

5-1-2009

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bs news

building services news

CIBSE

*Strategies to
Move Forward*

Refrigeration

*Loopholes in
Proposed Legislation?*

Designing Building Services

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opinion

Contraction Continues But Tender Activity Up

While construction activity continues to contract — a fact confirmed by the latest Ulster Bank Construction Purchasing Managers' Index® (PMI®) report — paradoxically, tender activity is up.

Both building services product suppliers and installation providers report a noticeable increase in tender requests, while Lynsey Clemenger, economist at Ulster Bank, confirms that despite the continuing decline, the bank maintains the view that the worst has passed.

He says that, looking at 3-month moving averages — which provide a better indication of the underlying trends — the PMI figures reveal the slowest pace of contraction in housing since October 2007, and in commercial since October 2008.

"While continuing to point to strong falls", says Clemenger, "the new orders index was at its highest level since April 2008. This encouraging development has fed through to constructor's sentiment which, while still negative, was the highest in a year."

The foregoing is not to suggest that the general economic outlook is any brighter, or that building services activity is on the increase, because it is not. However, it does point to a glimmer of hope on the not too-distant horizon. In the current circumstances that is something positive to focus on.

trade news + product information



new range of lowara circulators

ITT Lowara has renewed its range of wet rotor circulators for handling water in heating, air-conditioning and domestic hot water circuits for use in both residential and commercial applications.

The use of alternative energy, such as solar and geothermal power, has been introduced with the new TCLSOL and TLCK models. The variable speed versions feature an automatic rotation speed adjustment system that allows power demands to be adapted to system requirements.

The use of permanent magnet motors also puts this range in energy Class A, thus strongly reducing consumption.

Contact: Terry Murray, Lowara (Ireland). Tel: 01 - 452 0266; email: terry.murray@itt.com

carel ir33 universal electronic controller

Carel Ireland has just made the next generation of Carel ir33 Universal electronic controllers available for use in the HVAC/R sector. Designed to meet the demands of the small programmable controller market, the unit's suitable for both OEMs and installers.

The ir33 Universal is an advanced controller that includes infrared remote control, programming key, high-efficiency LED display, real time clock and RS485 serial port, without sacrificing the four control relays and the 115 to 230 Vac switching power supply.



The units feature a button-operated user interface that is simple to use, in line with the previous version, while at the same time adding symbols on the display and navigation menus, making the interface with the product more user-friendly.

Simple PC-based commissioning software (Carel Comtool) is also available, for complete control over all the device parameters, including configuration and saving. Available for panel installation and DIN rail mounting, it uses plug-in terminals to simplify installation and any operations on the unit.

Contact: Dave Killalea or Leslie Mason, Carel Ireland. Tel: 01 - 835 3745; email: sales@carel.ie

serious fall out from james likely ltd collapse

Given that the staff of James Likely Ltd were on protective notice from December of last year, the liquidation of the company a few weeks ago came as no great surprise.

Established in 1970, James Likely Ltd expanded and developed over a near 40-year period to become one of the leading companies serving the construction sector in Ireland. At one stage it directly employed 150 people, in addition to sub contractors.

Unfortunately, the current downturn dramatically changed that. Reasons given for the closure by a company spokesperson were a significant increase in bad debts, below-cost tendering by competitors, and the implementation of the new form of procurement contract by the Government.

Apart from the 75 employees who have lost their jobs, James Likely Ltd also employed a network of sub-contractors. These, along with the company's many product suppliers, now face an anxious wait while the liquidator determines the full extent of the total deficit.

honeywell website for water valve installers

Honeywell has unveiled a new online resource for installers and specifiers of valves for water control, pressure reduction and regulation, backflow prevention and system balancing.

The new website leads the user clearly towards the ideal products and accessories for each installation, from brass-bodied plumbing products to large cast iron valves for the water mains supply. Data sheets can also be downloaded.

The site also links to Honeywell valve sizing web pages which both simplify valve selection and provide valuable maintenance tips ... just follow the link from the water website.

Contact: www.honeywellukwater.com



maico ventilation & heat recovery

The new Maico WRG 35 range of heat recovery systems for low-energy and passive-energy houses is now available in Ireland from Irish Fan Distributors. Suitable for both new-build and refurbishment, the units can be adapted for different wall thicknesses by means of special accessories.

Key advantages are:—

- Simple installation;
- Easy commissioning;
- Low power consumption;
- High degree of heat recovery;
- No ventilation ducts;
- Low noise operation;
- No overflow openings;
- Only one unit required for each room.

Contact: Billy Wright, Irish Fan Distributors. Tel: 051 - 852 404;
email: info@irishfandist.com



ganly's takes octabuild award

Ganly's Athlone is the national winner in the Octabuild Builders Merchant Awards 2009.

The company also won the Connaught/Ulster Regional Award and the County Roscommon award, with Ganly's Longford winning the County Longford award.

Pictured right are Noel Conroy, Chairman Octabuild; Michael Ganly, Ganly's Athlone and John Murphy, President, Irish Hardware and Building Materials Association.

John O' Dwyer's Builders Providers, Kilrush, Co Clare won both the Munster Region Award and the County Clare Award, and Grange Builders Providers, Baldoye won both the Leinster Region Award and the County Dublin Award. All entries were judged on the basis of customer service, merchandising, housekeeping, health and safety and management systems.



trade news + product information



bsnews
building services news

innovation in sustainable building services award

Innovation in Sustainable Building Services Design is a new CIBSE Republic of Ireland Region award scheme sponsored by John Sisk & Co and organised in association with DIT and *bs news*.

The concept behind the new awards is to disseminate evidence-based findings from researchers and practicing engineers in sustainable building services design.

At this stage short abstracts of not more than 300 words are invited from individuals and companies and must be submitted by the end of June 2009. Entries should be submitted electronically to kevin.kelly@dit.ie

The shortlisted entries will be invited to submit final papers by 15 September 2009 and to make a final presentation in late October 2009 in DIT. The winner will receive €1000 with two runners up prizes of €500. Entries will be judged on:—

- Sound engineering practice;
- Degree of innovation or application of cutting-edge industry practice;
- Evidence (e.g. energy usage data, capital v running costs, etc);
- Data analysis: critical stance maintained throughout;
- Insightful conclusions and lessons learned.

Contact: kevin.kelly@dit.ie; keith.sunderland@dit.ie

new categories added to accelerated capital allowance

Sustainable Energy Ireland (SEI) has included four new categories under the Accelerated Capital Allowance (ACA) scheme. The scheme encourages businesses to purchase energy efficient equipment by allowing them to write off the entire cost of the purchase for one year against taxable income.

The new equipment categories are:—

- Process and HVAC Control Systems;
- Heating and Electricity Provision;
- Information & Communications Technology;
- Electric and Alternative Fuel Vehicles.

