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

Available at: https://arrow.tudublin.ie/bsn/vol47/iss1/1

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, arrow.admin@tudublin.ie, brian.widdis@tudublin.ie.

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License
INTRODUCING
THE REMARKABLE
ALPHA2

Changing the shape of circulator pump technology

A LABEL
The most energy efficient rating available.

ALPHA PLUG
Enables easy connection without opening the terminal box.

COMPACT
Can be installed in confined spaces.

SIMPLE
Intuitive one-touch operation.

AUTOADAPT
Automatically selects the optimal duty point.

LED DISPLAY
Enables easy installation and monitoring.

ENERGY PROJECT

GRUNDFOS
opinion

So-Called Sustainable City a Contradiction?

This month saw the unveiling of plans for what is billed as the world’s first sustainable city. Called Masdar (meaning “the source”), it is a Lord Foster inspired scheme commissioned by the rulers of Abu Dhabi to be built on a seven square kilometre site located on the outskirts of the city.

It is a truly amazing project incorporating every imaginable sustainable concept. Included are:—

— Own solar power station to provide the energy to construct the city;
— A light railway;
— Personalised rapid transit pods;
— 80% of all roof space to generate solar power;
— Wind towers for cooling;
— Use of recycled materials;
— Re-use of waste and wastewater;
— Photovoltaics,
— Wind power;
— No cars.

Billed as a zero-carbon city and the global capital of the renewable energy revolution, Masdar will cost tens of billions of dollars to build. The thing is ... these are petro-dollars, earned directly from oil which in turn is used by climate-changing oil economies throughout the world.

The concept of Masdar is undoubtedly a welcome initiative. However, the irony is that the scale of the project is such that only an oil-rich nation could fund it.

What if Abu Dhabi decided to cease oil production and sit on the 100 billion barrels of reserves it holds. Now that would mean a more sustainable global environment.
Dwyer Instruments 2008 catalogue

Dwyer Instruments produces a broad range of precision instruments for measuring, transmitting and controlling pressure, temperature, level and flow.

The entire range is distributed throughout Ireland by Manotherm with many of the products widely known and recognised by their individual brand names. These include Magnehelic and Spirahelic pressure gauges; Photohelic switch/gauges; Rate-Master, Mini-Master and Visi-Float flowmeters; Slack-Tube and Flex-Tube manometers; and Dwyer pressure switches.

Other established Dwyer brands from Manotherm include Flotect flow and level switches; Hi-Flow valves; Self-Tune temperature controllers; and Iso Verter signal convertors/isolators.

All are featured in the new, 500-page Dwyer 2008 catalogue which is now available on request from Manotherm.

Contact: Bob Gilbert, Robert Gilbert and Noel Walsh, Manotherm. Tel: 01 - 452 2355; email: info@manotherm.ie

Enlighten €2000 Sll student awards sponsorship

Enlighten, a Fantasy Lights Group company, has reinforced its commitment to Kevin St DIT by pledging €2000 in sponsorship for the 2008 CIBSE/DIT Student Awards.

Specifically, the €2000 award will go to the winner of the Society of Light and Lighting competition which is run in conjunction with the Autumn presentations of the CIBSE/DIT Student Awards at the college.

"This sponsorship gives a very real incentive for the students to participate in the competition. Enlighten joined us as a sponsor in a smaller capacity last year and this major input demonstrates its commitment to student development and further education", says Kevin O’Connell, Head of Department, Electrical Services Engineering, DIT Kevin St.

Pictured right is Kevin O’Connell, Head of Department, Electrical Services Engineering, DIT Kevin St with Gay Byrne, Managing Director, Enlighten and Chairman Fantasy Lights Group, and Dr Eugene Coyle, Head of School, Electrical Engineering Systems, DIT Kevin St.

Contact: Gabriel Byrne, Enlighten. Tel: 460 1052; email: sales@enlighten.ie

Pre-insulated copper tubing from rsl

Pre-insulated copper tubing is now available in single coils of 50 mtrs each 3/8, 1/2, 5/8 and 3/4" from RSL, in addition to twin pipe in 3/8 and 5/8 in 20 mtr coils. Other twin pipes can be obtained if required. All are suitable for use with standard refrigerants, including 410a, 404a, 134a and 407C. Max temperature +120°C.

The insulation is a white, dimpled-finish, expanded polyethylene. This is particularly useful when installing split air conditioning systems as smooth white finish does not require ducting etc. Single runs of up to 50m can be used with the possibility to cut and use the excess later.

Contact: Gerry McDonagh, RSL Ireland. Tel: 01 - 450 8011.
GHP uses 10% of the electrical power of traditional VRF systems

- Powered by natural or liquid gas and only requires a single phase power supply (up to 70kW cooling and 80kW heating).
- Reduced CO₂ emissions.
- Reduced running costs.
- Eliminates expensive electrical power substations for new or refurbishment projects.
- Available as either a heat pump or heat recovery VRF system.
- 100% performance in heating, at low ambient down to -20°C - with no defrost cycles.
- Indoor units can uniquely control off-coil temperatures to prevent cold drafts and are connectable to up to 32 indoor units or AHUs.
- Rejected engine heat enables hot water reclaim and increased COP.

www.sanyoaircon.com

SANYO® Air Conditioners. The natural choice.
trade news + product information

institute of refrigeration & cibse seminar diary dates

Tuesday, 5 February, Dublin — Update on Fgas, ODS and Waste Permits Legislation, followed by Annual General Meeting. Venue: Sheldon Park Hotel, Kylemore Road, Dublin 12;

Wednesday, 6 February, Limerick — Demand Side Management & Smart Metering, CER Consultation Paper 2007. Venue in Limerick to be confirmed;

Tuesday, 19 February, Dublin — Transport Regulations for Refrigeration Contractors: a paper by Michael O’Hart, Dangerous Goods Advisory Services. Venue in Dublin to be confirmed;


Contact: Enda Hogan, Tel: 058 44211; email: refskill@eircom.net

potterson ipod giveaway

Following on from the current Promax HE jacket promotion from Potterton Myson Ireland, installers can now avail of the following offers from Potterton Myson on Promax HE boilers installed from 1 February to 30 April 2008.

- Every two Potterton Band A boilers installed qualify for a free iPod shuffle 1GB;
- Every four Potterton Band A boilers installed qualifies for a free iPod nano 4GB;
- Every eight Potterton Band A boilers installed qualifies for a free iPod Touch 8GB.

These offers are made to encourage and support the trade move rapidly to the era of high-efficiency boilers. In addition, Potterton Myson is organising a series of installer training days to enable contractors support and promote the Potterton Band A message to consumers.

“We look forward to continuing growth in sales of these products in 2008 as consumers and installers become increasingly conscious of our collective carbon footprint. Products such as the Promax HE Band A range — which independent magazines such as Which in the UK endorse — offer consumers the highest rated products available”, says Vincent Broderick, Sales Director of Potterton Myson Ireland.

Contact: Potterton Myson Ireland. Tel: 01 - 459 0870; email: post@potterton-myson.ie.

o’brien joins hitachi

Martin O’Brien has joined Hitachi Europe’s new Dublin office as Technical/Applications Engineer. Martin is a highly-qualified engineer with broad-ranging experience in the air conditioning and refrigeration sector.

His primary role will be to provide comprehensive technical and applications support, including design advice and costings, using Hitachi’s Hi-ToolKit bespoke software package.

He will also be responsible for training programmes to be attended by engineers from the company’s nationwide dealer network.

Contact: Martin O’Brien, Hitachi. Tel: 01 - 216 4406; email: martin.obrien@hitachi-eu.com
High performance cooling/heating multi systems for retail & leisure

- Mitsubishi Heavy Industries high performance cooling/heating systems are designed for a variety of retail and leisure applications
- Simple, low cost installation
- Connect up to 4 indoor units to a single outdoor unit. Indoor units connected by branch piping, just two pipes connected to the outdoor unit
- Up to 28kW cooling or heating with an outdoor unit footprint of just 0.36sq m
The Construction Industry Federation (CIF) has announced the appointment of Tom Parlon as its new Director General. Tom took over the role of Director General on Wednesday, 2 January 2008, following the retirement of Liam Kelleher. Tom joined CIF as Director General Designate in October 2007. George Hennessy, who was previously CIF Director of Economics, takes up the position of Chief Operations Officer.

Noise pollution caused by operating equipment is now as much an issue as general environmental pollution. When designing building services solutions it is vital that specifiers also consider the possible noise impact of the solution in the application setting.

Hence the emergence of AP Acoustics, a dedicated specialist dealing exclusively in vibration isolators from world-renowned brand leader Allaway. Whether the right solution calls for a simple pump rubber mount or an entire production floor on high-deflection springs, AP Acoustics has the answer.

Key benefits of the service provided include design assistance, customised manufacture, speed of delivery, ease of installation and special anti-corrosion paint for weather-protection and long life.

Other products in the range include attenuators, enclosures, acoustic louvres, weather louvres, acoustic fire doors, flexible connections, insulated ductwork, plantroom linings and acoustic plenums.

Contact: Trish McDermott, AP Acoustics. Tel: 01 - 285 6652; email: apacoustics@iol.ie

The HP-DIT Construction Innovation Forum is now in its second year and held its first talk of the current series in the small Cinema in DIT Bolton Street shortly before Christmas. The seminar featured presentations from Dr Ken Beattie on the Assessment Process and the BER course run by DIT, and Anthony Reale, Director, QR Energy Rating, who is a specialist solutions advisor and energy consultant.

