


5-1-1999

### BS News

Follow this and additional works at: <https://arrow.tudublin.ie/bsn>

 Part of the [Civil Engineering Commons](#), [Construction Engineering Commons](#), and the [Construction Engineering and Management Commons](#)

#### Recommended Citation

(1999) "BS News," *Building Services News*: Vol. 38: Iss. 5, Article 1.

doi:10.21427/D7JM6N

Available at: <https://arrow.tudublin.ie/bsn/vol38/iss5/1>

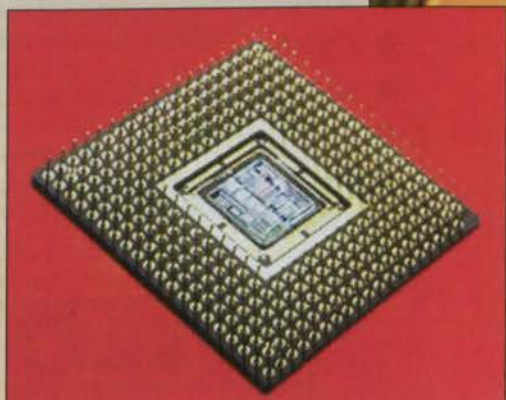
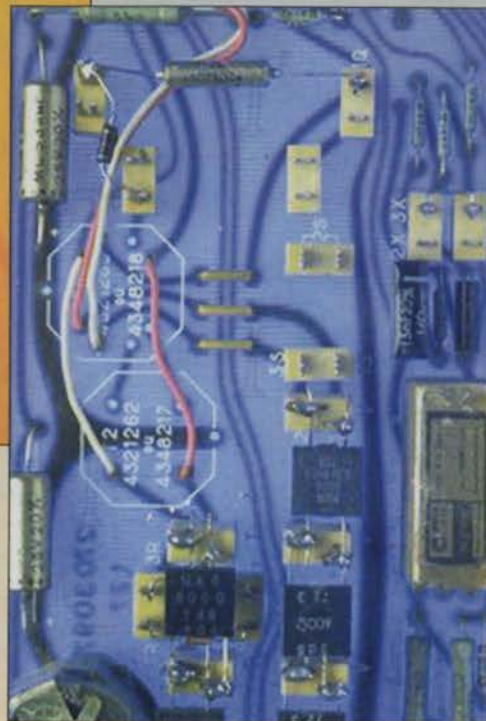
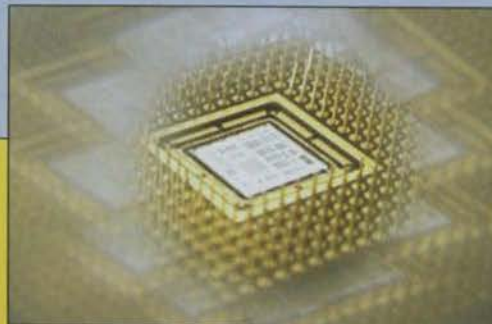
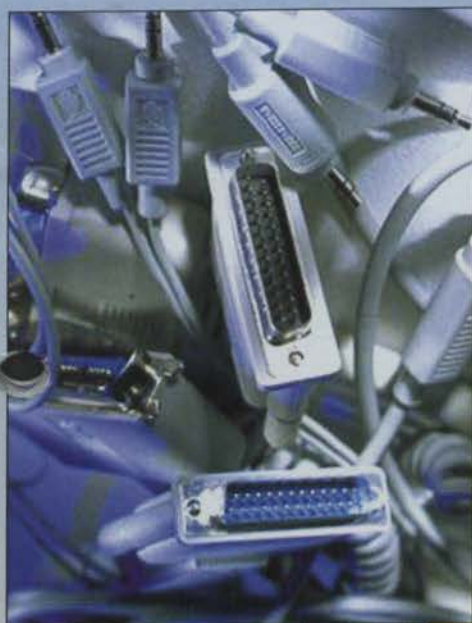
This Article is brought to you for free and open access by the Journals at ARROW@TU Dublin. It has been accepted for inclusion in Building Services News by an authorized administrator of ARROW@TU Dublin. For more information, please contact [yvonne.desmond@tudublin.ie](mailto:yvonne.desmond@tudublin.ie), [arrow.admin@tudublin.ie](mailto:arrow.admin@tudublin.ie), [brian.widdis@tudublin.ie](mailto:brian.widdis@tudublin.ie).



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 3.0 License](#)

# BSN News

MECHANICAL & ELECTRICAL BUILDING SERVICES



## Instruments & Controls

# Innovation in Pumping Technology



MVi



MHi

Stainless Steel Vertical and Horizontal multistage pumps for water supply, boosting, sprinkling, irrigation, high pressure wash, fire protection and water treatment (De-mineralisation, Filtering).

- Water supply
- Boosting
- Sprinkling
- Irrigation
- High pressure wash
- Fire protection
- Water treatment
- Boiler Feed

**WILO**  
Pumping-Perfection

WILO Engineering Ltd., Enterprise Centre  
Childers Road, Limerick, Ireland

Telephone: 061- 41 09 63 Telefax: 061- 41 47 28 2

# BSNews\*

MECHANICAL & ELECTRICAL  
BUILDING SERVICES

ISSN 0791-0878

Published by:  
Pressline Ltd,  
Carriga Court,  
George's Avenue,  
Blackrock, Co Dublin.  
Tel: 01-288 5001/2/3 Fax: 01-2886966  
eMail: pressl@iol.ie

**Editor:** Pat Lehane  
**Advertisement Manager:** Joe Warren  
**Administration:** Edel Burke

**Origination and Design:**  
Pressline Ltd. Tel: 01 - 288 5001

**Subscription:** One Year — £27

**Printed by:** Kilkenny People.

© All editorial contents and all advertisements prepared by the publishers, Pressline Ltd.

\* Incorporating Irish Heating & Ventilating News.

## 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.

## RIBEC - An Imaginative Initiative

The need to improve the quality of service being provided to boiler users and to regulate the boiler services industry has long been recognised. A group of interested parties from the services industry and boiler users have been working with the Irish Energy Centre for the past two years in this respect.

This group has now set down the groundwork for the establishment of a non-profit making, independent body – called The Register of Irish Boiler Engineering Contractors (RIBEC) – which will help realise these aims.

RIBEC will be a joint initiative between the boiler services industry, boiler and ancillary equipment suppliers, and boiler users. It will operate as an independent, authoritative body with all members abiding by a regulatory Code of Practice.

During the past year the RIBEC Steering Committee has formulated a Business Plan for the establishment and operation of the new organisation. However, before it proceeds, it is proposed to engage a consultant to validate, or otherwise, the Business Plan in light of the experiences in other countries.

The Steering Committee will seek financial support over the coming weeks from potential members and beneficiaries towards the cost of doing this work. It is an initiative which will benefit the entire building services industry.

Do support it.

## IN THIS ISSUE

Trade News/New Products	2
BTU Golf News	9
Instruments and Controls	10
IDHE News	30
Irish Energy Centre Boilers Study Tour	31
"Gas Humidification Saves 75% on Energy Costs"	34
Elenco Engineering Looks to the Future	35
Pump Industry Developments: Wilo Engineering	36

TRADE NEWS

## Danish Group on Irish Familiarisation Visit

On a recent visit to Ireland to familiarise themselves with the current business conditions prevailing here, we met a party of Danish Nationals, representing some 40 different companies.

Directors of various Danish companies, together with the Lolland Chamber of Commerce, plus local authorities, were all interested in seeing Dublin at first hand. Some of the visitors were looking at the present state of the Irish economy, with a view to possible investment in the country.

The Danish group visited J J Sampson & Son, who are a member of the Danfoss

## Standard Control Appointment



Sean O'Toole has been appointed to the Board of Standard Controls Systems. An IMI graduate, Sean has been with the company for five years and, in his capacity as Business Development Manager, he has overseen considerable expansion in that time. He has a wealth of experience in the building services industry in Ireland and will now bring that to bear at board level within Standard Control Systems



Erik Rosendal Hansen, Director, Danisco Sugar with George Heidtmann, Director, Erhvervsrad Lolland, John Sampson, Managing Director, J J Sampson & Son; and Bo Hansen, Project Attache, Royal Danish Embassy.

A/S Group, who have sales of \$2 billion worldwide and employ over 20,000.

Besides J J Sampson & Son, the Danish visitors also spent time with the IDA, Enterprise Ireland and Shannon Development. They also visited Leo Laboratories, who have a strong Danish affiliation.

A reception and a market presentation was made by John Sampson, Managing Director of J J Sampson & Son, outlining his company's 48-year working

association with Danfoss, while also highlighting the present economic conditions and the investment opportunities here.

J J Sampson & Son/Danfoss recently moved into purpose-built premises occupying over 8,500 sq ft at Unit A1, Nangor Road Business Park, off the Naas Road, Dublin 12.

Tel: 01 - 626 8111;  
Fax: 01 - 626 9334;  
eMail: sampson@indigo.ie

## Institute of Plumbing Apprentices Awards

The annual apprenticeship awards of the Republic of Ireland Branch of the Institute of Plumbing took place at The Engineers Club in Dublin recently.

A total of 84 apprentices were entered in the competition, from Phases 2, 4 and 6. Nominations were received from nine FAS Training Centres throughout the country, as well as DIT Bolton Street and the Cork Institute of Technology.

Presentations were made to the three finalists from each phase, who were:

### Phase 2

- First place - Jonathan Cussen
- Second place - Keith Scully
- Third place - Colm Enda Cusack

### Phase 4

- First place - Alan Parkinson
- Second place - Clinton Franey
- Third place - Colm Howard

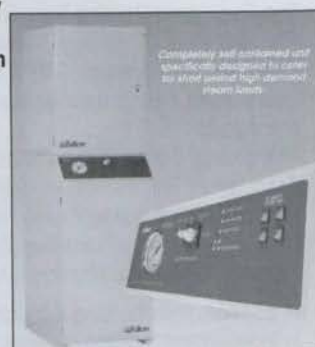
## Full Steam in 20 Minutes from Fulton

The Fulton Series 'E' gas, oil-fired and dual fuel steam boiler range from Concord Boiler Engineering includes nine high-performance models covering outputs from 96-960 kg/h and operating pressures up to 10.34 bar. The tubeless design, invented by Fulton, eliminates the coils and tubes traditionally used in steam-raising plant and enables the Series 'E' to raise its full steam output in just 20 minutes.

The Series 'E' is designed to meet the steam-raising requirements of the process industry in a wide range of industrial, pharmaceutical, medical and petrochemical applications. Complete assemblies, skid-mounted with ancillary equipment, can be designed to customer specification and supplied to site fully-operational for connecting to local services. The simple design and robust construction from top-quality materials makes them ideal for arduous applications.

The pressure vessels in Fulton Series 'E' boilers are covered by a 5-year warranty. Each boiler is fully tested and test-fired prior to delivery. Commissioning can be carried out by Concord boiler Engineering who also provides nationwide after-sales service and full spares support.

Contact: Jim Byrne, Concord Boiler Engineering.  
Tel: 01 - 452 2727/8/9.



Fulton model EFS fully-automatic electric steam boilers from Concord Boiler Engineering

**Phase 6**

*First place – Gerard Donegan*

*Second place – Jason Rielly*

*Third place – Patrick Dillane*

The National President of the Institute of Plumbing, John Smartt, and Tommy

Timmins, of MT Agencies (who sponsored this year's competition) presented the awards.

Institute of Plumbing special service awards were also presented to Peter Hinch and Tommy Timmins.



John Smartt (left) and Tommy Timmins (right) with the Institute of Plumbing Apprentice Awards finalists.

**Bord Gáis Pipeline for ESB-owned Gas**

Bord Gáis is to build a new IR£13 million pipeline from Abbotstown, Co Meath to Ringsend in Dublin to transport natural gas on behalf of the ESB as the feedstock for two new 300/400 megawatt power stations, which will also service Dublin City.

Construction work has started on the 16km pipeline and is scheduled for completion by this Autumn. This pipeline has capacity to supply another power station in the Poolbeg area in the future.

The ESB will be purchasing its own natural gas on international markets and shipping it through the Bord Gáis Transmission Network. Bord Gáis is facilitating the introduction of competition in the Irish natural gas market by constructing this pipeline, which will be dedicated to transporting natural gas for the new ESB stations.

Natural gas is rapidly becoming the fuel of choice for electricity generating stations worldwide. It is estimated that, by the year 2010, over 50% of electricity generation in Ireland could be fuelled by natural gas.

Philip Cronin, Chief Executive at Bord Gáis said: "We have a national transmission network of pipes totalling 1,000km, extending from Cork to Limerick, Waterford, Dublin, Dundalk, and Cavan covering many communities in between. The new pipeline to service the ESB is the first step in a major new transmission development programme.

**Fulton** (FR)



**Series 'E' Gas & Oil Fired Steam Boilers**

- ◆ Fully packed fuel fired steam boiler
- ◆ Nine sizes: 96 – 960 kg/h. (F&A 100°C)
- ◆ 5 year warranty.
- ◆ Constructed to BS 2790 1992 as standard. Other specifications available.
- ◆ Fulton Gas, Oil & Dual-Fired
- ◆ Operating pressures up to 10.34 bar.

**Concord Boiler Engineering Ltd**

Marrowbone House, Marrowbone Lane, Dublin 8.

Tel: 01 - 453 2727/8/9; Fax: 01 - 453 3849

TRADE NEWS

## York European Conference Held In Ireland

Pat Byrne, General Manager York ACR in Ireland and European Multi-National Accounts Manager, recently hosted the European planning meeting on York applied products range held at Citywest in Dublin.



LEFT: Pictured prior to teeing off at Citywest Golf Club are Jack Scott, Vice-President York for Europe and Peter Spellar, President, Engineering Systems Group for York International.

ABOVE: Delegates at the York European conference held in Citywest recently pose for the photographer before enjoying a round of golf.

## Manotherm Brings Harmony to Turbulent Liquid Measurement

Unaffected by such messy variables as agitation, turbulence, media dielectrics, suspended solids, entrained gas bubbles and foam, the CE-approved Proximity Controls Model LTF101 Tuning Fork from Manotherm offers a dependable way to measure levels of water, chemicals, beverages, acids, slurries and other fluctuating liquids in storage vessels, tanks and pipes.