Brian Motherway, Head of Industry, SEI said: "There are now more than 4000 products qualifying for these tax incentives. In these difficult times the savings available through purchasing more energy efficient equipment are very important and these new tax incentives will make the cost of such equipment more affordable."

Full details of the new ACA equipment categories can be found at www.sei.ie

3D air sales moves to city centre

3D Air Sales Ireland Ltd, distributor of the comprehensive Mitsubishi Heavy Industries range, has moved to new premises located at 77 Sir John Rogersons Quay, Dublin 2.

New contact details are as follows: Tel: 01 - 640 1997; Fax: 01 - 640 1899;
Tech Support: Tel: 01 - 462 7605; web: www.3dair@eircom.net

Contact: Michael Clancy, 3D Air Sales Ireland. Tel: 01 - 640 1997;
email: michaelclancy@mobileemail.vodafone.ie; gmccann3dair@gmail.com

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hitachi shows support for skillnet

Hitachi Europe has demonstrated its support for the continuous provision of training in Ireland by becoming a sponsor of Refrigeration Skillnet. Hitachi has supplied two cassettes from its System Free air conditioning range, which were installed by Tech Refrigeration in Refrigeration Skillnet's new national training centre in Dublin.



Refrigeration Skillnet is the government-funded training network for companies involved in the refrigeration and air conditioning sector. It provides training courses, seminars and opportunities for its members to network and learn from one another (see also page 8).

Fergus Daly, Area Sales Manager for Hitachi Europe, comments: "Refrigeration Skillnet is a not-for-profit body that plays a valuable role in addressing the training needs of the RAC industry in this country. We are proud to be associated with the organisation, and wholeheartedly support the contribution it makes."

Contact: Fergus Daly, Hitachi Europe (Dublin). Tel: 01 - 216 4406; email: aircon.ireland@hitachi-eu.com

further international expansion by pm group

PM Group has acquired Dewjo's Architects, a leading UK architectural practice with expertise in the health, education and biopharma sectors. It will be merged with PM's existing architectural practice, Devereux Architects, making it a leading architectural brand internationally.

PM has also been awarded the detailed design of a new €130 million state-of-the-art nutritional facility in Saudi Arabia for Almarai. It won the contract on the basis of its unique track record and world class capabilities for clients in the nutritional sector, including Wyeth and Abbott, with whom it is working on major projects in Ireland, Singapore and China.

In addition, PM has entered into an alliance with Al Akaria, the Government-backed development company quoted on the Riyadh Stock Exchange. The Saudi Government plans to spend \$1.1 trillion over the next few years on developing major projects and PM will assist Al Akaria with the project management of a number of these developments.

carbon dioxide monitoring

The new Model CDD duct mount carbon dioxide transmitter from Manotherm monitors the occupancy in a room by detecting the concentration of carbon dioxide in the return air duct.

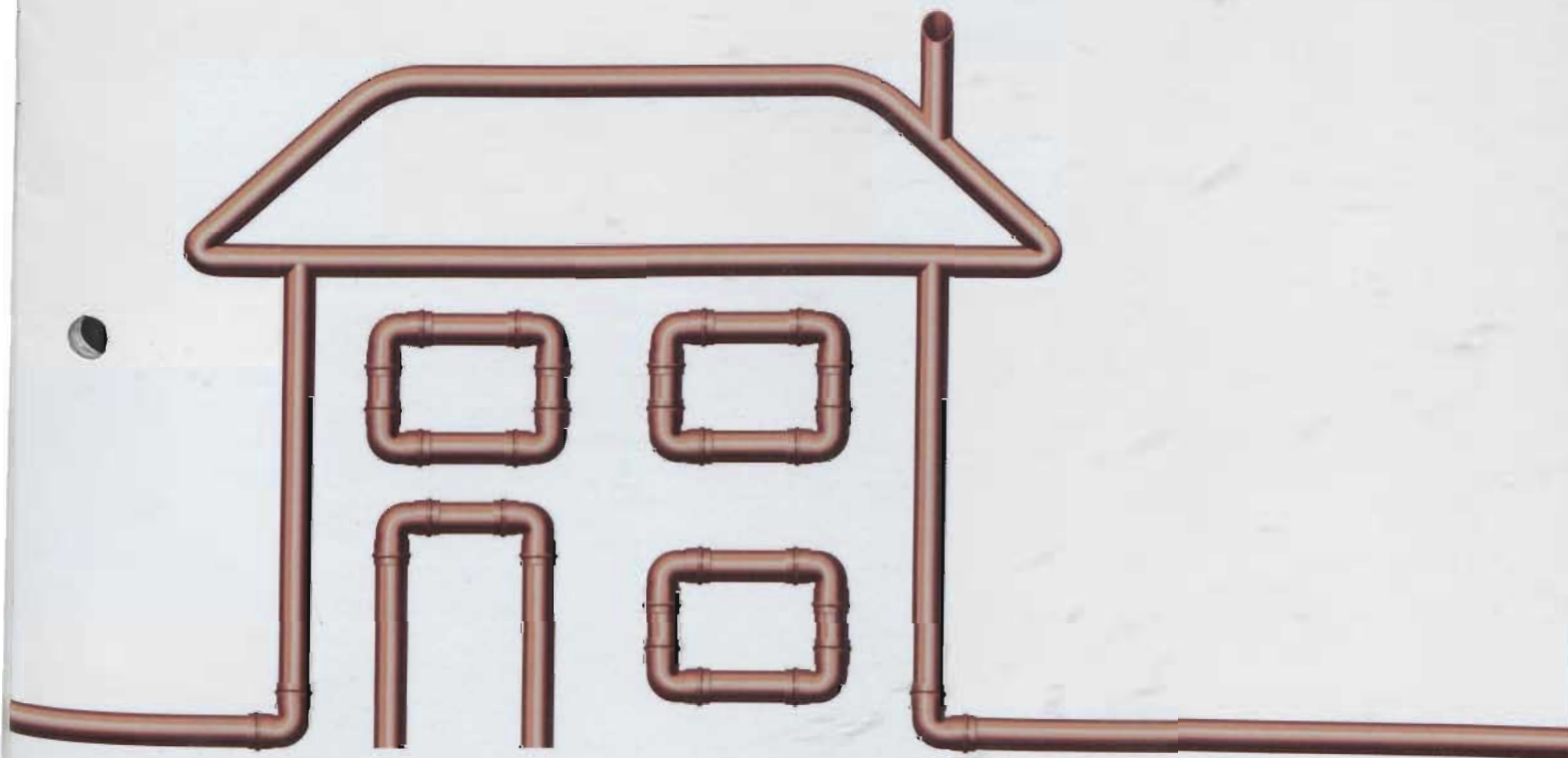


The non-dispersive infrared sensing technology automatically updates the calibration of the transmitter using a proprietary logic feature which limits the amount of error due to drift. This model can measure up to 2000 PPM in duct air flows less than 1500FPM.

