

#### **Building Services Engineering**

Volume 38 | Issue 11

Article 1

12-1-1999

**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 Engineering*: Vol. 38: Iss. 11, Article 1. doi:10.21427/D79Q6H Available at: https://arrow.tudublin.ie/bsn/vol38/iss11/1

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 Engineering by an authorized editor of ARROW@TU Dublin. For more information, please contact arrow.admin@tudublin.ie, aisling.coyne@tudublin.ie, vera.kilshaw@tudublin.ie.

et al.: BS News

Noel Traynor Remembers & Looks Forward

Simulation & Building Services

◆ National Boiler Awards

Cork Supplier of the Year
 & Person of the Year Awards

♦ CIBSE & IDHE News



Building Services Engineering, Vol. 38 [1999], Iss. 11, Art. 1

# Innovation in Pumping Technology



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

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



WILO Engineering Ltd., Enterprise Centre Childers Road, Limerick, Ireland Telephone: 061-41 09 63 Telefax: 061-41 47 28

https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H

# **BSNews**<sup>\*</sup>

#### BUILDING SERVICES

#### ISSN 0791-0878

Published by: Pressline Ltd, Carraig Court, George's Avenue, Blackrock, Co Dublin. Tel: 01-288 5001/2/3 Fax: 01-2886966 ISDN: 01 - 211 2338/9 eMail: bsnews@pressline.ie

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

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

bscription: 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 Intractors'

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. BSNews wishes all our advertisers and readers a very Happy Christmas and Peaceful New Year



IN THIS ISSUE

News and Product Information	2
The Interview – Noel Traynor	6
The Impact of Simulation on Building Services	9
Heating & Plumbing Industry Awards (CIF Cork section)	10
IDHE News	12
National Boiler Awards	17
Mitsubishi Electric Millennium Grand-Slam!	25
BTU Golf Round-up	27
CIBSE News	28

TRADE NEWS

### Less Battersby Jailed in Drogheda!



Gerry Burn, Gerry Burn & Sons Ltd, with Bernard O'Hare of James O'Hare & Sons Ltd; Derek Battersby, Eddies Hardware; Noel O'Connor, Manager, Eddies Hardware and Derek Flanagan of FlanO Construction

NEXT MONTH

**Air Conditioning** 

Coronation Street's well loved lay-about Les Battersby went to jail in Drogheda recently. But instead of doing time, the Street's favourite chancer – alias actor Bruce Jones – was the guest of honour at the town's old prison-site of the new Eddie's Hardware store.

As he is the Street's most notorious ex-jailbird, Les felt right at home in the 12,000 sq ft superstore, which has retained an original jail wall complete with barred windows. The hugelypopular actor from Manchester was the first choice of Eddie's Hardware owners – who share the famous Battersby name – to open the premises.

The grand opening of Eddie's Hardware is a double celebration for the Irish Battersbys. The hardworking couple recently notched up 10 years in business and are now the leading builders' providers in the area.

All lighting, cabling and electrical work was carried out by networking specialists O'Connor Electrical.

#### Mark Calflo Heaters – Models CK35 & CK55

The Mark Calflo is a gasfired, blended air, or replacement air, heater. The built-in line burner guarantees complete and clean combustion.

The special construction of the Mark Calflo guarantees intensive mixing of the fresh air stream with hot combustion gases.

The most economic fuel consumption is guaranteed as the modulating burner instantly adapts the burner capacity to the heat requirement.

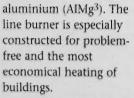
A chimney is not used. The Mark Calflo CK 35 is available in 12 capacities of 7 to 996kW and air outputs of 5430 to 76080 m<sup>3</sup>/h.

The Mark Calflo CK 55 is available in 12 capacities of 71kW to 996kW and air outputs of 3750 to 52560 m<sup>3</sup>/h.

Other capacities on request.

The Mark Calflo is a fully-equipped blended air or replacement air heater, suitable for indoor or outdoor set-up, eg, on the roof.

The housings of the burner, ventilator and filter sections are made of corrosion-resistant



The line burner is modulating with a turndown ration of 20:1. The ventilator can also be supplied with two- or threespeed control, if required. The gas train arrangements comply with the present regulations.

Various temperature settings are possible, ie, with the aid of a proportional regulating toom and/or duct thermostat.

The heaters are provided with a fully-equipped and internally-wired electric control box. A remote control box with operation and malfunction indication lamps can be supplied separately.

The electric control box and the gas train arrangement are built into the appliance.

Contact: Maurice Byrne, Mark Éire BV, Dublin. Tel: 01 - 668 0510; Mairead Twomey, Mark Éire BV, Coolea. Tel: 026 - 45334.



Mark Calflo is available in two model types - CK35 and CK55

https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H

#### TRADE NEWS

#### Liquid-Free Pressure indicating Transmitter and Vacuum/Pressure Gauge

Manotherm Ltd, Ireland's leading supplier of instruments, controls and measuring devices, has introduced two new additions to the extensive Dwyer Instruments product range.

The first is the new Series 7116B Spirahelic® pressure indicating transmitter which brings ±0.5% FS accuracy to both transmission and on-site indication of pressure readings in harsh environments. The unit's unique direct-drive design connects a vibrationresistant, triple-helix Bourdon tube of Inconel® X-750 alloy to a preciselybalanced pointer. Since the instrument has no gears, springs or complex movements, no liquid is needed to dampen vibration. Pressure is indicated locally on an easy-to-read 4 1/2" analog scale. Transmission is via 4-20 mA output. The unit's solid-front case, rear blowout panel and

#### **On-Line to Installers' Needs**

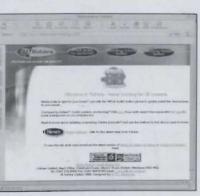
Vokèra has launched a new website to provide installers and specifiers with easy access to detailed information on the company, its facilities, products and services.

Designed to help with every aspect of specifying, installing and maintaining a combi or system boiler, the site is divided into three main sections:-

– Which Boiler? providing important information on the benefits of both combi and system boilers and on the correct specification of an appliance to meet individual consumers' needs.

Installing
 Vokèra Boilers
 has details on
 each product,
 including
 technical data
 on every combi
 and system
 boiler in
 Vokèra's range.
 Servicing

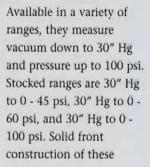
Vokera Boilers



includes a servicing checklist, as well as details on the company's support services.

Visitors to the site can also click to request a brochure from Vokèra, or read the company's latest news releases. The site address is www.vokera.co.uk low-volume Bourdon tube all assure exceptional safety. A 316 stainless steel connection block features convenient dual 1/4" NPT female and 1/2 NPT male pressure connections. An integral filter plug keeps out dirt.







Left: Dwyer Series 7100 compound spirahelic® pressure gauge from Manotherm. Right: Dwyer Series 7116B spirahelic® pressure indicating transmitter from Manotherm.

This pressure-indicating transmitter is available in four turret-mounted models for pressure ranges from 0 - 60 psi to 0 - 6000 psi. All models are available ex-stock.

The second addition is the Series 7100 Compound Spirahelic® pressure gauge which bring vibrationresistant readability and enhanced accuracy to vacuum and pressure measurements of gases and liquids in severe-duty applications. The unique design of these gauges connects a triple-helic Bourdon tube directly to a precisely-balanced pointer. Protective (and messy) dampening liquid is eliminated, as there are no gears, springs or linkages to be subjected to wear or vibration.