The evening highlighted the necessity for all professionals across the building sector to become more aware of the implications of the Building Energy Regulations (BER) which were introduced in July 2007 for new homes. This legislation has now been extended to include second-hand homes from 1 January 2008.

In the future, no property transaction will be deemed complete without a BER. The significance of this in terms of fees alone is in the region of €30 million per annum. The need for professionals within the industry to be able to provide certification is essential and the speed with which the industry develops the skills to implement these processes is critical.

Contact: Raymond Turner, DIT. email: ray.turner@dit.ie
Keep it quiet. We have.

Hitachi's R410A All DC Inverter Ranges take air conditioning to a new level of achievement, incorporating significant advances in electronics technology.

With cooling and heating capabilities from 2.0Kw to 9.3Kw, the all DC Inverter PAM driven mono split SUMMIT range features the R410A refrigerant, Hitachi DC Scroll, or DC Twin Rotary compressor all working in unison for high performance and maximum efficiency.

When it comes to figures, Hitachi counts:
- Highest COP up to 4.46 (A) in cooling/4.42 (A) in heating.
- Low noise down to 20dBA on sleep mode.
- Cooling available under -10°C ambient temperature.
- Heating available under -15°C ambient temperature.

For the stylish alternative, it's time to reach for the Summit.

To find out more call:

HITACHI Direct +353 1 216 4406

HITACHI
Inspire the Next
solar-powered digital refrigerant gauge

Gasco has introduced a new range of Yellow Hammer solar-powered digital refrigerant gauge sets to measure eight common refrigerants.

"Contractors are concerned not only with the rising costs of tools and supplies, but also with the concern over the environment", says Mark Kiely of Gasco. "Additionally, there is always a concern that service tools will continue to run so each service call can be completed without interruption.

"Hence this new range of red and blue, solar/light powered LCD digital manifold gauge sets. No battery to replace means no hazardous waste, no battery replacement cost, and no losing power during the middle of a call".

Calibrated to measure eight commonly-used refrigerants — R-22, R-134a, R404A, R-407C, R-410A, R-422D, R-427A and R-507 — the low side gauge has a pressure scale of 30 inHg VAC to 350 psig and the high side gauge a pressure scale of 0 to 800 psig.

Contact: Mark Kiely, Gasco. Tel: 01 - 462 7311; email: gidublin@gasco.eu

new products in all areas from LG

LG is to introduce its biggest ever number of new products in 2008 with additions in all of the major sectors — splits, Art Cool, condensers, VRF, Mini VRF, cassettes and other indoor units.

"Next year sees a rolling programme of launches in time for the a/c season", says Austin McDermott of distributors Core Air Conditioning. "We will have new cassettes, new ultra-slim cassettes, new condensers for VRF and Universal ranges, new multi V condensers, a water-based VRF system, a new addition to Multi V Space and new AC Smart control systems".

All products in the range benefit from the advanced technical R&D back-up, investment and expertise of the giant LG Group which claims to be the world’s number one producer of air conditioners.

Contact: Austin McDermott, Core Conditioning. Tel: 01 - 409 8912; email: info@coreac.com

forthcoming btu outings

Looking forward to the year ahead, the list of BTU outings already planned are as follows:

- 18 April — Dun Laoghaire (new course);
- 14 May — Roganstown;
- 13 June — Carton House;
- 5/6 June — BTU Nationals in Wales;
- 4 July — Forrest Little;
- August Weekend — Venue TBC;
- 5 September — Newlands;
- 17 October — Castleknock;
- 28 November — The Hermitage

A limited number of places have now been made available for new members. Those interested can call Dave Harris at Tel: 01 - 869 1006 or David Daly at 01 - 885 3792.
Get a FREE Apple iPod when you register purchases of Potterton Band A boilers from 1st February to the end of April 2008.
The Sunvic Plug-it control pack from Chronotherm Controls was designed to ease the installation of controls in central heating systems by saving time on the electrical installation costs.

The motorised valves, cylinder thermostat and optional pump are pre-wired to the wiring centre, with a unique colour-coded plug connector connecting to the controls.

Plug-it packs are supplied with a choice of room thermostats either hard-wired, or RF and time controls (1, 2 or 3 channel programmers), and a by-pass valve in the 2-port valve packs.

A choice of spring-return or motor-open/motor-close motorised valves, cylinder thermostat and wiring centre are also offered.

Contact: Tom Noone, Chronotherm Controls. Tel: 01 - 410 5756; email: chronotherm@eircom.net

Mark Eire claims that its new Mark MHR unit provides fresh air all year round at minimal cost, has zero carbon footprint and is 100% sustainable.

Mark’s MHR uses a counter-flow heat recovery coil to extract all the beneficial energy in the waste air stream which in the past was dumped to the atmosphere. This means that all heat produced from lights, radiators, people and computers is collected and used to heat the fresh air.

The incoming fresh air does not mix with the dump air so the occupants get 100% fresh, clean air all the time. F7 Ecoplast filters remove even the smallest particles out of the air.

Power consumption is kept to a minimum, thanks to the use of TAC technology (total air control) DC motors. This means that the fans, with built-in intelligence, only use the required energy.

"Apart from the benefits provided by each of the individual components within the Mark MHR units, the key is the manner in which we have married all of these together", says Marks Mike O’Donoghue. "After all, there is no point in saving thermal energy and wasting electrical energy. The Mark MHR saves both."

Contact: Mike O’Donoghue/Mairead Twomey, Mark Eire. Tel: 026 - 45334; email: sales@markeire.com

Whether you are looking for solutions for environmental applications, ground water protection, flue gas control, energy saving, or general measurement and control technology, the Alfriso range from Manotherm is the answer.

The choice of product offered is all-embracing and caters for every conceivable application within the aforementioned categories. All are detailed in the new 2007/2008 catalogue which comprises a massive 544-page tomb incorporating information on measuring, control and monitoring devices for building technology, industry and environmental protection.

Contact: Bob Gilbert, Robert Gilbert or Noel Walsh, Manotherm. Tel: 01 - 452 2353; email: info@manotherm.ie
MYSON the made in Ireland brand

Built specifically for Ireland, only Myson supply 1/2” valves directly from their new state of the art factory at Newcastle West, Co Limerick, including the robust Matchmate and the ever popular TRV 2 WAY.

Come and see for yourself. To arrange your factory visit or for more information please call Gerard Costelloe on 069 62277.

Myson Controls - Made here for you.
New Rules for Regulation of Gas Installers

The Energy (Miscellaneous Provisions) Act 2006 was enacted in December 2006. Under this Act the Commission for Energy Regulation has responsibility for regulating the activities of natural gas undertakings and natural gas installers with respect to safety. In discharging its functions, the Commission must prepare a natural gas safety regulatory framework for the natural gas industry.

The Commission outlined its approach for the establishment and operation of this framework in the document "A Natural Gas Regulatory Framework for Ireland" on 24 October 2007. A key part of the framework is the establishment of a comprehensive system for the regulation of the activities of natural gas installers with respect to safety.

In carrying out this responsibility, the Commission may designate a body to act as Gas Safety Supervisory Body, who will be responsible for the registration, inspection, auditing and monitoring of gas installers. This new statutory-backed regulatory system will replace the current Register of Gas Installer (RGI) system operated by Bord Gáis.

One of the key aims of this new system is that all categories of "gas works" designated by the Commission are only undertaken by individually registered installers who are competent, operating to the appropriate standard, using the appropriate materials, who will certify their work as safe and will be subject to ongoing regulation and inspection by the Gas Safety Supervisory Body.

To this end, the Commission published a Vision Document (see www.cer.ie) setting out the Commission's decision on the design and operation for the new regulatory system. This decision paper followed an extensive public and industry consultation in August 2007. It also incorporated the views of the general installer body as expressed at a number of gas installer information evenings which were hosted in October 2007. These information evenings were held in Athlone, Cork, Dublin and Kilkenny and were attended by over 600 people.

Implications for installers

The key implications of these new arrangements for gas installers are:

- The new regulatory system will be operational from 1 January 2009. Once the register is established, it will be illegal for any individual who is not registered to complete gas works and they may...
be subject to fines of up to €5,000, or a prison term, if convicted of this offence;

- To become registered, gas installers will be required to fulfill certain membership criteria, such as having the appropriate training, qualifications and insurance;

- The move to register all natural gas installers will provide customers with a level of assurance when choosing a registered installer that they are appropriately insured and qualified to complete the required work. Key to the new regime is the introduction of safety certificates for all gas work. These certificates will provide confirmation that the work has been done in accordance with the national standard;

- Gas installers are strongly encouraged by the Commission to become members of the Bord Gáis Register of Gas Installers (RGI) given that the current training/qualification membership requirements are equivalent to the membership requirements of the new system. This will mean that members of the Bord Gáis RGI will be easily able to transfer across to the new Supervisory Body once operational in 2009.

It is worthwhile for every gas installer to read the Vision Document and become familiar with the legal requirements from 1 January 2009.