Meanwhile, the Series CDW wall mount carbon dioxide/temperature transmitter combines accurate CO₂ measurement with a passive temperature output.

The non-dispersive infrared sensor continuously updates the calibration through the same proprietary logic feature associated with Model CDD. The CDW is ideal for building automation systems to help control the fresh air intake in a room.

Contact: Bob Gilbert, Robert Gilbert or Conor Stead, Manotherm.
Tel: 01 - 452 2355; email: info@manotherm.ie

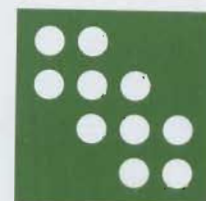


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Thousands of properties in Ireland have a built-in quality product – copper plumbing tube from Irish Metal Industries. With its 25 year guarantee and carrying either the Irish Standard Mark or BSi Kitemark, our tube offers you proven and trouble-free service, year after year.

You can rely on Irish Metal Industries tube – so ask for it by name.



**Irish Metal
Industries**

Refrigeration Skillnet Open Day Success



Refrigeration Skillnet, the industry-led training network for companies involved in the refrigeration and air-conditioning (RAC) sector in Ireland, recently held its first ever open day at its new National Training Centre in Blanchardstown, Dublin 15.



The objective was for members and invited guests to visit the centre, view the facilities now available to them, and to network with industry colleagues. There was a massive turnout on the day with those present also having the opportunity to meet the Network board, Network Manager and the trainers.



The Training Centre was purpose-designed to suit the industry's needs and includes a training room with AVC, a practical workshop, demonstration laboratory and canteen. Visitors on the day were also given information on training courses, details of the latest developments on F-Gas and EPBD, and a preview of the new RAC Health & Safety DV.



Complementing the academic and technical presentations was an ongoing series of practical demonstrations by Refrigeration Skillnet trainers. Topics covered included:—



- Brazing: best practice and common mistakes;

- Charging and recovering refrigerants;
- Leak checking and energy efficiency.

Established in December 1999, Refrigeration Skillnet has grown in size each year with membership now standing at just over 200 refrigeration engineering SMEs. Key objective is to address the joint training needs of enterprises whose primary business activity is the design, manufacture, distribution, installation and maintenance of refrigeration and air-conditioning technology for Irish industry. There is a particularly strong focus on technical training.

Refrigeration Skillnet is funded by member companies and the Training Networks Programme, an initiative of Skillnets Ltd which is funded from the National Training Fund through the Department of Enterprise, Trade and Employment.

This recently-held inaugural open day proved an enormous success and all credit to those involved, the majority of whom give their time freely on a voluntary basis. It is definitely something worth repeating.

Contact: Enda Hogan, Network Manager, Refrigeration Skillnet.
Tel: 058 44211;
email: refskill@eircom.net





Renewable energy

EU recognition of heat pumps as a renewable energy source presents a major sales opportunity

Adaptable

Can be retrofitted alongside an existing boiler or works stand-alone

Flexible solution

For traditional radiators, under floor heating and domestic hot water

Easy to install

Preset engineer configurations make installation and commissioning simple

New builds

A screed drying function is ideal for new builds



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Cheaper to install than ground-source heat pumps, Yutaki converts 1kW consumption into an impressive 4kW output making it economical for heating and domestic hot water. Not to mention reducing CO₂ emissions by up to 40%*.

A space-saving, outside heat pump communicates with an intuitive, wireless remote control to adjust room temperatures efficiently. And in the spirit of keeping things simple, there's even a 'One-Touch' holiday button which your customers will love. And if all that's not enough, we're throwing in a five year warranty too.

Apparently you can please all the people all the time.

*compared to traditional boiler-led systems

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CIBSE News

McKinley to Lead CIBSE at Most Challenging Time



Tony McKinley, Chairman, CIBSE Republic of Ireland Region with outgoing Chairman Ger Keating

Tony McKinley has been elected CIBSE Republic of Ireland Region Chairman at a time when building services — and construction at large — faces perhaps its greatest challenge ever. Tony's role is to get the industry to press ahead with innovative energy-saving and carbon-reducing systems and technology, at a time when the financial resources to fund such initiatives have all but dried up.

Tony fully recognises this and, as he said at the AGM following his election: "The significant challenge over the coming years is to create more energy efficient and sustainable buildings to meet both regulatory and client requirements, notwithstanding the normal project constraints such as architectural vision (form, fabric, orientation) and the budget. This requires rigorous interaction with the architect and client to ensure their requirements are aligned with the regulatory constraints.

"Following this year's CIBSE Annual Conference we will continue to support the industry with these challenges over the coming year. Hence the CPD programme will focus on the methods by which we can achieve the dual target of more energy efficient buildings,

together with regulatory compliance. Where appropriate, it will include joint seminars with other professional bodies.

"Promoting research is another critical objective and I intend to work closely with former Chairman Kevin Kelly to identify suitable projects, and partners, willing to collaborate with a third level institution on particular aspects of building services.

"Part of the overall Institution's plan is to extend membership of CIBSE to all those engaged in the building services industry, and also to encourage members to progress to the most appropriate grade of their membership. So, to facilitate our members a Membership Briefing session will be held in Sept/Oct (date to be confirmed) to assist engineers on the path to chartered status.

"Keith Melon has taken over from John Furlong as Careers Officer and he will promote CIBSE in particular to young second-level students and graduates to

encourage continued membership of CIBSE throughout their careers. He will also be our YEN representative charged with developing the Young Engineers Network for CIBSE in Ireland.

"The activities of all the other sub-committees within CIBSE will also be actively promoted so that the Society of Light & Lighting (SLL), our exciting Awards programme, regional meetings, and social gatherings are developed to the point of their maximum potential.

"To put the challenge we face into context, it is worth noting that buildings account for 50% of all carbon emissions. The building services engineer has a very significant role to play in tackling the causes of climate change, and in ensuring sensible energy usage and continuity of supply. I'm honoured to be elected CIBSE Chairman, Republic of Ireland Region, at this time and look forward to working with my fellow-members as we rise to this challenge."




Back Row — Pat Lehane; Next Row — Sean Dowd with Niall Burke, and John Furlong; Next Row — Jimmy Cullen with Greg Traynor, Derek Mowlds, and Michael McNemey; Front Row — Ger Keating with Tony McKinley, Margaret Dolan, and Alan Duggan.

Your Comfort is our Business

Mark Eire BV has been supplying the building services industry with heating, cooling and ventilation solutions — along with bespoke control panels — for 20 years. Its state-of-the-art manufacturing plant is ISO 9000/2000 and CE-approved, time-related warranties of 10 years being common for the equipment.