These durable gauges deliver, respectively, FS accuracy of 1% or 1/2% (ASME Grade 1A or 2A). units, as well as their low-volume Bourdon tubes and rear blow-out panels, assure safe performance. Overpressure protection is 150% of full scale.

Wetted parts for ASME Grade 1A models are a beryllium-copper Bourdon tube and a nickel-plated brass connection block; for ASME Grade 2A models, wetted parts are an Iconel® X-750 alloy Bourdon tube with a 316 SS connection block. All connection blocks feature convenient dual 1/4" NPT female ports. Models in either grade, and in any range, are available with a choice of three cases - standard: turret-bottom; or turretback. Their ASME B40.1 design fits existing cutouts for easy replacement.

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

#### TRADE NEWS

#### New Wavin Plumbing and Heating Pipe

Wavin Tigris Plumbing and Heating, a new range of high-density, cross-linked polyethylene Pex pipes for central heating and tap water applications, has been launched in Ireland.

The new range consists of two different pipe products. One is Tigris blue, which is an allpurpose plumbing and heating Pex pipe for all The inherent flexibility, lightness, strength and resilience of Wavin Tigris gives it a range of advantages compared to copper. For example, it comes in coils of up to 100m which results in longer runs with less cutting, less waste and without straight connections. The pipe can also be easily manipulated



Pictured here with the life size point-of-sale unit is Patrick Atkinson, Marketing Manager, Wavin Ireland Ltd, with Eamonn McDonnell at work in the background.

applications. The second product is produced with an oxygen barrier and is white in colour. It is specially designed for central heating installations only.

These new products are manufactured to Irish dimensions, fully conform to Irish Building Regulations, and are tested to extremes. Wavin Tigris has independent certification from the Irish Agrément Board and far exceeds the European requirements for hightemperature plastic plumbing pipe, prEN 12318-2. around obstructions, through joints etc, and is highly-suitable for use with modern joists which cannot be notched.

Wavin Tigris pipe is not damaged by freezing and its smooth internal bore prevents limescale accumulation in hard water areas. In addition, it will not pit or corrode under the action of soft water.

Other features and benefits of Wavin Tigris include:

 marking at every metre for ease of measurement from the coil;  easy to carry and store (flat cardboard boxed packaging);

 – compatibility with compression fittings to IS 239:1987.

For ease of maintenance, pipe for central heating applications and tap water pipes are colour-coded. The Wavin Tigris blue tap water pipe is fully compliant with the European Directive for drinking water and has a working pressure of 8 bar at 95c. The Wavin Tigris white central heating pipe contains a barrier to reduce ingress of air into the system reducing corrosion of metal parts. The pipe also has a working pressure of 8 bar at 95c. The white colour of the pipe helps it blend with skirting boards and other woodwork when connecting to radiators.

Contact: Patrick Atkinson, Wavin. Tel: 01 - 841 5000.

#### Liebert Hiross Thermal Management Solutions

Liebert Hiross has launched two new thermal management systems designed to control temperature in confined spaces (such as telecommunications shelters and base stations) to enable critical electronic equipment to operate a maximum efficiency.

The Hitherm heat exchange system is built to ensure that ambient air outside the cabinet does not enter the controlled space within it. The compact, 15cm deep aluminium structure — suitable for mounting on the door of a street cabinet — has been designed for operation in environments where ambient temperatures are between 45°C and 50°C.

Incorporating an indirect cooling system, the outside cooling air passes over a heat exchanger in thermal contact with the inside recirculated air. This obviates the need for any special air filtration systems, as well as permitting the operation of the system in contaminated environments.

With a cooling capacity of 11kW, the unit uses backward curved blade fans for low energy operation. The system features an integrated microprocessor control with alarm capability for remote monitoring.

Liebert Hiross has also launched the Hicab, a specialpurpose air conditioning system designed for operation in environments where the ambient temperatures are between -30°C and +50°C. Suitable for installation inside telecommunications cabinets, the unit recirculates air through the cabinet with cooling provided by a refrigerated coil.

Like the Hitherm, the Hicab features an integrated microprocessor control and an alarm capability for remote monitoring and backward curved blade fans for efficient operation. This type of fan ensures there is a minimal reduction of airflow or pressure drop in confined areas. Contact: Austin McDermott, Core Air Conditioning. Tel: 01 - 294 3110; eMail: coreac@iol.ie

https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H

6



Tel: 01 - 295 4926; Fax: 01 - 295 4739; Email: gbarry@grundfos.com Web Site: www.grundfos.com

THE INTERVIEW

## Recollections of 60 Years in Building Services

I was very pleased to be asked to put my reminiscences to paper, in this last BSNews of the Millennium. Not that I can expound on the first nineteen hundred years of the present Millennium, but you are very welcome to my memories of the past 60 years in the business, writes Noel Traynor.

Uning those 60 years 1 have seen a wonderful evolution in materials and installations: the 'Perkins' heating system with 7/8" tube and a sealed pressure vessel, followed by open expansion systems with banks of 4" cast iron pipes to give large areas of heating surface; decorative cast iron radiators giving way to steel panel and even cast aluminium; gravity circulation heating installations being provided with pumped circulation; natural ventilation being supplanted by fan-assisted ducted air systems; the development of air-conditioning, and so on.

There is a certain symmetry about it all, for a number of these "old chestnuts" have returned. Pressurised systems are now the norm, while architects now clamour for natural ventilation and decorative cast iron radiators. On one of our recent heritage-type projects the heating pipework emulated the old 4" gravity system (although the system had pumped circulation).

My early years were spent in the offices of Hadens in Pearse Street under the tutelage of David Glasgow, a Scot who had been sent over from Haden's head office in the UK to beard the Celtic Tiger in his den. Unfortunately, the Tiger did not arrive until many years later. Nonetheless, Hadens got a good proportion of the available work in Ireland in the 1930's.

Almost invariably, Maguire & Gatchell in Dawson Street undertook the remainder of heating installations. (The original 'Maguire' had been President of the IHVE in 1900 - 1901). In those days the value of a large contract was in the region of £10,000 to £50,000. There was only a handful of consulting engineers in pre-WW2 Dublin, so each contractor had his own drawing office, and work was "design and build" for the most part.

As with all callings in life, the people involved add to the flavour. There were many larger-than-life characters in the industry over the years that have



https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H now gone to their reward. Apart from Davy Glasgow, there was Tom Finlay (the 'F' in FKM), who would regale us with his foxhunting exploits and, more than once, suffered the ignominy of being catapulted into a hedge by a recalcitrant horse.

Jimmy Patton, the representative for Veha Radiators, would arrive in a pale blue Mercedes, with Boxer dog in the back seat. The Ideal Boiler representative was Eric Cocker, an impeccably-dressed Englishman with a fine military moustache and a fund of stories.

Other well-remembered individuals who are no longer with us were Joe Tierney, Hugh Maguire, Bob Couchman, Frank Lunny, Hugh Munro, Michael Jordan, Fergus McGinley, Gerald Barry, Arnold Torrens, Seamus Timoney, and very recently, Tim O'Brien. Requiescant in Peace. One of my most worthwhile involvements occurred in the 1970s, when the Domestic Heating Council was formed, and I was asked to participate, as the then Chairman of the Republic of Ireland branch of the IHVE. Together with Oisin Gray, Hugh Maguire, Professor Seamus Timoney and Bob Couchman, we produced a code to regulate the provision of heating in housing, which had been plagued with poor installations, misrepresentation, and general

lack of care. The responsibilities of the DHC were taken over by the Industrial Research and Standards, and the Council itself lapsed, but its work remains intact.