Similar to the regulation of electrical contractors implementation programme, in order to develop and implement the new regulatory system the Commission has set about the development of the following in 2008:

- A Designation Process to appoint a party to act as the Gas Safety Supervisory Body and operate the day-to-day registration of gas installers. This process is expected to begin in Quarter 2 of 2008;

- In addition to the above, the Commission will be drafting a Criteria Document in Quarter 1 of 2008, which will set out the detailed rules for the registration and regulation of registered gas installers and also outline, in detail, the rules and obligations placed upon any party appointed to act as a Gas Safety Supervisory Body.

The Commission will be consulting on the above issues, and looks forward to working closely with the gas installer industry over the coming year in bringing these new arrangements to fruition.

The Commission’s "Vision for the Regulation of Gas Installers with Respect to Safety Decision Paper" can be viewed at www.cer.ie. It can also be obtained from Dermot Lynch at the Commission (Tel: 01 - 400 0800; email: dlynch@cer.ie). To obtain further information on the new regulatory arrangements, or to join the gas installers mailing list, contact Dermot at the above details.
While Elyo SUEZ has just opened its first dedicated Irish-based branch office, it has been serving the Irish marketplace with distinction since 1983. However, because of sustained growth in local Customer numbers over the last 25 years — coupled with the need to support its pan-European Customers located in Ireland — the volume of business is now such that a permanent presence is required in the country.

Elyo SUEZ has a pedigree stretching back nearly 100 years when it was established as a major force in energy and water distribution. Since then it has grown and developed by way of strategic alliances and partnerships to become one of the foremost providers of specialist technical building services worldwide. Today it operates in 30 countries, has 180,000 employees and an annual turnover of €43 billion.

Founded on the concept of delegated management and outsourcing, Elyo SUEZ specialises in the operation, management and maintenance of technical installations across a broad Customer base representing a diverse range of applications. These include commercial, retail, healthcare, education, financial, pharmaceutical, aviation support services, and national and local government.

Effectively, Elyo SUEZ devises customised technical services management programmes covering a Customer’s entire building services requirements, and then subsequently oversees the implementation of that programme on a daily basis. This is particularly important in today’s marketplace where legislation governing energy usage and environmental impact have placed an extra burden on running a business. Elyo SUEZ relieves management of this burden and delivers solutions which not only ensure regulatory compliance, but also deliver substantial cost savings.

Customer care and interpersonal relationships are critical to the success of the service provided. Elyo SUEZ works on the basis of long-term partnership agreements. Its personnel become fully immersed in not just the technical needs of the Customer but also the psyche and operating culture of the Customer’s business.

In keeping with that core thinking the operating principle is to appoint a local manager and a team of locally-based experts who can provide the essential day-to-day services. Consequently, Pat Byrne, who is widely known and respected throughout the

Robin Putman, Technical Operations Director with Peter Talbot, Managing Director, Stephen Grant, Commercial Director and Pat Byrne, Country Manager — Ireland, Elyo SUEZ
Mission Statement
“Our success comes from long-term partnerships together with a commitment to technical excellence, quality environment and customer satisfaction, delivered by dedicated people.”

Elyo SUEZ Values
- Professionalism
- Sense of Partnership
- Team Spirit
- Value Creation
- Respect for the Environment
- Ethics

Commitment to Quality
Since 2000, Elyo SUEZ has put particular emphasis on integrating quality into the management systems of its operational organisation and businesses by reinforcing the attention it pays to its Customers and staff. Such procedures enable it to associate safety and the environment by managing them as a coherent whole, thereby ensuring constant progress. In particular, it means being able to predict and anticipate Customers’ requirements. The vast majority of Elyo SUEZ’s companies have ISO 9000 certification with the attainment of the 2000 version already a reality for a large number.

Elyo SUEZ Ireland
Pat Byrne, Country Manager — Ireland
3A Avonbeg Industrial Estate,
Long Mile Road, Dublin 12
Tel: 01 - 4560 8564 Fax: 01 - 450 8719
mobile: 0044 7800 536 859
e-mail: patrick.byrne@elyoservices.co.uk

Tangible Benefits of R&D
R&D is not simply a question of Elyo SUEZ’s research teams developing tomorrow’s technology and procedures in laboratory settings — it is also a process that is central to its work in the field. Researching new solutions and developing them on site, in partnership with Customers and even professional bodies, results in dynamic, innovative solutions which deliver very tangible benefits for Customers.
Tom Scott Says Au Revoir!

Tom Scott needs no introduction to the building services sector in Ireland. Having spent the best part of his working life in the industry — 29 years of which were with Hevac — he is widely known the length and breadth of the country.

His many years of service to the industry in general — and of course more specifically to Hevac — were formally acknowledged in Dublin recently at a dinner held to mark his retirement. While poignant in some respects, it was a happy, celebratory occasion as Tom has been planning his retirement for some time so that he can pursue more leisurely activities.

Given the nature of the occasion it was primarily a Hevac affair with senior management from the company and those with long-standing service assembling together to honour Tom. Also present were his wife Sally and two of his sons, Darragh and Damien. Dermot, his other son, lives in Australia and was unable to attend.

Throughout the night there were various speeches and tributes from his Hevac colleagues, along with a number of formal presentations. These included a beautiful decanter and glasses of specially-sourced Tipperary Crystal — Tom likes the odd drop! — a bottle of vintage whiskey to go with it, and a laptop computer.

While synonymous with building services, Tom did have another "career" prior to entering the industry. He did a significant spell in the Irish Army Corps during which time he was stationed at Baldonnell, Co Dublin. He served his country with distinction, including a tour abroad under the auspices of the UN. During this time he was also very active in Gaelic football, turning out for his county in addition to army teams.

On leaving the army Tom had a brief spell with Avoca Mines before joining Markland England, a tube distribution company for whom he acted in sales throughout Ireland. However, on consistently coming up against — and losing contracts to — Hevac, he jumped at the chance to join the company when John English, Managing Director of Hevac, made him the offer of a job in November 1978. He never looked back and soon went on to become a Director of the company.

Tom’s role was always in sales but, from the earliest days, he was also actively involved with the management of the sales side of the business. While he was initially brought in because of his experience and knowledge of the tube industry, his broad technical background meant that he very easily embraced the core heating-related portfolio of Hevac.

His contribution to the growth and development of Hevac — and fellow Hevac Group companies Polytherm and the Tube Company of Ireland — has been enormous. Over the years he was instrumental in pioneering the introduction of new products and innovative concepts which not only benefited Hevac, but which also contributed to the development of the industry at large.

But it was not all work ... Tom is an avid golfer and he played a very valuable and active role within the BTU. No doubt he will continue to play golf and participate in BTU events, though the rumour is that he also intends to take to the seal.

bs news will keep Tom’s many friends and former colleagues within the industry up to date with his activities over the coming months but, in the meantime, we take the liberty of wishing him a long, healthy and enjoyable retirement on your behalf.
BLÜCHER — Keeping Up the Flow

Blücher offers drainage systems for all applications, ranging from single-family bathrooms to large industrial facilities. The product range comprises standard and customised floor drains, drainage pipes and drainage channels.

All are manufactured in stainless steel which ensures high-quality, excellent flow and hygiene. Stainless steel also means less maintenance and long product life.

There is a wide variety of standard products in the range of drains, drainage channels and drainage pipes with all applications catered for, from light to heavy duty, from housing through to commercial and industrial.

Blücher Europipe is one of the most extensive ranges of stainless steel drainage pipes and fittings on the market. Produced in a wide variety of dimensions from OD 50 to 250mm, it is available with a complete programme of bends, branches and brackets. Products like access pipes, the rat-stop and double ring-seal sockets are also part of this range.

The pipes can be used above as well as below ground, where the low weight and the push-fit system make installation fast and easy.

With their large flow capacity and a minimum need for brackets, stainless steel pipes save real time in the installation process.

Contact: Blücher.
Tel: 01 - 201 7486;
Mobile: 086 - 600 0622;
email: dho@blucher.ie

BLÜCHER® EuroPipe

The drainage system for tall buildings

Lightweight
At 2.8kg per metre (110mm dia) one man can handle BLÜCHER® EuroPipe

Requires fewer supports
Only requires brackets at 3m centres
No need for additional anchors

Longer pipe lengths
Available in a range of standard lengths from 150mm to 6m

Faster installation
Push fit joints make it faster to install than other metallic systems

Non combustible
BLÜCHER® EuroPipe does not require fire collars and will not cause fire to spread up or down within a building

BLÜCHER® EuroPipe stainless steel push fit pipework. The perfect solution for soil, waste, rainwater and process applications.
Storm Drain — The Complete Surface Water Drainage Solution

Storm Drain from MFP is a unique channel-drainage system for the collection and dispersal of surface water. It is available in 1m lengths and can be combined with a range of accessories that provide connections to subsurface drainage. These include leaf traps, sump units, end caps, end outlets and rainwater pits.

The durability and high performance of Storm Drain ensures that it is a long-term and permanent solution. Produced in accordance with BS EN ISO9001 quality standard and manufactured to the BS EN 1433 Kite Mark in order to comply with all relevant regulations, it can withstand vehicles of up to five tonne in weight.

All channels are available in a standard black grate, in addition to a range of coloured grates which can be supplied ex-stock. These include portland grey, sandstone, terracotta and heritage green. A stainless steel grate is also available providing additional strength, durability and eye-catching appeal.

Storm Drain is a cost-effective system which is easy to install. No special tools are required as each channel and accessory is snapped into place. The innovative connection provides a positive sealed joint within the channel and removes the need for additional sealing materials.