Key Products

- Gas-fired suspended unit air heaters;
- Gas-fired make up air units;
- Warm water units, LPHW;
- Ventilation and recirculation units (Eco-fan);
- Industrial burner equipment;
- Air handling units;
- Tube benders;
- Cabinet Heaters (oil/gas — horizontal & vertical);
- Radiant heating (tube/plaque/quartz/aqua panel and complete ceiling).

**Mark Eire BV**

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Macroon
Co Cork

Tel: 026 - 45334

Fax: 026 - 45383

email: sales@markeire.com

web: www.mark.nl

Blackwell Wins Inaugural Irish Lighter Award

Oliver Blackwell of Low Energy Designs Ltd has won the inaugural Irish Lighter competition for the LED street and flood lighting project he designed for The Square in Tralee, Co Kerry. Unfortunately, Oliver could not attend the final presentation of papers, or the awards ceremony, as his wife gave birth to a son on the same day. However, John Murphy, his business development partner, delivered the paper on his behalf, and also collected the premier award on his behalf later that evening.

The judges for the awards were:—

- Gerard Keating (Chairman), partner in Homan O'Brien & Associates and outgoing Chairman of CIBSE (ROI);
- Liz Peck, Secretary of the Society of Light and Lighting;
- Jim Patton, Light and Lighting and SLL representative NI;
- Allan Howard, WSP Group and ILE council member;
- Professor Eugene Coyle, Head of School of Electrical Engineering Systems, DIT.

Blackwell's pre-submitted paper, and his presentation on the night, was an evidence-based examination of the LED street and flood lighting project installed in the Square, Tralee. The installation was carried out in 2008 and involved fully-programmable, power-adjusting, 77w LED streetlights and 88w LED floodlights as replacements for 70w SON streetlamps and 400w metal halide floodlights, respectively.

Power consumption and light output were compared with impressive results. Light levels were similar but with more consistent coverage with the LEDs, and power consumption was considerably less. Servicing intervals were extended and



Front row — Finalists Chantelle Stewart, Alan McDonald and John Murphy (representing eventual winner Oliver Blackwell) pictured with (middle row) — Keith Sunderland, Karen Leeson, Liz Peck, Mike Simpson and Kevin Kelly; and (back row) — Patrick Crowley, Eugene Coyle, Tony McKinley, Allan Howard, Gerard Keating, Jim Patton, Brian Geraghty and Paddy Craven.

lighting levels of each of the installed fittings could be adjusted to provide customised light levels. Pre-installed photographs and photometric data allowed comparative quantitative and qualitative analysis with the finished scheme. Such evaluation was thought essential by Blackwell for such innovative schemes and the judges agreed strongly with this.

Oliver received a cheque for €1000 from CIBSE(ROI) Chairman Tony McKinley, and a SLL/CIBSE certificate presented by Mike Simpson, incoming President of CIBSE and former President of SLL. Mike made the trip from the

UK especially for the event and, in a short speech, congratulated the ROI branch for its innovation in this regard.

Runner up certificates and cheques for €500 were presented to the two other finalists — Alan McDonald of Philips Lighting for his design for a new pedestrian bridge in Derry; and Chantelle Stewart for her proposal on illuminating the urban landscape in Temple Bar, Dublin.

To enter the 2010 Irish Lighter competition contact Dr Kevin Kelly at kevin.kelly@dit.ie; or Keith Sunderland at keith.sunderland@dit.ie

IMI Moves to New Dedicated Distribution Centre

Irish Metal Industries has moved to new offices and a dedicated distribution centre located within the massive Mulhuddart-based complex operated by Cronin — The Art of Moving, in Dublin 15. Cronin is Ireland's premier logistics company and this move is designed to strengthen still further the comprehensive service provided by IMI, and to reinforce its stockholding and nationwide distribution capability.

"Customer interface with IMI remains the same", says General Manager Conor Lennon, "but our order-processing and dispatch procedures have been further refined to deliver the ultimate in customer service. We now carry more extensive stocks across the entire range and aim for an order turnaround of within 24 hours in Dublin, and 48 hours throughout the rest of Ireland.

"As Cronin — The Art of Moving are experts in logistics for high-value products that require specialised handling, we at IMI now provide an integrated information system that links order processing, inventory management and product tracking with physical distribution. This transforms the efficiency of the supply chain, thereby turning it into a competitive advantage for our customers".

IMI supplies a complete range of copper tube for hot and cold water installations, gas services, sanitation, central heating and all other building services-related applications. Being wholly-owned by Yorkshire Copper Tube, a member of the KME Group of companies, IMI also has access to the strengths and resources of Europe's largest producer of copper and copper

alloy products.

The primary copper tube categories stocked are:—
— Irish plumbing tube;
— WICU plastic-coated coils;
— Full range of metric tube
— Full range of degreased tube;
— Roofing copper.

All tubes are manufactured to IS EN 1057 and IMI is licensed to engrave them with the coveted Irish Standard Mark, which is the registered quality mark of the National Standards Authority of Ireland.

Best for quality and reliability, copper is suitable for all manner of modern-day building services applications. It is easy to work with, while ever-more-advanced fittings making installation simpler and quicker. It also has excellent health-related advantages, evidence-based studies demonstrating that it is effective in preventing the growth of dangerous pathogens such as Legionella, and limiting the proliferation and spread of E.coli bacteria.

"Another unique benefit of copper is its excellent resistance to corrosion, heat, pressure and



Conor Lennon, General Manager, Irish Metal Industries

fire", says Conor Lennon. "This is particularly important given that today's preventative treatments and disinfecting techniques are carried out at much higher temperatures to reduce flushing times. Copper is ideal in that it remains unaffected by higher temperature cycles over the lifetime of a water system.

"Finally, there is the matter of sustainability, a key requirement for building services installations. In this respect copper simply has no equal", concludes Lennon.

Contact: Conor Lennon, IMI.
Tel: 01 - 809 7028;
Fax: 809 7001;
email: conor.lennon@irishmetalindustries.com



Store personnel preparing an order for dispatch at IMI's new base in Mulhuddart, Dublin 15



GT PHELAN

New, Dedicated, Training Centre

GT Phelan has just put the final element of its services to business into operation with the opening of its dedicated Toshiba air conditioning training facility at its headquarters in Southern Cross Business Park, Bray, Co Wicklow.

GT Phelan is synonymous with Toshiba, having distributed its entire range throughout Ireland since 1982. The company is renowned for excellent technical support, along with equipment and spare parts availability.

Up to now, training was provided by Toshiba who visited Ireland twice a year to deliver various courses. However, with the opening of the new state-of-the-art training centre — and with GT Phelan personnel now fully trained and qualified to deliver the training modules themselves — they can offer their own tailor-made, in-house, training to all interested contractors.

- Professionalism
- Quality
- Integrity



About GT Phelan

Established in 1970 by industry father-figure Gerry Phelan, GT Phelan Ltd is now looking forward to its Ruby Anniversary celebrations next year. Gerry's three sons — Kevin, Rodney and Derek — all entered the business at an early age and between them now have in the region of 65 years experience in the business.