One of the minor gripes I have (and I've been told that I have many!) is regarding an institution formed by the IHVE Republic of Ireland Branch, and now a notable success. I refer to the BIU Society. Our first outing was to Milltown GC and prizes were donated by Sean Mulcahy, the then Chairman of the Branch. After the golf we had a very pleasant musical evening. The Society now appears to be completely divorced from CIBSE activities, and no members of the Institution appear to be involved in the running of it. Nowadays,

'One of my most worthwhile involvements occurred in the 1970s, when the Domestic Heating Council was formed'

the prizes seem to go on and on, and I feel that sponsors are being pressurised into donating the very generous prizes; the original simple aims of the Society have been lost.

So much for the past 60 years! They have been good to me, as

PAGE 7 BSNEWS DECEMBER 1999

have the building services industry and my fellow professionals. I still enjoy coming into the office and seeing the activity and the optimism of younger people.

It augurs well for the next Millennium.

# **THE MARK OF QUALITY**

#### **Air Heaters**

The Mark GS gas-fired suspended air heater is an allround product. Its wide industrial usage makes it one of the top products within the Mark range, its excellent price/performance ratio makes the Mark Gas air heater above all a European product. It is exported to more than fifteen countries. Available in suspended balanced flue room sealed or conventional flue type 18 to 98kW.



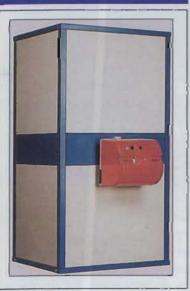
Tanner

The Mark Tanner is an indirect water, steam or thermal oil fueled air heater. Its design and the use of first class components makes it a popular product with a big future. Many accessories complete the Tanner range such as fresh air or recirculation components as optional. Low pressure hot water unit air heaters from 8 to 126 kW.



#### Föhn

The Mark Föhn has been a unique product for years. Its fully dismountable construction means that the Mark Föhn can be installed in situations in which ready-assembled products cannot be installed. Combined with its superior performance, this makes the Föhn widely applicable. Thus the Föhn is often installed in commercial and industrial halls, government buildings and churches. Oil or gas-fired high output cabinet air heaters 50-400 kW.



#### Ecofan

Winter units which on the one hand ensure a temperature gradient which is as low as possible and on the other hand



are promptly able to extract, (summer/winter unit) should working conditions make this necessary

#### Calflo

The Mark Calflo make up air heater is a solution in all situations in which large quantities of (polluted) air are extracted,



which is the case in spraying rooms, welding halls, machine factories and the plastics industry. The fully modulating burner makes an optimum balance of required heat and ventilation possible.

#### Infra

As a black tube radiator, the Mark Infra 13-38 can be installed for space as well as local heating. It emits energy in the form of radiant heat which has the advantage of ensuring a pleasant, comfortable surrounding temperature. Suspended radiant tube heaters 13-38kW output. Conventional or balanced flue models.



Mark Eire bv, Coolea, Macroom, Co Cork. Tel: 026 - 45334; Fax: 026 - 45383. Dublin: Tel: 01 - 668 0510; Fax: 01 - 668 0510. Mark bv, Beneden, Verlaat 87-89, 9645 BM, Veendam, Netherlands. Tel: +31 (0) 598 619600; Fax: +31 (0) 598 624584 https://arrow.tudublin.ie/bsn/vol38/iss11/1 DQI: 10.21427/D7906H

ISO 9001

# Simulation and its Impact on the Building Services Industry

The use of simulation by building services engineers in the design of buildings for the construction industry is growing in importance.

Ken Beattie Chairman of IBPSA (International Building Performance Simulation Association) and Vincent Murray, Consultancy Manager of VEsol Ireland, explain how the new simulation software is revolutionising the way we can design buildings.

Simulation software enables the use of finite difference dynamic simulation techniques to calculate simultaneously all the energy flow paths that occur in buildings. The finite difference technique allows the use of real data measured at the nearest meteorological station as opposed to representing outside weather conditions in terms of a sine wave. The sinsuoidal representation of weather data allowed the manual calculation of peak temerature and air conditioning loads likely to occur in buildings during sunny periods using the admittance method. This manual admittance method proposed by J Harrington-Lynn in 1972 is the basis of most of the software used by building services engineers in Irelland to design air conditioning plant for buildings.

The admittance method became accepted as the *de facto* CIBSE method and was set out in the CIBSE Guide Section A5. The revised CIBSE Guide Book A has just been issued and includes a range of calculation methods from simple steady-state methods through admittance method to dynamic simulation methods. The revised CIBSE Guide A now points out that the admittance method should only be used for early design stage calculations. The admittance method will only comply with the simplified version of the new CEN Standard being prepared by Technical Committee TG 189/WG6 for cooling load calculations, and not with the full CEN Standard.

Simulation software that uses the finite difference calculation methods will comply with the full CEN Standard and also comply with the CIBSE Guidelines set out in the CIBSE Technical Applications Manual AM11. The simulation software provides so much more accurate information for the building services design engineer as normally 25 output parameters are provided for each zone in the building

The results of the simulation studies have invariably led to savings in both capital costs and operating costs for the buildings.

over the whole year at 15-minute time intervals. This is in contrast to the to one maximum cooling load, and one peak temperature, provided by the admittance method.

The simulation output — as well as providing maximum cooling loads and maximum temperature occurrence — provides comfort parameters in terms of mean radiant temperature, air velocity, and relative humidity. These comfort parameters are used by the simulation software to check if Comfort Standard BS7730 has been complied with. The simulation software also provides information on annual energy requirements, annual CO2 emissions, daylight availability, glare calculations, etc. The significance of the simulation output accurate information is provided throughout the year and is not solely restricted to maximum conditions. This allows all zones in the building to be checked for compliance with the new CIBSE guidelines that temperatures of 250°C should not be exceeded for more than 5% of the occupied period.



Vincent Murray

Vincent Murray has used the simulation software on a range of projects in Ireland. The projects include large auditoriums, welcome centers, IT centers in colleges, and refurbished office blocks. The results of the simulation studies have invariably led to savings in both capital costs and operating costs for the buildings.

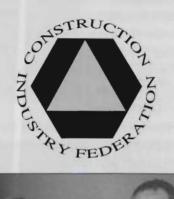
Contact: Vincent Murray, VEsol Ireland. Tel: 01 - 855 7133; Fax: 01 - 855 7626; eMail: vesol@indigo.ie HEATING & PLUMBING AWARDS

# 'Supplier of the Year' and 'Trade Person of the Year' Awards

The Cork Plumbing and Heating Contractors Section (CIF) recently named the latest recipients of its annual "Supplier of the Year" and "Trade Person of the Year" awards.

The "Supplier of the Year" award, which is in its ninth year, went to O'Connell Heatmerchants of Turners Cross, Cork. In its fifth year, the "Trade Person of the Year" award was presented to Tadgh Forde, also of O'Connell Heatmerchants.