Storm Drain is also a sustainable, eco-friendly product. Manufactured from recycled plastic, the cross-braced design prevents floating and movement when concreting. Once set, the rounded channel base assists the rapid water flow, thereby providing a self-cleaning channel.

Storm Drain can connect clay or plastic drains and be applied around any domestic area where surface water collects. This further reduces the risk of flooding or ponding.

Applications include driveways, patios, conservatories, swimming pools, sports courts, gardens and pathways.

A range of packages is available for Storm Drain, including a revolutionary Garage Pack that contains either three or four Storm Drain channels, plus a free end-cap and end outlet. All packages include point-of-sale merchandise making for excellent in-store visual impact in merchants outlets.

Storm Drain accessories are also supplied with point-of-sale material including display boxes and plastic hanger packs. Metal display stands, complete with header boards, are also available for internal or external display.

Contact: Dudley Foster, MFP, Tel: 01 - 630 2600; email: sales@mfp.ie
Access most areas without the need for a riser!

Guys, think of the time, hassle & money you'll save. Check it out!

- UNBEATABLE 100mm HEIGHT ADJUSTMENT (No riser required for most jobs)
- ADVANCED TILT CAPABILITY
- ADVANCED FLOW CHARACTERISTICS
- WIDEST RANGE
- FULLY CONFORMS WITH ALL TECHNICAL REQUIREMENT OF BUILDING REGULATIONS

Despite all these extra benefits, the MFP AJ still costs less than its nearest competitor – so next time you’re looking for the widest, most advanced range of AJs in the country, just ask for...

MFP SALES LTD.

Dargan Road, Belfast BT3 9JU. Tel: 028 9077 4790. Fax: 028 9077 4716. UK Office. Tel/Fax: +44 (0)1323 412836.
wilo international golf challenge

Tony Cusack and his colleagues at Wilo Engineering recently hosted the annual Wilo International Golf Challenge in the magnificent surroundings of Adare Manor and its world-renowned golf course. This has been the venue for the Irish Open for the last three years — who can forget Padraig Harrington’s triumph last year before he went on to win the British Open — it has hosted a European Seniors tour event, and is known to be a favourite practice bolt-hole for Tiger Woods.

This is an annual team event run by Wilo for customers and clients. The teams come from all over the world and this year the countries represented were Ireland (host nation), the UK (made up of a team from Northern Ireland), Germany, the Netherlands, Italy, Austria, Norway, Sweden, Finland, Denmark, Russia, Poland, the USA and Canada.

The format comprises a team competition with a singles tournament built in. Which ever team wins goes on to host the next year’s event, provided it is not two in a row, in which case the second-placed team does the honours. That is how Ireland came to host it this time round.

There was a magnificent atmosphere for the Adare Manor competition with the many visitors from abroad enthralled by the surroundings. Indeed, most of them took additional vacation time to stay on after the event and tour other parts of the country, taking in the challenge of different golf courses along the way.

Winners on the day in Adare Manor were Team USA with the individual winner being Matti Manninen from Finland. Both received their respective perpetual trophies — the individual one being a replica of the Claret Jug — from Tony Cusack at a gala dinner presentation.
Frank O’Kane — An Appreciation

Frank O’Kane, the late Chairman and CEO of Mercury Holdings, died on the 22nd of December 2007 while out hill walking with friends in County Wicklow.

Frank, who was 65, was the co-founder with Joe Morgan of Ireland’s leading engineering services company Mercury Engineering. The company grew under his leadership, not only in Ireland but also in the UK, across Europe and the Middle East. With his passing the management group — under his friend and partner Joe Morgan — will be working hard to continue his vision for the company which he led so well.

From his early roots in Strabane, Co Tyrone, Frank grew his business through strong leadership and clear vision, to the top of the M&E industry in Ireland, mirroring and helping to drive the growth of Ireland’s economic success in the past 30 years. Frank’s vision saw him among the first Irish businessmen involved in Libya and the emerging economy of Poland.

Business was not, however, Frank O’Kane’s only focus. One of a large family himself he is survived by his wife Rosaleen and his four children Eamonn, Clodagh, Ronan and the youngest Rachael, as well as seven of his brothers and sisters. He enjoyed life. He was known to enjoy good company and his party pieces — Ewan McCall’s “Freeborn Man of the Travelling People” and Phil Coulter’s “The Town I love So Well” — were remembered at his funeral.

Though fondly remembered in the business community he has also left his legacy in other areas of Irish life, notably in the performing arts where his interest led him to become a major benefactor of both institutions and individuals. Frank sponsored UCD’s centre for Film Studies and Drama Studies in recognition of which he was awarded an Honorary Doctorate of Laws in 2003.

Frank O’Kane, businessman, entrepreneur and benefactor will be missed by his family, colleagues, friends and all who knew him.
Reduce Your Chiller Energy Bill by 40%!

In a world where ever-increasing costs can spiral out of control, companies are increasingly looking for numerous ways to reduce their chiller energy bill.

York Has the Answer
Recently, a world leader in the plastic injection mould industry asked York if it could provide a full turnkey solution to design, supply and install a new processing chilling plant with the objective of considerably reducing the energy bill. The answer of course was yes.

The challenge was to reduce the customer’s running cost by 30%+ and to carry out the project without interrupting production.

The customer’s existing chilling plant consisted of a water cooled reciprocating chiller providing a COP of 2.9 and costing approximately €200,000 a year to run. York Service — with its centrifugal VSD chillers — was able to present to the customer a solution that would provide in excess of 40% reduction in annual running cost while also giving room for future expansion.

Customer Put Its Faith in York Service
York Service proceeded to supply and install a complete new chilling plant consisting of a York centrifugal VSD chiller and cooling tower. All the installation work was done by the company’s own, in-house, engineers. This enabled the customer to have one point of contact for the complete project, thereby giving total peace of mind.

During the installation and commissioning process the customer’s existing chilling plant was kept running until everything was ready to switch over to the new energy-efficient plant, thus ensuring zero impact to the customer’s production.

York Service liaised with the customer from concept through to design and full completion of the project. One contact, one phone number and one person to talk to enabled the customer keep fully abreast of progress while continuing to concentrate on its core business.

Central to the solution installed was a 900kW water cooled centrifugal chiller and cooling tower. York Service also supplied chilled water to a second plant by running new pipework. This enabled the customer to remove another chiller and cooling tower from the facility, which in turn has led to further ongoing reductions in energy spend.

The VSD range of York centrifugal chillers was exactly what was needed for this particular project. These chillers are the only type in the world to utilise VSD technology on the compressor drive.

With the correct selection of cooling tower and the proper running conditions — coupled with the York VSD centrifugal chiller — York was able to increase the COP of the customer’s chilling plant from 2.9 to a value of 9.1. This is far in excess of what can be achieved with other brands of water cooled chillers when it comes to running costs.

So, if you have chilling requirements on your site and would like to discuss reducing energy costs with an environmentally-friendly solution while also increasing your bottom line, then you should contact York.
If you have chilling requirements on your site and would like to reduce energy costs...

...with an environmentally-friendly solution, while also increasing your bottom line...

...then contact York Service.

York ACR Ltd (A Johnson Controls Company), Unit 2004/3 City West Business Campus, Naas Road, Dublin 22
Tel: (01) 4660177 Fax: (01) 4660198 Email: paul.mcelvaney@jci.com

York ACR Ltd (A Johnson Controls Company), Unit 19 University Hall Industrial Park, Sarsfield Road, Wilton, Cork
Tel: (021) 4346580 Fax: (021) 4346586 Email: hugh.o'gorman@jci.com
www.york.com
Grundfos has added another ground-breaking circulator pump to its wide range of heating pumps. The new member of the portfolio has been named Alpha2 because it represents the next generation of its extremely-popular, energy-efficient Alpha range.

Built on the proven platform of the innovative Grundfos circulator range, the new Alpha2 takes energy efficiency, user friendliness and compact design to the Nth degree. It is claimed to be the first small circulator to come equipped with Autoadapt technology, which guarantees easy operation and optimal efficiency at all times.

Basically, Alpha2 is synonymous with the transition from hardware components to software solutions, which has resulted in unmatched user-friendliness, robustness, and compact design. This benefits the wholesaler, the installer and end-user alike.

Until now the unique Autoadapt technology has only been available in the larger Grundfos Magna circulator range. However, due to new technology and improved design, Grundfos has succeeded in fitting Autoadapt technology into Alpha2 while reducing the size.

The factory setting Autoadapt enables simple and fast installation. With Alpha2, installers can stop worrying about complicated specifications and individual details concerning each heating system. Autoadapt continuously analyses the heating system it is installed in and automatically finds the optimal duty point. The result is improved comfort and the minimum possible electricity consumption.

Furthermore, Autoadapt automatically adjusts to changes in the size of the heating system. If the demand grows or drops due to any change within the heating system, Alpha2 will immediately adapt without having to be reset by an installer.

The actual size of any circulator is extremely important, as the pump is a part of a heating system with space limitations. Removing the control box from the side of the pump and integrating it axially inside the pump housing has enabled the development team at Grundfos to reduce the size of Alpha2 considerably.

In addition, several hardware components have been replaced by software solutions. The hall sensor, the cooling plate, and several security functions have been replaced by a software solution that not only saves space, but also guarantees a more durable and reliable solution – even under tough working conditions.