They have collectively managed the business since Gerry's untimely death in 2003, working very closely on strategic matters. Nonetheless, they each have very specific day-to-day responsibilities with Rodney acting as Managing Director; Kevin as Operations & Service Director; and Derek as Sales & Marketing Director.

Professionalism, quality of both products and service, and integrity are the hallmarks of GT Phelan and these characteristics have made for long-standing trading relationships with key suppliers such as Toshiba, and a



The Trainers

Training will be conducted by Ian White and Derek Phelan. Both are highly-qualified and have extensive experience of all aspect of air conditioning. Ian will deliver the practical element of training gained from his extensive site experience, while Derek will handle the presentation material.

Hands-On Experience

The new comfortable and modern training facility contains a working example of the Toshiba 3-pipe VRF system linked to a variety of indoor units with different configurations. The facility also doubles up as a product showroom with a selection of indoor units from the splits range on view, together with an extensive and integrated controls panel.

The controls panel contains working examples of the simplified controller, timer controller and central controllers. There is also a compliant manager fitted which allows full access to the VRF system via web browser.

Various accessories are also on permanent display, including fault-reporting modules and BMS interface modules.



Training Course Content

Training modules available include:—

- VRF (SMMS, mini SMMS and SHRM);
- Digital Inverter, Super Digital Inverter and RAS;
- Controls;
- Commissioning;
- F-gas Regulations.

GT Phelan also offers training for older R407c and R22 equipment, if required. All training courses incorporate a module on the F-gas regulations and correct commissioning techniques, including a reminder on pressure testing and evacuation standards.



Certified Accreditation

Engineers attending the day-long seminars will be presented with a certificate on completion of an examination. Delegates will also receive a copy of Toshiba's Technical Handbook, together with a CD containing all relevant manuals covering the entire Toshiba range.

Training Course Participation

GT Phelan training courses are open to all *bona fide* contractors and other industry-related operators. To reserve a place contact Derek Phelan at email: derek@gtphelan.ie. Alternatively, visit www.gtphelan.ie

GT Phelan Ltd

t: 01 286 4377

e: derek@gtphelan.ie

www.gtphelan.ie

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TOSHIBA
AIR CONDITIONING

btu season tees off at royal dublin



Overall winner Connor Lennon

Despite the mixed weather on the day, the BTU 2009 programme recently got off to a flying start with a most enjoyable outing at Royal Dublin Golf Club.

Morning players got some rain on the Back 9 while those out in the afternoon suffered the same fate on the Front 9. Nonetheless, the weather was calm overall and, with the course in excellent condition, the large contingent returned some fine scores.

As always with Royal Dublin, the meal at the presentation of prizes was superb, the views over Dublin adding significantly to the occasion.

Ideal Armitage were the main sponsors and Brian Molloy and Jim Ennis helped make the occasion all that more enjoyable.

Results were as follows:

Overall Winner

Connor Lennon (H8) 39pts
(Back 9 from Des Haughton).

Class 1 (0-11)

First — Robert Kenny (H7) 38pts;
Second — Ger Hutchinson (H5) 37pts;
Third — Mick Matthews (H8) 35pts.

Class 2 (12-17)

First — Des Haughton (H14) 39pts;
Second — Barry Hennessy (H16) 35pts;
Third — Gerry Tobin (H16) 30pts (Back 9).

Class 3 (18+)

First — George Larkin (H23) 28pts;
Second — Tony Gillen (H18) 33pts;
Third — Oliver Sharkey (H22) 32pts.

Front Nine

Michael Brady (H14) 21pts

Back Nine

Tony O'Leary (H13) 17pts

Visitor

Shemas Keegan (H14) 34pts.

Class 2, second —
BTU Captain Mick
Matthews with
Barry Hennessy
and Brian Molloy,
Ideal Armitage



Class 2, third — BTU
Captain Mick Matthews with
Gerry Tobin and Brian
Molloy, Ideal Armitage



Tony O'Leary with BTU Captain
Mick Matthews and Brian Molloy,
Ideal Armitage

'Green & Smart Need Not Cost the Earth'

With both energy efficiency and sustainability now paramount when it comes to building services, heating equipment manufacturers are devising ever-more-inventive systems and solutions to deliver what the marketplace demands. A typical case in point is Mark Eire, the Coolea-based arm of the Dutch conglomerate Mark BV.

Established in 1987, Mark Eire has pioneered a host of industry breakthroughs down through the years and has now devised a novel approach to combine its expertise with that of heat pump technology to deliver ultra-efficient systems.

Managing Director Mike O'Donoghue has been at the helm for most of that time and he is very excited by this latest development. "Heat pump technology has made massive strides forward in recent years", says O'Donoghue, "technological advances in compressors and controls making COPs of anywhere between 3.8 to 5.4 quite commonplace. This has led to considerable reductions in cost

per kWh delivered (see **Figure 1**), whether the fuel source is natural gas, oil, lpg or electricity.

"This prompted us to re-assess our approach to the heating products and systems we provide, the result being that we now offer a comprehensive range of combi units, ie, gas plus heat pump coil, oil plus heat pump coil, AHUs including a heating coil, and even wood pellet heating with heat pump coil.

"The stumbling block with heat pumps can often be the initial capital cost. For instance, for a geothermal unit a horizontal loop has to be constructed, then there is the pump, storage, wiring and individual distribution units, and of course the installation of same. The larger the system then the greater the cost and payback period.

"However, devising a combi unit incorporating a heat pump to meet the core requirement and a direct or indirect gas/oil-fired system to deliver a boost when required can reduce costs significantly. The payback period

is reduced and there is also the additional bonus of both heating and cooling.

"We have extensive experience in energy-efficiency and sustainable systems. Twenty five years ago we introduced the Mark Eco fan which delivered energy savings of as much as 40%. Since then we have added heat recovery systems delivering 92% energy savings; energy recovery with counterflow heat exchangers; energy control packages; VSDs — a 20% reduction in speed gives a 50% energy saving; DC motors, HP coils, BMS controls and condensing heaters which deliver phenomenal efficiencies of 107%.

"At Mark Eire we also manufacture radiant heating systems, and high/low temperature radiant units for spot heating (not to heat a full building). In the correct application this can save a great deal of energy.

"As an international group Mark BV has 65 years experience in the business while we at Mark Eire have been serving the needs of the Irish marketplace for nearly 23 years. Throughout that time we have devised products and systems to best suit the particular climatic conditions of Ireland, then actually manufactured them at our base in Coolea. In these times of shrinking production worldwide, our client base can rest assured of quality-made products and systems, manufactured on their own doorstep.

"Experience, technological expertise and proven track record is everything in a demanding marketplace ... in Mark Eire you get it all".

