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# BSNews

SEPTEMBER 2001

MECHANICAL & ELECTRICAL BUILDING SERVICES

## Instruments & Controls

◆ Harmon Air Conditioning — 4-page profile

◆ Plan Expo

◆ Octabuild Awards

◆ Walsh's Heating & Plumbing

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# BSNews\*

MECHANICAL & ELECTRICAL  
BUILDING SERVICES

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## Readership Data

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

The Mechanical Engineering & Building Services Contractors'

Association (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 saturation coverage of all those with an interest and/or involvement in the industry.

## Recession? ... Only If We Talk Ourselves Into It!

Talk of recession within the construction sector is gathering pace yet there is absolutely no justification for it. Admittedly, the horrendous events in America have further weakened that country's already-ailing economy, and there is no denying that this has repercussions for Ireland's economy. However, talk of recession this side of the world – and in Ireland in particular – is premature and unwarranted.

Sure we have seen a slowdown in growth within the construction sector over the last 12 months but it must be viewed in the context of the unprecedented sustained growth of the last decade. The reality is that the industry will be worth in the region of a staggering £15 billion for the current year. This makes it the largest sector in the Irish economy, accounting for 20% of GNP.

Employment now tops 180,000 and is still rising. Moreover, a recent Expert Group study into the industry's future needs has identified a significant skills gap. It forecast a shortage of something like 26,500 qualified skilled operatives by 2006 on the numbers required to achieve the level of projected output under the National Development Plan.

In many respects the construction industry should welcome the slowdown. The available resources can now be better utilised. For far too long we have been fighting a rearguard action, desperately trying to satisfy the voracious appetite of the so-called Tiger Economy. In recent years in particular it has been a "finger-in-the-dyke" scenario, with manic activity, much of it of the headless chicken variety.

Now we have an opportunity to restore order, to take control, and to re-establish more realistic timescales on construction industry projects. Welcome it with open arms ... it is definitely for the better.

### IN THIS ISSUE

News	2
Mitsubishi Heavy Industries Draws on 130 Years of Experience	14
Plan Expo — The Construction Industry Showcase	16
Hevac at Hermitage	18
Harmon Air Conditioning — 4-page profile	21
Instruments & Controls	25
Mark Eire Makes Life Easier for Service Engineers	40
Ask the Expert	42
Octabuild Awards	43
Walsh's Heating & Plumbing Supplies	44

## Ventac Group – Growth Through Customer Commitment

Ventac was founded in 1972 and has experienced exceptional growth and development based on a trading philosophy which puts product quality and customer satisfaction to the forefront.

From the beginning, Ventac's objective was to deliver total customer solutions. To achieve this goal it devised a strategic development plan, which included clearly-defined policies in relation to investment, the employment of suitably-qualified personnel, targeting growth areas, and the location of its operations.

This philosophy led to continuous growth and development over the last 30 years which proved to be immune from the cyclical peaks and valleys of the economy at large. Today, the Ventac Group of companies enjoys market-leading status in the manufacture and distribution of a wide range of ventilation and noise control equipment, and associated accessories. NCRL is a wholly-owned subsidiary

of Ventac & Co Ltd. NCRL/Ventac is the only company in Ireland to have its own commercial acoustic testing laboratory. NCRL/Ventac has been involved in the noise control industry for the last 21 years, covering all aspects of acoustic design for noise control engineering, anti-vibration and building and architectural acoustics.

Completing the family is AcTech, a company formally launched in May 2001. The NCRL laboratory facility is the test ground for many of AcTech's innovative products, especially OEM work where it is employed to develop specific products for the likes of the automotive and aircraft industries. Apart from product development, an essential aspect of the service provided is testing and certification to ensure compliance with all relevant local and global legislative requirements.

Contact: Ciaran King, Ventac Group.  
Tel: 01 - 667 1077;  
email: info@ventac.com

### Thermo Dial Move

Thermodial Ltd has moved to Block A, Centrepoint Business Park, Oak Road, Dublin 12. Contact numbers are: Tel: 01 - 409 7696; Fax: 01 - 409 7686; email: info@thermodial.ie Website: www.thermodial.ie

## Selkirk Omega SW — a New Twist in Flues

"Selkirk's new single-wall flue system, Omega SW, uses the very latest engineering technology to eliminate locking bands by incorporating a unique twist-lock joint", says Declan Kissane of distributors Hevac Ltd. "The result of extensive research and testing, Omega SW is the first of a series of new products to be launched by Selkirk to meet the challenge of a demanding market. Produced in 0.4mm stainless steel, Omega SW is a robust and economical single-wall flue system designed for use with both condensing and semi-condensing gas and oil-fired equipment".

Omega SW's unique element joining process (patent pending) has a gas tightness that is said to exceed any other similar system. Using a bayonet mechanism for assembly, sections are pushed together and then rotated to provide a very tight and secure joint up to 5000 Pascal, significantly higher than current industry expectations.

Designed for use either within an existing shaft or chimney, Omega SW is a fully integrated system with both single and twin-wall flexible flue

liners and can be used both internally and externally as a fully-supported structure. Where required, the range of components enable the system to be installed so that condensed flue gas elements can run back to dedicated condensate fittings, to which separate drainage facilities can be connected.

The system is available in seven diameters between 80mm and 200mm in a full range of lengths, fittings and supports. Flue elements are manufactured from fully welded 0.4 type 316 L stainless steel.

Contact: Declan Kissane, Hevac. Tel: 01 - 830 1211.



**Selkirk's Omega SW flue system features a unique twist lock which eliminates additional locking bands. It is available from Hevac.**

## Top Brands Appoint ATP

Advanced Technical Products Ltd (ATP) is the new company recently started by David Daly who has worked in the mechanical services business for over 22 years. Beginning in contracting, and more recently as technical sales manager for a national distributor, David has now branched out on his own.

The following brands have appointed ATP to represent and distribute their products in Ireland:

- ABS water heaters;
- Sill line perimeter and trench heating;
- Shearflow air curtains;
- Winterwarm gas-fired unit and radiant tube heaters.

Also available are a range of heat exchangers, shell and tube, plate and skid-mounted packaged units.

Contact: Dave Daly, ATP. Tel: 01 - 409 3950;  
Mobile: 087 - 261 1711.

## Euro Gas Appointment

Euro Gas Ltd has appointed Paul Burke as Technical Sales Manager for the Munster Area. Paul is a qualified mechanical engineer and has been working with a well-established Cork-based consultancy in building services for the past two years. Paul will be responsible for maintaining and developing the Euro Gas customer base in the



Munster area, and providing after-care engineering to clients. Paul can be contacted at Tel: 086 - 839 3883.

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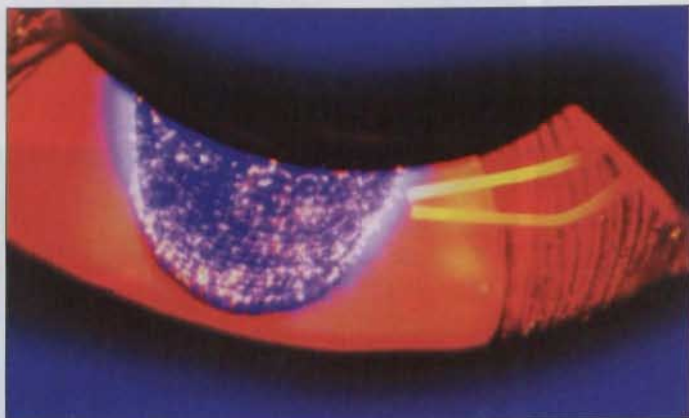
# A Man for all Seasons

MAN is one of Germany's best known industrial groups and is involved in the manufacture of many industrial products including diesel engines, trucks, burners and boilers. The MAN brand is known around the world for high quality and engineering excellence.

RVR Ltd, the Kenmare-based manufacturer of HVAC equipment, is the

the unique SpiranoX heat exchanger;

- Pre-mix, low NOx, fully modulating burner;
- In-built weather compensation;
- Hot water priority feature;
- Easy to use but sophisticated controls;
- Integrated fault-finding and data-logging system;
- Flexible low-cost



The highly efficient ECONOX metal fibre sheath burner is common to all models.

sole Irish distributor for MAN Heiztechnik, a division of MAN and manufacturers of ultra-high efficiency boiler products.

The MAN range of ultra-high efficiency boilers, for domestic and commercial applications, includes models with outputs from 16kW up to 3000kW. Wall hung boilers are available in capacities up to 76kW output. All of the boilers share common features including:-

- Ultra-high efficiencies achieved using

flueing with PPS components;

- Compact size;
- Very low noise levels;
- CE marked for natural gas and LPG.

MAN boilers provide very high levels of operating efficiency throughout the heating season. The combination of full burner modulation and weather compensation means that the boilers regulate the flow water temperature to exactly match the building demand. The boiler will therefore operate in condensing



MAN wall-hung boiler

mode for a much greater proportion of time than other, less sophisticated, designs. Savings of up to 40% of total heating cost have been demonstrated.

As well as providing weather-compensated water supply to a heating system, the boilers can also control the heating of the domestic hot water supply and are perfectly adapted for use with calorifiers and indirect water heaters. All boilers are capable of monitoring and displaying the temperature of the stored water, and also have an electrical output which



Stainless steel, high surface area heat exchanger.

will drive a diverting valve or pump for the water heating circuit.

MAN boiler models are available for all applications ranging from residential to commercial and industrial. They may be installed individually or in multiples. A special controller is available to control installations of up to five boilers. This will provide boiler sequencing and weather compensation of a group of boilers.

A 2-year warranty is available on all boiler parts and five years on the stainless steel heat exchanger and burner. The boilers are supported by RVR's nationwide service network and extensive training has also been carried out with the service departments of the various gas companies.

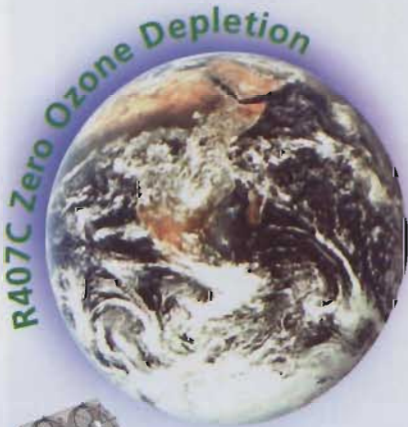
Contact: Michael Hayes or Padraig Blake, RVR Ltd. Tel: 064 - 41344; email: man@rvr.ie