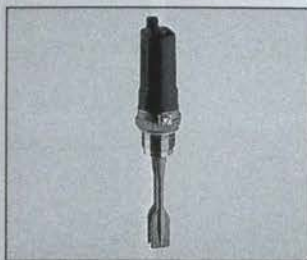
The instrument – which has an immersion depth of 1" (25.4 mm) – provides a switching output (pnp,  $\leq 500\text{mA}$ ) when in contact with the liquid to be measured. It can handle liquid densities up to 37 lbs/ft<sup>3</sup> (0.6 g/cm<sup>3</sup>), viscosity up to 10,000 centistokes, pressures up to 350 psi (25 bar), and temperatures up to 302°F (150°C). The fork's surface is stainless steel; housing is PBT plastic, NEMA 4X (IP67).

Its compact design makes it highly adaptable to quick installation in restricted space. It can be mounted vertically or horizontally and has green and yellow LEDs to indicate switch status.

Proximity is a division of Dwyer Instruments, Inc. Dwyer produces a broad range of measuring and control instruments for pressure, temperature, level and flow applications. See also Instruments & Controls feature (page 13).

Contact: Bob Gilbert/  
Brian Harris, Manotherm Ltd.

Tel: 01 - 452 2355;  
Fax: 01 - 451 6919.



Pictured above is the CE-approved proximity controls Model LTF101 Tuning Fork from Manotherm.

The meeting comprised a three-day conference with delegates attending from all over Europe. They included all European General Managers and Applied Products Managers, along with Jack Scott, Vice-President, York for Europe and Peter Spellar, President, Engineered Systems Group

for York International.

Pat Byrne and his Dublin-based colleagues acted as hosts throughout, looking after the delegates during their stay in City West, and treating them to some typical Irish hospitality, which included the obligatory golf and a visit to Johnny Fox's pub!

## Increased Combi Security From Vokèra

Boiler security is an issue affecting many installers, contractors, builders and local authorities. Combis in particular are easy to remove and re-install, making them an attractive target for thieves. Vokèra took this into consideration when developing the new Linea range of combi boilers.

Designed to prevent theft from both individual homes and large scale local authority installations, the Linea range features a pre-fixing jig which allows installers to complete all of the necessary installation pipework without having

to mount the appliance until the property is secure. An optional pre-filling kit is also available which includes a safety valve and pressure gauge, allowing the system to be filled and pressure tested before the boiler is finally installed.

Datatag, a hi-tech tracking option, is also offered by Vokèra. This involves fitting a small electronic transponder inside the boiler to enable easy identification and retrieval of a stolen appliance. This option is also a visible deterrent, as each boiler is clearly labelled to inform would-

be thieves that the appliance contains a tracking system.

Contact: Paddy Scriven, General Manager, Vokèra (Ireland). Tel: 056 - 55055.



Right: Vokèra's Linea combi range features a number of comprehensive security devices to help prevent theft.

## Powrmatic Systems Keeps the Heat on at Supply Company

A new design of Powrmatic heater is providing all the heating requirements of a 5,500 sq m warehouse from a single unit. The Powrmatic TE 41 air rotation heater, which has a handling capacity of 83,000 m3 per hour, has been installed at J & L Industrial Supply Company.

J & L act as a single source of supply for engineering companies, stocking everything from hand tools and machine tools to office sundries. The company's new warehouse has a 12-metre roof height and the TE 41 maintains an even temperature in the building without thermal economisers. The heater's performance has come out on top in an independent energy survey carried out at the warehouse.

Ian Cleaver, Facilities Manager at J & L explains: "The Powrmatic unit is maintaining an even temperature across our entire warehouse. We had an energy saving company visit the site and based on their calculations, the company expected to guarantee 30% savings if we installed their control system. When they surveyed the Powrmatic unit, they had to withdraw the offer because the TE heater proved to be so efficient they could not offer the promised savings".

The J & L application is one of the first installations of a new generation of Powrmatic TE heaters specifically designed for the efficient heating of large areas such as warehouses and distribution depots. Utilising high-efficiency axial fans to move large volumes of air, the new design achieves a uniform distribution of heated air that cannot be matched by conventional units.

With no necessity to consider intermittent use allowances, the reduced energy input requirement combined with the application of modulating or Hi-Lo burners results in lower energy usage and running costs. Where a unit operates continuously and the building is not

# JS Humidifiers

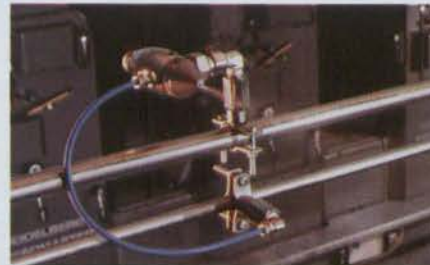
## What our customers\* say about our service and our products:

*"Advanced technology"*



*"Reliable performance"*

*"Sound pre-sales advice"*



*"Excellent after-sales support"*



*"Competitive prices"*



*"Widest range of humidifiers"*

## JS: when humidity matters, why go anywhere else?

Ring the JS HOTLINE for the facts: 01 - 242 7911

\* JS Independently conducted customer survey, October 1998



**WHEN HUMIDITY MATTERS!**

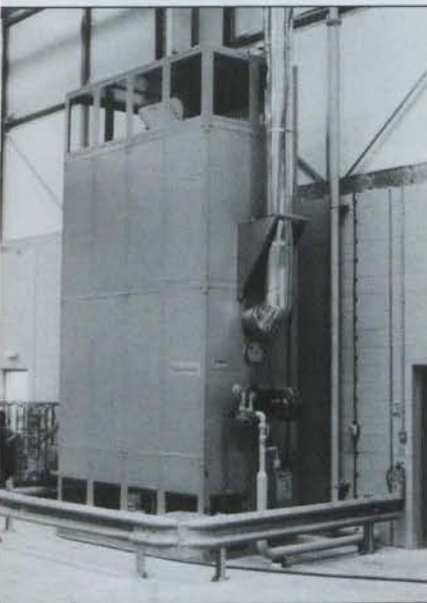
**JS Humidifiers plc.** UK: +44 1903 850 200  
 Glasgow: 0141 204 2040 • Belfast: 01232 236556  
 Dublin: 01 - 242 7911 • Fax: +44 1903 850 345  
 email: js@humidifiers.co.uk web: www.humidifiers.co.uk



TRADE NEWS

in use (eg at night), a night set back thermostat can be set 8° to 10° below normal operating temperature, maintaining constant air circulation, thus reducing the effects of stratification and ensuring an even temperature spread.

Contact: Patrick Lowry, Powrmatic.  
Tel: 01 - 452 1533.



The Powrmatic TE 41 rotation heater installed at the premises of J&L Industrial Supply.

## 3D Air Sales Take MHI Nationwide

The more the Irish workforce expands the greater the need for comfortable working conditions. The technology is there to improve our daily work environment and create industry ... so is the law.

The increased use of modern electrical equipment has been a major factor in the growth rates in air conditioning in Ireland over the last five years. The heat generated by computers and other office machines has given rise to problems in working conditions for many workers. In 1989 the Health and Safety Authority proposed and helped push through the Safety, Health & Welfare at Work Act ahead of EU proposals. This made Ireland one of the first member states to bring itself into line with Europe. The Act ensured that work environments provided natural or forced

ventilation, and climate control, specifying the minimum and maximum temperatures for the various work types. Ventilation types depend on what is likely to contaminate the air.

With air conditioning systems now an integral part of the design of many buildings, Mitsubishi Heavy Industries is one of the leading suppliers of these systems in Europe. MHI also has systems specifically designed for installation in existing buildings. These include systems for as little as one room or an entire building, and these systems can control both heating and cooling. Typical examples of projects incorporating MHI systems are as follows:

*Oakwood Arms Hotel (Shannon)* – The system selected for this hotel was aKXR multi-split VRV. It was installed by Air Conditioning Technology, a Dublin-based company,

in conjunction with a local contractor, Mulvany Air Conditioning. Gary Duff of ACT commented: "The guest's can individually control the temperature in each of the bedrooms to provide year round comfort". With the KXR system, heating or cooling can be selected at the touch of a button, and the room temperature can be changed in as little as two minutes;

*UCD Belfield (Science Department & Veterinary Department)* – Air Cour, Rathfarnham, Dublin 14 installed the air conditioning system in the Science Department in UCD Belfield. The systems chosen were FDTN 4-way heat pump cassettes. The FDTN cassette range is designed for long-term reliable and effective

## Maico Industrial Ventilation Systems

One of the latest additions to Maico's industrial ventilation systems range is the new sound-insulated ventilation box, Model Series ESR.

Features and benefits include:-

- AC 230 V, 50 Hz, with speed control;
- Centrifugal fan with cylindrical impeller curved to the front in a sound insulated housing;
- External rotor motor for continuous operation, moisture-proof insulation. Ball bearings. Maintenance-free;
- Standard thermal overload protection by thermal contacts.

The thermal contacts are guided on clamps and can be connected with the thermistor type motor protection switch MVE 10 or control circuit of a contactor;

- Housing in galvanised steel sheet, noise-insulated with 50 mm thick insulating material;
- Fan with terminal box on withdrawable plate in the housing;
- Low noise level.

Contact: Billy Wright, Irish Fan Distributors. Tel: 051 - 852404.



Maico sound-insulated ventilation box, Model Series ESR, from Irish Fan Distributors.



Peter Andreucetti, Senior Field Sales Technical Representative, Eurofluid Handling Systems. Peter is widely-known throughout the building services sector, his qualifications and experience being extensive. Since being appointed to his new position with Eurofluid, he has broadened the company's applications base and strengthened its technical support systems.

operation in commercial environments. Darren Courtney, Managing director of Air Cour said: "The FDTN cassette range provides cost-effective solutions for controlled comfort in working environments, with low noise levels and simple automatic operation. The systems are fitted with integral safety and protection devices, microprocessor controls, including fault diagnostics".

**Killarney Park Hotel (Killarney, Co Kerry)** – Frank Roche Air Conditioning installed the SRT air conditioning system in the Killarney Park Hotel in Killarney, Co Kerry. The SRT heat pumps were chosen because their low profile (only 198mm) makes them ideal for installation in confined spaces with minimal void spaces. Frank Roche commented: "The SRT is a high-specification product designed to provide comfort conditions with minimum sound levels. A simple wireless control provides the user with effortless adjustment of temperature and fan speed, providing each guest with the ability to control the temperature in their individual rooms".

**Westpoint Gym (Blanchardstown, Dublin 15)** – Aircon Sales & Service installed a multi split-system in Westpoint gym. It comprises above-ceiling ducted units, and also cassette units. The sixteen units are controlled using one network controller. Brian McNulty, Contracts Manager with Aircon said:

"This system offered the client a long-term reliable option, combined with cost-effective running and installation costs".

**Louigi Malones Restaurant (Stillorgan, Dublin)** – Air Conditioning Technology installed FDUM above-ceiling systems in this restaurant in the most fashionable part of Dublin. The slim profile allows installation in confined ceiling spaces, and the fascia provides a decorative and attractively-styled finish. These units have a fresh air facility and are connected to a network controller. Phil McEvitt of ACT commented: "It is hard to keep a hundred or

so diners happy, but we feel that in this system we have provided the most cost-effective and efficient system possible".

Michael Clancy, Managing Director of 3D Air Sales said that his and the company's philosophy is to provide installers and contractors with high specification air conditioning and heat pump systems, at prices which reflect best value, and supported by a level of service to meet customer demands, as well as those of their clients.

Contact: Michael clancy, 3D Air Sales.  
Tel: 01 - 450 9433;  
Fax: 01 - 450 9799.

## How to Give Evidence in Court

Parallel to the exceptional growth in the construction sector there has been an acceleration in litigation in the field. As a result, many professionals working in these areas are finding themselves facing court regularly. The increase in cases ranging from personal injury claims to construction and health and safety disputes has resulted in engineers and contractors finding themselves before the courts more often.

Many professionals face court without any knowledge of how to handle themselves in the situation. They are questioned by barristers on reports they have written, or notes they have kept. Cases are won or lost on how evidence is presented, many professionals face court without any training in how to present evidence well.

La Touche Bond Solon is a company specialising in the training of expert and professional witnesses. Courses run by the company include excellence in report writing; courtroom skills; cross examination; effective documentation handling. The company also offers one-to-one training for individuals and in-house tailored courses.

Contact: Frances O'Connor, La Touche Bond Solon. Tel: 01 - 662 3404.

## Mark Eire – Countrywide News

As reported in the February edition of *BSNews*, the Mark Roadshow has now successfully completed its tour of the southern and western regions of Ireland. Mechanical services contractors and consulting engineering practices were visited – all showing a very keen interest in the products displayed.

The mobile trailer construction allowed a practical demonstration of all the products built into it, and this in itself generated huge interest among both junior and senior staff of all practices visited.

Due to time constraints, the demonstration purpose-built trailer and all its Mark products had to be restricted to touring the southern region only ... but a tour is planned for the Eastern/Dublin region at a later date. Mark Eire will be contacting all relevant parties with further details.

Roger Bolger is the new Area Manager for Mark Eire covering the North Eastern/Midlands and Northern parts of Ireland. Roger comes to Mark Eire having spent 17 years in the construction industry and this will be invaluable experience in developing the market for Mark in the areas listed.

Contact: Head Office, Mark Eire. Tel: 026 - 45334;  
Fax: 026 - 45383; eMail: sales@markeire.com

Dublin Sales Office: Maurice Byrne. Tel: 01 - 668 0510;  
Fax: 01 - 668 0380; Mobile: 087 - 259 2099;  
eMail: dublinsales@markeire.com



Roger Bolger.



Available from



HEVAC LTD, 70/70 Lower Dorset Street, Dublin 1 Tel: 01 - 830 1211. Fax: 01 - 830 1990.

# BTU at St. Margarets

*Sponsored by Liberty Air Technology*

A very successful second outing of the BTU Golf Society took place earlier this month at St Margaret's Golf Club.