Tom O'Brien, Secretary, Cork Plumbing and Heating Contractors, believes the awards have been an effective tool in enhancing industry links. "The awards were initiated by the Cork Plumbing and Heating Contractors of the CIF to reward the suppliers who looked after them, and have helped create a greater awareness of services from suppliers. It has been a great





**CIF Cork:** Liam Davis, Chairman, Cork Plumbing and Heating Section CIF congratulating Roy McCarthy, O'Connell Heatmerchants.



**CIF Cork:** Tom O'Brien, CIF with Gary Tobin, Chairman, Alliance of Heating and Plumbing Contractors; Chris Granby, Chairman, Cork Branch CIF; Gary O'Sullivan, O'Brien Marketing/Acorn; John Whitford, O'Brien Marketing/Acorn; and Liam Davis, Chairman, Cork Plumbing and Heating Section CIF.

https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H success, and it certainly makes suppliers more aware of their customers, our members".

Contractors were polled to establish the winner of each award. In assessing the candidates for the suppliers' award, they were asked to take into account the usual criteria of:

- speed and knowledge of counter staff;
- speed and reliability of delivery service;
- credit facilities;
- □ price of materials;
- □ level of stock;
- □ back-up service;
- showroom presentation. The criteria for the "Trade
- Persons" award were:
- Knowledge of product;
- Friendliness and courtesy;
- Dependability and reliability;
- Overall approach.

The awards were presented at the recent annual dinner dance of the Cork Plumbing and Heating Section (CIF) and Alliance of Heating and Plumbing Contractors. This was attended by a capacity crowd, including the Chairman of the Cork CIF Branch Chris Granby; Chairman of the Cork Plumbing and Heating Section CIF, Liam Davis; Chairman of the Alliance of Heating and Plumbing Contractors, Garry Tobin, and Tom O'Brien, CIF.

Also present were Gary O'Sullivan and John Whitford of O'Brien Marketing, Hep20/Acorn, which once again very generously sponsored this event. ■



With a controls range spanning 8 to 24 points, a flexible three layer network, and a choice of display interfaces, unitron's modular expandable design delivers outstanding control solutions on projects of all sizes. For a brochure or further information please contact Cylon today on 01 8366626.

Cyles Controls Limited 14 IDA Centre East Wall Road Dublin 3

IDHE NEWS

# **Annual IDHE Seminar**

Below: Dave Harris with chair on the day Christy Kane; IDHE Chairman Jimmy Hamilton and Pat Walsh, BGE.

The annual seminar of IDHE took place on Friday 5 November 1999 at RDS, Simmonscourt Pavilion, Dublin 4, in conjunction with Plan Expo 99, the premier exposition for construction industry in Ireland, which was jointly sponsored by RIAI and CIF for the first time and was a success for the products sector of the industry. However, once again one could suggest that the companies in the services sector are suffering from terminal complacency, as was apparent by their lack of participation. This is a topic we will return to over the coming months.

The IDHE Seminar was sponsored by Davies of Fairview, a leading building services products provider who continues to show support for the heating and plumbing industry. The Chair for seminar was Mr C Kane, FIDHE.



Stewart Thompson, Director, IFG Technology.

The concept of participation with other professional bodies took a leap forward with the Institute of Plumbing taking a proactive stance and also presenting a paper at this seminar.

The first paper was presented by Peter Hinch, MioP, and was on "Water, Past, Present and Future". This was a fascinating paper on the evolution of water technology through the ages, and how human endeavour has advanced the science and craft of engineering principles so that water is

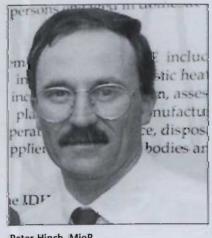


harnessed to sustain human existence as we know it.

The current infrastructural concerns were outlined, with Peter maintaining that the current growth patterns are not sustainable unless there is a radical reappraisal and considerable upgrading of the existing networks. In tandem with these concerns we must also consider ecological imperatives such re-use of "grey water"; waterless traps; water meters; pressurised systems; greening of buildings; more efficient use of surface water "run-off"; etc.

Can the building services sector rise to this new challenge?

Mr Pat Walsh, Standards, BGE, delivered the second paper. He outlined the development of the gas industry in Ireland and the current challenges facing the sector in the light of liberalisation of the gas industry. The current legislation was



Peter Hinch, MioP.

outlined, along with the expected changes required to facilitate legislative change.

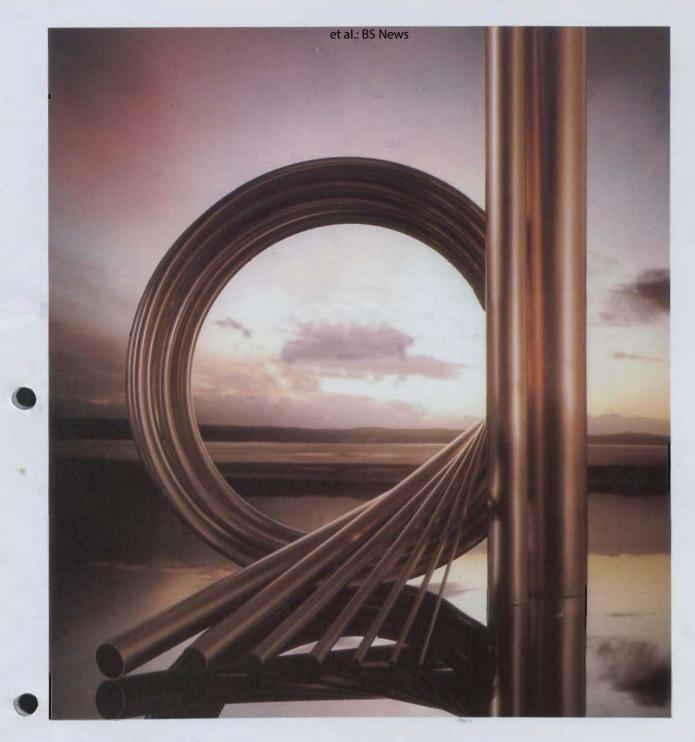
The new approach will require an emphasis on self-certification and national licensing of gas operatives and, in particular, meeting the requirements of the new Standard IS 820, Non Domestic Installations which includes: Design, Construction, Test Certificate, Appliances, Commissioning Certificate, Hand-over Certificates, Operator requirements, safe use, and maintenance.

The third paper was presented by Stewart Thompson, Director, IFG Technology Plc. He delivered an overview of the current developments in e-commerce and then examined some other commercial operations that have similar demography to the building services industry.

E-commerce presents serious challenges to the traditional way of doing business, but it also presents opportunities. The IDHE website will come on stream early next year. This will be an interactive site and will include information and advice for public consumption.

There will also be a member's section, which will include member's services and online libraries.

Our thanks go to chairman on the day, Christy Kane, and the three speakers — Peter Hinch, Pat Walsh, and Stewart Thompson, who were willing to "push out the boat". It made for some very interesting discussion on the 19th tee!



# All our tubes are up to the Mark





Irish Metal Industries supply a complete range of copper tube for hot and cold water installations, gas services, sanitation, central heating and numerous other building and engineering applications. All our tubes are manufactured to the stringent requirements of I.S. 238 : 1980 and we are licensed to engrave them with the coveted Irish Standard Mark which is the registered mark of the National Standards Authority in Ireland. What's more we give a unique 25 year guarantee against manufacturing

What's more we give a unique 25 year guarantee against manufacturing defect. So what ever your requirements you'll receive nothing but the best quality, service and reliability with copper tube from Irish Metal Industries.