# KXR-16

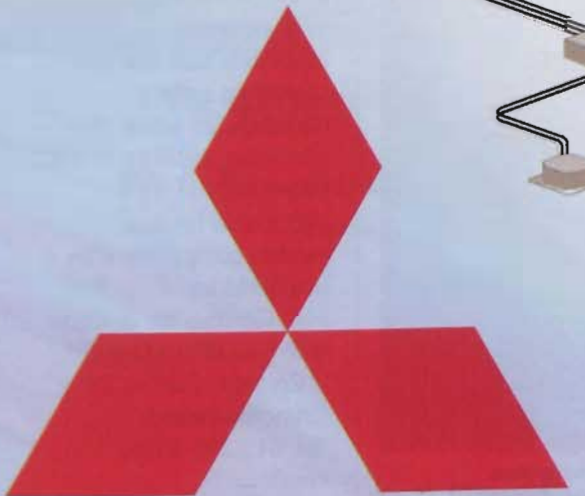
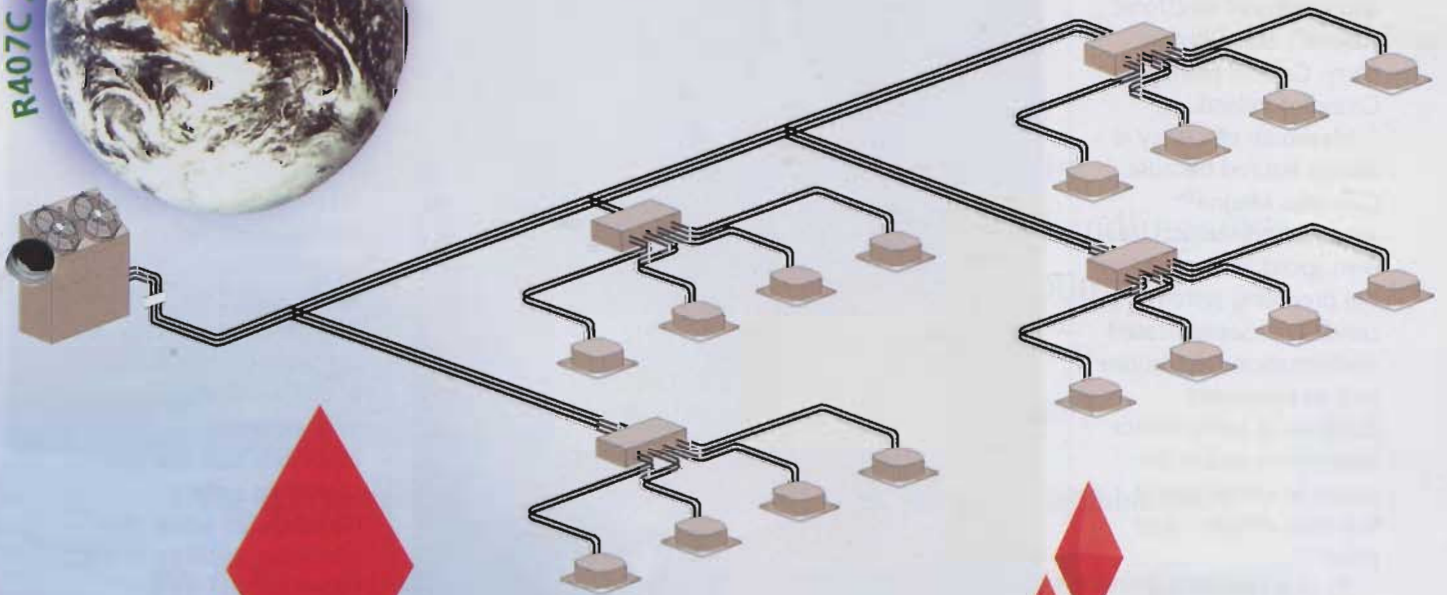
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TRADE NEWS

## Peace of Mind from Grundfos Magna

Innovative use of a power-saving permanent magnet motor is at the core of a pump revolution which will simplify pump selection, ease installation and save users money. At ISH Frankfurt, leading pump innovator, Grundfos, will introduce the brand new Grundfos Magna™ series of sophisticated midsized circulator pumps for heating systems.

Grundfos Magna™ is claimed to use 50% less energy than comparative electronic pumps on the market today. "This is made possible by the innovative use of a permanent magnet motor and intelligent electronic control", says Gordon Barry, General Manager, Grundfos Ireland.

Maximum efficiency is always assured because Grundfos Magna™ automatically adjusts its own speed in response to the prevailing system conditions. Sophisticated mathematical calculations and an integrated database of performance parameters enable the pump to always run at the most efficient duty point.

To save contractors time and energy, much has been done to simplify pump installation and operation. The contractors themselves have been actively involved in Grundfos' ongoing search for ways to optimise all aspects of the pump.

The most visible outcome of this collaboration is the unique terminal box developed to facilitate installation by allowing very easy access to the

wiring. Attention has been paid to details which make an important difference to those doing the job. A clip holds the cover in place during wiring, and there are no loose parts or screws to keep tabs on.

A long-term advantage of the distinctive terminal box is that all the

electronic components can be fitted onto one circuit board. This reduces the vulnerability of the circuitry which in turn increases overall reliability and prolongs the pump's service life.

In 80% of all installations, there is no need to make any manual adjustments to pump settings. The Auto mode automatically finds the correct settings by registering conditions in the system.

Finally, whether in manual or AUTO mode, the panel clearly indicates flow rate and the pump's current operating level in relation to its maximum capacity. Built-in electronic motor protection safeguards Grundfos Magna™ against power surges or other faults in the mains.

The ability of Grundfos Magna™ to adjust its own speed also acts as an inherent safety margin that eases the load for specifiers. The pump can automatically reduce and increase its operating speed to find the optimal duty point and still run at the same very high levels of efficiency. It is then only a question of being absolutely sure that the maximum system demands fall within the maximum capacity of the pump.

Optional fieldbus models compatible with LonWorks and Grundfos' own GeniBus are available with Grundfos Magna™.

Contact: Gordon Barry, Grundfos Ireland. Tel: 01 - 295 4926. email: gbarry@grundfos.com



Grundfos Magna is claimed to use 50% less energy than comparative electronic pumps



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TRADE NEWS

## Wilo Pumps for Ballymun Regeneration Project

Wilo Engineering Ltd has recently supplied a five-pump variable speed mains water booster set for the prestigious Ballymun Regeneration Project in Dublin. The booster set, selected from Wilo's COR/MVI range, comprises five MVI 5000 series vertical multistage pumps, each rated at 15kW, mounted and piped on a skid base, with a separate floor mounted control panel cabinet which houses the variable speed drive equipment and associated switchgear. The booster

be completed over the next three to five years. Due to the varying demand requirement as these phases come on line, Wilo selected a multi-pump unit to match

electrical efficiency is achieved at all stages. The new homes will replace the existing tower blocks due for demolition, commencing next year. Contact: Wilo



The new Wilo booster set recently installed at Ballymun Regeneration Project

the increasing demand. Variable speed regulation provided will also ensure the maximum

Engineering.  
Tel: 061 - 410963;  
email: sales@wilo.ie



Derek Elton pictured with Kevin Sullivan, Wilo Engineering, during the recent commissioning of the Wilo booster set

set was installed in a new pump house located beside the landmark Ballymun central boilerhouse, under the authority of Dublin

Corporation. The new booster will provide mains water supply to the 2000 new houses currently under construction in phases, to



Kevin Sullivan, Wilo service engineer, commissioning the controls of the new Wilo booster set

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TRADE NEWS

## Small Pressure Transmitter — High Accuracy!

Built for use in high-shock, high-vibration applications, the new Dwyer Series 673 pressure transmitter from Manotherm delivers a standard 4 to 20 mA output signal with  $\pm 0.25\%$  FS accuracy in the harshest of environments. This rugged instrument is rated for shock to 200g, vibration to 20g, and stability is 0.5%/year. Uses for it range from hydraulic systems, industrial engines and OEM equipment to HVAC systems and compressor control.

Optimising space, this transmitter is packaged in a small, lightweight stainless steel/Valox housing — it weighs just 2.3oz (65g). Stainless steel wetted parts make the transmitter compatible with a wide range of liquid, gas or vapor media. Operating temperature range is  $-40$  to  $260^\circ\text{F}$  ( $-40$  to  $125^\circ\text{C}$ ). Compensated temperature for all models is  $4$  to  $212^\circ\text{F}$  ( $-20$  to  $100^\circ\text{C}$ ).

The transmitter is available in 10 models in fixed ranges from 1 psi to 1000 psi. Maximum pressure for each model is twice its maximum range. All models are available ex-stock.

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



Dwyer Instrument Series 673 pressure transmitter from Manotherm.



From the S&P HCM range.

## S&P Wall and Window Extract Fans

The S&P HCM range of plastic axial extractor fans comprises three nominal-size diameter fans designed to exhaust air directly to the outside. Air volumes range from 400 up to 900 m<sup>3</sup>/hr. All models are designed to be installed in windows, walls or similar structures.

The HCM range provides a flexible ventilation solution for renovated buildings, or where space and scope for structural change is

limited. Typical applications would include domestic kitchens, bathrooms and commercial offices.

All models are fitted with a three-position shutter which in turn regulates three distinct modes of operation including a natural ventilation function. All models offer powerful air extraction with very quiet operation.

Contact: Ciaran King, Ventac.  
Tel: 01 - 667 1077.

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TRADE NEWS

## Wavin Ireland Appointments

Wavin Ireland has appointed two new managers — Joe Costello, Distribution Manager and Derek Brannigan, Quality Assurance Manager.

Joe Costello has worked in the warehouse and logistics industry since 1984. He comes to Wavin from Cement Technology Corporation in Blanchardstown, Dublin. He previously worked as a Field Logistic team



Derek Brannigan, Quality Assurance Manager, Wavin Ireland

leader with Digital Equipment Corporation from 1990 to 1997.

Derek Brannigan joins Wavin from Chilton Electric in Dunleer, Co Louth. Prior to that he was Quality Assurance Manager with Electronics Tallaght, SLC Technologies.

Wavin is Ireland's largest manufacturer and

distributor of pvc pipe systems. The company provides in the region of 3,000 products for a range of uses by the building/construction industry, local authorities, utilities and the farming sector.

The main Wavin manufacturing and distribution centre is Balbriggan, Co Dublin. The company also has additional sales and distribution centres in Cork and Lisburn.



Joe Costello, Distribution Manager, Wavin Ireland.

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## "Energy and Climate in the Urban Built Environment"

Both the number and percentage of people living in urban areas is growing rapidly. Up to half of the world's population is expected to be living in a city by the end of the century and there are over 170 cities in the world with populations over a million.

Cities have a huge impact on the local climate and require vast quantities of energy to keep them functioning. The urban environment in turn has a big impact on the performance and needs of buildings. The size, scale and mechanism of these interactions are poorly understood and strategies to mitigate them are rarely implemented.

This is the first comprehensive book to

address these questions. It arises out of a programme of work (POLISTUDIES) carried out for the Save programme of the European Commission. Chapters describe not only the main problems encountered such as the heat island and canyon effects, but also a range of design solutions that can be adopted both to improve the energy performance and indoor air quality of individual buildings and to look at aspects or urban design that can reduce these climate effects. The book concludes with some examples of innovative urban bioclimatic buildings.

Contact: James & James.  
Tel: 0044 8073 878558;  
email: [james@jxj.com](mailto:james@jxj.com)

## Grafton Group Profits Up .

Grafton Group plc has announced an increase in pre-tax profits of 32% to e27.1 million for the half year ended 30 June 2001 compared with e20.6 million in the first six months of 2000.

The Group experienced strong profit growth in both its Irish and UK operations. First half turnover increased by 20% to e470 million. The substantial UK acquisition and development programme has given the Group scale and momentum in that market, positioning Grafton as the fourth largest builders and plumbers merchants in the UK. The Group's operations in the Republic of Ireland again produced a strong performance with turnover increasing by 8% to e166.4 million.

The Group's strategy of building profitable businesses and diversified earnings across the UK and Ireland through both organic development and acquisitions provides a solid platform for further growth. The Group is positive about future prospects.



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# UPGRADE

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# MHI Draws on 130 Years of Experience!

3 D Air Sales (Ireland) Ltd is the distributor in the Republic of Ireland for the extensive range of air conditioning split systems and VRF systems manufactured by Mitsubishi Heavy Industries Ltd.

The range extends from small mini-split cooling and heat pump systems, of 1.8KW, to large modular Inverter VRF systems up to 128KW. MHI is particularly strong in FD Series air conditioning and heat pump systems for commercial premises. These products include cassettes, wall and ceiling models, floor standing units and concealed units for ducted application.

The cassette and ducted models are also available as multi-systems, i.e. 2, 3, or 4 internal units connected to one outdoor unit, up to 28KW. These multi-systems (see example illustration) are ideal for large open plan areas such as retail stores, fitness gyms, and large offices, and provide significant costs savings compared to individual split systems. One very useful advantage of the ducted units (both split and VRF) is the integral condensate lift pump, which is included in the standard specification.

The VRF systems — known as KX (2-pipe) and KXR (3-pipe) — have been manufactured for over 10 years, and are now well established as a high-specification, very reliable product range for commercial applications. There are 52 different model sizes of indoor units, and unique combinations of single, 2-way, 4-way, and 6-way distribution

controllers for 3-pipe systems, giving total flexibility of design to suit the building layout, and helping to reduce the number of brazed joints on site.