Special thanks to Tim O'Flaherty of Liberty Air Technology for the generous sponsorship and splendid array of prizes on the day, and also congratulations to St Patricks Athletic Football Team (of whom Tim is President) on their recent FAI National League Premier Division success.

In fine conditions, scoring was of a high standard, as can be seen by the following results:

**First Overall:** Brendan Keaveny (7) – 39pts

**Class 1 – 1st:** Gerry Baker (8) – 37pts

**2nd:** Michael Morrissey (9) – 34pts – Back 9

**3rd:** Bernard Sweeney (7) – 34pts

**Class 2 – 1st:** Gerry Tobin (15) – 36pts

**2nd:** Tony Gillen (14) – 34pts – Last 6

**3rd:** Jim Duggan (15) – 34pts

**Class 3 – 1st:** Bernard Costelloe (18) – 37pts

**2nd:** Declan O'Donnell (17) – 36pts

**3rd:** Michael Murphy (23) – 35pts

**Front Nine:** 1st: John Littlefield (17) – 20pts

**Back Nine:** 1st: Joe Warren (12) – 20pts

**Visitors Prize:** 1st: Seamus Casey (20) – 37pts

**Putting Competition** (in aid of Kosovar Refugees) –

1st: John Lawlor – 34 putts – Back 9

Amount raised IR£500. Thanks to all who contributed with donations.

## Matchplay Second Round

Congratulations to all who won their first round match's in the Eurofluid Handling Systems Ltd-sponsored Matchplay event. The second round draw is as follows:-

<i>Home</i>		<i>Away</i>
Match 1 – Mick Kennedy	v	Mick Carroll
Match 2 – Brian Kearney	v	John Littlefield
Match 3 – Brendan Keaveny	v	Des Prendergast
Match 4 – Bob Daly	v	Gerry Phelan
Match 5 – Sean Smith	v	Mick Matthews
Match 6 – Ger Hutchinson	v	Jim Nolan
Match 7 – John Lavelle	v	Bernard Costelloe
Match 8 – Larry McGetterick	v	Gerry Tobin

Full handicap difference applies.

All matches to be played before the Newlands Outing (11 June).

Winner to confirm result by fax to Gerry Tobin at Tel: 01 - 836 7014; Tel: 087 - 258 8495.

## Next Outing:

President's Prize: Newlands Golf Club, Friday, 11 June 1999. For timesheet contact: John Lawlor at Tel: 01 - 451 1244.



Class 1 winner – Gerry Baker receiving his prize from Captain Frank Somers and Tim O'Flaherty.



Class 2 winner – Gerry Tobin receiving his prize from Captain Frank Somers and Tim O'Flaherty.



Overall winner Brendan Keaveny with Captain Frank Somers and Tim O'Flaherty.



Class 3 winner – Bernard Costelloe receiving his prize from Captain Frank Somers and Tim O'Flaherty.



Sean Smith getting his hands on the FAI National League Premier Division trophy. Proud possessor of the cup is Tim O'Flaherty, with his St Patrick's colleague Pat Dolan.

INSTRUMENTS AND CONTROLS

# Office of Public Works – Energy Conservation Unit

The Office of Public Works is the single largest owner of property in the State, with over 1800 properties in its portfolio. Buildings in general are responsible for consuming 70% of the total energy used in Ireland. It is therefore vitally important that a large property owner such as the State manages its energy consumption in the most efficient manner possible, thus reducing the cost to the Exchequer and to the Environment, writes *Conor Clarke*.\*

In 1995 the OPW recognised the importance of energy conservation on a national scale and a separate unit dealing specifically with energy conservation was established within the existing electrical and heating section. The first task of the Energy Conservation Unit was to target specific buildings in which energy consumption would be monitored. It was proposed that all buildings which had floor areas in excess of 1000 sq m would be included in the program and this amounted to approximately 200 in total.

In order to collect historical energy data for each site it was perceived that the cheapest and most efficient method was to use the utility bills. The year 1994 was chosen as the datum for which data would be collected. A computer database was designed which stored and

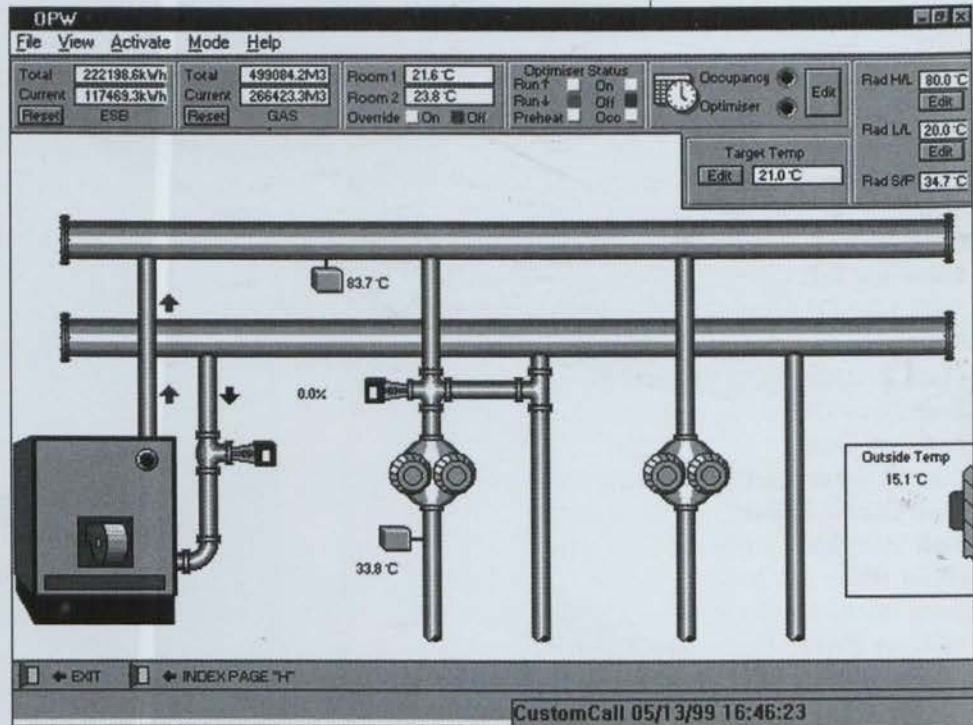


Figure 1 – The above is a BEMS graphic for the simplest form of system.

analysed the information contained in the bills. For the purposes of comparing different buildings with each other they were divided into several categories, as follows:

- General Office Accommodation – 1960 to 1970 Construction
- Modern Office Accommodation
- Landlord Managed Buildings (Only ESB Bills Available)
- Historical buildings
- Garda Stations
- Fully air Conditioned Buildings
- Employment Exchanges

The basic information that was obtained from the bills was the total annual energy consumption (kWh) and the total annual cost of energy. These two figures

were then divided by the individual building's net "heated" floor area in order to give the Energy Performance Indicator (kWh/m<sup>2</sup>.Year) and the Cost Performance Indicator (£/m<sup>2</sup>.Year). Buildings within the same categories were compared and ranked as to the level of energy consumption and their overall total cost of energy.

Although the utility bills did provide useful information, there transpired to be a number of problems in collecting them from such a large number of sites. Individual Departments were requested to submit the energy bills on a bi-monthly basis. However, due to staff changes and various other extenuating

circumstances, the collection of the bills became an administrative catastrophe. It proved difficult and, in some cases, impossible to obtain them for many of the buildings. This led to a significant proportion of the data being incomplete and thus unreliable.

Even in cases where the data was all available, it was by its nature out of date and useful only for broad interpretation. It was found that small increases or decreases in consumption could not be assigned to specific causes. The data was thus not suitable for an effective energy conservation program. The concept of daily Monitoring & Targeting (M&T) of energy data was

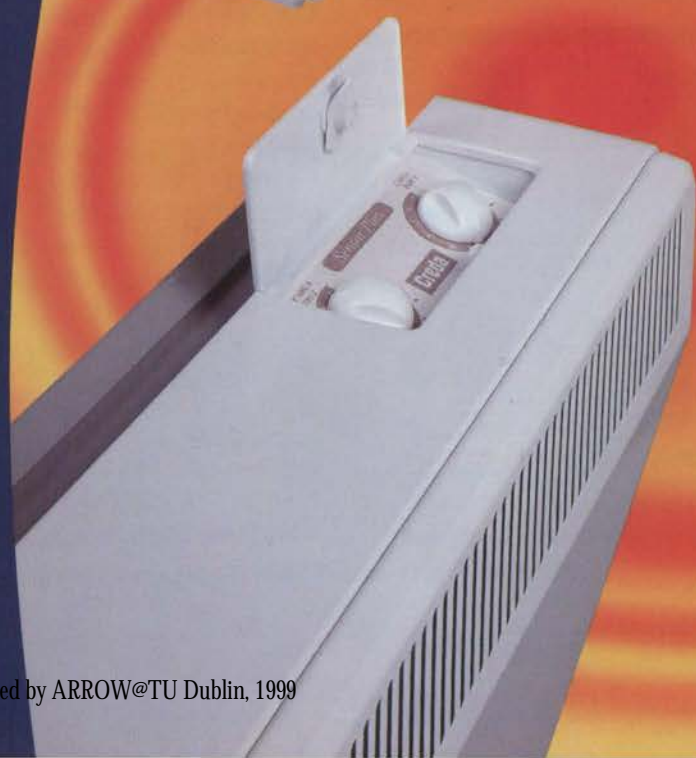


# NEWera<sup>®</sup>

a heating revolution from Creda



To find out more,  
contact Des Bradley of EDI  
on **01 6264366**



INSTRUMENTS AND CONTROLS

researched and it was concluded that this was the only real way that energy use could be effectively monitored and controlled.

Various methods of automatically collecting data that could be used by an M&T system were investigated. The most advantageous was found to be the installation of Building Energy Management Systems (BEMS). Conscious of the cost of installing BEMS in such a large number of buildings, a simple system was designed, see Figure 1. Typically, these simple systems were connected to the following:-

- Main Electrical meter – This in general is a connection to the main ESB meter. The ESB have accommodated us by changing meters where necessary to give a pulse output and altering existing pulse meters to allow connection to the BEMS;
- Gas/Oil Meter – Bord Gáis have been exceptionally helpful in providing us with gas meters that give a pulse output and in installing new meters where necessary. In buildings where oil is used for the heating fuel, local check meters have been installed;
- Room temperature sensors (one or two located in colder areas of the building);
- Boiler flow header temperature sensor;
- Mixed flow temperature sensors;
- Burner lockouts;
- Heating system enable;
- Mixing valve control;
- Domestic hot water enable;
- Ventilation enable;

An “over-time” timer.

These systems are therefore capable of collecting the required energy data and also implementing control strategies such as Optimised Start and Weather Compensation. The systems can also be used for maintenance procedures such as the diagnosis of heating system problems.

As the advantages of using the BEMS became more apparent, the systems have started to incorporate enhanced control facilities (see figure 2) such as:

- 2-stage frost protection;
- duty pump selection with automatic changeover;
- lead and lag boiler selection;
- sub metering of large loads.

The BEMS are connected to an external phone line and every night each site is automatically contacted via modems, and the energy consumption data and heating system/environmental data – which is recorded by the local BEMS every 15 minutes – is transferred and archived in OPW HQ. To date over 40 buildings have

had systems installed and the 1999 program aims to have another 40 online by the end of the year.

The collected energy data is analysed using specialist Energy Monitoring & Targeting software. The software automatically imports the data into its own database where it checks for errors, ie data omission, data corruption etc. The software is then used to prepare energy reports. The reports can be customised to show whatever information is required. The reports that are currently being used and developed by the OPW are:

*Nightly heating system reports* – These illustrate if heating system have been running during the night or for excessive pre-heat periods or overtime periods;

*Weekend heating system reports* – These reports illustrate any heating systems that have been running over the weekend;

*Monthly Energy Reports* – Graphically and numerically show the total amount of energy consumed in a particular

building and the daily breakdown of how much of this was electricity and how much was heating fuel. The breakdown of day and night electricity consumption is also illustrated;

*Annual Energy Reports* – Buildings which have been connected to the central Building Management System for over a year have Annual Reports prepared. The total annual heating fuel and electrical consumption are shown. The Energy Performance Indicator for the building (kWh.m<sup>2</sup>.Year) is also given along with the amount of carbon dioxide pollution that has been produced and a Pollution Index (kg of CO<sub>2</sub>/m<sup>3</sup>.Year).

These various reports allow the performance of different buildings to be compared to each other. It is very interesting to compare the data that was manually collected for the datum year of 1994 to the current energy figures. Some buildings have shown significant reductions in consumption since the BEMS were installed, and these shall be discussed in the next article where examples of how energy Monitoring & Targeting has resulted in significant cost and consumption savings.

\*For further details please contact Conor Clarke, Energy Conservation Unit, Electrical & Heating Section, Office of Public Works, 52 St Stephens Green, Dublin 2.  
Tel: 01 - 661 3111;  
Fax: 01 - 676 7363;  
Email: conor.clarke@opw.ie

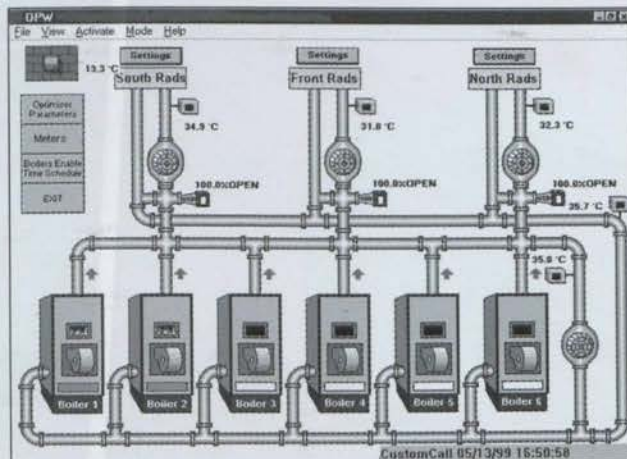


Figure 2 – The above illustrates a more complicated BEMS with individual boiler control, 2 stage frost protection and individual pump control.

