combines skills in proven management practices, responsibility for compliance with current Health & Safety and other workplace legislation, technical knowledge of building systems with the aim of ensuring that occupants are provided with a safe and effective work environment.

Your Facilities Manager will have a business awareness and an understanding of your company's operation so that he/she can fully support the end product of the organisation. Therefore facilities management must encompass:

- Understanding the business;
- Planning and providing for the business going forward;
- Understanding space requirement and the service provision;
- Budgeting and financial controlling of fixed and variable occupancy costs;
- Performance management of the building, the budget, the people, the space and the time;
- Managing change;
- Being invisible but available;
- Being professional.

Facilities managers have the responsibility for a wide range of services and it follows that they require a wide range of skills, as well as interpersonal skills, management techniques and financial acumen in order

for this service to be provided in a seamless, efficient and effective manner. The multiplicity of skills required therefore needed to be a true facilities manager are considerable. It is rare to find all of these skills in one person and this has given rise to the concept of outsourced facilities

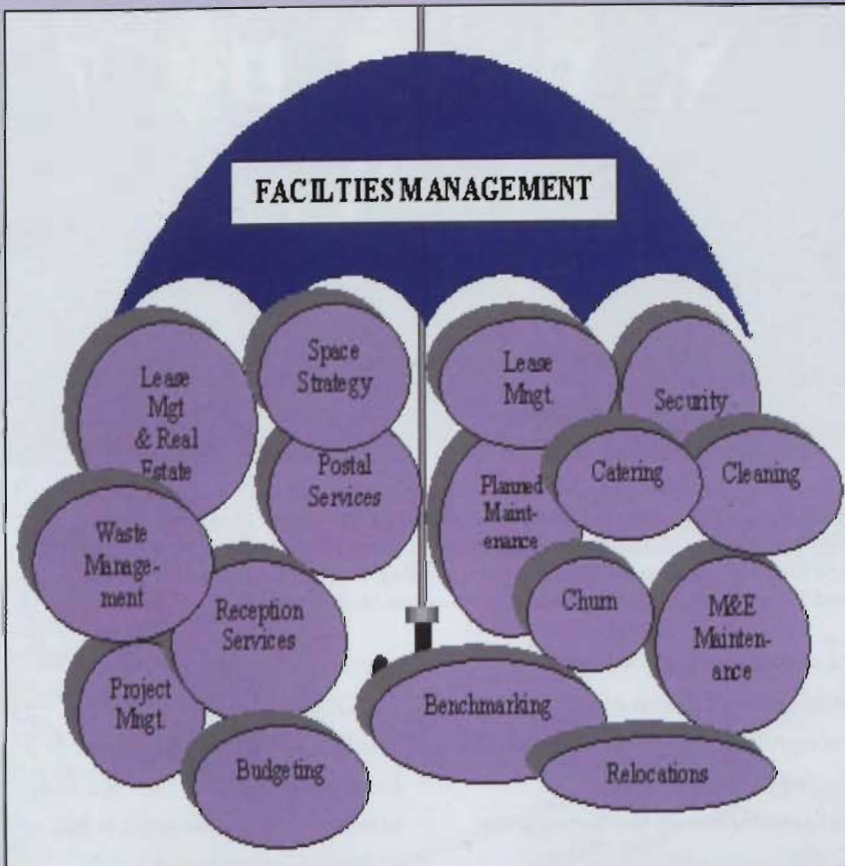
Facilities managers, therefore, must be involved in any company's management team and having a champion at Board level is critical. Facilities managers must be developed and trained and must project themselves to the Board, particularly on how they can add value to the company. It is

previously facilities management was perceived to have been mundane, today facilities managers are taking their seats at the Board table.

Our business environment has changed significantly, particularly here in Ireland, and we are seeing people returning to work in the country who have varying qualifications in facilities management. Today we have facilities managers from a variety of backgrounds including pure facilities management, building services engineering, chartered surveying, etc. Demand is rising steadily for recognised qualifications in facilities management.