Mitsubishi Heavy Industries has its origins dating back to 1871. The early years mainly involved shipping and shipbuilding, and included the manufacture of dockside handling equipment, cranes and transportation systems. The "heavy industries" developed into mining, oil exploration, chemicals, power generation, and the manufacture of

largest manufacturers of split systems and VRF systems. MHI also has air conditioning manufacturing facilities in Thailand and China.

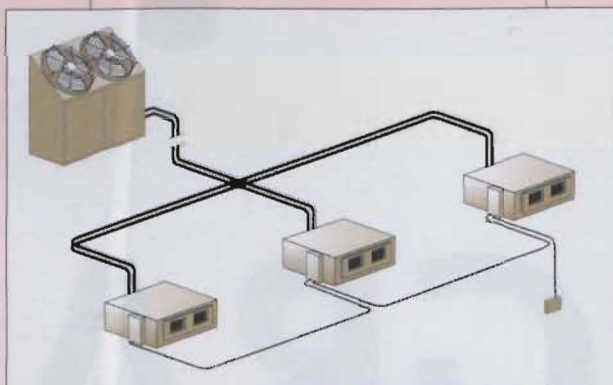
As well as air conditioning systems, MHI manufactures refrigeration units, train and bus air conditioning systems, and in recent years has pioneered new technology in car air conditioning, based on a new, compact, high-efficiency scroll compressor for automotive application. It also manufactures cold storage refrigeration systems, refrigeration units for road and

marine transport containers, large absorption chillers, and district heating and cooling plant.

The engineering history, the quality culture of MHI, and its strong position in world markets, are evident in the high quality of its products. The "state-of-the-art" control systems, and the continuing

programme of launching new products, reflect the huge investment made in research and development, and in the new techniques and technology employed in its manufacturing processes. These have resulted in high-efficiency systems for commercial and residential use, with a reputation for exceptional reliability.

3D distributes the range of split systems and VRF systems throughout the UK and Ireland. Sales staff and applications engineers are available to provide support to installers, contractors and consulting engineers. Contact: Michael Clancy, 3 D Air Sales (Ireland) Ltd. on 01 450 9433.



MHI triple multi-system — up to 28kW

aircraft. Over the years new companies were formed, several of which have since been divested from MHI, including Mitsubishi Motor Corporation in 1970.

Mitsubishi Heavy Industries Ltd, Refrigeration and Air Conditioning Division, has a turnover in excess of £650million. MHI has been involved in manufacturing refrigeration equipment since 1915. Its manufacturing base is at Nagoya in Japan, which is also the centre of its research and development facilities. The Nagoya factories were established in 1960, and MHI is now one of the

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Flat radiant panels for ceiling suspension; capacities are available on request

G O L F E W S

# Hevac At Hermitage

**A**s is now customary, Hevac and their guests virtually took over Hermitage Golf Club recently on the occasion of the company's annual golf day. Something like 110 golfers played on the day with 125 sitting down to dinner later in the evening to witness the presentation of prizes. They included representatives from all sectors of the building services spectrum, along with personnel from Hevac's suppliers. Leading up to the event the weather was diabolical but the God's smiled kindly on Hevac with excellent golfing conditions on the day itself. This led to a very competitive outing with tightly-fought contests for the many prizes on offer. These included the

car on the 10th (for a hole in one); Nearest the pin on the 10th; Nearest the pin with a second shot on a nominated par 4; and of course the overall winner's trophy. See full list of winners in panel. Virtually all the prizes were Tipperary Crystal, an added touch being the beautiful piece of Tipperary Crystal given to all participants on the day, thereby making everyone a winner! After the dinner and presentation of prizes there was entertainment at Hermitage, followed by the now



traditional adjournment to the Red Cow Hotel where Hevac's guests stay over. Many partied long

in to the early hours of the morning, with a significant number continuing on into the next day. It was a fitting finale for this, the 20th annual Hevac golf day.

## 20th Annual Golf Outing

Hevac Golf Results 2001

**Overall Winner** — Ray Hennessy, 38pts

### Class 1

- 1st: John Kennedy, 33pts
- 2nd: Martin Madden, 33pts
- 3rd: Neol Kelly, 31pts

### Class 2

- 1st: Declan Timlin, 36pts
- 2nd: Thomas Gleeson, 35pts
- 3rd: John Quinn, 34pts

### Class 3

- 1st: John Grogan, 35pts
- 2nd: Nicky Cloke, 34pts
- 3rd: Simon Kennedy, 34pts
- Longest Drive: Ben Keane

### Nearest Pin (10th Hole):

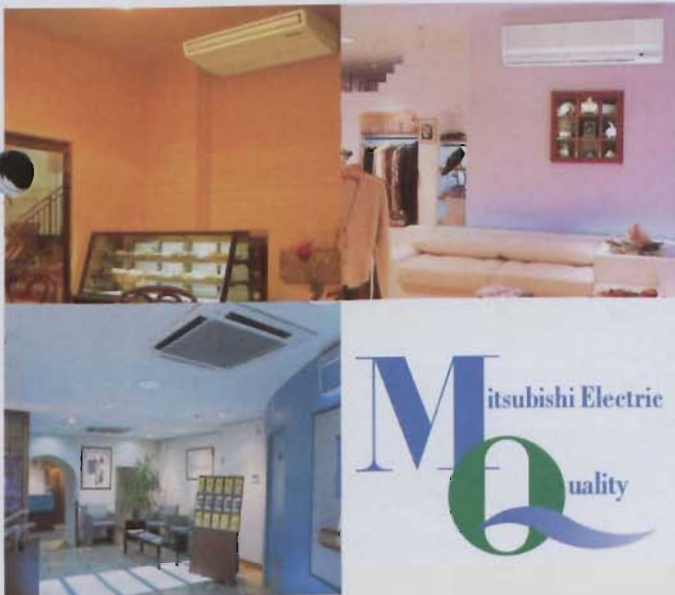
- Aiden Walsh
- Nearest pin on second shot (Par 4 -- 2nd hole): Liam Cahill

### Suppliers/Guests

- 1st: Vincent Broderick
- 2nd: Michael Wild
- 3rd: Donnie Kerin
- 1st Front Nine: Ryan Nugent
- 2nd Front Nine: Dermot Fennelly
- 1st Back Nine: PJ Phelan
- 2nd Back Nine: Martin McSharry



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T H E R E I S A L W A Y S A S O L U T I O N



John Harmon, Managing Director,  
Harmon Air Conditioning

**Whether it is product supply, installation, commissioning, comprehensive maintenance packages or emergency call-out, you can rely on Harmon Air Conditioning for a dedicated, responsive, quality service**



**T**he provision of air conditioning services across the entire building services spectrum is now of critical importance. Whether it is air quality in the home, commercial, industrial or cleanroom environment, the demand for personal comfort and ultra-clean work environments has never been greater.

Consequently architects, consulting engineers, mechanical contractors and developers need to appoint an air conditioning specialist whom they can rely on and specify with total confidence. Moreover, facilities and buildings managers need ongoing support and maintenance services to ensure that the installed air conditioning and environment controls continue to deliver to

the specified optimum performance.

Harmon Air Conditioning can deliver on both counts ... be it the initial product supply and installation; and/or the ongoing preventative maintenance which identifies potential problems and deals with them before they become an issue.

In striving to provide the optimum service, Harmon Air Conditioning aligns itself with market-leading, quality-driven, product suppliers. In this respect its name has become synonymous with Mitsubishi Electric, Clima Systems and Klimatechnik, three of the most respected and prominent air conditioning market players.

Completing the total service offering is a



Dan Ryan, Sales Manager



Ray Hickey, Service Supervisor

comprehensive installation and after-sales service package, along with a vast and varied programme of maintenance contracts designed to suit virtually every requirement (see back).

Taken together, these strengths represent a quality of service that few, if any, can match and one which clients and specifiers alike are increasingly seeking out.

Quality of service, quality of products and quality of performance — these are the core strengths which



ESAT Fusion, Grand Canal Plaza, Dublin

T H E R E I S A L W A Y S A S O L U T I O N

underpin the service provided by Harmon Air Conditioning. An ISO 9002-accredited company, Harmon Air

particular needs of specific projects. This is especially important with difficult or unusual projects



Hardwick House, Mount Street, Dublin

Conditioning is ultra-professional in its approach yet, conversely, offers a flexible, personal service capable of devising tailor-made solutions to meet the

which offer a challenge to conventional wisdom and established practices. It means being inventive and unafraid to adopt and change, and to being open to devising innovative solutions.



Regus, Ballsbridge, Dublin



Darren McFarlane Maintenance Supervisor and Gary Harmon, Service Manager

Underscoring Harmon's ability to go down this route is its workforce. The company's

rest assured that when you appoint us to a project, you are specifying with



Bewleys Hotel, Ballsbridge, Dublin

engineering personnel are highly-qualified, experienced and fully-trained, while a continuous assessment and development programme ensures that they remain so.

In Harmon Air Conditioning you can

confidence. Call us today to discuss your particular need. We can deliver a professionally-devised and installed solution, simply and effectively, and provide ongoing, tailored, preventative maintenance.

T H E R E I S A L W A Y S A S O L U T I O N

## Service & Preventative Maintenance

Installation, commissioning and after-sales service support are a vital constituent in the overall package provided by Harmon Air Conditioning. The team of highly-qualified service engineers, led by Gary Harmon, Ray Hickey and Darren McFarlane, work closely together in a cohesive, tight-knit unit to provide nationwide coverage. Response time is claimed to be the best in the industry, being three hours or less in the greater Dublin region.

This service is all-embracing and incorporates a number of carefully-devised planned maintenance programmes, the objective being to pre-empt and minimise, or eliminate altogether, major problems and plant failure/downtime.

Moreover, this facility is not limited to air conditioning products or installations carried out by the company. It covers all refrigeration, boilers, burners, and electrical and mechanical services, irrespective of who carried out the original project.



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Tel: 01 - 456 4233; Fax: 01 - 456 4236; email: [harmon@iol.ie](mailto:harmon@iol.ie)  
Website: [www.harmonair.com](http://www.harmonair.com)

# Futura-gazing – Web Enabled Buildings

By Stuart Aynsley, Marketing Director, Cylon Controls

Just at the moment, a lot of energy seems to have ebbed away from both the internet industry and the communications sector it relies on. Loss of confidence, caused by the poor financial performance of many dotcoms, coupled with higher than expected roll-out costs of infrastructure — telecoms networks, such as G3, for which the industry has such high hopes — has led to much contemplation of navals in the city.

There is no doubt, though, that internet technology is a key driving force for change. It is having a profound effect on the way we think, act and communicate. It is also revolutionising the way building management systems can work, and this is beginning to bring benefits to manufacturers, installers and customers alike.

At the heart of web technology is something called internet protocol (IP), which is the backbone of Transmission Control Protocol (TCP)/IP networking, the network principal that literally glues most businesses together now.

Until just a few years ago, TCP/IP networks were seen mainly as a solution for rather basic distributed applications, such as file transfer,

electronic mail, and remote data access. As time has passed, though, the internet has become

latter, meanwhile, has become a universal user interface — easily learned, understood and

field layers — IP can be seen now at all three layers within buildings.

## Management layer —

One of the main benefits to building users is that in future, they need not be shackled to a single machine loaded with bespoke supervisor software, as is usually the case now. With a client-



Internal technology is a key driving-force in building management systems control and instrumentation technology

increasingly feature and application-rich, with streaming multimedia and video-conferencing, while corporate networks have developed from simple e-mail and file transfer mechanisms to become sophisticated client-server systems.

Most recently, we have seen the rise of corporate intranets that mimic the way the internet works, with key business transactions accessed and actioned from the humble web browser. The

used. It has supplanted many bespoke software applications and heavily influenced the way all graphical user interfaces work. All of this, I should add, has occurred in less than ten years.

Manufacturers of building management systems have moved rapidly to embrace the new information technologies. Taking the three-layer model of a building management system — comprising management, control and

server system running on IP, the software used to manage the buildings may reside on a server, and it may be browsed from any pc with network rights. That could be somewhere in the building, or somewhere in the world.