## Manotherm – Ireland's Leading Instrumentation Specialists

**M**anotherm Ltd provides one of the most comprehensive instrumentation product portfolios available to industry throughout Ireland.

From its headquarters in Dublin and branch office in Belfast, the company supplies microprocessor and programmable ramp controllers, thermocouples, resistance and infra-red thermometers, thermostats, pressure switches, flow meters, vacuum and compound gauges, humidity meters, control valves, air velocity instruments, power supplies, calibration baths, signal conditioning and isolators, data communication modules, together with calibration instruments and equipment, to name but a few of the products available.

Manotherm caters for all industry sectors and is especially strong in the clean-room sector.

Manotherm is the



The new Series 645 wet/wet differential pressure transmitter from Manotherm.

appointed agent/distributor for some of the best-known and respected names in the instrumentation industry, including Johnson Controls, Digitron, Jordan Valves, West Instruments, Rustak Recorders, Platon Flowbits, Isothermic Technology, Bindicator, Vourdon, ITT Barton, Dwyer, Drexelbrook, Electronite, Lane Infrared, GEMS and Danish-based PR Electronics.

Despite being highly-selective in its choice of suppliers and products, Manotherm still represents around 40 of Europe's leading manufacturers.

Manotherm also maintains a service workshop while, at its Dublin headquarters, the extensive showroom/trade counter carries a substantial stock inventory at any given time. Among the latest additions to the range is the Series 645 wet/wet differential pressure transmitter from Dwyer Instruments, Inc. This now covers ranges down to 0 - 1 psid with an accuracy of  $\pm 0.25\%$  FS (RSS). Response time is just 30 to 50 msec.

The instrument, designed for use with compatible gases and liquids – which can be applied to both pressure and reference ports – has

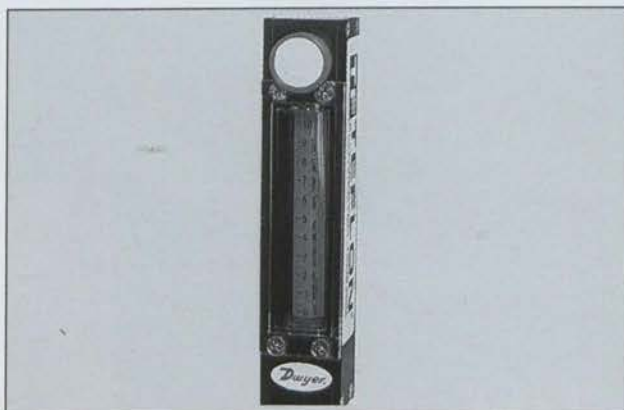
wetted parts of 17-4 PG and 300 Series stainless steel, as well as Viton® and silicon O-rings. Operating temperature range is 0 to 175°F (-22 to 80°C).

Ideal for use in process control, filter condition monitoring, refrigeration equipment, pump speed control, HVAC equipment and liquid level measurement, the unit has 2-wire design, delivers a standard 4-to-20 mA output signal, and is available in 12 ranges.

Also new from Manotherm is the Dwyer Instruments Series TVA All Teflon® flowmeters. Available in 75mm scale length for low ranges from 400 ml/min (6.34 gph), and in 125mm scale length for high ranges up to 45 l/min (11.9 gpm), these corrosion-resistant instruments have Teflon® PFA flowtubes, Teflon® PTFE end fittings and floats, even Teflon®-coated anodized aluminium side panels. (Panel nuts are Kynar®. Front shields are Lexan® polycarbonate).

These units offer  $\pm 5\%$  FS accuracy, a turn-down ratio of 10:1 and are marked with 0 to 10 scale graduations denoting a discrete flow rate. They may be purchased with or without valves.

Full details on the vast range of instruments and controls are available from Bob Gilbert/Brian Harris, Manotherm. Tel: 01 - 452 2355; Fax: 01 - 451 6919; eMail: manotherm@tinet.ie



The new Series TVA All Teflon® flowmeter from Manotherm.



INSTRUMENTS AND CONTROLS

# Danfoss Drives ... Simplicity in Motion

User-friendliness is the solid ground on which the many new features in the VLT@6000 series is based. An all-important objective when developing the new VLT@6000 HVAC series was to make the drive ever more user-friendly than its predecessor. The result of these efforts is a drive that is easy to select, install, commission and operate.

The extensive programme – covering the range from 1.1 to 250 kW at 380-460V and 1.1 to 45kW at 200-240V – offers one device for each motor size, a fact that makes selection an uncomplicated matter. With the VVC plus principle for torque and speed control of induction motors, the VLT@6000 HVAC drives provide full motor power at rated speed without derating.

Installation is a fast process, whether in switchgear panels or as direct wall mounting. Minimal wiring, an easily-removed housing and direct access to the electrical terminals, are all helping to cut down installation time considerably.

## Uncomplicated commissioning

Commissioning the VLT@6000 HVAC drive is facilitated by a number of HVAC specific features.

The Quick Setup menu offers direct access to the 12 most common parameters that have to be programmed. All other parameters are factory pre-set, based on the long Danfoss experience in the HVAC industry. This makes commissioning extremely easy and reduces the total time consumption of installing and commissioning the drives.

The performance is optimised automatically, thanks to the Automatic Motor Adaptation (AMA). Consequently, the user doesn't need special knowledge about motor or installation to get optimum operation from day one. The Automatic Energy Optimiser (AEO) automatically adjusts the output voltage to the requirements of the motor making knowledge about the application superfluous and increase the energy savings. Additionally, the Autoramping function prevents the drive from tripping if the ramp times are too short.

Additional programming is carried out via the Local Control Panel (LCP) which is also used to operate and monitor the drive in operation. Numerous readouts are available and can be selected or scrolled through. Up to four operation data items can be simultaneously displayed. With a large clear-text LCD display, the panel is easy to read and provides a large amount of information ... in nine different "human languages". The LCP panel is the same for the entire product range. So if you know one you know them all.

## Operation at ease

The daily operation of the VLT@6000 HVAC drive can be carried out with the LCP which has buttons that are easy to operate. The LCP is detachable, which means that it can be moved from one drive to another, making it possible to upload and download parameter set-ups from one drive to another.

The LCP contains a feature called Intelligent Custom Readout, which displays a scaled process unit, even in open loop operation when no feedback signal is connected to the drive. With the Intelligent Custom Readout the user can scale the readout according to the maximum speed of the motor. The unit also decides whether the relation between output frequency and readout is linear, square or cubed.

Being a dedicated drive the VLT@6000 HVAC features a real Hand-Off-Auto function which is part

of the HVAC terminology. The Hand-Off-Auto function makes operation easy and understandable to people normally working with HVAC systems. The Hand function starts the drive and allows the operator to manually change the drive's speed just by a local reference. The Off function stops the drive. Pushing the auto button makes the drive await information from e.g. the building management system.

Danfoss makes central control and monitoring of HVAC application easier with the Windows based PC communication software, called VLT@ Software Dialogue. The program enables the user to program and commission the new drive series via the RS 485 port as well as to control and monitor the drives. In addition, it greatly facilitates setting up a large number of drives identically.

John Sampson, Managing Director of JJ Sampson & Son, a member of the Danfoss Group, stated: "Danfoss has developed the VLT@6000 HVAC drives to the point where they are now the most user-friendly drives on the market, without leaving any features out. This ensures that the VLT@6000 HVAC drives are a very attractive solution to all HVAC applications. They have all the specific features needed to optimise the efficiency of any system".

Contact: Brian Maguire, Heating Controls and Project Sales Manager, JJ Sampson & Son. Tel: 01 - 626 8111. Fax: 01 - 626 9334; eMail: sampson@indigo.ie



The VLT@6000 HVAC Series of variable speed drives from JJ Sampson & Son/Danfoss.



# FOR THE

THE NEW TRV 2-WAY FROM MYSON HEATING CONTROLS HAS TAKEN THE CENTRAL HEATING INDUSTRY BY STORM. IN JUST A FEW MONTHS, SALES HAVE MORE THAN DOUBLED, AND NO WONDER.

# TRV 2-WAY

THE MYSON 2-WAY IS THE GENUINE ARTICLE. YOU CAN FIT IT ON THE FLOW OR RETURN RADIATOR TAPPING, WITH WATER FLOW IN EITHER DIRECTION.

# THE ONLY

WHAT'S MORE, THE MYSON 2-WAY COMES IN A WIDE RANGE OF SIZES, WITH ALL THE ACCESSORIES YOU NEED. SO NEXT TIME YOU FIT A TRV, DON'T SETTLE FOR SECOND BEST. FIT THE MYSON 2-WAY - EVERYONE ELSE IS!

# WAY IS UP.



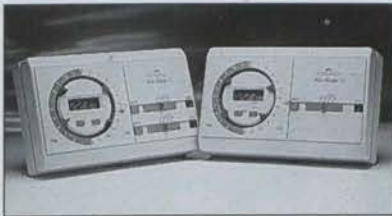
Available in Polished Chrome, Satin Brass, or Nickel finishes, in a full range of sizes. For more information contact Potterton Myson (IRL) Ltd, Belgard Road, Tallaght, Dublin 24. Tel: 01 - 459 0870; Fax: 01 - 459 0880.

## Potterton Myson – Time, Temperature and Flow Control

Potterton Myson's comprehensive range of controls is designed to ensure complete control of home heating, reduce energy consumption, and be kinder to the environment. The range incorporates three main methods of heating control – time, temperature and flow control.

### Time Control

□ Potterton Myson offers a full range of electronic programmers,



Mini-Minder E & Es

covering every conceivable time control application.

□ Fully electronic for accuracy and reliability, they are easy to set up and programme, while a clear digital clock display with a LED status indicator shows how the system is working.

□ For those who prefer less complex controls, the Potterton Mini Minder E and Es offer the high accuracy and reliability of advanced electronic time control, combined with a user-friendly, easy-to-read clockface.

### Temperature Control

#### TRV-2-Way

◆ The Myson TRV 2-Way is a highly innovative product, fully designed and engineered by Myson Heating



Controls in Newcastle West, Co Limerick.

◆ This product has all the benefits of the well-established TRVII, such as the temperature-sensitive liquid element and the sculpted white wheelhead. It is available in a full range of sizes, and comes in a wide choice of finishes, including polished chrome, satin brass and nickel.

◆ In standard TRV's, many components make up the internal spindle and disc assembly. However, in the TRV-2-Way, Myson uses a new bonding technique (patent pending), which stops the flexing of this internal disc when water flows in the "wrong" direction, in turn eliminating those all too familiar rattles and bangs.

#### Thermostatic Cylinder 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.

◆ It is manufactured by Myson Heating Controls in Limerick, and is both easy to install and simple to operate.

### Flow Control

#### Power Extra Motorised Valves (MPE)

□ Our highly successful MSV Range of System Control Valves were 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



MPE 3-port and MPE 2-port Valve

heating and hot water systems.

□ The MPE 222 and MPE 228 2-port valves will control either the central heating or hot water circuit. Two of these valves used in combination 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 even better control.

□ The MPE 322 and 328 3-port mid position valves will control both the central heating and hot water circuits simultaneously and can boast a market-leading 6-Watt Class 'F' Motor. These valves may be operated directly by the system programmer, or indirectly, by room and cylinder thermostats.

□ To compliment the existing 22mm 3-port valve, Potterton Myson has extended the range to include a 28mm 3-port valve in response to customer demands.

□ The MPE range is designed, manufactured, and tested in Myson Heating Controls in Newcastle West, using state-of-the-art technology.

#### Automatic Bypass Valve (ABV)

□ Launched recently, the Automatic By-Pass Valve is a system relief valve which can be used to balance the heating system.

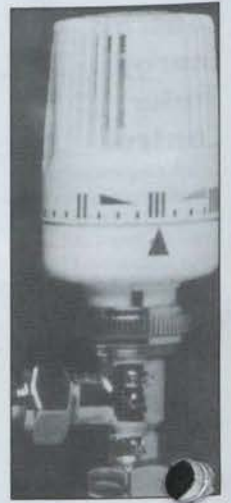
□ Used in conjunction with thermostatic radiator valves and motorised valves, it allows the system pressure to be relieved when all other components are closed down.

Contact: Suzanne Shanley,  
Potterton Myson (Irl) Ltd.

Tel: 01 - 459 0870;

Fax: 01 - 459 0880.

eMail: post@potterton-myson.ie



TRV 2-Way

# Planning an environmental upgrade for your building?

et al: BS News



## Honeywell and McCool have your future all mapped out

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

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

Honeywell's reputation for quality and reliability is second to none, while McCool's established position in

the Irish building controls industry, with branches in Dublin, Cork and Limerick, ensures a strong and healthy working relationship with all existing and future customers.