The Irish Property & Facilities Managers Association is the main representative body here in Ireland for the profession. The IPFMA provides a 1-year diploma course in facilities management covering three main subject areas: — core skills of property and facilities management; law; and finance. Entry to membership of the IPFMA is through successful completion of examinations, relevant experience, or by exemption. Members can use the designatory letters MIPFMA. The IPFMA's web site www.ipfma.ie provides detailed information for those wishing to enter the profession.

Those of us who have been working in this field for a long time have seen major changes, particularly over the last 12 years, in terms of demands on the profession and public perception. We are looking forward to the exciting times that lie ahead for the profession as a whole as we become more and more involved in the strategic aspects of business in Ireland today.



management. This solution provides not only the full range of skills required on an "as-required" basis, but also results in improved efficiencies achieved through bulk buying savings and assists in reducing over-staffing.

The extent of the service provided tends to highlight the extent to which facilities management is involved in any company's activities. Linking what is seen to be day-to-day operations to strategic business goals and the ability to respond to changes in the business going forward are key skills of facilities management.

important that whatever the facilities manager does is in congruence with the company's business plan and strategy.

A facilities manager must be capable of effective communication and providing the necessary management information required by the Board in a timely and efficient manner. Facilities managers must therefore be good presenters so that they can clearly identify the progress, performance and cost benefits they bring.

Recognition of the role of facilities management in Irish business is growing. Whereas



IDHE/DIT CPD IDHE Certificate Presentations

The annual presentation of DIT Continuing Professional Development Certificates took place in the Red Cow Hotel earlier this month where a capacity attendance saw approximately 100 awards given out across a broad spectrum of building services disciplines. Held in conjunction with the Institute of Domestic Heating & Environmental Engineers (IDHE), this function has become an industry focal point and a clear indicator of the strength of the skills levels pertaining to the industry in general.

Apart from the formalities of the occasion, the evening is very much a celebration and social gathering, the generous sponsorship by Heatmerchants making for a most enjoyable event. There are also a number



John Sampson, Danfoss Ireland with Donal Hartnett, IDHE Committee; Shay Murrán, Head Construction Skills Department, DIT; Jimmy Hamilton, IDHE Chairman; Larry Moloney, PG Industrial Supplies; Philip Morley, IDHE Committee and Heatmerchants who sponsored the evening; Eamon McGlade, IDHE Committee; and John Smartt, Assistant Head, Construction Skills Department, DIT

of special awards where students are given extra recognition for the quality of their performance and achievements in the assessment

process. A typical example is the Danfoss Trophy for Best Student in Advanced Level Refrigeration, and the two tool boxes — complete with a full set of tools — presented by PG Industrial Supplies.

A breakdown of the disciplines covered and the numbers receiving certificates in each is as follows:—

- DIT Heating & Environmental Certificates — 14;
- IDHE Heating & Environmental Certificates — 14;
- Advanced Level Refrigeration — 19;
- Tendering & Estimating (Mechanical Services) — 10;
- Oil-Fired Technology — 12;
- Welding to Advanced Plumbers Level — 30.



John Sampson, Danfoss Ireland with Michael Walker, Standard Controls; Shay Murrán, Head Construction Skills Department, DIT; and John Smartt, Assistant Head, Construction Skills Department, DIT.