Hewlett Packard was an early adopter of client-server technology for building supervision. Their manufacturing plant in Dublin, Ireland, is so large that engineers are often up to an hour's

walk away from the control centre. The problem of how to stay in touch was solved in 1996 using the existing office system. Engineers can browse live and historical building maintenance information in web pages from any PC anywhere on the site.

At project Galilee in Brussels, a combined shopping centre and office block, the building automation system is fully integrated with the owner's legacy IT system. It is accessed across their network via a token ring to TCP/IP bridge from a control room 2km away.

These are but two examples among many. The ability to receive building management information away from a site or while on the move is not new, though. Access via modem from a laptop has been available for years, but IP has made the whole process much simpler and much more cost effective, while eliminating the need to maintain building-specific information on the remote pc.

#### Control layer

It is no secret that most bms manufacturers are exploring the idea of combining a controller with a web server. Instead of installing a proprietary local area network – or building network – IP will be used. The network might be ethernet, or it could be broadband. Once the controller's IP address is assigned, it is a moment's work to access data, or even upload a pre-engineered embedded web page.

#### Field layer

Manufacturers are also beginning to develop field devices that use IP. In fact, in some sectors of building services, such as access and cctv, products are already available.

IP is an open network language. There are no royalties to pay for device nodes and an abundance of component suppliers serving the market. Also, it is genuinely interoperable. There can be no doubt that IP will become an important network standard for intelligent buildings within the next decade. Conceivably, we will see buildings internetworked – that is, the services linked in real time across the internet – rather than employing bespoke connections or proprietary networks.

There is, though, one small generational step to be taken. The present version of IP (IPv4) has finite capacity because of the way its addressing system works. Experts believe the explosion in its use will all eventually outstrip the ability of the internet to supply much-needed functions and services. In addition, networked environments need to support real-time traffic, and will require more flexible congestion control methods and more powerful security features than the present version of IP allows.

The problem was identified as long ago as 1992, when the Internet Engineering Task Force (IETF) issued proposals for a next generation IP (IPng). By 1994 the final design for IPng emerged,

and this has evolved into a specification now called IPv6. This latest version is technically mature, and products and services are starting to become available. Inevitably, IPv6 will be adopted for building management, somewhere soon.

Finally, what about all that copper wiring? The proliferation of intelligent devices, IP or otherwise, has led to speculation on how the cost of wiring will be contained. Rather than trying to hook lots of different manufacturer's systems onto one proprietary network, the solution is likely to come from wireless technologies. Once again, wireless transmission is nothing new, but there are now no less than four IT standards on the table, all of which are workable:

For indoor, outdoor and wide area use, the 3G mobile network is attractive, though roll-out of the network has been slowed by the investment required. In addition to mobile phones, this is aimed at PDAs and portable PCs. It has a maximum user data rate of 2Mbits/s.

Secondly, there is Bluetooth, a 2.4GHz transmission standard, with a maximum throughput of 2Mbits/s intended for networking within limited areas. This standard could, one day, link the air conditioning terminal in your office to the bms lan and your PDA. Devices such as wireless temperature sensors are becoming more affordable daily.

For broadband

communications, indoors or outdoors, there is HiperLAN2, a networking standard also called WLAN (meaning Wireless Local Area Network). HiperLAN2 delivers up to 54Mbits/s at 5GHz, which would enable building management servers at the control layer to link to each other, to PCs or internet routers at reasonable speed.

Fourthly, there is the IEEE 802.11b, a 2.4GHz broadband standard that provides up to 11Mbits/s bandwidth. Throughput is as good as many ethernet networks, though there are some concerns that the 2.4GHz band could become too congested. Devices are already available from Lucent Technologies (formerly part of AT & T) and others.

If all this sounds 'pie in the sky', imagine combining a wireless network (available today) with a pocket computer (also available today). You can now walk around your building, browsing your bms, receiving alarms, setting time schedules, adjusting setpoints and tuning loops.

While all this is deliverable now, there is just one little problem for the whole building controls industry. Technical change is reaching tidal wave proportions. Whether and how we can deploy these new information technologies will be determined ultimately, not by how good they are, but by the resources manufacturers and systems integrators can muster, and how quickly they can do it.

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# Providing Pressure Measurement with the Right Response

When designing the installation of a pressure measurement system, *Bob Gilbert of Manotherm* warns that a lack of understanding of the factors affecting transducer frequency response can lead to failures or compromise accuracy.

The frequency response of a pressure transducer is an important indication of the way in which the device will accurately measure fluctuations in overall system pressure. Yet end-users often specify the required frequency response from a pressure transducer without fully appreciating that it is a function both

of the construction of the device and of the configuration of the entire pressure system.

In order to accurately calculate frequency response, the type of media, the size and shape of pipework, the geometry of the pressure port and the mechanical characteristics of the pressure diaphragm must all be considered. A transducer with a high cut-off frequency can follow faster changes in pressure, or shorter pulses, than one with a low cut-off frequency.

**Pressure spikes: the risks**  
Fast frequency response is not always desirable. In

situations where pressure measurement of incompressible fluids in enclosed systems is required, pressure shocks may occur, resulting from the rapid opening and closing of valves, or be generated by the rapid deceleration of hydraulic machinery. Such incidents may produce unwanted output signals or, in extreme cases, damage the pressure transducer.

Pressure spikes can be considerably larger than the normal operating pressure of the system and therefore, may be greater than the over pressure capacity of the transducer. Over-pressure of the transducer can damage the diaphragm and, in some cases, the sensing element as well — resulting in complete failure.

The transient nature of pressure shocks means

that they contain a significantly high frequency component. This may cause the diaphragm or other components of the pressure transducer to “ring” at their natural resonant frequencies, which can produce an effect similar to that of over-pressure.

The use of a restrictor or snubber, before the transducer, can prevent pressure shocks from reaching the diaphragm. But, while this protects the transducer, there is a cost in terms of reduced frequency response.

In applications for pressure measurement, it is vital to consider the response time of the transducer and design the installation accordingly. In many applications where the pressure being measured is essentially static, the frequency response of the transducer and its installation are of little importance. However, where accurate measurement of fast pressure changes is required, the installation of the transducer must be carefully considered to achieve optimum performance.

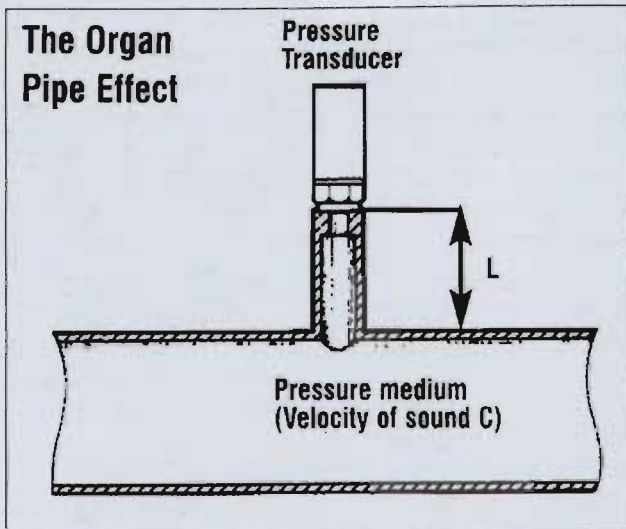
## Factors affecting frequency response

One of the factors which affects frequency response is the transducer’s diaphragm. If the diaphragm is deflected by a pressure wave of the same frequency, it will resonate and the electrical output will be larger than that of the true applied pressure. The size of this measurement error



Gems Sensors is the leading European manufacturer of high performance sputtered thin film and cost effective CVD pressure transducers and transmitters. Details from Manotherm.

INSTRUMENTS AND  
CONTROLS



The diagram shows the 'organ pipe' effect. If the transducer is mounted on a 'T' from a main pipe, the 'T' also has an 'organ pipe' effect. For example, if the 'T' were 15cm long and the pressure medium was air, there would be an organ pipe resonance of 550Hz. Any pressure signals close to or above this would be distorted. In water, the frequency would increase proportionally with the velocity of sound, rising to 2500Hz.

depends on how close the applied pressure is to the resonant frequency of the diaphragm. In many applications, this will not present a major problem. However, much more significant are the configuration of the pipe branch on which the transducer is mounted, and the type of media being monitored.

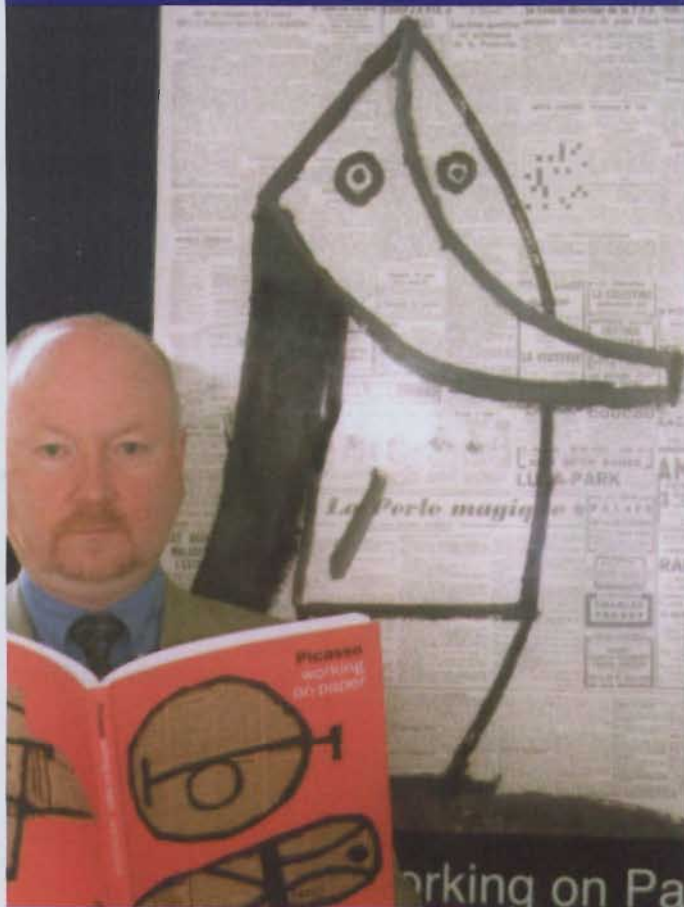
Whether liquid or gas, the pressure medium has physical and acoustic properties affecting the transmission of pressure changes to the diaphragm. The effect the media has on the frequency response is also dependant on the geometry of the pipework. Although a transducer may have an adequate frequency response to monitor a rapid change in pressure, it will be adversely affected if the pipework is structured in a way that distorts or delays the pressure wave before it reaches the pressure

diaphragm. For example, the length of the pipe between the pressure source and the transducer will affect the response time of the transducer. As a general rule, the pipework should be at least 1.5 times that of the highest frequency that is to be monitored by the transducer.

The viscosity of the media has a secondary affect. If a pressure transducer is connected via a long, small bore pipe and the pressure medium is viscous, the pipe will act like a low pass filter attenuating the higher frequency components of pressure changes. To minimise the acoustic resonance and viscosity effects, for maximum speed of response, the connecting pipework should be kept as short as possible and be of large diameter.

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

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# Cellular Solution to Monitoring Opens Up New Possibilities

An important feature of intelligent building controls is the facility they offer for remote monitoring and management, a particular advantage on sites where there are no engineering or FM staff. Traditionally, standard telephone lines have been used to link sites to the monitoring station, via the PSTN (Public Switched Telephone Network). Now, digital cellular technology has provided an alternative.

The recent development of modems for use with GSM digital cellular networks has enabled Trend to open up the benefits of remote monitoring to a wider range of applications. When combined with these modems, Trend's intelligent controls can bring data

communications to sites where, owing to their location, the installation of landlines is impossible or prohibitively expensive. This use of GSM technology also provides an affordable answer to temporary monitoring — eg, during system commissioning. Moreover, operator interfaces through which data is accessed can now become fully mobile.