Combining the well-proven permanent-magnet principle with new, compact stator and rotor technology, the motor has been made even more energy-efficient. In addition to significant energy savings, fewer connections within the motor make it even more robust and reliable.

Contact: Grundfos (Irl).
Tel: 408 9800;
email: info-ie@grundfos.com
Calpeda Pumps (Ireland) Ltd
Unit 5 Old Quarry Industrial Park, Blanchardstown, Dublin 15
Tel: 01 - 861 2200     Fax: 01 - 861 2203
email: sales@calpedaireland.com     web: www.calpedaireland.com
Calpeda Pumps has been operating in the electric pump industry for nearly 50 years. Throughout this time it has secured a reputation for quality, reliability and optimum performance, strengths and benefits which are available in Ireland from Calpeda Pumps (Ireland).

New products epitomise the Calpeda portfolio, and the latest introductions will feature strongly in Pavilion 6, Stand E83 G62, at the forthcoming Mostra Convegno Expocomfort, MCE is the leading international biennial exhibition for domestic and industrial systems and takes place in Milan from 11 to 15 of March 2008.

Since first established in 1959 Calpeda now boasts some impressive numbers. For instance, the product portfolio comprises over 1000 types of pump with powers ranging from 0.5 to 175 horsepower; the company’s headquarters in Montorso Vicentino in Italy covers some 25,000 sq m and employees 250 people.

Meanwhile, Calpeda continues to spread its international penetration with the opening of an increasing number of outlets worldwide across Europe, North and South America, the Middle East, Africa, Australia and New Zealand.

To maximise the benefits of these enormous strengths Calpeda has always relied on a management style which provides an environment for creativity, on-going development and experimentation. The research and development Centre at Montorso Vicentino is the evidence of this.

Graham Fay, Managing Director of Calpeda Pumps (Ireland), explains, “We believe in technology which creates value for both ourselves and for those who choose us. We believe in the vision of those who, like ourselves, have been involved for over 40 years of research, development and the industrialisation of pumping systems. For this reason we represent a reference point all around the world — including Ireland — in water technology.

“Each day we think of what we can do in order to improve our products by experimenting with their size make-up, weight, transportability and resilience. We also provide full support for these products. Spare parts are available for every pump in the range, including those out of production or supplied many years ago.

“Producing technology implies anticipating new solutions, foreseeing new uses and discovering alternative applications and materials. We have always sought to be innovative, interpreting and defining pump technology into new dimensions and new functions.

However, the quality and diversity of the product portfolio would be meaningless without complementary technical and after-sales support mechanisms. Calpeda Pumps (Ireland) is particularly strong in this respect.

Graham Fay, Stephen McDowell and the rest of the team are renowned for their willingness to engage with clients and to devise customised systems to meet the application. Moreover, this service is provided in a courteous, professional and flexible manner, the objective being to deliver high-performing, ultra-efficient, cost-effective, solutions.

Contact: Graham Fay or Stephen McDowell, Calpeda Pumps (Ireland). Tel: 01 - 825 8212; email:info@calpeda.ie
Pumps and Booster Systems

Lowara hi-tech solutions

In Pumps and Booster systems Lowara means:

- Advanced technology
- Energy saving
- High efficiency
- and ... TRUST

Lowara (Ireland) Limited.
Unit 59 Broomhill Drive, Tallaght Industrial Estate Dublin 24
Tel 00353 1 4520266, Fax 00353 1 4520725
Email lowara.ireland@itt.com www.lowara.ie
Campion Mechanical & Electrical Engineering was established 20 years ago by principal Martin Campion to provide a total water supply service across all industry sectors. It specialises in booster sets, pumping stations, circulation pumps, sewage treatment plants and large borehole pumps. Applications include apartment blocks, hotels, schools, commercial and industrial buildings and irrigation.

Recently completed projects include Spencer Dock Development; the Ritz Carlton Hotel, Wicklow; and AIB Headquarters, Dublin.

Over the years it has gained considerable experience across the entire water supply sector and is now regarded as one of the foremost authorities in the field in Ireland. It has 30 full-time employees and the accumulated knowledge base of its fully-qualified pump engineers and electricians means that its services are in constant demand.

Operating out of a massive one-acre site, Campion has total in-house control over every project as the complex comprises adjacent buildings housing offices, workshops, production facilities, warehousing and spare parts centre.

A key element of the Campion service is its ability to accurately analyse and assess the particular needs of each project and to design and manufacture customised solutions. These take account of performance efficiencies, energy savings, water usage and regulatory compliance. They also come with a REC Completion Certificate.

It is fast-gaining a reputation as Ireland's leading booster set supplier, not just for the quality of the solutions devised but also for the flexibility it offers, the short lead times, technical support, installation advice, commissioning, central monitoring and scope of its service maintenance contracts. Another plus factor is its ability to manufacture related equipment and accessories such as booster set bases, manifolds and stainless steel covers for booster sets located in exposed areas.

Reinforcing the quality of the Campion booster sets is the strong partnership it enjoys with Lowara whose pumps are used exclusively on every unit. The Lowara range is the perfect match for Campion’s design and manufacturing expertise and they both work together, sharing knowledge, advice and technical information, to provide customers with the best possible solution.

The final piece of the jigsaw is the use of Hydrovar, the world’s first pump-mounted, microprocessor-based, pumping system controller. Hydrovar does much more than just change motor speed; it manages pump performance to match a wide range of system conditions, allowing energy savings of up to 70%.

The foregoing clearly illustrates the strength of the Campion service, the close partnership it enjoys with Lowara, and how the two combined make Campion “The Power Behind Water”.

Contact: Martin Campion, Campion Mechanical & Electrical. Tel: 056 - 883 4288; email: sales@campion.ie; www.campion.ie
Dependable pump solutions from a company you know you can rely on.

Monsoon pumps from Stuart Turner Ltd and Modern Plant Ltd share so many values.

✓ Both are completely dependable.
✓ Together they provide a range of pumping solutions for any application.
✓ Both provide first class technical service and after sales support.

Monsoon and Modern Plant Ltd – together they have a great deal to offer.

Specify Sustainability
www.bsnewsbuyerguide.com

printed version
Because of requests for extra Buyer Guides we have done an additional print-run and copies are now available at a specially-reduced rate of €50.

Please send cheques — made payable to Pressline Ltd — to Pressline Ltd, Carraig Court, George’s Avenue, Blackrock, Co Dublin.

online
To access the online version simply log on to www.bsnewsbuyerguide.com and register as a user.
Pumps & Circulators

'quality & reliability' — pumps from Potterton Myson

Potterton Myson's pump range is extensive, offering all manner of pumping solutions across the entire building services spectrum. Range details are as follows:—

The “Compact” range of domestic heating circulators offers the installer assured reliability, high performance, and ease of installation for all domestic heating systems.

Special features include: 3-speed pump with a static head range of 2-6 metres; manual restart knob; large terminals with clearly-marked captive screws; automatic vent on initial start-up; motor head can be replaced or repositioned without moving the pump from the system.

Uniquely, all compact pumps are guaranteed for 30 months.

The “SE” pump range offers a comprehensive selection of pumps as cast iron light commercial circulators, or secondary hot water commercial circulators.

The “SE” pump range has a host of special features and is available in 1 1/4", 1 1/2", or 2" as cast iron, and from 1" up to 2" in bronze.

Using disc induction motor technology, these pumps deliver a high ratio torque for effortless low-speed start-up.

The use of a single static “O” ring seal eliminates the need for time-consuming, routine seal maintenance.

In addition, Potterton Myson offers a range of high-performance shower pumps for boosted water pressure, called the Aquaboost.

monsoon & modern plant provide total pumping solutions

The demand for more elaborate fixtures in the bathroom and kitchens, coupled with occasions when the water supply is simply left wanting, has resulted in an increased requirement for dependable pumping solutions both in the home and in commercial/industrial applications.

In recognition of this and in line with its commitment to providing products of the highest quality, Modern Plant of Dublin, Cork and Belfast is continuing to offer the trade the Monsoon range of booster pumps from Stuart Turner Ltd.

The Monsoon range provides a solution for even the most challenging application. Whether it is for a power shower in a loft conversion or an entire property that requires boosting, there is a unit in the Monsoon range appropriate for every application.

Furthermore, the strength of the relationship with Stuart Turner Ltd means that its resources can also be accessed for advice and technical support.

Paul Manning, Head Sales & Marketing at Stuart Turner told bs news “We have been associated with Modern Plant for over 16 years and have always appreciated their level of commitment and their expertise in the way they promote and support the many benefits provided by the Monsoon range. We look forward very much to continuing to work with them in the future.”

Contact: Noel Lawlor, Modern Plant.
Tel: 01 - 459 1344;
email: sales@modernplant.ie;
www.modernplant.ie

Pots and Circulators

January 2008
Page 30

bs news

https://arrow.tudublin.ie/bsn/vol47/iss1/1
wilo pumps — as green as it gets!

Today, it is already obvious that energy saving and renewable energy resources will determine the shape of our future building services. Consequently Wilo — along with other members of Europump, the European Pump Manufacturers Association — has need to a standardised energy labelling policy that indicates the energy consumption and performance of its products.