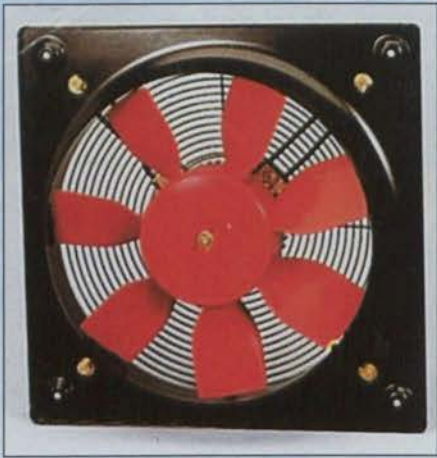
If you would like to know more contact:

Finn McCool or Leslie Mason,  
McCool Controls and Engineering Ltd,  
Unit 21 IDA Enterprise Centre,  
East Wall Road, Dublin 3.  
Tel: 01 - 855 0542; Fax: 01 - 855 0546

**Cork** - Tel: 021 - 382055

**Limerick** - Tel: 061 - 372277

# Honeywell



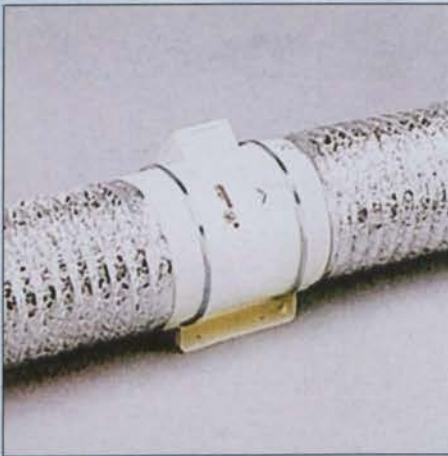
Compact Series. Airflow from 500 – 22400m<sup>3</sup>/h  
General ventilation



Compact portable series. Airflow from 2250 – 16450 m<sup>3</sup>/h. Personnel cooling, drying installations, work areas etc



HDT series. Flameproof axial fans. Type Eexd IIBT5 or Eexd IICT4 motors. Airflow from 100 – 13000 m<sup>3</sup>/h



Mixvent system series. Airflow from 130 – 1990m<sup>3</sup>/h. Designed to solve Ventilation problems requiring ducting



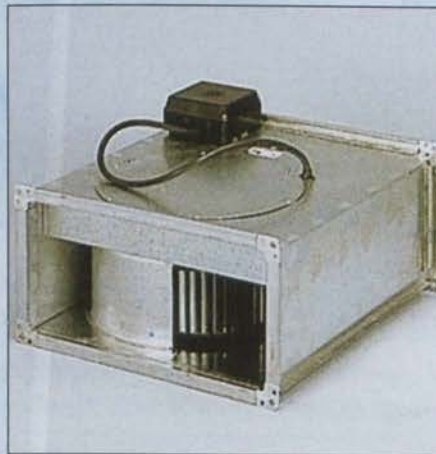
Mixvent TH roof units. Airflow from 380 – 1725 m<sup>3</sup>/h. Supply or extract systems



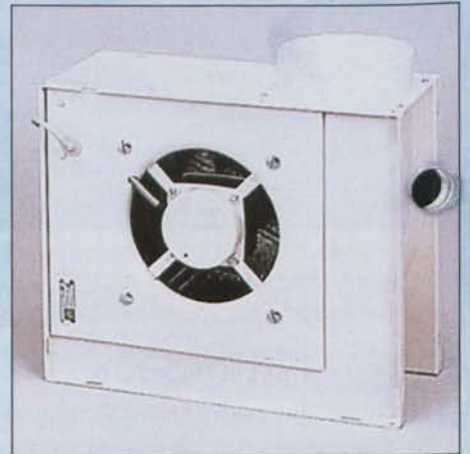
Max-temp series. Centrifugal roof extract units for commercial kitchens and smoke extraction systems. 400 deg. 4 hr rated. Airflow from 500 – 22000 m<sup>3</sup>/h



HCTB-HCTT Series. Axial roof fans. Airflow from 1500 – 14180 m<sup>3</sup>/h



Direct-air series. Centrifugal in-line fans for rectangular ducting. Airflow from 1100 – 10235 m<sup>3</sup>/h



CKB series. Powerful centralised ventilation for dwelling houses. Airflow from 600 – 2000 m<sup>3</sup>/h

# VENTAC

*\* Air Management Engineers \**



# VENTAC

*\* Air Management Engineers \**



**Very often,  
the success**

**of your project**

**is up in the air**

**Ventac & Company Ltd, 11 Fitzwilliam Quay, Ringsend, Dublin 4.**

Published by ARROW@TU Dublin, 1999 01 667 1077; Fax: 01 - 667 1055; Email: [vent@iol.ie](mailto:vent@iol.ie)



## Landis & Staefa Division



The Landis & Staefa Division of Siemens Building Technologies Ltd continues to improve its standard controls and peripheral ranges of controls whilst maintaining all the qualities expected from them – ease of installation, simple operation, high functionality and known reliability.

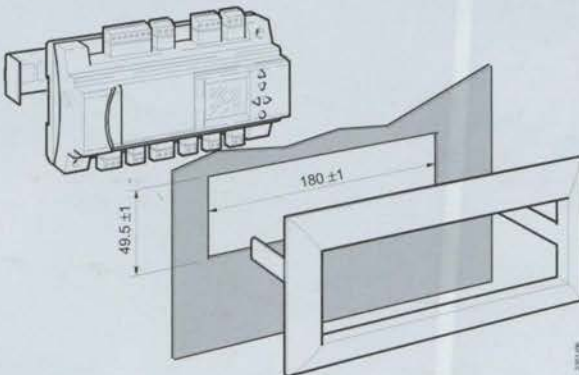
Within the well known SIGMAGYR Heating Controls range the new generation RVL400 series has just added the RVL472 optimiser compensator and RVL469 slave controller. These controllers compliment the existing range of RVP... and RVL... offering our customers the right controller for his application.



In our Air Conditioning controls ranges both POLYGYR and Classic have been improved.

Our POLYGYR control range has undergone some minor changes as requested by our customers. Additionally, we have recently introduced a panel facia mounting kit and the POLYCOPY tool giving upload, download, save and documentation options for each application – saving time, making engineering and commissioning easier and simpler.

Classic has been adapted to use the L&S Ni1000 Ohm temperature sensor, ensuring we show a standard image especially when sensors are located in rooms.



Finally, our OpenAir™ damper actuator range has been completed with the introduction of our replacement of SQE... by the new GDB/GLB... 5 and 10N/m range. This gives Landis & Staefa the most comprehensive and competitive range of damper actuators on the market.

All of the above, along with the full range of Landis & Staefa standard controls and peripherals, are available from Asea Brown Boveri Ltd in Ireland where we have enjoyed a partnership for over 30 years.



Asea Brown Boveri Ltd  
Belgard Road, Tallaght, Dublin 24  
Tel: ++ 353 1 4057 300  
Fax: ++ 353 1 4057 324

Siemens Building Technologies Ltd  
Hawthorne Road, Staines, Middlesex TW18 3AY  
Tel: ++ 44 1784 461616  
Fax: ++ 44 1784 464646

## McCool Controls – Energy Under Control

McCool Controls are one of the leading companies in Ireland in the design and supply of control and energy management systems to both the new construction industry and the developing building retrofit markets.

As agents for the Irish-manufactured market leader, Cylon Controls Building and Energy Management Systems and Honeywell Control Systems, McCool Controls have a well-proven track record in delivering a quality engineering and managed system.

McCool Controls offer a full package of installation, engineering, commissioning and validation with an efficient maintenance and service back-up with the facility of 24-hour cover and emergency call out. Nationwide coverage is assured with the company's headquarters located in Dublin and branch offices in Cork and Ballymena.

The control and management of energy is a critical area of concern to building services designers, plant engineers and building managers. McCool Controls provide a full advisory and design service in the areas of monitoring and targeting max demand control, energy reports and energy management and control.

The Unitron range of

BEMS controls from Cylon is particularly adaptable to the retrofit industry where the necessity of fitting equipment into existing electrical panels is a cost-efficient solution to an otherwise expensive modification.

McCool Controls have developed a particular expertise in this area, where they are normally employed as the main

Stratus Computers Blanchardstown, Dublin Corporation Ballymun Flats Complex, Ulster Bank Central Computer Centre Building, Stillorgan, and Ulster Bank Nationwide Branches network are some of the retrofit projects completed in the last two years.

McCool Controls have worked with all the major building services

Facility, Blanchardstown; Janssen Pharmaceutical, Cork; Xilinx Facility, City West; Johnson & Johnson, Cork; Civic Offices, Wood Quay; RTE, Donnybrook; Hewlett Packard, Leixlip; Cook Ireland, Limerick; Adhesive Research, Limerick; Macom, Cork; and nationwide branch contracts for clients such as Ulster Bank, Allied Irish Bank, Dunnes Stores.

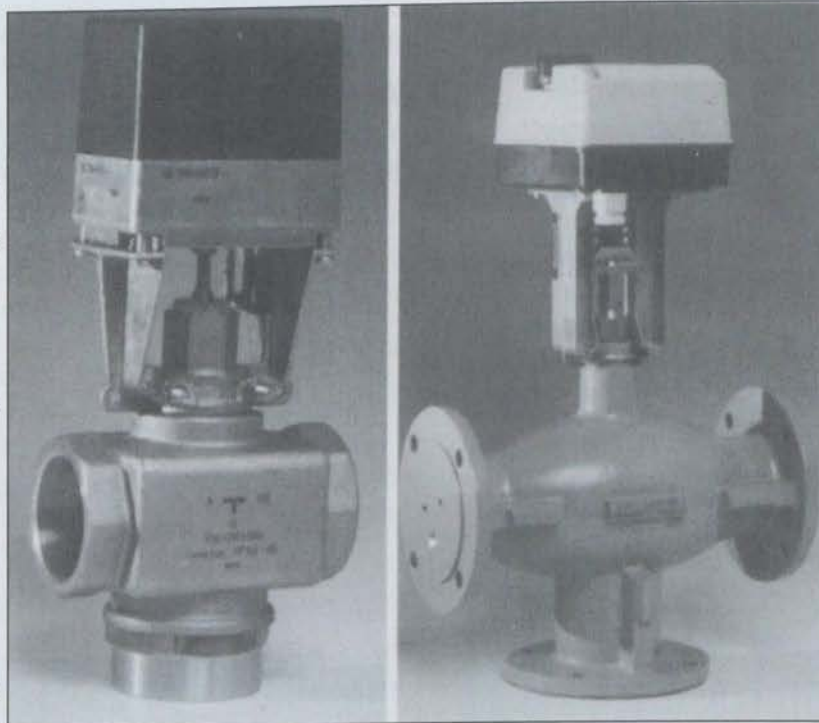
Project management and customer satisfaction are two areas in which McCool Controls are recognised as being particularly strong. Customers speak of well-engineered projects, with very impressive graphic interface screens allowing ease of use of the system for the engineer, with comprehensive reporting and logging features.

Clients also speak highly of the efficient and well-structured training they receive at handover stage,

and of the excellent "as-built hand-over engineering manuals" they receive.

The facility of on-line support and back-up via modem is offered to all BEMS customers and has proven to be highly-efficient in both time and cost to all who avail of this facility.

Contact: Finn McCool/Leslie Mason, McCool Controls. Tel: 01 - 855 0542.



Examples from the extensive Honeywell HVAC control systems range now available from their Irish "systems representative" McCool Controls

contractor and therefore carry out all necessary electrical installation, panel/switchgear modifications and mechanical installation.

Contracts such as AIB Bank Centre Ballsbridge, Central Bank of Ireland Head Office, Dame Street and Mint Production Facility in Sandyford,

consultants on an impressive range of contracts in areas such as computer/electronics; pharmaceutical; chemical; food; public authority; health, and commercial buildings.

Examples of recent projects are Schering Plough, Avondale; Heinz Foods; 3 Com Computer



## Safeguard Systems Break International Ground

Following the successful launch and seminar on their new generation LonWorks fire/smoke damper control system (Safeguard V1) last January,



The Safeguard V1 system was designed to provide advanced graphical user interface (GUI) that simplifies installation and commissioning of fire/smoke dampers and peripheral devices.

Safeguard Systems have committed to an exclusive distribution agreement with the UK's leading damper manufacturer. They are also developing other agreements in Europe and soon hope to enter the USA market.

The system was designed with the user in mind, providing an advanced graphical user interface (GUI) that simplifies installation and commissioning of fire/smoke dampers and peripheral devices. It is based on the universally-accepted LonWorks protocol and operates on a

Windows 98 or NT platform.

Safeguard were responsible for defining the LonWorks standard for the products it uses in its system, and they have been adopted as the worldwide standard known as LonMark.

The system comprises four main devices:-

- GUI – industrial or tower PC;
- FSDAC – fire/smoke damper actuator controller;
- DI-04 – accepts four conventional inputs;
- RO-04 –

drives four conventional outputs. Among the benefits of the new system are ease of use and installation; unlimited growth, just add devices; reduced wiring costs; open system allows second sourcing; and remote monitoring. Safeguard also offers fire/smoke and general damper actuators, explosion-proof damper actuators, and fire/smoke damper control and monitoring panels. Contact: Sean Magill, Safeguard Systems. Tel: 01 - 276 1600.

## Standard Control Systems Set Trend

“Standard Control Systems and Trend are delighted to report the resounding success of their new range of smaller outstation controllers, the IQ210



Trend IQ220 controller from Standard Control Systems.

and the IQ220 series”, says Sean O’Toole, SCS Business Development Manager.

These outstations are now being utilised on such sites as the IBM Campus Development at Mulhuddart; Bank of Ireland, Mayor House, Dublin; Wyeth Medica, Newbridge; and Telecom Eireann, Dublin.

These low-cost and compact controllers are of course fully-programmable

and Y2K compliant.

Their size makes them ideal for fan coil unit and VAV control and they can be used for the control of main plant such as boilers, air handling units, etc.

The IQ210 can cater for an input point capacity of 5/6, while the IQ220 can cater for 8/7 (expandable to 20).

All controllers in the range boast 32-bit micro-processor technology and



Trend IQ210 controller from Standard Control Systems.

offer a cycle time to satisfy the most demanding building services control requirements.