Contact: Mike O'Donoghue,
Mark Eire.
Tel: 026 - 45334;
email: sales@markeire.com

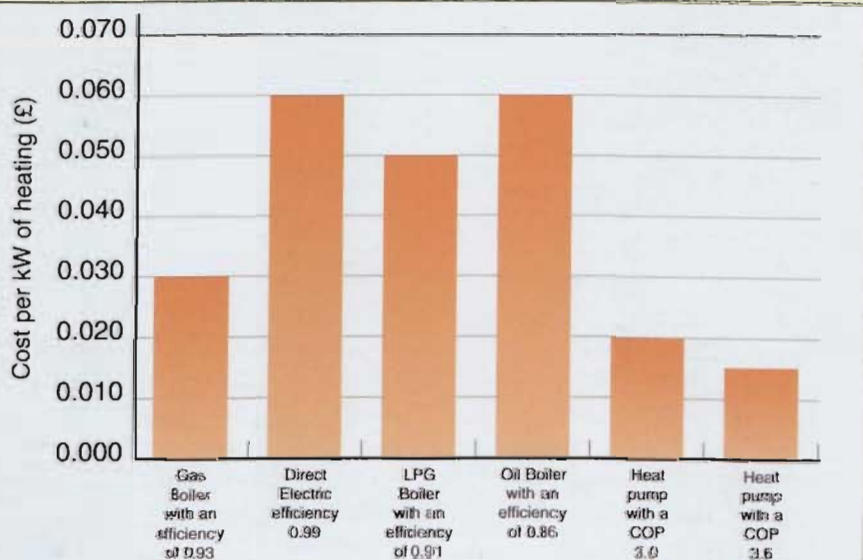
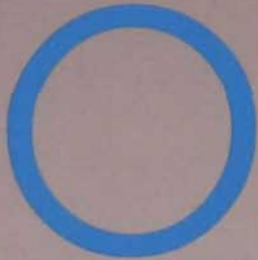


Figure 1: Comparison of heating methods and operating costs

The Primary Requirement for Hot Water Storage



"Utilising heat exchangers to transfer heat into water stored in a calorifier is a traditional method of hot water production that everyone in the industry is familiar with. But does the concept measure up to today's challenges of increased energy efficiency and reduced carbon emissions?" asks Paul Clancy, Managing Director of Baxi Group Ireland.



ne of the most popular

Low/Zero Carbon (LZC) solutions being adopted in Ireland today is the solar thermal system, like the Andrews SOLARflo, a Baxi Group product marketed by Potterton Myson Ireland (a wholly-owned subsidiary of Baxi Group). While this "ready-to-install" package utilises new renewable technology, it effectively acts as a heat exchanger, transferring the energy collected from solar collectors into a water storage calorifier.

Roof-mounted solar arrays — either flat plate or evacuated tube — both with high transmission and absorption efficiencies, typically capture energy from incident solar irradiation, passing the heat into a transfer fluid. This fluid is usually pumped through a coil located in the lower section of an

unvented indirect cylinder and, in so doing, heats the stored water that would normally be used for domestic hot water services (DHWS).

In summer months, an appropriately-designed solar thermal system should be able to satisfy almost all of the hot water demand in many cases. During the colder winter months, when the available solar irradiation is a lot lower, resulting in solar fraction (SF) levels of around 10-20%, the balance of energy required to satisfy the demand is supplied by the primary heating appliance. This can either be a heating boiler or direct-fired water heater.

In the summer period, the solar energy absorbed by the collectors and transferred into the hot water can negate the need for any energy at all being provided by the primary heating appliance. This can have a significant impact on reducing carbon dioxide emissions and energy bills.

Consider an example where

commercial boilers are being used for space heating as well as the generation of hot water via an indirect calorifier. A pre-heat cylinder served by an array of roof-mounted solar collectors may be used to supply pre-heated water to the calorifier, so requiring less fuel to raise the water in the cylinder to the legionella-safe temperature of 60°C.

During some summer months there may be solar irradiation over prolonged periods of the day, such that the water in the pre-heat cylinder is able to supply the required water temperature at the outlets. At times when there is insufficient solar energy to heat the water to the 60°C set point, the commercial boilers would provide the additional energy to raise the water temperature to that required.

For direct-fired water heater system applications, the main principle of generating the solar thermal energy and the use of an indirect cylinder are the same as for the boiler example given above.

Andrews offers one of the widest choices in direct-fired condensing storage water heaters, all of which are perfect for this type of application. They include:—

- The ECOflo, an economic entry model;
- The industry award-winning stainless steel MAXXflo which has up to four burners, giving built-in redundancy;
- The recently-launched NEOflo, a single burner stainless steel appliance which has no internal circulators and can therefore operate at pressures as low as 0.2 bar.

The NEOflo's versatility makes it perfect for most new build and retrofit applications, especially in buildings using tank-fed (vented systems) and in areas where water pressure is low. As these conditions are the norm in Ireland, the NEOflo is likely to become a popular choice, achieving a high efficiency of 106% net and ultra-low NOX performance of less than 25ppm.