The labels, very much like the familiar energy efficiency labelling on domestic electric goods such as fridges, freezers, washing machines, etc, shows an energy efficiency rating between A and G, with A being the most efficient and G being the least. Traditional circulator pumps fall under band E because they run at a fixed speed and are unregulated.

Wilo has always been at the cutting-edge of pump technology development. It introduced its first electronic variable speed circulator 20 years ago and has continued to bring innovative new products on stream year-on-year since then.

These include high efficiency pumps for domestic hot water return applications and the Stratos-Z and ECO-Z, and electronic variable speed booster pumps for water supply applications. Unique to Wilo is its variable speed, silent running booster pump range, the MVISE, which uses a wet-running motor adapted from its heating pump technology.

Wilo's green credentials are not limited to its products but extend across all its operations.

All Wilo manufacturing sites are certified to ISO 14001 and use recycled cardboard in packaging. Also, circulating pumps are now shipped with insulating jackets to help reduce system heat losses and these also form part of the packaging, reducing the amount of packaging waste.

Wilo have also developed a specific insulating jacket for chilled water pumps. The Wilo-ClimaForm thermal insulating jacket was developed in cooperation with Armacell and provides an effective vapour-proof insulation of pump housings in CHW applications. This system greatly reduces on-site installation costs and time as no fabrication is required.

Wilo's standard pump ranges are also designed and constructed in a modular format so that individual components can be replaced, if necessary, over the lifetime of the pump. This results in a longer operational life and reduces the need to dispose of the full pump should a single component fail.

Contact: Tony Cusack, Wilo Engineering (Limerick).
Tel: 061 - 227 566;
Damien Gemon/Derek Elton, Wilo Engineering (Dublin).
Tel: 01 - 426 000;
email: sales@wilo.ie
www.wilo.ie
Great Leader &
Great Friend

On 25 October 2007 the sad news reached Tramway House of the passing of our dear friend Brian Reilly after a difficult few years of struggling with a serious debilitating disease. Those of us who knew him in his prime will prefer to remember Brian as the human dynamo who became the focal point of the operations of the Irish offices of Varming Consulting Engineers in the extended period stretching from the early 1950s up to the mid-1990s.

Thus Brian enjoyed an extraordinary career of over 40 years with the Irish Varming organisation. He joined Sean Mulcahy in 1952 just at the time that our founder Jørgen Varming and his fellow Danes were withdrawing to the Copenhagen Office. This was long before his retirement in 1993 and at a time when Varming Consulting Engineers was the dominant dedicated M&E services engineering practice in Ireland.

Even to this day the list of landmark projects undertaken by Varming Consulting Engineers during the "Reilly Years" still reads like a catalogue of the major building projects that changed the image of Irish construction utterly and remain the iconic symbols of that era.

In addition, Brian devoted himself to expanding the activities of the mechanical branch of the Institution of Engineers of Ireland and served for many years on the Executive of the Association of Consulting Engineers of Ireland. The ACEI honoured Brian with the presidency of the association in 1988, the year of the Dublin Millennium. During his presidency ACEI hosted the Annual General Meeting of FIDIC (Fédération Internationale des Ingénieurs Conseils) in Dublin which attracted over 1000 delegates from 120 countries. This was a major event in all senses and yet one he handled with his usual aplomb.

Brian led by example and his dynamism inspired successive generations of Varming engineers to achieve and surpass the vision of both Brian and Sean Mulcahy in creating a practice which aspires to design excellence and is inspired by a spirit of innovation. Many Varming engineers went on to achieve recognition in their own right and are acknowledged as such within the construction industry by clients, contractors and fellow professionals.

Brian always recognised the importance of training and further education as essential to Varming engineers in pursuing this vision. In many ways his approach to the support of further education laid the foundations for what became the Varming CPD policy and the achievement of CPD accreditation by our company in 2005 was a source of great satisfaction and pride for him.

For all his wonderful abilities and achievements Brian remained a very reserved and private person who, when the occasion demanded, could display the most gentle humane touch. Universally known in the industry as BKR, the current Varming family will always hold the wonderful legacy he has left us, and the Irish construction industry at large, in high regard.

John Purcell
Chairman & Chief Executive Varming Consulting Engineers
The purpose of this article is to review and evaluate the use of fan filter unit HVAC systems for pharmaceutical Fill Finish facilities. It comprises a detailed description of a typical fan filter unit system and a discussion on the advantages and disadvantages relative to conventional ducted air supply systems.

**Fan Filter Units**

The use of fan filter units (FFU's) in the pharmaceutical industry is a relatively new idea. The concept originally started, and was proven, in the electronics industry where the requirement is for higher classification cleanrooms in water fabrication plants than that of the pharmaceutical sector. Around the year 2000 the first applications started to emerge in the pharmaceutical industry, the units being modified from those that were in standard use in the electronics industry for reasons of ease of cleaning and disinfection.

A fan filter unit is exactly as described, a fan mounted on the filter, as illustrated in **Picture 1**.

As can be seen in **Picture 2**, the fan filter units can be mounted side by side. The HEPA filter is on the bottom of the unit and can...
fan filter systems for pharmaceutical cleanrooms

be changed from beneath within the cleanroom. The fan filter units will draw air from the ceiling space above the unit and push the air through the HEPA filter into the cleanroom below. The space above the filter units is known as the plenum space, and is generally a large open area, unlike conventional spaces above cleanrooms which are filled with HVAC ducting.

This plenum area is, by nature of its construction, a “walk-on” ceiling space which provides advantages in speed of construction as the construction can take place over two levels. The conditioned air within the plenum space is supplied from a central air handling unit (AHU) with a coarse filter to pre-treat the external air to remove large particles before it enters the plenum space.

The room environment conditions are maintained by the conditioned air supply via the central air handling unit. Depending on the cooling and dehumidification loads within the cleanroom, the conditioned air supply from the central AHU will equate to approximately 10-15 air changes per hour. Compare this to the cleanroom recirculation air change rate per hour of 60-65 for 1507 (Grade B) and 40-45 for 1508 (Grade C). The configuration of both conventional HVAC supplies and fan filter unit air supplies is illustrated in Figure 1.

These return air walls can be provided in glass (as illustrated in Picture 3) and can open like a door to provide access for cleaning right up to the ceiling level within the cleanroom itself. The advantages and disadvantages of fan filter units vs conventional HVAC systems are summarised below:

Advantages

- During construction access can be obtained on two levels, the cleanroom level and the plenum space. Once the fan filter unit is installed the cleanroom ceiling becomes a walk-on ceiling;
- The area above the cleanroom is much easier to maintain than plantroom spaces congested with ducting;
- The size of the air handling units on the plantroom floor above are much smaller, permitting either a smaller plant floor area above or utilising this additional space to consider locating process equipment on this floor, thus reducing overall building footprint and possibly transfer distances of product;
- It reduces the size of distribution ductwork required, i.e. instead of 60 air changes per hour being distributed from a central
fan filter systems for pharmaceutical cleanrooms

system to terminal HEPA filters, this can be reduced to 15-20 air changes per hour to the plenum space;
- The plenums can be used for routing additional services such as lighting and sprinklers;
- Provides multiple air supply units to the room which, in the event of a single unit failing in a recirculation scenario, does not necessarily mean the entire room goes out of spec – with conventional systems the central AHU is critical to maintaining air supply;
- The reduced ductwork requirement eases co-ordination with other services above ceiling which reduces the possibilities of clashes and rework;
- Local laminar air flow (LAF) areas can be created by simply installing a higher density of fan filter units in the ceiling above the required area. If necessary, local screens can be hung from the ceiling to a level within the room to ensure laminar flow reaches the intended point of concern before the flow breaks and becomes turbulent once more;
- Because there is less distribution ductwork there is a lower pressure drop through the system, hence overall power usage by fans to move the air through the system is generally lower in fan filter systems than in conventional systems;
- More fan filter units installed than the minimum required results in smaller fans, quieter running, less airflow through each filter and longer filter and fan lifetimes;
- Capital cost advantages increase the greater the specification of the cleanroom (i.e. ISO5 (Grade A) sees more capital cost benefits than within an ISO8 (Grade C) cleanroom. The FFU-based system has been shown from recent experience to be generally more cost-effective for room area classifications that require 40 air changes per hour and above;
- It offers future flexibility over a conventional ducting/terminal HEPA-based system. For instance, provided the return air walls were sized for the required volume, an ISO 8 (grade C) room can be easily upgraded to a ISO7 (grade B) room with the addition of FFUs. This would be a major upgrade on a conventional ducting/terminal HEPA based system.

Disadvantages

- Cleanrooms with low cleanroom classifications (such as Grade D cleanrooms with less than 40 air changes per hour) tend to be cheaper from a capital cost standpoint when constructed using the conventional ducting approach;
- Ducting systems are well understood within the industry, while fan filter systems are relatively new but are becoming proven over time in pharmaceutical applications;
- Less installation contractors and equipment suppliers are available for fan filter systems than for conventional HVAC ducting systems.

The outcome of this analysis is that, since the introduction of fan filter units into pharmaceutical production facilities around five years ago, those facilities which have a high proportion of ISO5, ISO7 and ISO8 cleanrooms (such as Fill Finish facilities) are now showing a significant trend as to being designed and constructed using this technology.