Installation is inexpensive and straightforward. Generally, the modem would simply be connected to a Trend IQ controller via a TMS node; in the case of an IQ220 model with built-in modem handling, connection would be direct. The modem's high-gain aerial can be placed on top of a control panel, or located elsewhere and connected

via an extension lead. At the Trend operator interface used to access monitored data, a cellular modem is not necessary (unless portability is called for); connection can be via a standard landline and PSTN modem, the latter being linked to the interface through a TMN node.

Potential uses for the Trend/GSM combination are diverse and are not confined to standard building controls applications. Indeed, the very first application has involved the monitoring of railway track points in remote areas of Scotland. IQ controllers have been installed by the trackside to automatically switch on heating elements if there is a danger of the points freezing up; any alarms generated by the IQs are transmitted via GSM modem to a central monitoring station. Running landlines to these isolated locations would have been a far costlier proposition.

Other applications include the monitoring of environmental conditions and/or equipment in

railway signal boxes, water treatment pumping stations and lighthouses. Owing to their reliance on good communications with the outside world, unmanned sites offer particular potential. Refrigerated transport is another area of use with distinct possibilities. An IQ could be fitted within a refrigerated food lorry to control and log temperature, the GSM modem, being used to transmit the recorded temperature data.

When Trend supervisory software is loaded on a laptop or palmtop PC and connected to a GSM modem it is transformed into portable operator interface that can be used almost anywhere. It becomes the ideal tool for busy service engineers. They can dial into a site, interrogate the IQ controls and then determine whether a visit is necessary — without even needing to get out of their cars. In addition, GSM's SMS (short message system) facility could be used to send text message alarms directly from an IQ controller to the service engineer's operator interface.

GSM is the *de facto* global standard for cellular telephony. It offers fast, reliable and secure communications at operating costs that are now on a par with PSTN.

Contact: Sales Department, Standard Control Systems.  
Tel: 01 - 624 6100;  
Fax: 01 - 624 6105; email: [info@standardcontrol.ie](mailto:info@standardcontrol.ie)  
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# Monitoring and Alarming – Its Relevance to the Cold Chain

*What do we mean by monitoring and alarming?*

— Monitoring is the automatic recording and display of system values typically found in commercial and industrial buildings. It also includes the automatic recording of all system events and alarms, thereby providing a facility for the correct handling of alarms. Such alarms can be caused by a number of factors. They include high and low temperatures, and pressure. Monitoring provides the possibility of identifying alarms and the means to easily diagnose the type of alarms.

*Why Monitor?* — Apart from the purely technical benefits that monitoring provides, it is also an excellent management tool. Plant engineers of commercial and industrial buildings can make enormous cost savings by monitoring HVAC systems' performances, thus reducing the risk of wear and equipment deterioration.

*Who are Woodley Electronics?* — At the forefront of monitoring since 1976, Woodley Electronics is a company that was acquired by Danfoss in January 2000. The company's success goes back to the late 1970's when an alarm system with several channels (measuring points) was introduced.

Within a very short time the company became the brand leader for monitoring and alarm systems, and over the next 15 years subsidiaries were established in France, Germany, Sweden and Ireland.

After the acquisition, the Woodley organisation was merged with the Danfoss Group, thus enabling the Group to offer a broader range of monitoring programs for the regulation and optimisation of commercial and industrial plants.

*Product Portfolio* — The Danfoss M2 products fulfil three main functions:

— Monitoring and alarming: Monitoring of temperatures (measuring points) in a HVAC plant where limit values that must not be exceeded can be entered, ie an alarm is signalled in the event of a set limit being exceeded. Alarms consist of a combination of audible and visual indication on the panel. Additional details can be printed locally, and sent to a local PC. In addition, the alarm can be raised in many other ways, including digital dialler, SMS and fax;

— Recording and uploading data: Monitored values can be logged and stored in the Danfoss M2 for up to 12 months. Such historical



Apart from technical benefits, accurate monitoring is also an excellent management tool

data can then be printed locally in the form of graphs or lists of alarms and events. Data can also be transferred to local and external PCs;

— System interrogation and set-up: Systems can be interrogated or programmed locally,

using the keypad or via direct connection to a PC or laptop using dedicated software (Central Station or Hyper-terminal).

Contact: Edward Keating, Danfoss Ireland. Tel: 01 - 626 8111; Fax: 01 - 626 9334; email: marketing@danfoss.ie

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Standard Control Systems Ltd — Distribution

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## **The Products**

Standard Control Systems have been the sole distributors in Ireland for Trend Control Systems for more than 15 years. Specialising in Intelligent Building Management Systems Trend is renowned for its innovative and cost competitive "state-of-the-art" solutions for reliable and accurate control, particularly in the field of HVAC.

## **Success**

Indeed, Trend Control Systems products have remained as market leaders in the UK and Europe since launching its original Intelligent Standalone Controllers back in 1980. Today, the Trend range remains the most advanced flexible control system in the market.

## **Route to Market**

The Trend BMS products are brought to the market in Ireland by the independent SCS Distribution company through a carefully-selected and approved network of "Technology Centres"/Systems House. These Technology Centres are charged with the task of maintaining a high level of in-house expertise, suitably qualified to install, engineer and commission the products.

## **Opportunities**

In line with this policy and to satisfy the increased demands for Trend BMS products in Ireland, SCS Distribution is currently conducting interviews for partnering with regional companies and individuals who feel that, with the backing of a first-class sales and engineering support structure, they can achieve significant market share within a designated territory.

## **Contact Us**

If you are an existing ambitious Controls Systems House — or you have ideas about the control marketplace which can only be fulfilled in partnership with the most advanced control products — contact:

John Roe, Chairman,  
Standard Controls Systems Ltd,  
Standard House,  
Riverview Business Park,  
Nangor Road, Dublin 12.

Tel: 01 - 624 6100; email: [info@standardcontrol.ie](mailto:info@standardcontrol.ie)

# Honeywell Smartfit – New Standard for Central Heating Control

Honeywell has launched a new system that removes the difficulty of wiring a home central heating system and reduces installation time. By speeding up installation time and reducing call-backs due to incorrect installation, Smartfit raises productivity and reduces costs for domestic installers, new house builders, housing associations and councils.

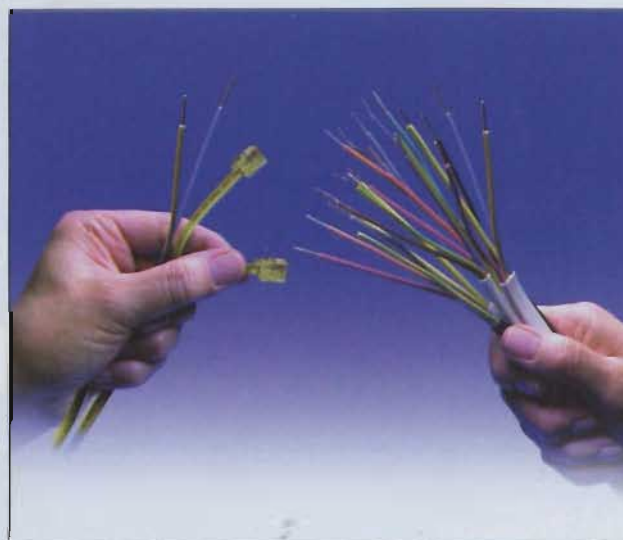
Honeywell Smartfit features low-voltage wiring and plug-in control connections to minimise the chance of errors and to make wiring quicker and simpler. The system has revolutionised the domestic central heating control installation since its UK launch last year and has just been launched in Ireland.

Honeywell, the most trusted name in central heating controls,

introduced its Sundial Plans some 30 years ago and they were quickly adopted as the industry standard. Honeywell now sets the new, de facto standard for central heating controls with its low-voltage, plug-in Smartfit system. Smartfit provides installers with greater productivity and the means to higher profit margins.

Central to Smartfit is a connection box that provides plug-in or simple two-wire connection for all space heating and hot water controls. There is no need for a wiring diagramme: installers simply connect the two-wire room unit, plug in the valves and cylinder sensor, and the system is complete, whether it is an S-Plan or Y-Plan.

All Honeywell Smartfit system connections are low voltage and polarity-



Honeywell Smartfit featuring plug-in control connections to minimise the chance of errors

free. Although installers still need to make mains voltage connections to the pump and boiler, even these have been reduced to one wire per terminal. By comparison, traditional systems require more than 30 wires to be prepared and connected correctly, mains voltage being carried to every unit in the system and sometimes with several wires at a single terminal.

Honeywell Smartfit valves have snap-on actuator heads with plug-in connections back to the base unit. The same actuator unit fits onto all valve bodies. The elegant Smartfit programme controller provides a single point of control for all space heating and hot water programmes. It also includes a built-in diagnostics facility that enables faults to be quickly identified and remedied, reducing call-backs and saving installers' time and cost. The final component of the Honeywell Smartfit system is a cylinder sensor

that also features plug-in connections back to the base unit.

In developing Smartfit, Honeywell researched the biggest problems facing installers and developed Smartfit to remove the difficulties of wiring and fault finding. Honeywell also researched householders' wishes, so that the Smartfit controller brings together central heating and hot water control in a single, stylish unit.

All this, coupled with the established Honeywell renown for quality and reliability, adds up to happy customers, profitable installation and enhanced reputation.

Contact: Honeywell Control Systems.  
Tel: 0044 1344-656000.  
Fax: 0044 1344-656454.  
E-mail: uk.infocentre@honeywell.com  
Web: www.honeywell.com/uk



"Honeywell Smartfit — New standard for central heating control"



# CONTROLLING HEAT AND WATER THE NATURAL WAY



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E-mail: [marketing@danfoss.ie](mailto:marketing@danfoss.ie)



34025

# Cylon Redefines Flexibility in Fan Coils

Continuing the development of Cylon's Unitron 2000 system for Building Automation, the focus now turns to integrated unitary room controllers for common applications. Following the success of the UCU10VAV controller, Cylon now brings the proven energy saving and maintenance benefits of BMS to a wider market in fan coil units with the launch of its UCU10FC.

The UCU10FC is compact and includes outputs suitable for direct speed control of single-phase motors for easy integration within an FCU housing for factory fitment, easing the on-site commissioning process, especially if supplied pre-programmed. In this respect, the inclusion of non-volatile "flash" memory offers the benefits of both fixed function and freely programmable devices in a single unit.

What could be better than standard room control programs that can be easily adapted on site to cater for any customer requirement? Flexibility is clearly demonstrated in Cylon's new purpose-built headquarters close to Dublin Airport, where control strategies incorporate lighting control and window position monitoring to avoid these potential sources of energy loss.