MR-16

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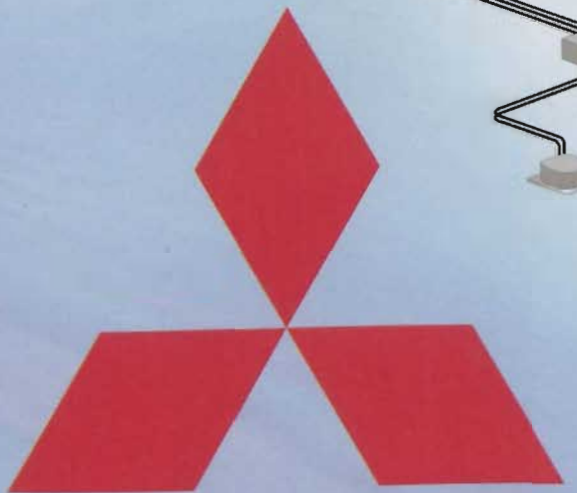
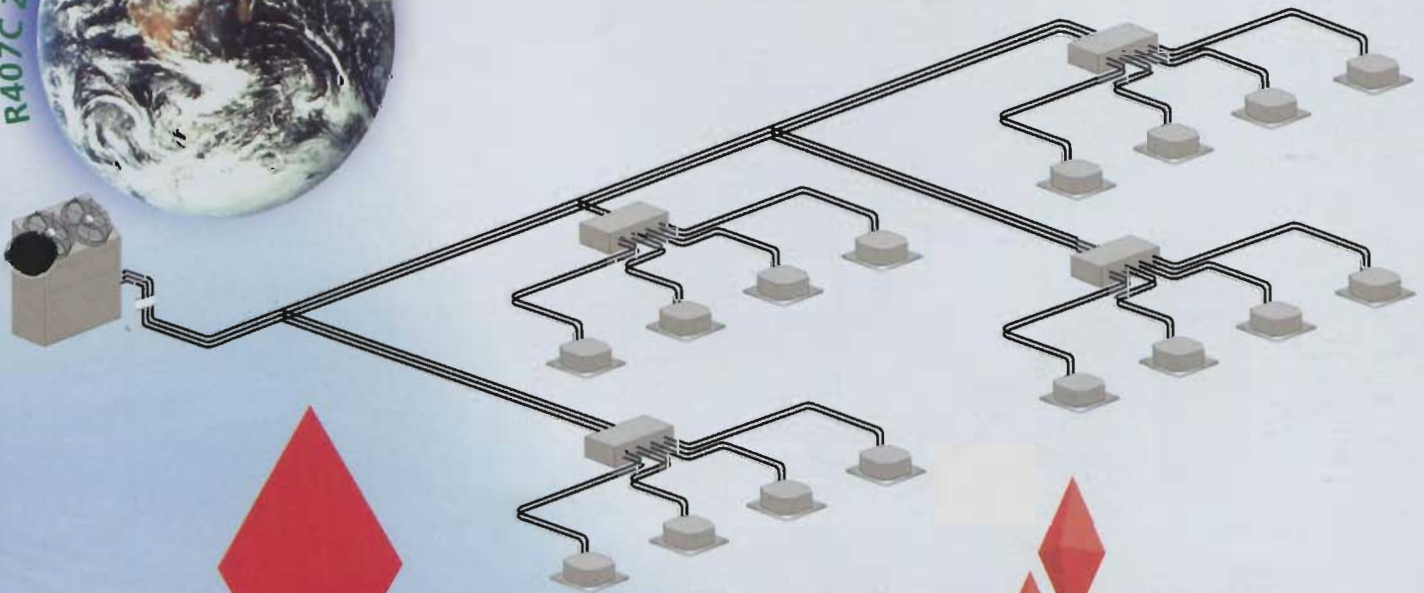
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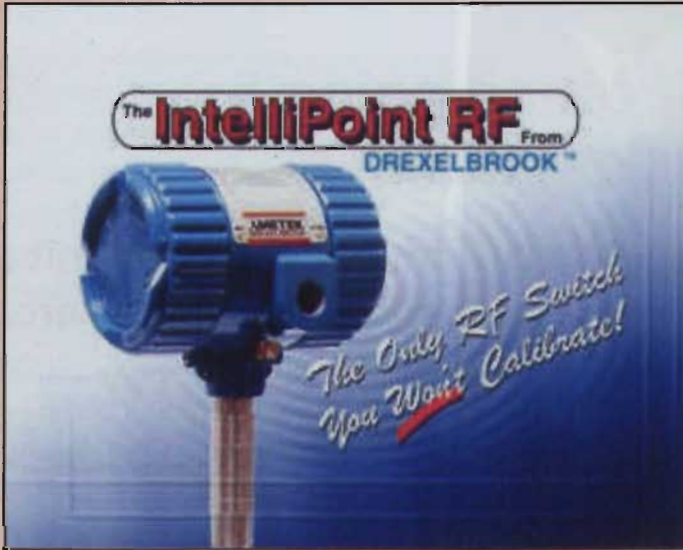
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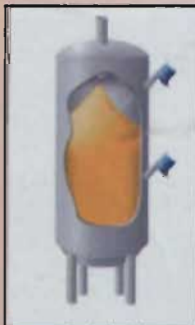
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