Fergus Dunphy is an Associate Director of PM Group and, as Department Manager, is responsible for the technical output and administration of the mechanical building services department. Fergus has over 25 years experience in the building industry, both in the contracting and consultancy fields in Ireland, the UK, the Middle East, Germany and Turkey. He has extensive experience in mechanical building services design for a wide variety of clients and sectors including pharmaceutical, web hosting, commercial and medical devices.
Hectic Last Quarter for CIBSE Programme

The run up to Christmas was a particularly busy period for CIBSE with two technical presentations in the space of six weeks, in addition to the annual celebrity lunch which was held in the Mount Herbert Hotel in Dublin.

Beginning with the latter, Dick McElligott was the speaker at the celebrity lunch and it was appropriate for a figurehead of his stature that there was a capacity crowd in attendance. Dick is widely known and respected throughout the industry, not just for his professionalism but also his quick wit, clever turn of phrase and forthright views and opinions.

His address was at times retrospective, enlightening, thought-provoking and informative. However, more than anything else it was entertaining. With Dick it is not just what he says which holds the attention but also the manner in which he says it. Congratulations Dick on an excellent performance ... for that is what it was and precisely what the celebrity lunch requires.

LED lighting was the focus of the technical evening held in DIT Kevin St in mid-December. There is a great deal of confusion and misunderstanding surrounding the specification and correct use of LED lighting and the purpose of this presentation was to cover the basics of LED technology while also demonstrating just what can be achieved.

Gay Byrne, Managing Director of Enlighten - the professional LED and architectural lighting solutions arm of the Fantasy Lights Group — began the proceedings. He put the importance of lighting into context, especially in respect of energy conservation and sustainable building services design.

With lighting such a high energy user, he said that LED lighting was the answer going forward. However, he cautioned against its inappropriate use and stressed the need for consultants to fully understand the fundamentals of LED technology before specifying it. He also acknowledged the absence of international harmonisation standards and validation processes in respect of...
airtightness is important in providing not only a building which is energy efficient but one which is comfortable and durable. The talk also outlined the principles behind the design, specification and construction of buildings to achieve high levels of airtightness. A number of buildings were presented as case studies and typical air leakage routes/problem areas discussed.

Gordon Routledge, Managing Director of Dialight Lumidrives — which is represented in Ireland by Enlighten — complemented Gay’s presentation with a thorough history of LEDs. He covered the core fundamentals, the limitations as well as the phenomenal potential of the technology, and the prospect it holds for future development and more widespread application.

Another keyline event held before Christmas was the Pat Benson Memorial Lecture. Presented by Chris Montague of the DIT, this was an illuminating address on the highly-topical subject of airtightness.

LED lighting, and the problem this posed when trying to apply it to a particular project.

Against that background he outlined a number of key projects Enlighten has been involved with where careful consideration of all the issues resulted in very successful applications. These included Áras an Uachtarain, Dáil Éireann, Custom House Quay and the recently-opened Heraldic & Genealogical Museum in Dublin.

Chris gave an overview of how airtightness impacts on the performance of buildings in other areas as well as energy consumption, and why achieving
New Rules for Regulation of Electrical Contractors

The Commission for Energy Regulation (CER) has released its proposals on the new rules for the regulation of electrical contractors with respect to safety. Electrical contractors are now asked to participate in the consultation process and forward their views to the CER. To help respondents do so, Garret Fitzgerald, Manager, Regulation of Electrical Safety, CER, has prepared this resume of situation as it currently stands.

The Energy (Miscellaneous Provisions) Act 2006 was enacted in December 2006. Under this Act the Commission for Energy Regulation has responsibility to “regulate the activities of electrical contractors with respect to safety” and to develop a new regulatory system in that regard. In carrying out this responsibility, the Commission may designate bodies to act as Electrical Safety Supervisory Bodies, who will be responsible for the registration, inspection, auditing and monitoring of electrical contractors.

This new statutory-backed regulatory system will replace the current voluntary self-regulatory system, which has been subject to the Commission’s oversight since June 2004. This voluntary system has been operated by two self-regulatory bodies, namely ECSSA and RECI, with the Commission having a limited supervisory role.

The Commission’s overall objective in designing and implementing the new system is: “To protect the safety interests of customers with respect to electrical installation activities through creating a suitable regulatory system which provides for electrical works to be carried out, tested and certified in compliance with the appropriate technical rules/standards”.

In order to develop and implement the new regulatory system, the Commission has set about the development of the following:

- a Vision Document, setting out the Commission’s decision on the design and operation for the new regulatory system. Further to industry and public consultation, a decision paper was published on 8 November 2007 on www.cer.ie;

- a Designation Process, to appoint a party or parties to act as Electricity Safety Supervisory Bodies and operate the day-to-day registration of electrical contractors. This process is expected to begin in early 2008.

In addition to the above, the Commission has drafted a Criteria Document, setting out the detailed rules for the...
registration and regulation of electrical contractors. The Criteria Document also outlines in detail the rules and obligations placed upon any party appointed to act as an Electricity Safety Supervisory Body.

There will also be rules and obligations placed upon electrical contractors to maintain registration with the appointed body.

The Commission’s Criteria Document was published for consultation on 7 December 2007 (document reference: CER/07/213). This consultation is the culmination of a process embarked upon by the Commission to build upon the strengths, and address the weaknesses, of the current voluntary system, as operated by ECSSA and RECI and the existing criteria applying within that system.

Registered electrical contractors and any party appointed to act as an Electrical Safety Supervisory Body will be required to adhere to the requirements and procedures of the Criteria Document.

Under the new regulatory system to be implemented over the course of 2008, only registered electrical contractors will be able to carry out certain electrical installation activities.

With respect to registered electrical contractors, Section B of the Criteria Document sets out the detailed proposals regarding the rules, requirements, obligations and rights associated with the following:

- Becoming a registered electrical contractor and maintaining registration;
- Operating as a registered electrical contractor and carrying out electrical installation works;
- The Certification of electrical installation works and compliance with inspection and audit;
- Disciplinary actions taken against a registered electrical contractor and the right of appeal.

It is envisaged that the release of the Criteria Document will assist in providing the industry with a clear view on how the activities of electrical contractors will be regulated with respect to safety.

The Commission is now seeking the views of all interested parties on its proposals as set out in its consultation on the Criteria Document. It is critical that the electrical contracting industry is involved in this process. Through consultation, in order to ensure that the new system to be implemented delivers on electrical safety in an effective, efficient and practical manner.

Once the Commission has considered the comments arising out of this consultation process, it will publish its decision on the Criteria Document. The Commission will then embark upon the implementation, and operation, of this new regulatory model.

The Commission’s proposals for the Criteria Document can be viewed at www.cer.ie and/or can be obtained from Karen Trant, CER. Tel: 01 - 400 0800; email: ktrant@cer.ie
Electrical Safety — The Way Forward

In recent years there have been quite a number of changes to Irish legislation relating to the electrical sector, all of which were designed to enhance the culture of electrical safety. However, just how aware the industry at large is of these changes is difficult to quantify. Moreover, it is hard to identify how such developments affect current practices in the sector. The question is, how au fait with these changes is your organisation and, more to the point, are you fully compliant?

It is against this background that bs news — in association with DIT and the ETCI — has prepared a series of articles on this complex area which will be published over the coming months. We begin this month by outlining the legislative changes that have taken place since the enactment of the Safety, Health and Welfare Act in 2005 (Figure 1), and the subsequent (2007) General Application Regulations and Amendments. This article also attempts to set out the role of the Commission for Energy Regulation (CER) in this new context.

The Electrical Safety Landscape


These regulations initially caused quite a stir because they proposed, under Regulation 89, annual testing for all places of work. This has since been amended by the introduction of the amendment regulations (S.I. 732 of 2007) to remove the absolute necessity for annual testing (see later the subsequent section: 'Amendment Regulations').

Voluntary Rules and Regulations

The Electro-Technical Council of Ireland (ETCI), in conjunction with the National Standards Authority of Ireland (NSAI), defines and harmonises the standards relating to the practical implementation of safety measures for electrical installations. These are detailed in "ET 101:2006 — the National Rules for Electrical Installations". Since its inception the ETCI has published many other...
Electrical Safety — The Way Forward

documents to provide clarification for the industry and has recently published a Guide to the Basic Principles of Electrical Safety (ET 213:2007).

Statutory Regulations - What has changed?

For the most part, Part 3 of the new SHWW (General Application) Regulations S.I. 299 broadly encompass what was contained in Part VIII of the previous SHWW (General Application) Regulations, S.I. 44 (1993). Electrical practitioners may not be directly aware of this but through engagement with the “ETCI Rules” — which themselves are one of the benchmarks in defining best practice — they are, by default, compliant to a level appropriate to the requisites of the industry.

Regulation 89: Testing & Inspection

Under this regulation, an employer shall ensure that:

— Similar to the previous regulations, a new installation and a major alteration of, or extension to, an existing installation is, after completion, inspected and tested by a competent person and a report of the findings is completed verifying that the relevant parts of Safety, Health and Welfare at Work (General Application) Regulations 2007 S I 299 of 2007, Part 3 is complied with;

— An existing electrical installation is inspected and tested annually, or if an inspector so requires, by a competent person and a report of the test is completed verifying that the relevant requirements of this Part 3 have been complied with (a new requirement, not in the 1993 regulations);

— On the necessity for further testing of an electrical installation, the advice of an inspector, or competent person, is acted upon having regard to the condition of the installation and the outcome of any tests referred to in the former two paragraphs;

— All defects found during the testing and inspection of an electrical installation are rectified promptly so as to prevent danger [Reference: Regulation 89: Safety, Health and Welfare at Work (General Application) Regulations 2007 S I. 299 of 2007, Part 3.]