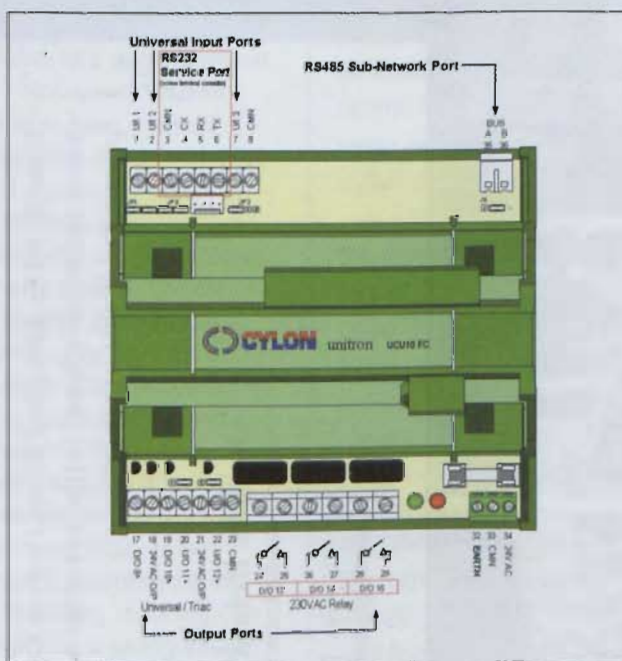
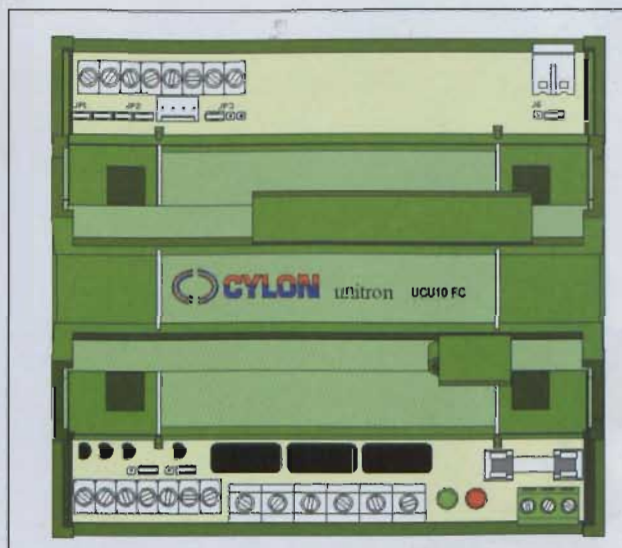
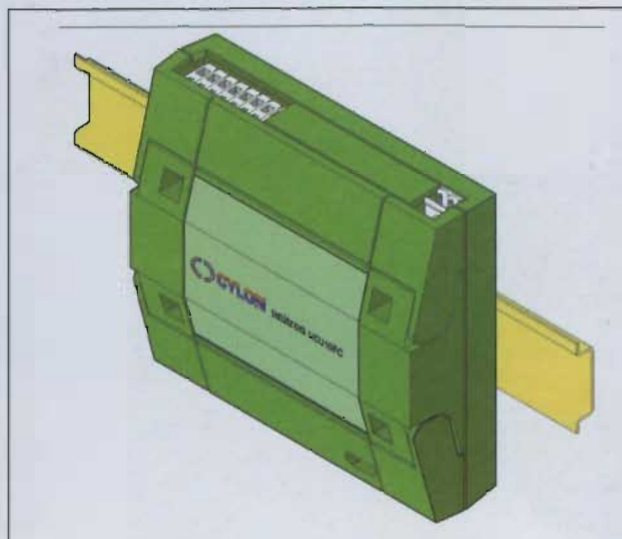
Continuing the zero-maintenance theme of

the Unitron 2000 UCU range, the fan coil controllers also avoid the use of backup batteries that need occasional replacement. Instead, innovation extends to the use of "Supercap" technology for retention of recent user changes or historical data, with the "flash" memory ensuring that the core program is maintained indefinitely. Could it be that BMS has finally evolved to the point where you can "fit and forget"?

With such power and flexibility now available down to the lowest level, it is not surprising that Cylon is extending its internet and intranet integration at this level too. Why shouldn't the PC on your desk let you manage your environment rather than fiddling with knobs on the wall? What next from the fertile minds at this innovative Irish company?

Throughout Ireland, a number of clients, including EMC in Cork, are already poised to reap the benefits of this new concept in room control. With fan coil systems often installed in refurbishments and new build projects, surely we'll soon see these controllers widely adopted across all of Ireland.

Contact: Cylon Controls.  
Tel: 01 - 245 0500;  
Fax: 01 - 245 0501;  
Website: [www.cylon-controls.com](http://www.cylon-controls.com)



Following the success of the UCU10VAV controller, Cylon now brings the proven energy saving and maintenance benefits of BMS to a wider market in fan coil units with the launch of its UCU10FC.

# smartfit

## A fitting solution...

...to an age old problem

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

The new Smartfit systems from Honeywell overcome the traditional installation problems by using a combination of low voltage wiring and simple plug-in connections. In fact, anyone with basic electrical competence can install a Smartfit system, and with less chance of error. Right first time installation is now a reality, thanks to a revolutionary new system connection box which provides plug-in or simple 2-wire connection for all space heating and hot water controls.



### EASY PROGRAMMING EASY MAINTENANCE

The elegant Smartfit programme controller has been designed to make programming easy. It also incorporates a built-in commissioning sequence, integral manual overrides and a unique diagnostics programme that will highlight any fault in the system.

Smartfit is faster to fit and commission, easier to programme and makes fault identification simple. All time and cost saving features that will improve your productivity and profit margins, offering you the flexibility to be more competitive when pricing the job.

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

Find out more from your local merchant, or contact Honeywell Control Systems Limited, Honeywell House, Bracknell, Berks RG12 1EB.

Or call FREE on 0800 521121 Ext. 2000.

### FITTING AND PROGRAMMING IS AS EASY AS THIS

1. Install the base unit
2. Snap on the valve power head and plug in
3. Attach the cylinder sensor and plug in
4. Connect the low voltage room unit and switch on
5. Set the programmes for heating and hot water and
5. the Smartfit system is up and running

IT COULDN'T BE QUICKER OR EASIER!



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

The Energy Efficiency Hotline 0845 277200



## Potterton Myson — Innovative Time, Temperature & Flow Control

Potterton Myson has designed a comprehensive range of controls which guarantees complete control of home heating. Manufacturing of the highest standards have allowed the company to produce a top-quality product that is kinder to the environment and reduces energy consumption. The range incorporates three main methods of heating control — time, temperature and flow

of advanced electronic time control, with a user-friendly, easy-to-read clockface.

**Temperature Control — (TRV-2-Way)** — The Myson TRV 2-Way is a highly-innovative product which is fully designed and engineered by Myson Heating Controls in Newcastle West, Co Limerick. Complete with the benefits of the well-established TRV, such as the temperature-sensitive liquid element and the sculpted white

wheelhead, it is available in a range of sizes. It also comes in a wide choice of finishes, including polished chrome,

satin brass and nickel.

In standard TRVs many components comprise the internal spindle and disc assembly. However, in the TRV-2-Way, Myson uses a new bonding technique (patent pending), which prevents the flexing of this internal disc when water flows in the "wrong" direction. What results is the elimination of those all-too-familiar rattles and bangs.

To complement the standard 15mm Myson TRV2-Way, an extensive range of accessories is also available, including remote adjusters, remote sensors and theft controls.

*Thermostatic Cylinder*



Mini-Minder E & Es

**Valve (TCV)** — Designed for use in domestic central heating systems, the new Thermostatic Cylinder Valve provides non-electric control of the domestic hot water temperature by limiting the primary flow or return.

Manufactured by Myson Heating Controls in Limerick, the TCV is both easy to install and simple to operate.

**Flow Control (Power Extra Motorised Valves MPE)** — The Potterton Myson MSV Range of System Control Valves was recently rebranded as Myson's Power Extra Motorised Valves (MPE). This range of system control valves has been designed for use in fully-pumped combined central heating and hot water systems.

The MPE 222 and MPE 228 2-port valves will control the central heating or hot water circuit. Used in combination, these two valves will satisfy the requirements of most fully-controlled systems. If necessary, additional MPE 2-port valves can be used to split the central heating system into several circuits to provide greater control.

The MPE 322 and 328 3-port mid-position valves which can boast a market-leading 6-

Watt Class 'F' Motor, will control both the central heating and hot water circuits simultaneously. These valves may be operated directly by the system programmer, or indirectly, by room and cylinder thermostats.

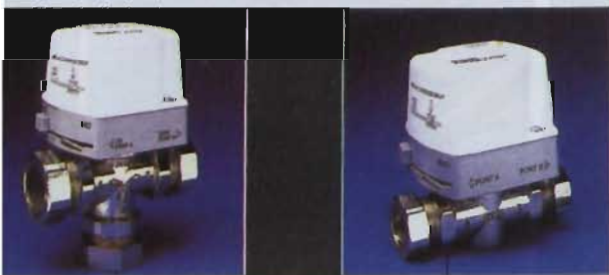
To complement the existing 22mm 3-port valve, Myson Heating Controls has introduced a 28mm 3-port valve.

**Automatic Bypass Valve (ABV)** — The Automatic By-Pass Valve is a system relief valve which can be used to balance the heating system. Combined with the thermostatic radiator and motorised valves, it allows the system pressure to be relieved when all other components are closed down.

Contact: Sean Hanratty, Myson Heating Controls. Tel: 069 - 62277; Fax: 069 - 62448; email: enquiries@myson-heat-controls.com Website: www.myson-heating-controls.com



Myson Heating's TRV 2-Way Radiator Valve



MPE 3-port and MPE 2-port Valves

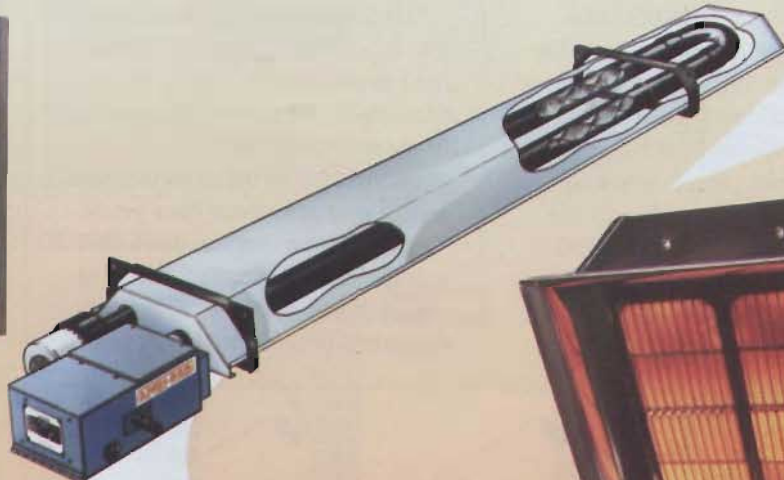
control.

**Time Control** — Myson Heating Controls provides an extensive range of electronic programmers, which cover every possible time control application. Accuracy and reliability result from this fully-electronic range, which is easy to set up and programme. A clear digital clock display with an LED status highlights how the system is working.

For less complex controls, Potterton Myson offers the Mini Minder E and Es. These controls merge the high accuracy and reliability



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**P.S. All our products include a 12 month on site warranty  
and are supported by our dedicated Customer Care Department.**

# Making Life Easier for Service and Maintenance Engineers

"Mark's R+D department has been busy in 2001 improving an already great product", says Mark's Mike O'Donoghue. "Due to the finite life of the thermocouple, Mark developed the GSE/GCE direct ignition electronic unit (no pilot burner, no thermocouple). People who know heaters and boilers see directly the advantage.

"Whether the heater is used as a stand-alone unit or as a module in other OEM's products, the G.BR

downward pressure on prices, Mark refuse to compromise on quality

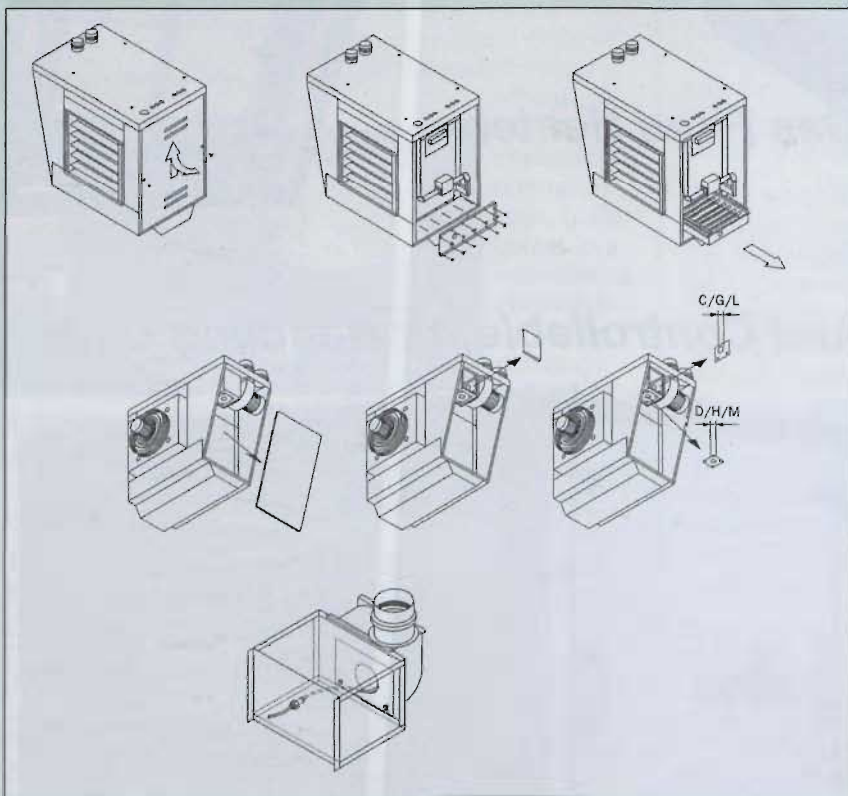
"Mark heaters will perform forever but, depending on the environment, the following points have to be considered:- We support our products in the work place with service personnel. We recommend that you service your gas heaters once yearly. This will ensure that you don't have nuisance breakdowns in the heating season, it may also be a requirement of the maintenance section of your

your records. Also, if any modifications are introduced by us during the year, Mark will bring those items to your attention".