Service Line: For orders and further information. Telephone: (01) 295 2344/295 2137. Fax: (01) 295 2163 Irish Metal Industries Ltd, 25 Spruce Avenue, Stillorgan Industrial Park. Blackrock, Co Dublin.

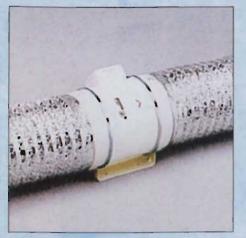




Compact Series. Airflow from 500 - 22400m3/h **General ventilation** 



Compact portable series. Airflow from 2250 - 16450 m3/h. Personnel cooling, drying installations, work areas etc



Mixvent system series. Airflow from 130 -1990m3/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



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



Max-temp series. Centrifugal roof extract units for commercial kitchens and smoke extraction systems. 400 deg. 4 hr rated. Airflow from 500 - 22000 m3/h



HCTB-HCTT Series. Axial roof fans. Airflow from 1500 - 14180 m3/h



Direct-air series. Centrifugal in-line fans for rectangular ducting. Airflow from 1100 - 10235 m3/h



CKB series. Powerful centralised ventilation for dwelling houses. Airflow from 600 - 2000 m3/h







\* Air Management Engineers \*

# Very eiten, the success of your plotest Supplier

Ventac & Company Ltd, II Fitzwilliam Quay, Ringsend, Dublin 4. Published by ARROW@TU Dublin, 1999 77; Fax: 01 - 667 1055; Email: vent@iol.ie 17 Building Services Engineering, Vol. 38 [1999], Iss. 11, Art. 1 SANDO



Unit 4, 70 Heather Road, Sandyford Industrial Estate, Foxrock, Dublin 18. Tel: 01 - 294 0321/3/4; Fax: 01 - 294 0325; email: sanyoac@indigo.ie

"ECO MULTI Series", the new individual air-conditioning system that effectively combines a power control compressor and an electronic refrigerant control valve.

**Environmentally-friendly HFC R407C available.** 



# Minister Appeals for Greater Energy Efficiency

The Minister of State at the Department of Public Enterprise, Joe Jacob, TD, has urged companies to increase their efforts to achieve greater energy efficiency and reduce emissions of harmful gases. The call was made by the Minister as he presented the National Boiler Awards in Dublin.

The National Boiler Awards are organised by the Irish Energy Centre with the aim of creating a greater awareness and appreciation of the key role that boilers and the people who operate, manage and service them, play in creating the right environment for us to work in. The initiative aims to raise operational standards, increases energy efficiency, and improves competitiveness.

This year 95 sites were involved in the competition with a fuel spend of £58 million and with targeted savings of £2.7 million. Since the inauguration of the awards over 150 companies have participated in the competition and savings in excess of £5 million have been achieved.

According to Virgil bolger of the Vrish Energy Centre, there is substantial scope for energy/cost savings in boilerhouses, which can be achieved through improved housekeeping practices alone, at little or no cost. Results from the Centre's Steam boiler System Evaluation Scheme have shown that, on average, savings of about 9% are achievable in our boilerhouses.

Analysis of the savings shows that 50% of savings achievable should be picked up by good routine maintenance and good housekeeping practices. A further 20% saving is associated with remedial maintenance where the payback on these tasks would be less than one year. The remaining 30% of the savings would involve capital investment with a payback of three years or greater.

Returning to this year's Boiler Awards, details of the winners are as follows.

#### Large Industrial Boilerhouse

■ Winner Warner Lambert, Ringaskiddy, Co Cork



WINNER LARGE INDUSTRIAL BOILERHOUSE OF THE YEAR: Virgil Bolger, Irish Energy Centre with Joe Jacob, TD, Minister of State at the Department of Public Enterprise; Martin Corkery, Warner Lambert, Ringaskiddy, and Paul Jackson, Royal & Sun Alliance

The boilerhouse in Warner Lambert has an installed capacity of 90,000 lbs./hr made up of three 30,000 lbs./hr shell boilers which have dual fuel firing capacity. This is a new state-of-the-art boilerhouse which incorporates some new technology, together with better use of existing technology, to give a system that sets new efficiency and atmospheric emission expectations for boilerhouses.

These boilers are operating consistently with efficiencies of 93% to 93.5% on high fire with NOx emissions of 70 ppm. The site limits for NOx are being bettered, despite the fact that low NOx technology burners have not been used.

The main contenders for recognition in this category were:

- Baxter Health Care, Castlebar, Co Mayo;
- DuPont Ltd, Maydown, Londonderry;
- Golden Vale Bailie Foods, Bailieboro, Co Cavan;
- Smithkline Beecham, Currabinny, Carrigaline, Co Cork;
- Schering Plough Brinny Ltd, Inishannon, Co Cork;
- Warner Lambert, Ringaskiddy, Co Cork;
- Merck Sharp & Dohme, Clonmel, Co Tipperary.

#### Small Industrial Boilerhouse

#### Winner Winner

Rye Valley Foods, Carrickmacross, Co Monaghan

Rye Valley Foods is a modern food processing factory on the outskirts of Carrickmacross, Co Monaghan, which is currently undergoing a major expansion. The company was founded in 1988.

#### NATIONAL BOILER AWARDS

The installed capacity in this boilerhouse consists of one 1,800 kg/hr and one 6.300kg steam boilers which operate at 7.5 bar gauge. Both boilers are fired on gas oil.

In the last year the large boiler has been fitted with direct digital combustion control, variable speed drive on the FD fan, and oxygen trim. Data from the oil water and steam meters is collected automatically, stored, trended, and used to track the efficiency of the plant. In addition to the investment in improved technology, a lot of effort has been put into upgrading the overall fabric of the boilerhouse with the installation of a new floor and the replacement of floor duct plates.

A feasibility study has been carried out on the installation of a second large boiler with state-of-the-art burner technology.

The companies short-listed in this category were:-

- Forest Laboratories, Clonshaugh Industrial Estate, Dublin 17;
- John E Coyle Ltd, Monaghan;
- Nycomed Amersham Ltd, Carrigtohill, Co Cork;
- Rye Valley Foods, Carrickmacross, Co Monaghan;
- Sport Socks Ltd, Caherciveen, Co Kerry.

#### Large Commercial Boilerhouse

#### Winner

Intel Ireland – FAB 14 Plant, Leixlip, Co Kildare

This boilerhouse in FAB 14 was designed to house three MPHW boilers which can be fired on either natural gas or light fuel oil. The boilerhouse is two years old and the installed. capacity is 7.36 MW (ie 3 x 2.45 MW).

The boilers are fitted with Hamworthy low NOx burners with Alpha Link combustion control systems, ETC 2001, variable speed drive on the FD fans, and oxygen trim facilities. Random checks are carried out weekly for emissions of nitric oxide, nitrogen dioxide, carbon

https://arrow.tudublin.ie/bsn/vol38/iss11/1 DOI: 10.21427/D79Q6H



WINNER LARGE COMMERCIAL BOILERHOUSE OF THE YEAR: Virgil Bolger, Irish Energy Centre with Joe Jacob, TD, Minister of State at the Department of Public Enterprise; Trevor Thomas, Intel Ireland Ltd, FAB 14, and Paul Jackson, Royal & Sun Alliance.

monoxide, sulphur dioxide and carbon dioxide. All values are logged on a BEMS system.