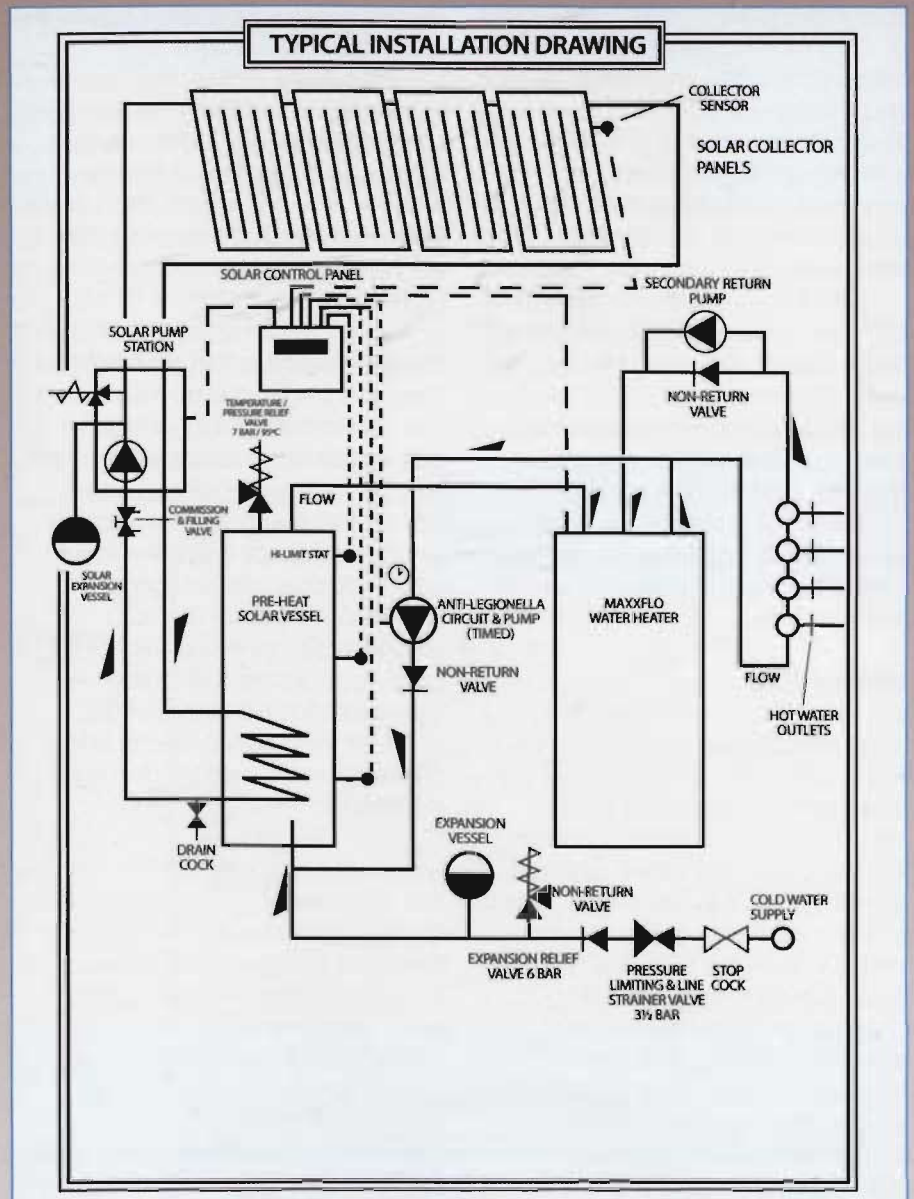
As with all Andrews water heaters, the design principles of the NEOflo afford protection against the formation of Legionella bacteria. However, its potential for development in the solar cylinder is often the subject of concern in commercial installations as the water could be stored at temperatures conducive to its growth (20°C to around 45°C). This risk can be overcome with appropriate design and properly-informed operation.

For example, cylinder pasteurisation can be conducted through the use of a shunt connection between the storage water heater and the pre-heat cylinder and, for twin-coil cylinders, a destratification pump can be used.

Andrews condensing direct-fired storage water heaters can be used with any L2C solution that has a primary requirement for hot water storage, as most do, to optimise the energy and carbon savings that can be achieved by the system overall.

For further information on Baxi Group system solution units visit:
www.potterton-myson.ie

The Andrews SOLARflo solar thermal system is one of the most popular Low/Zero Carbon (L2C) solutions being adopted in Ireland today. A typical installation drawing is shown below.





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designing BUILDING SERVICES

fan power, it will blow you away!

So you're working to an energy efficient brief. You've specified condensing boilers, a free cooling cycle and waste heat recovery. But have you thought about fan power?

Building services engineers adore smart technology. From inverter drives to solar panels, the building services industry is geared to providing technical solutions of ever-increasing complexity.

The electrical energy needed for ventilation fans and air handling units (AHU) plays an increasing role in the energy demand for buildings. Recent studies show that the electrical energy consumption can rather easily be reduced from the traditional level with proper design and installation.

Introduction

The "specific fan power" (SFP) value, expressed in kW/m³/s or W/l/s, indicates the demand on power efficiency of all supply and extract air fans in a building. Several countries have already set, either as requirements or as recommendations, maximum target values for SFP. This has been the first important step towards energy efficient air handling systems. The Irish Building Regulations have set the SFP for new buildings at 2W/l/s or 2kW/m³/s and refurbished building at 3W/l/s. It is a

requirement to input the SPF into the Non-Domestic Energy Assessment Procedure (NEAP)

What used to be a relatively straightforward process has now become much more complicated, with careful consideration required from the designer regarding the static pressures throughout the air system. However, with the use of the most appropriate fan, the energy savings should be considerable.

What is specific fan power?

Designers will now be required to use the installed fan motor power rating and the ratings of any other electrical auxiliaries connected with the ventilation service, such as the inverters, power factor correction and speed controllers. This is to discourage "over-ventilation" and encourage the design of lower resistance distribution systems, with fan systems and drives sized to match demand efficiently.

Target value for the SFP indicates the demand on power efficiency of all supply air and extract air fans in a building. This value should be defined during the early design stage for determining the useful power demand and so the energy consumption required for transporting air throughout an entire building.

For individual air handling units or fans, to enable the designers of building projects to quickly determine whether a given air handling unit will positively or negatively meet the overall demands on power efficiency, a SFP for the individual fan or AHU has been defined as:—

$$SFP = \frac{P_{sf} + P_{ef}}{q_{max}}$$

Where:

SFP — is specific fan power demand in kW/m³/s or W/l/s.

P_{sf} — is the total fan power of the supply air fans at the design air flow rate in kW or W.

P_{ef} — is the total fan power of the extract air fans at the design air flow rate in kW or W.

q_{max} — is the largest supply air or extract air flow through the air handling unit in m³/s or l/s.

In terms of SFP for the whole building, any fan-powered terminals (ie, fan coils) shall be included when they are connected to the main air supply system.

EN 13779 actually defines several

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ways to determine the SFP values, due to the still remaining national differences in the definitions. It is therefore important to also include which calculation procedure has been applied in each individual case in the design and commissioning documentation.

Choosing the right fan

Fans fall into two basic types — the popular centrifugal fan in forward and backward-curved configuration; and the in-line axial fan. Simple forward-curved centrifugal fans are cheap, but only around 60% efficient. Backward-curved centrifugal fans are 80% efficient, but about three times more expensive. Another feature of backward-curved blades is their non-overloading characteristic.

Axial flow fans are not as efficient as backward-flow fans, at around 70-75% efficiency, but no belts or pulleys are required and the direct motor can be controlled via an inverter and/or variable pitch blades. They are not suitable for small volumes. Prices are similar to those of forward-curved centrifugal fans.

The efficiency of a centrifugal fan is dependent on the nature of the motor drive — indirect drives using belts and pulleys can cause performance losses of around 10-15%. Although the popular solution is to use direct drives and speed inverters, performance improvements are not guaranteed.

Having chosen the type of fan, the designer then has to make a fan selection based on an assessment of the loads (including system losses) and the occupancy profile of the space

being ventilated. All fan manufacturers provide performance curves for their products which enable designers to choose the appropriate fan for the duty.

However, this is where the problems start. Designers need to understand the precise nature of the pressure drops that the fan will have to overcome, but without being so conservative that the fan ends up operating at the bottom of its fan curve and therefore inefficiently.

Fans that are asked to deliver air at the lowest part of the fan curve become noisy, inefficient and prone to stalling. Adjusting belts and pulleys and reconfiguring inverter drives can solve the problem, but at the penalty of a higher volume than is required, and a lower fan efficiency.