"The following areas are covered during service:

**maintenance:**

- At least once a year, or more frequently if required, dependant on environment.
  - Clean the burner box, remove the inspection cover with sight glass, slide out the burner box, blow the burners through with compressed air from the top, check the gas valve.
  - Check while the unit is running, gas pressure and flame pattern. Inspect the heat exchanger internally and externally (with a mirror) for damage.
  - Clean the heat exchanger externally, if necessary (take care not to bend or damage the sensor of the safety thermostat).
  - Internal cleaning of the heat exchanger (if required) must be carried out.
  - Clean the air discharge louvres and the casing.
    - Fan/maximum and/or safety thermostat: check sensor position (No metal-to-metal contact with the heat exchanger).
    - GSE:
      - Clean the flue gas fan
      - Remove the inspection cover
      - Check the by-pass, the fan orifice and the fan wheel for soot and dust.
      - Remove soot and dust with a brush
      - Check orifice openings
      - Check whether the aluminium tube of the differential pressure gauge (Delta P) is in the shown position
- Mark's Service Team is as follows:  
 Billy Lynch - Tel: 087 2579478 (Southern Counties & East);  
 Paraic Costello - Tel: 087 9879707 (Dublin & North);  
 Sean Roche - Tel: 087 6765694 (West & Midlands).



Long life and quality is the hallmark of all Mark products with stainless steel heat exchangers as standard, and now all heaters with stainless steel burners.

places all parts inside one door on one side ... controls, flue fan, burner gas train, pressure switches etc. Life made easy for service engineers and commissioning engineers.

"Long life and quality is the hallmark of all Mark products with stainless steel heat exchangers as standard, and now all heaters with stainless steel burners. Despite

quality system, the company supplying your gas and your health and safety officers.

"Mark does the service in the summer and autumn periods. During this service Mark checks all the functions of the heaters, prints its condition on computerised equipment (gas analysis) and gives a copy with a comprehensive report for



# SLIMLINE AXIAL EXTRACTORS

## DECOR Series

**NEW**



DECOR-100

DECOR-200

DECOR-300



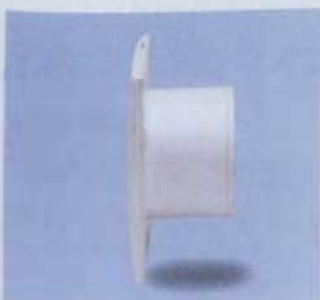
Automatic back draft shutter



Automatic back draft shutter



Automatic back draft shutter



Slimline profile



Slimline profile



Slimline profile

### Description

Slimline - Silent - Maximum Power

The DECOR Series of slimline extractor fans comprises of three nominal product sizes, the DECOR-100, -200 and -300 models. The fans are designed for the removal of odours and moisture from toilets, bathrooms, small offices and any small room requiring ventilation. The DECOR Series are easy to install, aesthetically pleasing, slimline and extremely quiet. Air flow performances range from 95 up to 280 m<sup>3</sup>/hr.

The DECOR Series provides an effective ventilation solution for wall and ceiling; non-ducted and ducted; and single or multi-point ventilation systems. To compliment the fans a wide range of ancillary accessories are available.

### Range

The DECOR Series consists of three different models

- DECOR-100
- DECOR-200
- DECOR-300

### Construction

The DECOR extractor fan casing and impeller are manufactured from tough injection moulded Polypropylene, the front grille from high quality ABS and the neon indicators from polycarbonate. The following standard specifications apply:

- (□) Class II electrical insulation.
- (▲) Splash-proof protection.

All motors are single-phase, shaded pole, type:  
- 230V - 50Hz

These low consumption electric motors are fitted with internal thermal protection device to protect against abnormal overheating:

- by impedance on the DECOR-100
- by thermal fuse on the DECOR-200 and DECOR-300



**Tel: 01 - 667 1077;**  
**Fax: 01 - 667 1055**

**email: info@ventac.com**

# Ask the Expert



**Seamus Murran,**

Head Department of Construction Skills,  
DIT Bolton Street

Since introducing this column some months back, BSNews has received quite a variety and diverse number of queries. However, we have also had requests for general information on the many existing courses run by DIT. Consequently, we begin this month by providing details on the following:

## **B131 Plumbing (Advanced)**

**Aims of the Course:** This course is designed to assist senior apprentices and craftsmen to prepare for the Senior Trade certificate Examinations of the Department of Education.

**Contents:** Heating theory; Sanitation and drainage; Drawing; Trade practical.

**Entry Requirements:** Prospective students must have completed three years of apprenticeship and have passed the Junior Trade Certificate.

**Course Duration:** One year, two evenings per week, Monday and Tuesday, 7-10pm. Subjects — Trade Theory, Drawing and Practical.

**Course Fee:** £424 (€538). Examination Fee not included.

## **B132 Craft Technician Certificate in Plumbing**

**Aims of the Course:** Students employed in the Plumbing industry are prepared for the Dublin Institute of Technology Plumbing Technicians Certificate.

**Entry Requirements:** 1. Students must have completed at least three years of an appropriate apprenticeship.

2. Have passed the following:

A: Department of Education Senior Trades Certificates in Plumbing or

B: City & Guilds of London Institute Advanced Craft Certificate in Plumbing

## **Timetable**

Year	Subject	Day	Time	Room
1st	Hot & Cold Water systems	Mon	7-10pm	129
	Fire control systems	Mon	7-10pm	129
	Gas installation	Mon	7-10pm	129
	Sanitation and Drainage	Tues	7-10pm	113
	Mathematics and Science	Wed	7-10pm	022
	Drawing and design I	Wed	7-10pm	123
2nd	Heating technology I	Mon	7-10pm	121
	Mathematics & computers	Tues	7-10pm	129
	Science and Mechanics of fluids	Tues	7-10pm	129
	Drawing and design II	Wed	7-10pm	202
3rd	Heating technology	Mon	7-10pm	123
	Design project	Tues	7-10pm	116
	Organisation & management	Wed	6.30-10pm	129
	Estimating & quantities	Wed	6.30-10pm	129

**Course Fee:** £480 (€609) including DIT Examination Fee

## **B133 Tendering and Estimating (Mechanical Services)**

**Aims of the Course:** The course is designed to familiarise students with current tendering and estimating practices and procedures in the field of mechanical services.

**Content:** Tendering procedures tender documents, contracts, take-off practice, pricing folder, labour rates, bill of quantities, presentation of tender and estimating project.

**Entry Requirements:** 1. Department of Education Senior Trade Certificate or equivalent; or  
2. Suitable employment in the mechanical services field.

**Course Duration:** One year, one evening per week — Monday - 7-10pm.

**Course Fee:** £298 (€378)

## **B134 Domestic Oil Fired Course**

**Aims of the Course:** This course is designed to meet the needs of those pursuing a career at technician level in the oil fired industry.

**Contents:** Safety requirements, oil specification, fuel efficiency, flues and ventilation, oil supply lines and storage, heat control valves and oil filters, burner types, burner controls, servicing and commissioning protocols.

**Course Duration:** Ten weeks at one night per week or equivalent in the day.

**Entry Requirements:** Technicians or engineers employed in the oil fuel industry.

**Award:** DIT — Continuing Professional Development Certificate.

**Career Opportunities:** Numerous opportunities in the Heating/Oil Industry.  
**Course Fee:** £138 (€175).

## **B135 Domestic Heating and Environmental Engineers Course**

**Course Content:** This course is intended for persons employed in the heating industry and will provide a broad technical education and understanding of the principles and techniques involved in heating engineering. The course is run in conjunction with the Institute of Domestic Heating Engineers.

**Content:** 1st Year: Heating technology, gas technology, mechanical services design. 2nd Year: Management techniques, estimating and quantities, heating and hot water technology.

**Entry Requirements:** Department of Education Senior Trade in Plumbing and employment in the industry.

**Course Duration:** Two years, two evenings per week Monday and Tuesday — 7-10pm.

**Course Fee:** £480 (€609)

## **B136 Advanced Refrigeration and Air Conditioning**

This course is designed to give students an opportunity to appreciate the techniques involved in refrigeration and air conditioning. The award is a DIT Continuing Professional Development (CPD) Certificate.

**Duration:** 1 year, two evenings per week per subject

**Subjects:** Commercial Refrigeration; Air Conditioning; Mathematics and Science; Industrial Refrigeration; Electrical Practice for Refrigeration Systems.

**Entry Requirements:** Dept. of Education and Science Senior Trade Examination or equivalent.

**Course Fee:** £480 (€609)

## **B137 Gas Installation and Safety**

**Aims of the Course:** This course is designed to give a broad understanding of the regulations and standards, installations techniques and safe working practices involved in domestic gas installations.

**Content:** Regulations and standards governing domestic gas installations, properties of natural and LPG gases, combustion and flame characteristics, pressure flow and gas rates, gas controls, ventilation and flueing techniques, appliances details, testing purging and commissioning.

**Entry Requirements:** Leaving Certificate or Senior Trade Certificate Department of Education and Science or equivalent.

**Duration:** One year, one evening per week — September to Easter.

**Course Fee:** £244 (€309)

**Award:** Dublin Institute of Technology Continuing Professional Development Certificate.



# Telford Wins National Award

**T**he Octabuild Builders Merchant of the Year for 2001 is Telfords Portlaoise. This year's Awards were presented by Kilkenny and All-Star hurler D J Carey, at a function at Croke Park earlier this month.

The Octabuild Builders Merchant Awards have been honouring the best

terms of staff motivation and incentive, improved standards and customer service. This year there were 16 awards. In addition to the national award there were first, second and third place awards in each of four regions, plus a first time entry award.

The awards are based on Customer

Dulux, Irish Cement, Moy Isover, Sanbra Fyffe, Tegral and Wavin. While each company operates independently they share a number of common attributes: they are all leaders in their respective market sector; they have manufacturing plants in Ireland, and their products are distributed to end users through the builders merchant trade.

## Octabuild Builder Merchant of the Year Winners for 2001

### National Winner:

Telfords, Portlaoise

### Regional Winners:-

Connacht/Ulster: Ganly's of Athlone Homevalue Hardware  
 Dublin: T J O'Mahony & Sons  
 Leinster: Telfords, Portlaoise  
 Munster: Stakelum's Homevalue Hardware, Thurles

### Regional runner-up

Connacht/Ulster: Cummins & Son, Ballinrobe  
 Dublin: Smiths Building Supplies, Walkinstown  
 Leinster: Eddies Hardware, Drogheda  
 Munster: M D O'Shea & Sons, Killarney

### Regional third place

Connacht/Ulster: (joint winners):  
 Brooks, Ballina;  
 Joyce & Sons, Headford;  
 Brooks Hanley, Sligo;  
 Dublin: Heiton Buckley, Naas Road  
 Leinster: Bolgers Homevalue Hardware, Gorey  
 Munster: Brooks, Limerick

### Best first time entry

Bolgers Homevalue Hardware, Ferns



Telfords, Portlaoise is the National and Leinster regional winner in this year's Octabuild Builders Merchant of the Year Awards. The presentation of the awards were made in Croke Park by All-Star & Kilkenny hurler, D J Carey. Picture shows: D J Carey; Larry Carr, Chairman, Octabuild; William Telford; Liam O'Gorman, in-coming Chairman Octabuild; and Eddie Kelly, President, Irish Hardware and Building Materials Association.

in the builders merchant trade since 1986. The awards are supported by the Irish Hardware and Building Materials Association and the Irish Home Builders Association.