The boilerhouse is fully metered and monitored, and weekly combustion efficiency tests are carried out on each of the boilers while firing natural gas, and monthly tests are carried out on both fuels. All pipework, valves, flanges and pumps are well insulated to a high standard.

The main hot-water pumps are fitted with variable speed drives, and charts giving the pump characteristics are attached to the pipework associated with each pump.

The companies short-listed in this category were:

- IBM SSD Plant, Damastown, Dublin 15;
- Intel Ireland, FAB 14 Plant, Leixlip, Co Kildare;
- John & Johnson (Prof) Ltd, Ringaskiddy, Co Cork;
- University College Cork, College Road, Cork;
- University College Hospital, Galway;
- Wheatfield Prison, Cloverhill, Clondalkin.

#### Small Commercial Boilerhouse

Winner

Dungloe District Hospital, Dungloe, Co Donegal The boilerhouse in this hospital was originally designed for turf-fired boilers. Conversion to oil and LPG took place seven years ago. The installed capacity is one 320 kW LPHW boiler; one 260 kW LPHW boiler.

The larger boiler is fired on gas oil and the smaller unit is fired on LPG. The oil boiler is used as the duty boiler.

All pipework and vessels in the boilerhouse are well insulated, and plans are in place for replacing the hot water calorifiers in the coming year.

Time switches and a weather compensator controls the heating system.

Combustion efficiency tests are carried out weekly and all meters are read and the date logged. This data is forwarded to Enterprise Ireland in Sligo on a monthly basis as part of the monitoring scheme for the EU Thermie support programme.

The boilerhouse is maintained with pride by the staff and is an excellent example of how a small commercial boilerhouse should be run.

The contenders in this category were:

- Deloitte & Touche, Dublin 2;
- Dungloe District Hospital, Dungloe, Co Donegal;

# so and talk to RVR before you Specify or Purchase



Fax: 064 41511

Email: sales@rvr.ie

**High Efficiency Gas Fired Heaters** 

Efficient, Durable and Controllable Air Handling Units

 Contact:

 RVR Ltd., Kenmare, Co.Kerty

 Tel: 064 41344

Energy Technology

P.S. All our products include a 12 month on site warranty applicated Symposited by dedicated Customer Care Department. NATIONAL BOILER AWARDS



WINNER SMALL COMMERCIAL BOILERHOUSE OF THE YEAR: Virgil Bolger, Irish Energy Centre with Charles McGowan and Con O'Donnell, both of Dungloe District Hospital receiving their award from Joe Jacob, TD, Minister of State at the Department of Public Enterprise; and Paul Jackson, Royal & Sun Alliance.

- Midland Health Board, Portlaoise General Hospital;
- Navan Shopping Centre, Navan, Co Meath;
- Our Lady's Hospital, Navan, Co Meath.

#### Service Company of the Year

In the competition for Service Company of the Year the standard of entries was really excellent. The fact that companies are placed in the categories Winner, Highly Commended and Commended is in no way a negative reflection on the quality of service offered. All the companies receiving awards offer their clients top-quality service and backup. The service companies short-listed for recognition in this category were:

- BetzDearborn, Harold's Cross, Dublin 6W;
- Boilerhouse Services, Lisburn, Co Antrim;
- K.B. Combustion, Longmile Business Park, Dublin 12;
- Nalco Ltd, Bracetown Business Park, Clonee, Co Meath;
- Saacke Ltd, Youghal, Co Cork. The winner was BetzDearborn Ireland Ltd, Harold's Cross, Dublin 6W.

BetzDearborn was formed with the joining of Betz Laboratories Inc and

Grace Dearborn Ltd to create a global leader in the water and process treatment industry with sales world wide of over \$1.2 billion. This company was taken over by Hercules in the United States and is one of the top water treatment companies in the world.

In Ireland the company has a field staff of 10 who work in pairs and cover all 32 counties, offering customers continuous coverage and a highly-professional service. Some of the services offered by this company include:  Water treatment for boilers and cooling towers;

- Customer training courses for boiler operators and managers;

- Trouble shooting services in all areas of water management and environmental services;

 Performance checking of deaeration equipment;

- Boroscopic examination of equipment with video backup;

~ Steam quality testing;

- Environmental services department carrying out cleaning, chlorination and acid washes;

 Routine maintenance people for pre-treatment; dosing and control equipment.

#### Achievement Award

The achievement award is presented to the company which has made the greatest effort to upgrade its boilerhouse. The companies shortlisted as serious contenders for this award were:-

- Aughinish Alumina Ltd, Askeaton, Co Limerick;
- Baxter Healthcare, Castlebar, Co Mayo;
- Nutricia Ireland Ltd, Rocklands, Wexford;



WINNER SERVICE COMPANY OF THE YEAR: Virgil Bolger, Irish Energy Centre with James Brady and Morris Legee, both of BetzDearborn Ireland Ltd, receiving their award from Joe Jacob, TD, Minister of State at the Department of Public Enterprise; and Paul Jackson, Royal & Sun Alliance

PAGE 20 B.SNEWS DECEMBER 1999













- No Radiators, More Space
- Clean, Healthy Living
- Greater Energy Efficiency
- Silent Running
- No Cold Spots
- Dust-Free Environment
  - 10-Year Guarantee

Residential and Commercial Underfloor Heating Systems

blished by ARROW@TU Dublin, 1999

23

NATIONAL BOILER AWARDS

#### Schering-Plough (Brinny) Co, Brinny, Co Cork;

 Roche (Irl) Ltd, Clarecastle, Co Clare.

All of the above companies have done tremendous work which should be recognised. Many of the projects considered are still tasks in progress, and might well reappear in this category next year. However, this year's winner is Aughinish Alumina Ltd, Askeaton, Co Limerick.

Aughinish Alumina is a bauxite processing plant situated at Aughinish Island in Co Limerick. This plant has three 220-tonne-per-hour steam boilers which operate at 50-bar and are fired on heavy fuel oil which they buy on the open market and import

#### Boilerhouse CHP System of the Year

#### Winner

Gate Power Ltd, St James's Gate Brewery, Dublin 7

St James's Gate Brewery, the home of Arthur Guinness Son & Co is now also the home of Gate Power Ltd. This is a joint venture between BGE and Fingleton White & Co Ltd, and is a utility company, supplying steam and power to the brewery.

The Gate Power CHP system is made up of the following equipment:-



ACHIEVEMENT AWARD:- Virgil Bolger, Irish Energy Centre with Joe Jacob, TD, Minister of State at the Department of Public Enterprise; Laurence Coyle, Aughinish Alumina; and Paul Jackson, Royal & Sun Alliance.

themselves. The annual fuel bill for this plant is in excess of \$20 million and is set to rise dramatically in line with oil price increases on the spot market.

Steam is used directly in the production process in this plant and, because of operational problems, condensate cannot be returned to the boilers. Heat is, however, extracted and used to preheat de-mineralised water which is used to feed the boilers. Plans are in place to install technology which allow condensate to be returned next year.

In the recent past this plant has invested over £5 million in upgrading and refurbishing work that has yielded savings in excess of £1.1 million per year.

https://arrow.tudublin.ie/bsn/vol38/iss11/1

DOI: 10.21427/D79Q6H

□ Three Solar Tarus 60 gas turbines, each rated at 4.8 MWe and 7.15 MWt. They are fired on natural gas and generate at a voltage of 10.3 kV;

□ Four steam boilers, each rated at 64,250 lbs./hr operating at 13 bar. Three of these boilers use waste heat from the turbines, while the fourth boiler can be fired on either light fuel oil or natural gas, and is used as a hot standby unit.