The requirement that every installation at a place of work be tested annually or when deemed appropriate by the inspectorate was — not surprisingly — met with some “concerns” and anecdotal evidence suggested such an endeavour would present a great challenge to all those concerned, both logistically and financially. This generated great debate throughout the sector but the concerns of those who contributed to the dialogue appear to have been addressed by amendments in S.I. 732. It is worthy of note, however, that the draft regulations as published for public comment did not indicate an “annual” requirement, rather a “periodic” requirement for inspection and test.

Amendment Regulations

On 9 November 2007, the Safety, Health & Welfare at Work (General Application) (Amendment) Regulations 2007 — S I 732 of 2007 — were introduced. Under these regulations, amendments were made to the regulations contained in SI 299 (General Application) Regulations, 2007 concerning protection against electric shock, portable equipment and, as previously referenced, testing and inspection.

SI 299 defined the context for portable equipment being supplied through a socket outlet and being afforded RCD protection, but clarification for industry is required. For example, PCs and fax machines fall outside the remit of PAT even though they are supplied via socket outlets. The issue regarding the frequency of PAT remains a function proportionate to risk assessment and is a subjective process, requiring record keeping compliant with current codes of practice.

Regulation 89 on Testing and Inspection of Regulations S I 732 was modified to remove the requirement of annual inspection and testing of installations to one where testing would be required “from time to time”, e.g. at a frequency proportionate to a risk assessment pertinent to the installation design and utilisation. This decision means that a suitably competent person will be required to undertake the necessary risk assessment to establish the frequency of testing.

The ETCI is currently drafting detailed guidance on PAT testing, and this publication will be made available on www.etci.ie when the drafting stage is completed, the title of the publication is shown below for information:


Industry Impact

On 17 August 2007, the Commission for Energy Regulation (CER), the body responsible under the Electricity Regulation Act, 1999 to regulate both the electricity and electrical contracting sectors, issued a
Electrical Safety — The Way Forward

consultation document: “Vision for the regulation of Electrical Contractors with respect to Safety” (CER/07/127). Section 4 of The Energy (Miscellaneous Provisions) Act 2006 provides the Commission with the statutory authority to regulate the activities of electrical contractors with respect to electrical safety.

The purpose of this consultation was to elicit public and industry comment on the proposed approach of the Commission to the regulation of the activities of electrical contractors with respect to electrical safety. One aspect of such regulation is the Certification System which deals in particular with the establishment of a robust “self-certification of work” system. This would allow the work and competence of a registered electrician/contractor to be monitored, as well as providing the customer/consumer with confirmation that the electrical work is carried out in accordance with defined standards. This goes some way towards bridging the existing gap between the voluntary aspect concerning safety and compliance with the ETCI Rules to the establishment of regulated protection for consumers.

To this end, the Commission proposes that all electrical works (low voltage) carried out by registered electrical contractors must be carried out in accordance with the National Wiring Rules. The Completion Certificate will act as the means by which adherence to the National Wiring Rules is formally certified by the registered electrical contractor, and subsequently can be audited/inspected. Where it is found that a registered electrical contractor has undertaken work which is not in accordance with the National Wiring Rules, he/she will be subject to disciplinary proceedings.

Therefore, the role of all stakeholders - from consulting engineers to the technical practitioners - to ensure good, safe and best practice is embedded in the psyche of all participants and the subject matter encompassing testing and verification is the perfect medium to convey this message.

The views expressed in this document represent a personal opinion and should not in any way be construed as a definitive interpretation of the documents referred to within. This is not a legal interpretation, in the event of a specific legal question; the reader should consult a practicing solicitor or a member of the Incorporated Law Society.
carton house & mount wolsey conclude racgs programme

Carton House and Mount Wolsey were the venues for the final two outings in the RACGS 2007 calendar. Both proved particularly successful with capacity numbers participating in the golf and attending the presentation dinners later.

**Carton House**

Carton House was sponsored by Fujitsu General UK and, despite the bad weather initially, the day brightened up considerably and made for perfect golfing conditions. Not that it made the course any easier — all found it a tough and challenging experience.

Some great scores were recorded in the circumstances with Johnny Lynagh from Whiriskey Refrigeration emerging the overall winner. Other prizewinners were:

- **Class 1**
  - Winner — Michael Clancy;
  - Second — Ger Darcy.

- **Class 2**
  - Winner — Dave Killalea;
  - Second — Mark Kiely.

- **Front 9**
  - Winner — Brian Carty.

- **Back 9**
  - Winner — Liam Hoctor.

- **Visitor**
  - Winner — Joe Aherne;
  - Second — Paul Airy.

**Mount Wolsey**

Mount Wolsey was the Christmas outing and this was sponsored by Refrigeration Skillnet with Seamus Kerr attending to present the prizes. All the major winners received a large Christmas hamper with every one of the other participants also receiving a prize. Results were as follows:

- **Overall Winner**
  - Brian Carty.

- **Class 1**
  - Winner — Ger Darcy;
  - Second — Michael Clancy.

- **Class 2**
  - Winner — Dave Kirwin;
  - Second — Michael McLoughlin.

- **Class 3**
  - Winner — Frank O'Sullivan;
  - Second — Dave Hickey.

- **Visitors**
  - Winner — Chris Grey;
  - Second — Dave Hickey.

Looking forward to next near, see details of the full RACGS 2008 programme on your bs news 2008 Wall Planner.
**Well Done Dick**

Dick McElligott is an industry icon who, while never short of an opinion — or fearful of expressing it — rarely agrees to formally address industry colleagues.

Despite this, he made an exception for the recent CIBSE Celebrity Lunch and single-handedly revived the spirit of the event.

His presence added excitement and anticipation to the occasion and he did not disappoint. He spoke in his usual, direct manner which made for an informative and thought-provoking address. He was at times serious, funny — and somewhat surprisingly — melancholic. Above all he was entertaining.

Every now and then a mischievous glint appeared in his eye as he alluded to some story or character but, having teased us with a hint of scandal, he quickly moved on. While this was much to the disappointment of most of those present it was, perhaps, to the relief of the large contingent of his contemporaries in attendance!

Dick, now that we've had the sanitised version, how about the Full Monty next year with no holds barred?

Away over the Christmas period. Both played a major role in the development of building services in Ireland and strongly influenced the adoption of operational practices which are now commonplace.

They are remembered in this issue — Brian on page 32 and Frank on page 21.

I DON'T BELIEVE IT!

Well, he's gone and done it ... Tom Scott has actually retired. It has been so long coming that it looked like it would never happen!

Tom's colleagues in Hevac gave him a fitting send-off (see page 16) while his contemporaries in other building services companies — from competitors through to suppliers and customers — have also marked the occasion of his retirement in various ways.

That said, Tom assures me that he will not be a stranger and *bs news* will keep tabs on his activities over the coming months, particularly his experiences on the ocean waves.

**Biofuels Dilemma**

Scientists have now confirmed that using biofuels made from corn, sugar cane and soy beans could have a greater detrimental environmental impact than burning fossil fuels. While the fuels themselves emit fewer greenhouse gases, they all have higher costs in terms of biodiversity loss and destruction of farmland.

In a study of 26 biofuels conducted by Swiss scientists, 21 were found to reduce greenhouse gas emissions by more than 30%. However, almost half of them had greater total environmental impact than fossil fuels.

Those who champion the use of biofuels — such as politicians and some industry advisors — without considering the bigger picture are merely looking for an easy, shoe-in solution. Biofuels have been oversold but, thanks to the result of emerging authoritative studies, the initial euphoria is now giving way to more considered debate.

**Why Did Danfoss Cross the Road?**

Danfoss Ireland has moved ... literally across the road. It is now based at Unit A4, Centrepoint Business Park, Oak Road, Dublin 12. Tel/fax numbers and email address remain the same.

**Campion & Son!**

Congratulations to Martin Campion of Campion Mechanical & Electrical Engineering on the recent birth of his first child. I understand both mother and baby — a son called Michael — are doing extremely well.
"Stiftung Warentest" is the internationally recognised, independent German institute responsible for testing products and services under the premise of absolute neutrality. It recently tested a total of nine heating pumps. The result: a definitive "very good" for the Wilo-Stratos ECO. With a grade of 1.3 for energy efficiency, it is in fact the test winner, and that with a 23% lower energy consumption than the runner-up. Impressive? We call that Pumpen Intelligenz.

Wilo-Stratos ECO high-efficiency pump.
Fit & Forget

Instruments & Controls

Manotherm Ltd provides a broad range of precision instruments for measuring, transmitting and controlling pressure, temperature, level and flow. In addition to providing quality precision instruments, Manotherm is committed to exceptional customer service, including knowledgeable, courteous technical support that generates and maintains long-term relations.

Flow
Level
Sanitary
Pressure
Calibration
Environment
Signal Isolators
Leak Detection
Temperature/RH
Valves & Steam Traps
Data Loggers & Recorders

The Controls Centre,
4 Walkinstown Road, Dublin 12.
Tel: 01 - 452 2355/452 2229
Fax: 01 - 451 6919
email: info@manotherm.ie  web: www.manotherm.ie