Contact:  
Sean O’Toole.  
Tel:  
01 - 624 6100;  
Fax:  
01 - 624 6105;  
eMail:  
scs@tinet.ie

# Our Package ...

## Refrigeration & Air Conditioning

**DANFOSS**  
Refrigeration & air conditioning controls

**FRIGOPAC**  
Dedicated refrigeration controls package

**CAREL®**  
Electronic thermostats, programmers & humidifiers

**ADAP-KOOL®**  
Refrigeration control, monitoring & data logging systems

**JIMI HEAT**  
Antifreeze heater tapes

**DANVALVE™**  
Industrial Refrigeration Valves

**DANFOSS**  
Compressors & condensing units

**MANEUROP**  
Compressors & condensing units

**A'GRAMKOW**  
Refrigeration, evacuation & charging equipment

## Electrical

**DANFOSS**  
Motor control gear

**DANFOSS VLT®**  
Variable speed drives

**SCHLEGEL**  
Control panel indicators & terminals

**COUGHTRIE**  
Amenity & security lighting

**DANFOSS**  
Flow & mass/density meters

**JIMI HEAT**  
Heater tape & heater mats

# ... Your Solution

## Heating & Energy Management Controls

**DANFOSS-RANDALL**  
Heating controls, programmers, timers & motorised valves

**TEC**  
Heating management systems

**JIMI HEAT**  
Anti freeze and ramp heater tapes

**DANFOSS**  
Burner & boiler controls

**CAREL®**  
Electronic thermostats, programmers & controllers

**DANFOSS VLT®**  
HVAC - Pump & Fan Speed Drives

**THERMISER®**  
Heating Controls Pac

**IPS**  
Ventilation sock systems

## Industrial Process Controls

**DANFOSS**  
Flow & mass/density meters

**CAREL®**  
Industrial Programmers

**MICRONICS**  
Non-intrusive & portable flow meters

**DANFOSS**  
Industrial Instrumentation

**JIMI HEAT**  
Heat mats & drum heaters

**DANFOSS**  
Pressure & Temperature Transmitters

**ESCO®**  
Water Isolation Valves

**OREG®**  
Water Valves

**DANFOSS VLT®**  
Variable speed drives

**DANFOSS**  
Solenoid Valves for liquids and gases

**SOCLA®**  
Control valves & accessories for water treatment



Established 1920

## J.J. SAMPSON & SON LTD.

Member of the Danfoss Group

Nangor Road Business Park, Dublin 12.  
Tel: 01 - 626 8111; Fax: 01 - 626 9334  
e-Mail: sampson@indigo.ie



INSTRUMENTS AND CONTROLS

# Prefect<sup>®</sup> Series from EDI

The Prefect PRE6000 keyfob switch, when used in conjunction with the PRE5500 setback/comfort thermostat, can maintain a room set-back temperature until the keyfob is inserted into the wall switch. The temperature is then boosted up to either a pre-set limit or the setting on the heater's thermostat. When the fob is removed, the room returns to the set-back temperature.

The PRE6000 keyfob switch on its own can be used to activate room entry systems etc, or the boost facility on the PRE4100/01 central control system receiver module.

When used with the PRE5500 thermostat, it offers:-

- Adjustable set-back temperature of 5°C to 19°C;
- Frost/damp protection;
- Boost to adjustable pre-set comfort temperature limit by insertion of keyfob;
- Comfort temperature can be adjusted to pre-set limit by the heater's own thermostat.

The Prefect@5 series of setback/comfort thermostats offers simple cost-effective control over local space heating equipment.

The Prefect 5 series can



The Prefect PRE5100 Internal PIR Sensor from EDI.

maintain a room set-back temperature and, when activated by either touching the front panel, or activated by PIR sensor or remote contact, will then raise the temperature to a preset comfort heat

level. After a predetermined time the heater returns to maintaining the set-back temperature.

- Features include:-
- Set-back temperature adjustable from 5°C to 19°C;
  - Comfort temperature adjustable from 16°C to 25°C;
  - Comfort period adjustable from 1 to 120 minutes (1 to 25 minutes on PIR models);
  - Integral or remote PIR sensors;
  - Choice of remote wall mounting or ceiling mounting PIR versions;
  - 13A (3000W) loading;
  - Single gang size;
  - 'Heating' and 'Boost Heat' indicators;
  - Tamperproof - no externally accessible controls;
  - CE approved.
- Contact: Des Bradley,  
EDI.  
Tel: 01 - 626 4366.

## Energy Saving Heating Controllers

Danfoss Randall's battery-powered TP75 heating controllers offer more flexibility and energy-saving features than most other central heating time and temperature control systems, according to distributors J J Sampson & Son Ltd

TP75 controllers are true 7-day programmable room thermostats, but they also provide an easily-selected option at installation of 5-day/2-day programming. Battery powered, their programmes are unaffected by mains power failures.

All versions enable users to pre-set up to six daily timed periods of their choice at different temperatures, including a programmable "off" event. This allows room temperatures to be matched to household activity levels, ensuring full comfort with minimum heating fuel usage.

To cater for temporary changes in routine, a number of manual overrides allow short-term selection of higher or lower temperatures, extensions of 1, 2 or 3 hours to existing settings, and the choice of profiled or all-day programming. TP75's factory pre-set programmes can be readily changed by the user as desired, thus saving the installer time by eliminating the need for initial setting.

Contact: J J Sampson & son. Tel: 01 - 626 8111; Fax: 01 - 626 9334;  
eMail: sampson@indigo.ie

## Flash Controls from Chronotherm

The recent introduction of a new immersion and multi-purpose timer, Immermat 31100, by Flash into the Irish market – through its agent Chronotherm Controls Ltd – is a further step in providing the Irish heating and electrical market with a comprehensive and versatile range of timers and thermostats.

Pioneers in the field of the use of captive segments, rather than pins, for establishing on/off periods, Flash has combined technical innovation and exterior design to produce timers and thermostats that are

both simple to use and pleasing to the eye.

The Flash range of electro-mechanical programmers 31031, 31032, 31033 is well established in the Irish market and acknowledged by installers for their simplicity of installation and operation. All of these timers are also available in 7-day versions, which are easy to operate by both young and old.

Through market feedback, Flash has made subtle changes to aid the installer and end-user, without moving away from the principal features which

have made the range so popular. The two channel/zone versions, 31032 and 31033, are acknowledged for their versatility and operational features.

The entire programmer range is fitted with an automatic manual override (ie automatically returning the timer to the next on or off period, after the override being activated manually). This feature is not always available from other manufacturers.

The new immersion timer, Immermat 31100, opens up a new market for Flash. This timer, although designed with immersion in mind, is a multi-purpose timer with a 16-amp rating.

It is supplied complete

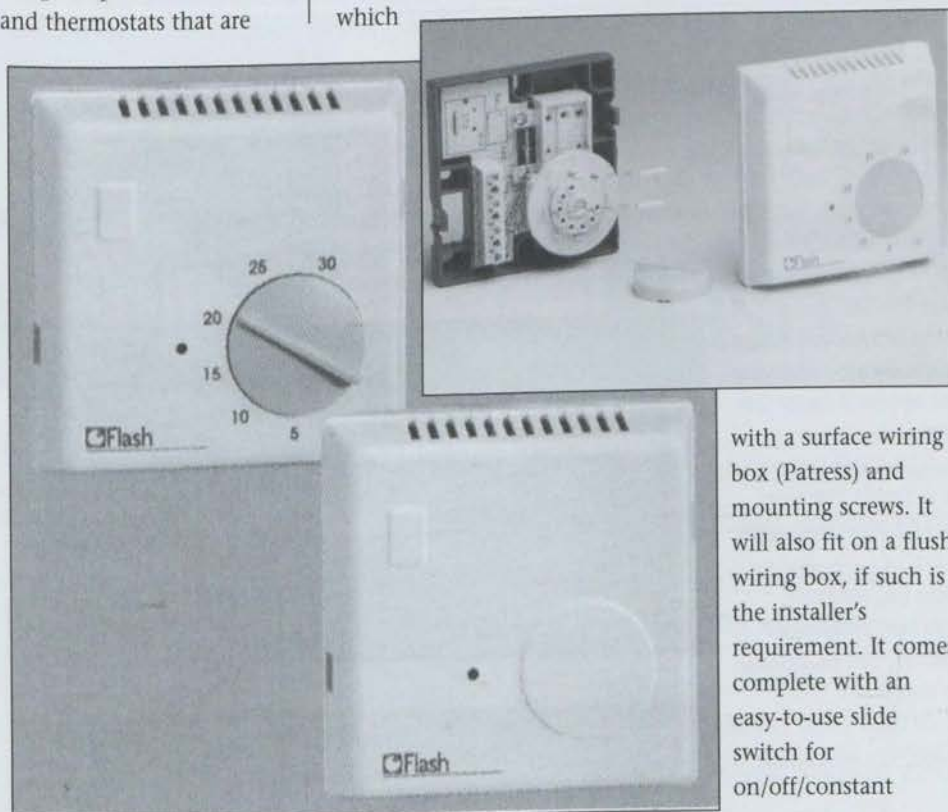
operation. An LED (neon) indicator tells the user if the device is on or off. The unit to be controlled can be timed for as little as 15 minutes.

Another range that Flash has been working on over the past few years is its range of room thermostats. Considerable work has gone into the technical and visual design of this range. Room thermostats are now available with bi-metallic strip, gas bellows or electronic sensor, and are competitively priced.

Due to the technical expertise existing in the Flash factory in France for both timer and thermostat products, Flash can offer a competitively-priced range of clock thermostats in both electro-mechanical and digital. This type of heating control is very popular on the continent, and with Irish installers broadening their product knowledge, this product range is attracting more attention. The clock thermostat will grow in popularity in future years.

Other products available from Chronotherm Controls in the Flash range are infra-red thermostats, battery only controls, radio-controlled timers and timers with remote control by telephone.

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

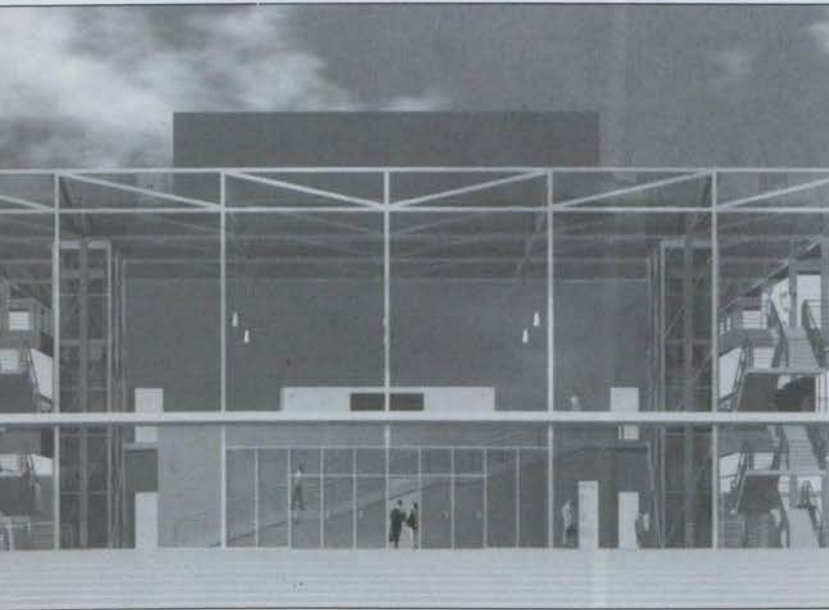


with a surface wiring box (Patress) and mounting screws. It will also fit on a flush wiring box, if such is the installer's requirement. It comes complete with an easy-to-use slide switch for on/off/constant

Flash bimetal room thermostats from Chronotherm Controls.

INSTRUMENTS AND CONTROLS

# Desigo™ – A BMS System to Build On



Desigo ... from Landis & Staefa

DESIGO from Landis & Staefa is a highly integrated building management system designed to ensure ideal conditions throughout the building. It keeps building services downtime to a minimum and optimises the use of staff. The result is maximum comfort for building owners at minimum overall cost.

While its modular structure, the DESIGO™ building management system is

open in every respect – open to existing systems; open to future developments; and open to third-party systems. The unique versatility of all these options assures the long-term protection of investment and represents the optimum in added value.

DESIGO™ was designed in compliance with economic criteria which set new standards for the future. It incorporates an energy efficiency system which ensures that the amount of energy made available anywhere in the building is never more

## Landis & Staefa from ABB

The Landis & Staefa Division of Siemens Building Technologies Ltd continues to improve its standard controls and peripheral ranges of controls while maintaining all the qualities expected from them – ease of installation, simple operation, high functionality, and known reliability.

Within the well-known Sigmagyr heating controls range the new generation RVL400 series has just added the RVL472 optimiser compensator and RVL469 slave controller. These controllers complement the existing range of RVP and RVL, offering customers the right controller for their application.

In the air conditioning controls ranges, both Polygyr and Classic have been improved.

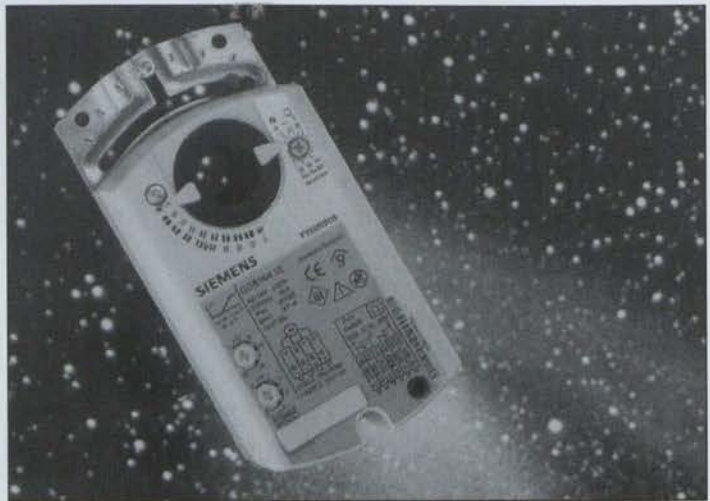
The Polygyr control range has undergone some minor changes as requested by customers. Additionally, Landis & Staefa recently introduced a panel facia mounting kit and the Polycopy tool giving upload, download, save and documentation options for each application – saving time and making engineering and commissioning easier and simpler.

Classic has been adapted to use the L&S N1000 Ohm temperature sensor, ensuring a standard image shown, especially when sensors are located in rooms.

Finally, the OpenAir™ damper actuator range has been completed with the introduction of the replacement of SQE by the new GDB/GLB 5N/m and 10N/m range. This gives Landis & Staefa the most comprehensive and competitive range of damper actuators on the market.

All of the above, along with the full range of Landis & Staefa standard controls and peripherals, are available from Asea Brown Boveri Ltd in Ireland, with whom Landis & Staefa has enjoyed a partnership for over 30 years.

Contact: Asea Brown Boveri. Tel: 01 - 405 7300; Fax: 01 - 405 7324.



Landis & Staefa heating controls from ABB

than is actually needed. That applies to all buildings, whatever their size.

DESIGO™ offers everything required for an advanced building management system. Its modular structure fulfils today's demand for the greatest possible degree of flexibility. Both the size of the management system, and its functional scope can be perfectly matched to all user requirements.