This system was first commissioned in October 1997 and was developed to its current status over a period of 18 months. The boilers vary in age from six months to 18 months to two years. The three waste heat boilers are all fitted with economisers and are fitted with Saacke burners for supplementary

PAGE 22 BSNEWS DECEMBER 1999

firing should it be needed. One of the turbines is fitted with a dump facility to cater for situations when supply outstrips demand.

Two of the turbines operate 168 hours per week while the third unit operates for only 68 hours per week. The system has a proven availability of 99.7%. Its operational efficiency has exceeded the target figures set for the system and is now operating with efficiencies of electrical efficiency – 29%; thermal efficiency – 80%.

This whole system is operated and maintained to the highest operational and safety standards. It is insulated and weather-proofed to a very high standard to meet the conditions it has to endure. One of the nicest features of this system is its location which is outdoors in a very well-appointed red brick patio type area. The system is a model for others to emulate and is a worthy winner of the 1999

Boilerhouse CHP system of the year. The companies short-listed in this category were:-

- Gate Power Ltd, St James's Gate Brewery, Dublin 7;
- Irish Estates Management Ltd, Irish Life Centre, Dublin 1
- Rochestown Park Hotel, Rochestown, Cork;
- Go-Gen Ltd, Dairygold, Mitchelstown, Co Cork.

# Boilerperson of the Year

#### Winner

David Cleere, Nutricia Ireland Ltd, Rocklands, Co Wexford David Cleere served his time as a boiler operator with the ESB in their Great Island Power Station in Co Wexford, and has spent the last 14 years of his 27-year career working as a

boilerman in the Nutricia plant in Wexford. David has received extensive training in his chosen career and has City & Guilds of London Certificates for Boiler Operators, Turbine Operators and Power Plant – Parts 1 & 2.

David is responsible for the operation, management and maintenance of three 30,000 lbs/hr



WINNER BOILERPERSON OF THE YEAR: Virgil Bolger, Irish Energy Centre with Joe Jacob, TD, Minister of State at the Department of Public Enterprise; David Cleere, Nutricia, Wexford; and Paul Jackson, Royal & Sun Alliance

team boilers which operate at 250 psig, two of which are kept on line simultaneously. The boilers are fired on heavy fuel oil. In the last year major refurbishment has taken place entailing the replacement of one of the boilers with a state-of-the-art unit. Major work has also been done on upgrading the burner control systems on the other two boilers. A new reaeration system is scheduled to be installed in the very near future. Overall this boilerhouse is getting a complete facelift which should make it look as well as it performs.

David is a versatile, knowledgeable and conscientious boilerman who runs a very tight and efficient boilerhouse.

There were a number of very strong ontenders for the title "Boilerperson of the Year" including:

- David Cleere, Nutricia Ireland Ltd, Rocklands, Co Wexford;
- Mike Griffin, Sports Socks Ltd, Caherciveen, Co Kerry;
- Finbar O'Sullivan, Schering Plough (Brinny) Co, Innishannon, Co Cork;
- Martin Smyth, St James's Hospital, Dublin 8;
- Robert Smyth, Golden Vale Bailie Foods, Bailieboro, Co Cavan.

#### National Boiler Awards 2000

See insert in this issue for details of the National Boiler Awards 2000. Closing date for nominations is 25 February 2000.



LARGE INDUSTRIAL BOILERHOUSE OF THE YEAR: Joint Highly-Commended – Martin Daly and Robert Smyth, Bailie Foods, Bailieboro receiving their award from Joe Jacob, TD, Minister of State at the Department of Public Enterprise.



LARGE INDUSTRIAL BOILERHOUSE OF THE YEAR: Joint Highly-Commended – Joe Jacob, TD, Minister of State at the Department of Public Enterprise with Brian Boyle, DuPONT.

PAGE 23 BSNEWS DECEMBER 1999



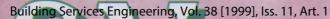
SMALL COMMERCIAL BOILERHOUSE OF THE YEAR: Highly Commended – Joe Jacob, TD, Minister of State at the Department of Public Enterprise with Michael Kearns, Deloitte & Touche.



LARGE COMMERCIAL BOILERHOUSE OF THE YEAR: Highly-Commended – Joe Jacob, TD. Minister of State at the Department of Public Enterprise with George Victory, Wheatfield Prison.



BOILERPERSON OF THE YEAR: Highly Commended – Joe Jacob, TD, Minister of State at the Department of Public Enterprise with Robert Smyth, Bailie Foods, Bailieboro.

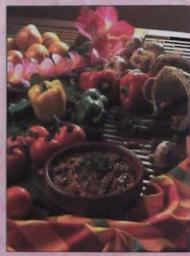




# brings you ...



New Business Introductions



Food for Thought



An Eye to the Future



**Balanced** Comment



**Trend Directions** 



**Global Technology Updates** 



News Bites

Subscriptions edel@pressline.ie https://arrow.tudublim.ie/bsn/Vol38/iss11/1 DOI: 10.21427/D79Q6H

#### Advertising joe@pressline.ie Tel: 01 - 288 5002

#### Editorial

pat@pressline.ie Tel: 01 - 288 5003

#### et al.: BS News

NEW TO THE MARKETPLACE

# Mitsubishi Electric Millennium Grand-Slam!

ith the dawning of the new millennium, Mitsubishi Electric has developed its air conditioning product range to take in new market segments. "To date", says Mike Sheehan, Mitsubishi Electric Air Conditioning Division Manager, "we have taken each market seament in turn and concentrated on establishing our presence with a view to achieving our market position. Now that that objective as been realised, Mitsubishi Electric has devised an allembracing portfolio of innovative new products which will consolidate its market-leading status across several air conditioning segments, and confirm our standing as the overall market leader".

The full extent of the product portfolio – along with technical data and scope of application – will be announced in the new year. However, *BSNews* can reveal that it will include:-

**City Multi Y Series Upgrade** There will be an upgrade of the City Multi Y Series with the introduction of larger, more powerful, models to the popular range.

The expansion of the PUHY series by two new outdoor units means that City Multi can now boast a range with cooling capacities of 23.3kW to 87.3kW, and heating capacities of 29.1kW to 97.7kW.

The City Multi Super Y outdoor models offer cooling of 97.3kW and heating of 97.7kW, with each individual outdoor unit capable of running up to 30 indoor cassettes from the regular Y Series over Mitsubishi Electric's unique two-pipe system.

Both additions to the range offer heating and cooling with the option of R22 or R407C refrigerants.



Mike Sheehan, Manager, Mitsubishi Electric Air Conditioning Division

#### First Global Cassette

Mitsubishi Electric has launched a global cassette designed to be smaller, lighter and more efficient than current models. The Mr Slim Power Cassette can be mounted up to 4.2 metres while offering a worldleading 72 patterns of air control.

The full range of cassettes will offer cooling capacities from 3.6 to 14kW and heating capacities from 4 to 16kW with noise levels down to a near-hush 27 dB. With an auto grill drop down for easy filter change, the units also feature a unique "easy corner", which makes adjustment of the drop rods simple. The range also promises to be smaller, quieter, lighter and more efficient.

Pioneering Heat Recovery Mitsubishi Electric's pioneering new air conditioning system offers improvements in performance with multiple heat recovery possible from "outdoor" condensing units sited inside the building.