The benefits to the merchants who have participated have been seen in

Service, Merchandising, Housekeeping/Health & Safety, Management and support for Irish-manufactured products.

Octabuild has been in existence since 1984. Its current members are: BPB Gypsum Industries, EVO-Stik, ICI

REGIONAL FOCUS: GALWAY

# Walsh's Heating & Plumbing Supplies

In this, the first of an occasional series of regional visits, *BSNews* went to Galway to meet Pat Walsh, principal of Walsh's Heating & Plumbing Supplies, which is located on the Tuam Road leading out of Galway.

Pat has been in the business for most of his working life, taking the plunge to go it alone in 1986 at a time when the industry was much removed from the heady days of recent years. Right from the outset Pat concentrated on establishing a quality service, the

carefully-selected mix of brand-leading products complemented by a dedicated team of knowledgeable personnel.

The company employs a total of 13 people, has three vans on the road, and promises to deliver to anywhere in the Galway catchment area within an hour each morning. A key strength is the commitment of the staff, genuine teamwork being the order of the day, every day. Manager Ger Gibbons has been

Gandon, Mike McGaugha and Sean Brennan.

That the formula worked is beyond doubt ... witness Pat's 6,000 sq ft merchant and wholesaling warehouse/showroom complex on the



Tuam Road, plus the 3000 sq ft Bathroom World retail-oriented showroom approximately a mile back in towards Galway.

Pat caters for the full spectrum of heating and plumbing supplies, including boilers, sanitary ware, pipework and fittings, and all related accessories and fixtures. Among the brands on display during our visit were Authentia Baths, Keen Rads radiators, Armitage Shanks sanitary ware, Firebird boilers, and Jacuzzi.

Walsh's is an authorised distributor in the region for Jacuzzi and Pat has recently opened a specially-designed showroom which is dedicated solely to the range. It includes full working installations so that prospective purchasers can view them in-situ. Walsh's also recommend a nominated, fully-trained installer to all clients considering Jacuzzi.

Pat Walsh epitomises all that is good and genuine in the business ... may he and his colleagues continue to reap the rewards of their endeavour.

***'A key strength is the commitment of the staff, genuine teamwork being the order of the day, every day'***

with Pat for 12 years, other long-serving personnel being Joe Doherty, and Frank Costello who looks after transport, with Jason Sullivan and Peter Gibbs. Billy Manion supervises the stores, and he works closely with all his colleagues, including Linda

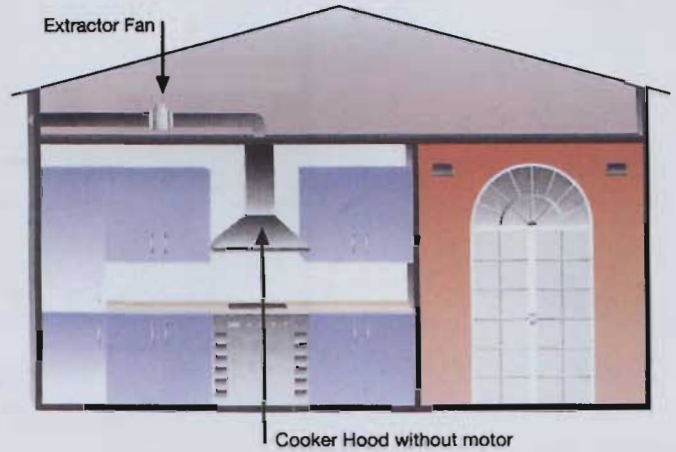
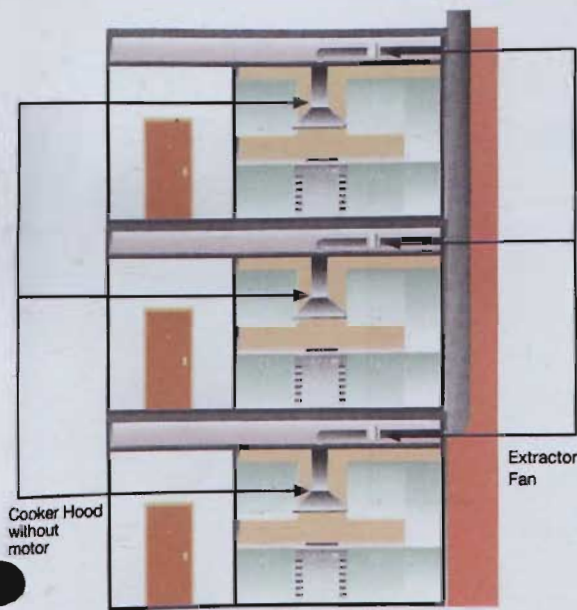




# COOKER HOOD EXTRACT SYSTEMS

## Cooker hood with remote in-line fan system

**NEW**



### Applications

A separate cooker hood and remote mounted in-line fan combination provides an ideal solution for kitchen range extraction when long duct runs are required or space is limited. By installing the fan remotely also significantly reduces the ambient noise radiated to the surrounding kitchen environment. A cooker hood fitted with a remote mounted TD or CKB fan enables flexible installation and maintenance for single or multiple dwelling buildings. When selecting and sizing a fan for kitchen extract ventilation system, please refer to the national and local standards and regulations for the country of installation (recommended rates of extraction may vary).

### Fan model options:

- Mixed flow in-line fan, type TD-800/200N with an airflow performance of 800m<sup>3</sup>/hr. In this configuration the fan can be controlled (On/Off) from the cooker hood. The TD fans are designed to be installed within ducted systems and provide a powerful extraction facility.
- Centrifugal in-line fan, type CKB-800 with an airflow performance of 800m<sup>3</sup>/hr. In this configuration the fan can be controlled (On/Off) from the cooker hood. The CKB fans are designed to be installed into cupboards or confined spaces within the ducted system and provide a powerful extraction facility.

### Optional cooker hood models (without motors):

- Cooker Hood models HS-600 and HS-900.
  - Cooker Hood model GE/GET.
- All models incorporate a fan control panel and professional metallic grease filters as standard.



TD-800



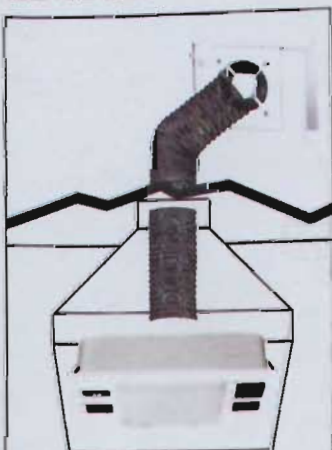
CKB-800



**Tel: 01 - 667 1077;**  
**Fax: 01 - 667 1055**  
**email: info@ventac.com**

**New General Catalogue and Manual Now Available.**

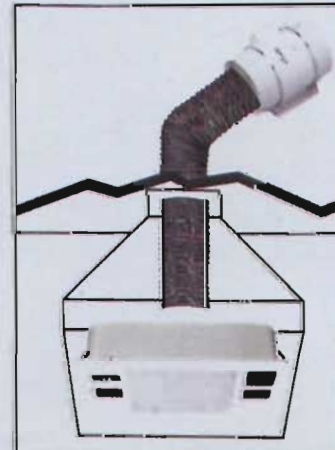
CKB+GE-350N



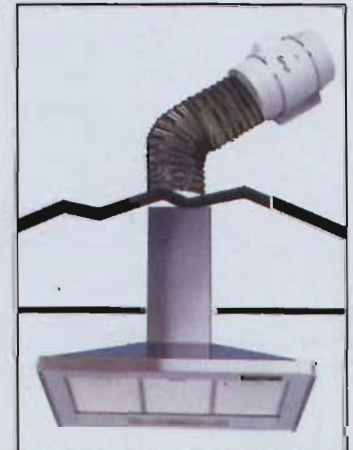
CKB+HS-600 / HS-900



TD+GE-350N



TD+HS-600 / HS-900



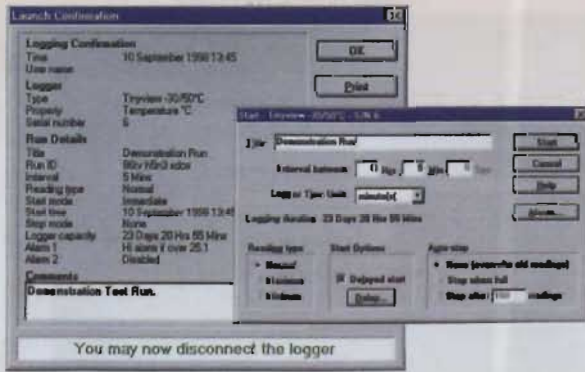


# TINYTAG TRANSIT



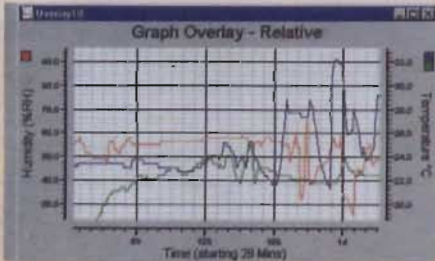
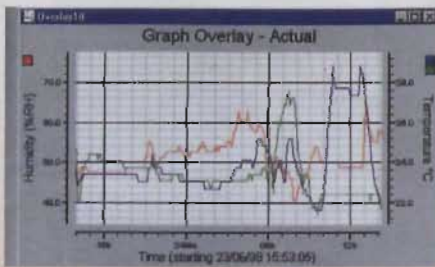
## AUTOMATIC TEMPERATURE LOGGING AT AN INCREDIBLE LOW PRICE!

Designed to meet the stringent high standards of temperature monitoring in the food transportation field, this little stand-alone battery-operated temperature logger is the perfect solution in most applications which range between -30 to +50°C. Capable of recording approximately 1800 readings with a 1 sec. to 10-day interval, and combining the flexibility of a push button or delayed start, you'll be amazed at how little it costs.

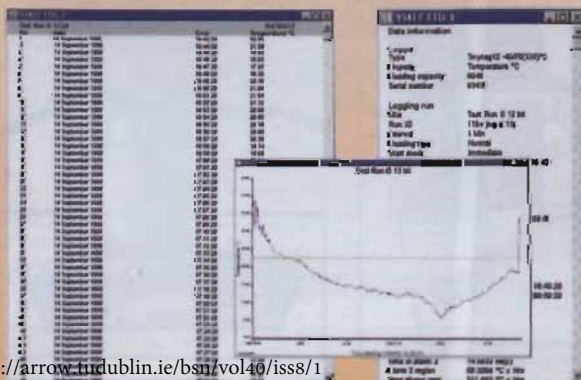


The software and cable that are included will allow the recorded information to be downloaded and presented in numerical or graph format. Data can also be transferred to other windows applications for presentation with reports.

Since additional loggers can be purchased at a reduced cost due to no further software being required, businesses needing multiple locations monitored will benefit even further from the TINYTAGTRANSIT's low cost.



- 1800 readings approx.
- Two programmable alarms
- 1 second to 10-day logging interval
- Timed and push-button start available
- Offload data when stopped or when at 1-minute logging intervals
- Battery life up to two years
- Min/Max/Actual readings
- Memory size 2k (non volatile)
- Three stop options
- Software and cable included



For further information or a demonstration contact:

## Manotherm Limited

THE CONTROL CENTRE

4 Walkinstown Road, Dublin 12.

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email: manotherm@eircom.net