The advantage is that you can start by investing only in what you actually need. Should you want to expand your system later, you can do so in stages and at any level.

Contact: Sirus Engineering Systems.  
Tel: 01 - 460 2600.

## Honeywell Controls from McCool

Today, building managers have to invest in a set of tools to help them communicate with all the disciplines involved in the running of a building or a set of buildings. There are so many different ways of approaching this that the architecture has to be flexible.

A Honeywell architecture will support management functions, subsystem integration, data processing, communications and interface with third party systems. A part of this building architecture is the Excel 5000 family of

primary plant controllers which offers BMS to the small and medium sized building, with the ability to start small and expand as the building and occupants' needs change.

Excel 500 modular outstations feature an enhanced cpu module. This controller is modular in construction enabling a bespoke solution to be engineered to meet the requirements of the most exacting designer. The versatile cpu enables an existing client's installation to be upgraded to introduce an Echelon\* bus, while still retaining the full

power of Honeywell's proprietary C-bus. This capability is provided by new field-based Echelon\* oriented input/output modules.

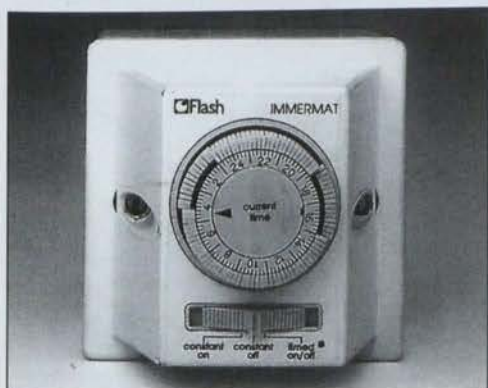
Excel 50 is a new, improved product whose focus is on minimising total engineering effort through the use of the Lizard\* engineering tool. This simplicity means that engineering effort is minimised and, most importantly, it is not mandatory to use a pc to commission the final configuration.

Honeywell also provides and full range of



**CHRONOTHERM  
CONTROLS  
LIMITED**

## 16AMP Immersion Heater and General Purpose Time-Switch



### FEATURES

- ◆ Supplied with surface wiring box
- ◆ Also fits flush wiring boxes
- ◆ Minimum programme 15 minutes
- ◆ Easy wiring system
- ◆ Easy time settings
- ◆ Earth terminal and cable clamps fitted
- ◆ Easy use slide switch and on/off LED indicator

Agents for **Flash** **therm**

Importers & Distributors for

**PEGLER VALVES, SUNVIC MOTORISED VALVES, SUNVIC CONTROLS & THERMOSTATS**

**CHRONOTHERM CONTROLS LTD, TIRIM HOUSE, JAMESTOWN BUSINESS PARK, JAMESTOWN ROAD, FINGLAS, DUBLIN 11.**

Published by ARROW@TU Dublin, 1999

TEL: 01 - 864 3793/864 3797; MOBILE: 087 - 255 3703; FAX: 01 - 834 2912

INSTRUMENTS AND CONTROLS

application-specific controllers, including the Excel 10 controller, for secondary plant, serving either individual rooms or zones. The applications covered include fan coil units, variable air volume boxes, rooftop units, chilled beams/ceilings, and general hydronic applications for heat pumps, radiators etc.

These products conform to the appropriate worldwide LonMark\* object definitions. They incorporate many additional features to enhance building operation and occupant comfort, while minimising operating costs.

The Aquatrol 2000 is a versatile, multiple-function

controller providing optimum start/stop; outside air-compensated flow control of mixing valve or direct with the heating boilers; boiler sequence control of up to two boilers; domestic hot water service (DHWS), either combined with the heating boilers or separate. A full range of valves and actuators is available from which a comprehensive series of standard applications (Aquaplans) can be configured to meet most popular system requirements.

The Honeywell CX Series inverters feature a range of integrated functions which eliminate the need for additional peripheral equipment. This includes



Honeywell's Excel 50 is available from McCool Controls

programmable logic controllers, PID controllers, timers, and digital-analogue converters and signal conditioners. The CX Series is compatible with bus, supporting the Excel 5000 range of controllers and the Echelon\* bus protocols.

Honeywell also provides a full range of complementary control

products, from simple room devices to complex electronic sensors. Among these are the new "ValPac" range of valves, actuators and fittings, and the low-cost range of air differential pressure switches. Contact Finn McCool/ Leslie Mason, McCool Controls.

Tel: 01-855 0542;  
Fax: 01 - 855 0546.



Honeywell CX Series inverters from McCool Controls.

## KEEP UP TO DATE

If you don't already receive your own personal copy of *BSNews*, Call Edel Burke at Tel: 01 - 288 5001; Fax: 01 - 288 6966; eMail: [pressl@iol.ie](mailto:pressl@iol.ie)

# McCool Controls MC<sup>3</sup>E

## ENERGY UNDER CONTROL

### WE ARE THE LEADING SUPPLIER OF:

- HVAC Control Systems
- Energy Management Systems
- Max Demand Controllers
- Monitoring & Targeting Systems



### FULL MAINTENANCE AND SERVICE BACK-UP FACILITY 24 HOUR CALL OUT SERVICE

#### Contact:

#### **DUBLIN OFFICE**

Unit 21, IDA Enterprise Centre, East Wall Road, Dublin 3.  
Tel: 01 - 855 0542; Fax: 01 - 855 0546; Mobile: 086 2580472/088 547197  
eMail: mccooldu@iol.ie

#### **CORK OFFICE**

Unit 10, Ashdale House, Blarney, Co Cork  
Tel: 021 - 382055; Fax: 021 - 382348;  
eMail: mccooldck@iol.ie

#### **LIMERICK OFFICE**

Castleconnel, Co Limerick. Tel: 061 - 372277

#### **BALLYMENA OFFICE**

Unit 8, Ballymena Business Centre, 62 Fenaghy Road, Ballymena.  
Tel: 08 01266 49422; Fax: 08 01266 49423



## Honeywell

### SUPPLIERS OF:-

- Cylon – BEMS Systems
- Honeywell – HVAC Control Systems
- Landis & Staefa – Control Equipment
- Phoenix Laboratory Airflow Controls
- Paragon Air Flow Control Systems



## IOP and IDHE Memorandum of Understanding

**T**he Institute of Plumbing and the Institute of Domestic Heating Engineers have entered a Memorandum of Understanding as part of an ongoing process of dialogue and co-operation between the two bodies.

The organisations specifically agree to pursue the following objectives:-

(1) Recognition of the Institute of Plumbing's role as a professional body which identified qualified individuals who have agreed to act professionally, competently and responsibly, whatever their function in plumbing;

(2) Recognition of the Institute of Domestic Heating Engineers serving firms (including single person businesses) engaged in the heating

industry in Republic of Ireland;

(3) Where appropriate, encouragement of qualified individual plumbing professionals to join the IOP and plumbing professionals to join the IDHE;

(4) Encouragement of mutual understanding and greater co-operation between the two Institutes;

(5) Organisation of joint activities where appropriate;

(6) Collaborative consideration of continuing professional development;

(7) The preparation of joint policy statements on issues affecting the plumbing and heating industry in the Republic of Ireland for government, media and society.

### Annual Dinner Success

The IDHE annual dinner was held at Morans Red Cow Hotel recently. The attendance was excellent and the social event of the year was enjoyed by all present.

IDHE wishes to thank Jim Hamilton and Phil Morley, as event organisers, and the many sponsors on the evening.

Once again Ger Marry excelled himself as entertainer extraordinaire, making the resident entertainers rather redundant. They complemented him on his performance at the evening's close.

### Hevac Sponsors CPD Lecture

The fifth lecture of the current CPD lecture was sponsored by Hevac Ltd. Present were Tom Scott, Director, Declan Kissane, Director and Karl Carrick, Industrial/Commercial Manager, Hevac Ltd.

The first paper was presented by Paul Richardson, State Waterheaters Ltd, and centred on direct-fired water heaters which have, in recent years, displaced indirect hot water storage systems.

Typical applications include in singular or modular forms in hotels, guest houses, football clubs, agriculture, abattoirs, factories, hospitals, educational establishments, restaurants, hair salons to mention but a few.

The advantages of direct-fired versus indirect storage include savings of 30% - 40% in energy bills; reduction in space heating boiler size; may be used 24 hours a day for 365 days per year; reduction in distribution pipework; risk of bacteria contamination is radically reduced; low maintenance.

The second paper of the evening was presented by Steve Hills, Hamworthy Heating Ltd, with the intention of increasing the understanding of modular boilers and controls.

Key benefits he dealt with were running costs; load matching; energy efficiency; built-in standby; flexible maintenance; increased comfort levels; reduced boiler cycling.

### IDHE Annual General Meeting

IDHE AGM will take place on Tuesday, 22 June, 1999, at IEI Clyde Road, Dublin 4 at 7.30pm sharp.

There will be additional items on the agenda, including constitutional reform; Code of Ethics; business diversification; and IT networking.

### Bob Smith Remembered

The IDHE extends its deepest sympathy to the family of Mr R A (Bob) Smith, FIDHE, Past Chairman of IDHE, who passed away recently.

Bob was a highly-respected professional, who retired recently, and will be a great loss to the industry. May he rest in peace.



## IRISH ENERGY CENTRE



Virgil Bolger, Irish Energy Centre.  
Tel: 01 - 836 9080.

# Boilers Study Tour

Last month, the Irish Energy Centre – in conjunction with the Engineering Division of Royal & SunAlliance Insurance Company – held a study tour that gave Royal & SunAlliance clients the opportunity to view and find out about three of the best boilerhouses in Ireland.

During a long and busy day that commenced with the bus leaving the Energy Centre at 9.30am and finishing with its arrival back at the Energy Centre at 9.30pm participants visited:

- Golden Vale Bailie Foods in Bailieboro, Co Cavan;
- Abbot Ireland, Cootehill, Co Cavan;
- Great Northern Brewery, Dundalk, Co Louth.

### Bailie Foods

The first port of call was Golden Vale Bailie Foods where the tour was greeted by Martin Daly and Robert Smyth, the reigning Boiler Man of the Year. This

boilerhouse was Highly Commended in the 1998 National Boiler Awards Competition with little separating it from the winners.

Bailie Foods is part of the Golden Vale Group of companies and its boilerhouse has four boilers, two of which are rated at 25,000 lbs./hr and two at 20,000 lbs./hr. These boilers have dual-fuel capability, and use natural gas as their main fuel. The two larger boilers are each fitted with economisers, and these are

used as the duty boilers.

Substantial savings are being made in this plant through the use of variable speed drives (VSD's) on the burner FD fans and also on the feed water pumps. The boilerhouse is very well maintained, and all pipework and valves are insulated to a high

standard. In the past year the last remaining traces of the fact that this boilerhouse was home to coal-fired boilers were removed, when the steel work in the boilerhouse was repainted.

A comprehensive log is kept in the boilerhouse, and a good metering programme is in place. Boilerhouse performance is tracked and reported on in the Boilerhouse Weekly Report Sheet.

There is a high degree of management commitment evident in the operation and monitoring of the performance of this boilerhouse. All the delegates on the tour were given an impressive handout which gave a lot of detail on performance and efficiency, and Martin Daly and Robert Smyth were available to answer technical queries from the group.

### Abbot Ireland

The tour then proceeded to Abbot Ireland accompanied by our hosts from Bailie Foods. The group was met by Tommy McKeon and Raymond

Boyle and, during a short break for refreshments, we were welcomed by Eamon Lennon, the Plant Manager. Abbot Ireland had a team of tour guides on hand to take smaller groups around the engineering facilities and the boilerhouse, thus





**MITSUBISHI**  
**HEAVY INDUSTRIES, LTD.**

## **AIR CONDITIONING SYSTEMS**

MHI have provided innovative and reliable air conditioning systems to many millions of customers throughout the world for over 30 years. To find out more about the full extent of the

Mitsubishi Heavy Industries range contact:-

3D Air Slaes (Ireland) Ltd, Unit 21, Western Industrial Estate, Naas Road, Dublin 12.

Tel: 01 - 450 9433; Fax: 01 - 450 9799.



## E N E R G Y   N E W S

giving maximum individual attention.

Abbot Ireland has featured prominently in the National Boiler Awards Competition in the last three years with recognition going to Raymond Boyle as Boilerman of the Year in 1996 and 1997. In 1998 this boilerhouse was a joint winner of the Large Industrial Boilerhouse Category and it is without doubt one of the finest in the country, and is a good model for all Industrial installations.

The boilerhouse has an installed capacity of 75,000 lbs./hr made up of three boilers, each rated at 25,000 lbs./hr which operate at 200 psig and are fired on heavy fuel oil. Starting from an already high standard, this company has completed a major programme of expansion and upgrading in the boilerhouse.

In the last year it has:-

- Extended the boilerhouse to accommodate a new boiler which is fitted with direct digital combustion control; an air sealed damper on the air intake; autoflame continuous exhaust gas analysis; and automatic TDS control;

- Removed half of the roof to replace the old feed-water tank with a new de-aerator vessel with consistent set temperature control. This has increased the feed-water temperature by 6°C to 104°C, saving 1% on fuel. Considerable savings have also been made on chemical treatment. While this project was being completed, burner No: 1 was used as a boiler feed tank and not a moments production was lost. The roof was reinstated with insulated metal cladding;

- Modifications have been made to the chemical dosing system to ensure accurate dosing of the individual boilers. The nylon chemical delivery lines were replaced with stainless steel;

- Boilers No: 1 & 2 were each fitted with new gas solenoids and flexible gas hoses;

- The 18.5kW FD fan motor on burner No: 2 was replaced with a 15kW unit;

- Smoke production was reduced on boilers No:1 & 2 by increasing cup speed and fitting reduction rings in the secondary air ducts thus

improving oil atomisation.

This boilerhouse has probably the finest log sheets in the country and maximum use is made of all of the information recorded. All the information is trended against targets and these graphs are posted on the notice boards in the factory. This attention to detail is extended to labelling all of the boilers with product information and performance targets.