The City Multi WR2 system is the world's first water cooled VRF (Variable Refrigerant Flow) heat recovery system. As with all City Multi heat recovery systems, it uses only two-pipes instead of the three required by other systems. Combined with a cooling tower and separate heat source, the condensing unit can now be built into the floor or wall of a building because the systems don't require airflow over the condensing units. This also gives the WR2 system the added advantage of substantially reducing the amount of refrigerant needed.

#### **Expansion at all Levels**

There will be enormous expansion of the product line up in the Mr Slim range, with 75 new units to be introduced in the new year. Combined with this, the company is also planning to add eight new systems and other benefits to the smaller M Series range next year.

Changes in the Mr Slim series, which will offer an expanded range of R407C models, have been denoted by a new range of A-Control models to cover four types of indoor units (PLA-P, PCA-P, PKA-P and PEAD).

In a major boost to the future of the Livingston plant, Mitsubishi Electric also announced that production of all Mr Slim R407C common cassettes will be switched to the Scottish factory next year.

#### **New Ducted Units**

Mitsubishi Electric is introducing a new range of compact units to the City Multi ducted series which combine the best elements of this system with the full benefits of the Lossnay total heat exchange ventilators.

Topping the list of new models, the "Fresh Master" is a multifunctional unit for ventilating, cooling and heating operations featuring heat recovery. By putting together a ducted City Multi unit with a Lossnay heat recovery unit in one package, Mitsubishi Electric is offering customers exceptional energy efficiency.

Contact: Mike Sheehan, Mitsubishi Electric Air Conditioning Division. Tel: 01 - 450 5007. ■ BTU GOLF NEWS

# BTU Week-end at Ballymascanlon

A very special thank you to John Sampson of J J Sampson & Son for their generous sponsorship and splendid array of prizes over the weekend. Results were: Third: Brendan Bracken (12), 38pts (Last 6);

*Fourth:* Gerard Hutchinson (6), 38pts;

Front Nine: Jim Smith, 19pts; Back Ninie: Dan Chambers, 21pts.

**Overall winner:** Garvin Evans (20), 39pts;

Second: Michael Melligan (13), 38pts (Back 9);

#### **Old Conna Golf Outing**

#### Sponsor: Armitage Shanks

**Overall Winner:** Des Prendergast (9), 40pts;

#### Class 1

1st: Joe Warren (12), 36pts (Back 9); 2nd: Gerry Baker (8), 36pts; 3rd: Michael Mathews (8), 31pts (Back 9)

#### Class 2

1st: John Hunter (15), 36pts; 2nd: Eamon Walsh (14), 32pts; 3rd: Dave McMenamin (15), 31pts.

#### Class 3

1st: Ray Byrne (17), 36pts; 2nd: Sean Hanratty (21), 34pts; 3rd: Tom Harrington (22), 33pts.

#### **Front Nine**

1st: Michael Melligan, 16pts (Last 6); 2nd: Dan Chambers, 16pts.

#### **Back Nine**

1st: Michael Carroll, 17pts (Last 6); 2nd: Bernard Costelloe, 17pts

#### Visitors

First Prize: Lawrence Byrne, 37pts Second Prize: Martin Brophy, 35pts. Ladies First Prize: Angela Bready (30), 48pts

**Second Prize:** Kay Gillen (21), 43pts Non-Golfing Prize: Mary Keaveny



#### Royal Dublin Golf Outing

**Overall Winner:** Sean Smith (11), 38pts

#### Class 1

1st: Mick Carroll (9), 31pts; 2nd: Aubrey Moriarty (10), 30pts; 3rd: Joe Warren (11), 29pts

#### Class 2

1st: Frank Lynch (14), 37pts 2nd: Dave Harris (14), 33pts 3rd: Jim Nolan (13), 30pts

Front Nine 1st: Gerry Tobin, 20pts

Back Nine Des Prendergast, 17pts

Visitors First Prize: Dermot Brady, 34pts Second Prize: Bryan Keaveny, 31pts. et al.: BS News

CIBSE NEWS

#### Seminar Round-Up

On Wednesday, 3 November 1999, the CIBSE held its first full-day seminar entitled "Design of MV Electrical Distribution Systems for Buildings". The guest speaker was John Whiting who offered essential information for those who require a working knowledge of MV Power system design, specification and installation. A second half-day seminar took place on Wednesday, 10 November 1999, and was entitled "Design of Heating System and Variable Load Controls". The guest speaker on this occasion was Colin Ashford who has detailed experience in solving problems with poor heating system controls. He offered simple and effective solutions that can be affected both at initial design stage and on existing installations. Seminar participants included building and engineering contractors, consulting engineers, engineering specialists, facility engineers, manufacturers, contractors and suppliers. A third event was the technical evening called "Mentoring and Routes to Membership". This talk was given by Ms Lynn Beattie from CIBSE London who explained the routes to all grades of membership of CIBSE. There was also an update on the latest situation concerning mutual recognition agreement between the IEI and CIBSE.



Albert Byrne with Dr Gerard Casey, speaker, and Sean Ascough.



Albert Byrne with Sean Ascough, Lynn Beattie, Michael McDonagh and Eoin Kenny.





Sean Ascough, Chairman with speaker Lynn Beattie, Head of Professional Development, CIBSE UK, and Eoin Kenny, past-chairman.



Greg Traynor, Vice-Chairman, with Sean Ascough, Chairman, and Colin Ashford, speaker.



Greg Traynor, Vice-Chairman with Brendan Gallagher

CIBSE NEWS



J P Whiting, speaker, with Sean Ascough, Chairman, and Alan Duggan.

#### Why Engineers Make the Best Philosopher

"Philosophy, if it isn't simply taken to mean someone's basic approach to his area of interest ("That's my philosophy of football, Jack, and I don't care who knows it!), is usually considered to concern itself with the most abstruse, impractical, incomprehensible and irrelevant topics ever invented.

"Engineering, on the other hand, is taken to be, or presents itself as being, the most eminently practical, hard-headed, no-nonsense and down-to-earth of subjects.

"What greater contrast could there be than that between philosophy and engineering, between philosophers and engineers?

"I believe that the description of philosophy sketched above is a caricature and that most philosophers are, to a surprising degree, both practical and sane. There is, however, I will admit, a disposition on the part of some philosophers to forget that although flying through the air with the greatest of ease, metaphorically speaking, is all very well, you've got to land some time. And that is why engineers make the best philosophers because, by virtue of their training, they are practical people and are able to resist the tendency, endemic in some varieties of philosophy, to move into the conceptual stratosphere and stay there permanently".

So said Dr Gerard Casey, Professor of Philosophy at UCD, before illustraing his point by looking at the life and career of one of the greatest philosophers of the 20th century, Ledwig Wittgenstein, who was himself an engineer of some note, and whose family ran one of the major engineering firms in Austria in the late 1800s, early 1900s. He was speaking at the CIBSE technical evening in the Lecture Theatre, IEI, Clyde Road, Dublin 4 on 18 November last.





Aongus MacCara with Paul Tucker.



Garreth Clarke with Alan Hanstead

# Planning an environmental upgrade for your building?



#### 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 fullyintegrated 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 Published by ARROW@TU Dublin, 1999 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 - 3:82055 Limerick – Tel: 061 - 372277





MANOTHERM LTD - The one stop shop for industrial instruments