### **Technical Presentation**

Following our visit to Abbot Ireland we proceeded to the Nuremore Hotel in Carrickmacross where we had lunch followed by a number of technical presentations. The speakers were:

- Bob Seager of Hamworthy Engineering who gave an "Overview of Modern Combustion Equipment, including Controls and Sequencing and Diagnostics equipment";

- James Brady of BetzDearborn who spoke on Good Water Management & Treatment;

- Paul Hazel of Royal & SunAlliance who spoke on the Pressure Equipment Directive & Other Statutory Requirements.

### **Great Northern Brewery**

Following these technical presentations the tour proceeded to the Great Northern Brewery where we were met by Brian Byrne and Peter McCarthy who gave us a guided tour of their boilerhouse. The Great Northern Brewery is part of the Guinness Group, and in the past would have been better known as Harp.

In this boilerhouse there are three boilers, each rated at 35,000 lbs./hr operating at 7 bar. The boilers are 22 years old and are fitted with Saacke burners with direct digital combustion control (DDCC) and oxygen trim. These boilers are fired on natural gas. Sequencing controls are used to control the on times of the boilers.

All of the FD fans and feed-water pumps have been fitted with variable speed drives (VSD's) which are not only yielding substantial energy savings, but have also resulted in a

dramatic decrease in noise levels in the boilerhouse.

In the past year this company has continued its programme of boilerhouse refurbishment, and has:-

- Commissioned in line flue gas analysers which are now part of the oxygen system;

- Completed the rationalisation of all pipework in the boilerhouse (including removal of redundant pipework);

- Upgraded its water treatment chemical handling and dosing system;

- Purchased equipment for measuring Nox and SOx and other emissions from the boilers;

- Resurfaced and painted the boilerhouse floor.

There is an extensive monitoring and targeting programme in place and daily energy reports are studied each morning to check for any anomalies. The data collected in the boilerhouse is used to great effect in producing energy/production indices. The effectiveness of monitoring and targeting, and the high level of management commitment to the boilerhouse, is very evident in the steady downward trend in energy consumption per hectolitre of product.

In a recent Hygiene Audit carried out in this boilerhouse as part of the compliance requirement for ISO 9002, a score of 96% was recorded. The missing 4% was deducted because there was a "bucket and mop" in the boilerhouse!

Following the tour of the boilerhouse the Great Northern Brewery hosted a reception for the tour in the Brewmasters Club and brought the delegates on a tour of the brewery.

We are grateful to Nigel Teggin of Royal & SunAlliance Engineering who encouraged delegates from Cavan, Cork, Dublin, Kerry, Louth, Mayo, Wexford, Wicklow and Sligo, to participate on the tour. Without doubt the plants visited during the day are setting an industry standard and we are deeply grateful to them and our speakers for giving our delegates a lot of information and food for thought. ■

HUMIDIFICATION SAVES ENERGY

# 'Switch to Gas Humidification Saves up to 75% on Energy Costs'

**G**as fired humidifiers have been around for some years in the USA and Canada where the relationship between the various energy options makes their use highly attractive. Savings in the order of 75% have been recorded without taking into account possible high peak demand charges. So why haven't gas humidifiers taken off here? The simple reason is that none have been gas certified or approved by BG Technology Certification Services at the Gas Research and Technology Centre until now.

At the beginning of this year (1999) JS Humidifiers plc, the leading humidification specialist in the UK and Axair AG, the Swiss humidification company, got together to market the Condaire Gas-Fired humidifier range in the UK and Republic of Ireland.

Condaire GHMC gas humidifiers meet CE requirements and are approved by BG Technology to ensure compliance with the Essential Requirements detailed in Annex I of the European Gas Appliance Directive (90/396EEC). The Condaire gas-fired humidifier is claimed to be thermally efficient, technologically advanced, user friendly and, more importantly, capital costs can be amortised within a year in some cases, depending on hours run and demand, according to JS. Three units deliver 20 to 160 kg/hr steam output and interface with building management systems or independent control systems. Retro fitting is possible in existing steam distribution systems. JS also claims that maintenance is significantly lower than comparable electrical units. Facilities managers accustomed to electrically-generated steam humidifiers know the man-hours spent cleaning electrodes and boilers – sometimes as often as every four weeks if the mineral content of mains water is high. The Condaire GHMC is basically a vertical format boiler built in stainless steel with a centralised gas burner and flat surface heat exchanger. This gives two advantages. Firstly, it gives a minimum "footprint" to save space and, secondly, any mineral deposits collect at the bottom of the unit. Unlike electrically-heated boilers, this doesn't impede the efficiency of the unit.

Many organisations opt for steam humidification because it is pure, sterile and quickly replaces moisture lost by heating systems. There are alternative means of creating a comfortable relative

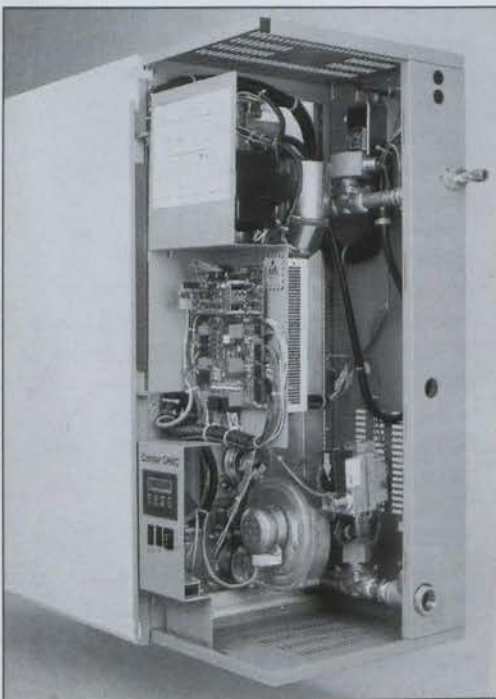


The JS Condaire GHMC E40 gas-fired humidifier with steam distribution pipe.

humidity of between 50% and 60% rH such as cold water humidifiers like ultrasonic devices. But cold water requires pre-treatment with reverse osmosis and exposure to ultraviolet light to avoid possible contamination and this adds cost and some risk to the equation. The risk of contaminated cold water is always present, even if the water treatment is operating 100% efficiently, 100% of the time; not many manufacturers can guarantee this. Steam therefore remains the only guaranteed solution and fortunately the gas-fired Condaire wins, both on low energy costs and sterility.

Steam humidification is justly the favourite in many installations and electrode boiler and resistive steam humidifiers are still being demanded where new facilities are being built. However, unless there are dramatic changes in the costs imposed by energy producers, the outlook for the new gas fired Condaire humidifiers is bright.

Contact: JS Humidifiers.  
Tel: 01 - 242 7911.



The JS Condaire GHMC E40 gas-fired humidifier with front cover removed allowing easy access for servicing.

# Elenco Engineering Looks to the Future

When Alan Simpson joined Elenco Engineering Ltd approximately 18 months ago, it was on the specific understanding that he would conclude a management buy-out of the company within a short time-frame. That process has now been completed and today Alan is the principal shareholder of Elenco Engineering, his co-directors being Maurice McHugh, Operations Director, and James McKenzie, Charles Reilly, Eddie Coonan and Sinead Byrne.

Elenco Engineering is a long-established electrical and mechanical contracting firm with a reputation for providing quality, turnkey packages across the entire building services spectrum. Its client base is as broad as the services it provides, and includes leading financial and commercial institutions, mechanical and electrical consultants, industrial clients, local authorities, the Office of Public Works, and Aer Rianta.

A key strength of Elenco has always been longevity of service ... personnel who joined as apprentices invariably stay with the firm, rising through the managerial ranks as they develop and gain in experience. This has led to a settled, skilled labour force incorporating a wealth of technical know-how and experience from which all clients benefit.

While this process will continue under Alan Simpson's direction, it will be complemented with an influx of new personnel from outside of the company. This will broaden the scope and range of applications catered for, and allow Elenco Engineering provide additional services.

"It will also introduce fresh ideas and broaden the baseline culture of the company", says Operations Director, Maurice McHugh. "We have

tremendous strength in depth here at Elenco and the marriage of outside influences with the core traditional values which are the Elenco hallmark will make for an even stronger, more efficient, and client-responsive service".

A process of re-structuring has taken place over the last 18 months whereby the entire management, administrative and operational procedures of Elenco have been re-evaluated. It has not been a case of change for change sake, but rather an honest re-appraisal of the company's ability to deliver the desired quality of service.

"There is always room for improvement in any organisation and here at Elenco we are no different" says Managing Director Alan Simpson. "To help us facilitate change, and better embrace new ideas and ways of improving still further the service we provide, we have strengthened our administrative and CAD support systems. Ongoing training programmes and continuous investment in new technology will ensure that we remain pro-active in this respect.

"We apply the same commitment to the operational side of the business. The last 5% of any project is always the most difficult in terms of maintaining momentum and quality control. To overcome this we use a dedicated finishing team. The snag list is not a mere wrapping up procedure but more the final chapter to which we pay even greater attention.

"O&M Manuals are equally important. Elenco Engineering prides itself in the manner in which the O&M Manual is prepared. From project commencement detailed information is collected and collated to ensure a project-specific O&M



**Alan Simpson, Managing Director with Maurice McHugh, Operations Director**

Manual is presented to the client at project handover.

"On small projects — £10,000 to £20,000 — we have a Small Works Division. This again ensures a more dedicated service.

"Attention to detail is critical. At Elenco Engineering we leave nothing to chance. However, that is not to imply that our operational systems are rigid and inflexible. Contracts Managers operate projects as business units, thereby maintaining full control over all elements while, at the same time, being free to make appropriate changes.

"Obviously, this process is an ongoing one. Over the coming months and years we will continue to re-appraise and re-assess our management and operational procedures. We will introduce changes in line with clients' needs and expectations, while also introducing them to new and innovative concepts of which they may not be aware.

"Overall, the Elenco Engineering of today is very much a forward-looking company, intent on being the leading quality supplier of turnkey services to the mechanical and electrical segments of the building services industry".

PUMP INDUSTRY DEVELOPMENTS

# Wilo Extends Submersible Pump Range

The existing range of quality Wilo submersible pumps has now been extended to include the new TP and TS ranges. Together with the already-popular TM range, this now enables Wilo to offer a suitable submersible pump for all applications, from domestic storm and drainage water to raw sewage applications requiring pumps with large free-bore passage.

The TS range is suitable for storm and drainage water applications with a max 10mm solids handling capacity. They are ideally suited to building and surface dewatering, domestic waste water disposal, and civil or process engineering schemes. Available in three connection sizes – 40mm, 50mm, and 65mm – there are also six motor sizes from 0.55 kW to 2.2 kW covering the range.

The TP range is split, with both 2-Pole and 4-Pole motors available. The 2-Pole range is available with 50mm and 65mm connection sizes. Motor capacities are up to 0.75 kW for the TP 50 and up to 2.2 kW for the TP65. These pumps have a max 48mm solids-handling capacity and so offer high operating reliability for applications such as storm flood water removal, building dewatering, and dirty (grey) water applications.

The 4-Pole TP range comes

with 80mm, 100mm, and 150mm connections, and motors up to a large 20kW on the TP150. Utilising single and twin vane impellers, they will handle 80mm and 100mm spherical solids and so are ideal for disposal of domestic sewage; commercial and industrial

wastes; sludge; and untreated waste waters. Primarily

systems where conventional gravity-sewage disposal is uneconomical or not feasible. The patented macerator comprises an internal rotating cutter and conical fixed cutter that combine to disintegrate solid matter, ensuring choke-free displacement and maximum efficiency.

The common design features of both the TS and TP ranges (except TP 40 S) are their surprisingly low weight, even on the 80mm and 150mm sizes.

This feature makes them ideal for use in emergency situations. All motor housings are in 304 or 316 stainless steel, with the pump housings manufactured in a new, virtually indestructible plastic composite especially developed between Wilo and fellow German company, Bayer. The pumps will handle fluids up to 35°C, are continuous rated

once fully submerged, and all use bi-directional mechanical seals. For added convenience, all models come with standard explosion-rated (EEx d II spec) motors and a detachable power cable. A full range of accessories such as duck foot bends, guide rail fittings and lifting chains are also available.

Contact: Wilo Engineering. Tel: 061 - 410963; Fax: 061 - 414728; eMail: sales@wilo.ie ■



Above: Wilo TS submersible pump.  
Right: Wilo TP submersible pump.



for traditional wet sump installations, they are also available for vertical dry sump applications on request.

In addition to the standard 2-Pole TP range, a macerating pump – the TP 40 S – is also available from the new range. This pump has a 40mm discharge connection and motors ranging up to 2.8 kW. Its preferred application is for pressurised waste disposal

# COMMERCIAL AND INDUSTRIAL HEATING EQUIPMENT



Oil & gas-fired unit heaters 12kW – 138kW  
Oil and gas fired cabinet heaters 29kW – 586kW



## WARM AIR HEATING

Radiant tube –  
15kW – 70kW



## RADIANT HEATING



## FLUE SYSTEMS

Destratification Fans  
Thermostatic Controls



## ENERGY SAVING

Distributed By

**Powrmatic** (Ireland) A Division of Powrmatic Ltd

45 Broomhill Close, Tallaght, Dublin 24.

Tel: 01 - 452 1533/452 1635; Fax: 01 - 452 1764







# MANOTHERM LIMITED

THE CONTROL CENTRES

4 WALKINSTOWN ROAD, DUBLIN 12  
Tel: 01-4522355/4522229 Fax: 4516919  
*Building Services News*, Vol. 38, Iss. 5 [1999], Art. 1  
U 28 BANBRIDGE ENTERPRISE CENTRE  
SCARVA RD IND. EST., BANBRIDGE BT32 3QD, CO. DOWN  
Tel: 018206 62290 Fax: 018206 69990  
E-mail: sales@manotherm.freemove.co.uk.

# Dwyer®

## CONTROLS AND GAUGES



PRESSURE

FLOW

LEVEL

TEMPERATURE

DWYER

MERCOID

W.E. ANDERSON

LOVE

PROXIMITY

Dwyer Manometers, Magnehelic Gauges,  
Pressure, Level, Flow Switches and Meters