It is worth noting that clients often see higher air change rates

as beneficial, but the penalty is high specific fan power, high supply volumes and an inability to match fan operation to demand.

A forward-curved centrifugal fan may be liable to overloading because the power rises as the volume increases. An example of this in practice is if the main dampers are left wide open when the fan is first started up, too much air will be handled and the excessive power absorbed will overload the driving motor.

The backward-curved fan is less liable to over-loading than the forward-curved centrifugal fan and it is also able to deliver a relatively constant amount of air as the system resistance varies. The power of a backward-curved fan reaches a peak and then begins to fall ... this is called the self-limiting characteristic. This is shown in **Figure 1**.

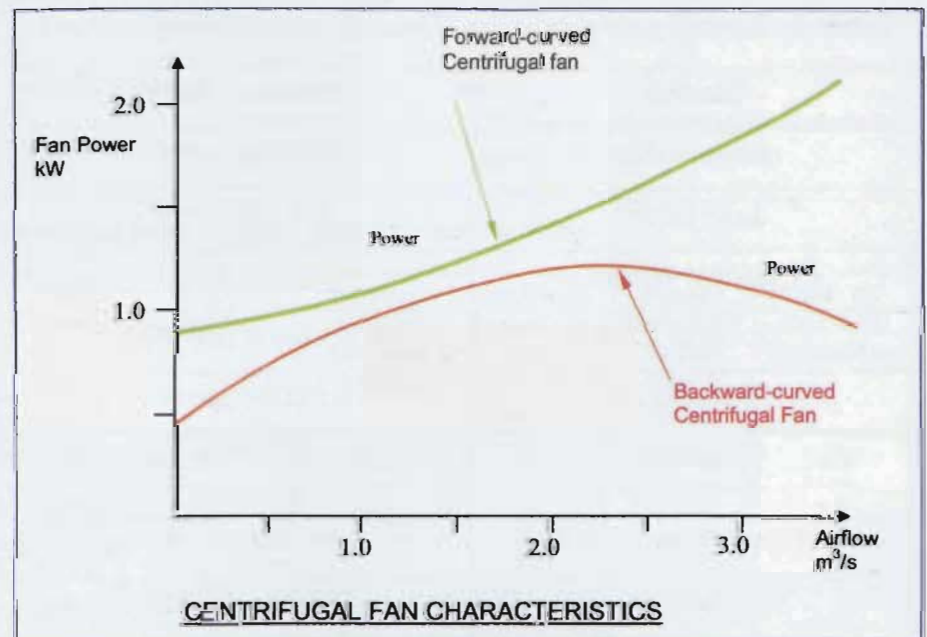


Figure 1: This shows the power of a backward-curved fan as it reaches a peak and then begins to fall ... this is called the self-limiting characteristic.

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Calculating pressure drops

While designers need to factor in the total resistance to airflow — which includes the external resistance of the ductwork distribution system and also the internal resistance of the air handling unit components like filters, dampers and coils — in reality the air handling unit forms a substantial part of the overall system resistance in most cases.

Table 1 shows typical pressure drops within an AHU. The filter pressure drop should be calculated "on the dirty", which is usually twice the pressure drop of the filter when new.

The static pressure within an air handling unit can easily be around 1200 Pa, and far higher when elements are added like heat recovery devices and desiccant dehumidification.

Although many of these pressure drops are an inevitable

consequence of air treatment, designers need to think very carefully about the energy penalties of installing so-called energy efficiency devices in the airstream.

The total resistance to airflow of a ducted system is the sum of the resistances of the individual duct lengths, fittings and other components like terminal units. Systems are usually balanced using an index circuit

Inverters or two-speed control?

The advent of stepless control has been a godsend to designers of all types of hydraulic pumped distribution circuits which have to accommodate varying loads with a decent design margin. However, inverter drives and eddy current motors are not a surrogate for proper fan specification.

Many engineers don't understand how fans operate,

they put inverter drives on the motors to save energy but then forget about the fan. They then wonder why the fan is vibrating. This is due to it operating too low on its curve. Depending on the loads and level of occupancy, there may be an argument for several smaller air handling units. It may even be more efficient to put axial fans in ductwork legs.

Designers should consider the virtues of two-speed control. Two-speed systems make fan selection easier, are more likely to maintain good fan performance efficiencies and are potentially easier to manage. However, they require good interface engineering and careful balancing.

Energy Saving, Benchmarks and Assessment Procedures

The Energy Assessment and Reporting Methodology is the latest tool for the assessment and reporting of buildings and their energy use. This uses a common language and procedure for estimating the annual energy use of all systems during a building's design, construction and operation.

Ireland has adopted Non-Domestic Energy Assessment Procedure (NEAP) and this requires the input for the SFP. Electrical energy that is drawn from the national grid is a large consumer of primary energy and so reducing a building's electrical energy consumption is key to achieving a good energy rating. Hence a building with a lower SPF will achieve a better rating.

Rather too much emphasis can be placed on heat recovery without considering the effect on

Table 1: Typical pressure drops through an air handling unit

Device	Pressure Drop
Panel Filter	120 Pa (dirty)
Bag Filter	200 Pa (dirty)
Thermal Wheel	120 Pa
Cooling Coil	80 Pa (plus eliminator)
Heating Coil	10 Pa (single row)
Silencer	50 Pa each (for supply and extract)
Heat Recovery Devices	200 Pa
Terminals	150 Pa (per box)
Run Around Coils	60 Pa

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Table 2: ECON 19 benchmark generator related to fan power

Benchmark	Good Practice				Typical Practice			
Office Type	Type 1	Type 2	Type 3	Type 4	Type 1	Type 2	Type 3	Type 4
W/l/s	1.0	1.0	2.0	2.0	1.5	1.5	3.0	3.0
l/s/m ² (average)	0.2	0.3	4.0	4.0	0.2	0.3	4.0	4.0
W/m ²	0.2	0.3	8.0	8.0	0.3	0.5	12	12

Type 1: Naturally Ventilated Cellular; Type 2: Naturally Ventilated Open-Plan; Type 3: Air Conditioned Standard; Type 4: Air Conditioned Prestige

CO₂ emissions. Electricity contributes 0.64 kg/CO₂/kWh compared to just 0.2 kg/CO₂/kWh for gas, so it is clear that a heat recovery device would need to save three times a unit cost of fan power to be worthwhile in overall energy terms. Given that the heat recovery will only be required for perhaps 30% of a building's annual running hours, serious consideration should be given to bypassing the pressure drop for the rest of the year.

Example

In a typical commercial or public building there are a number of air handling units and also some separate supply or extract air

fans to serve different purposes. There may also be a wide variety of activities in the building, some of which can be served by a simple fan (eg, exhaust from toilets) and others requiring high-level air treatment and distribution (auditoria, exhibition facilities etc.). For this reason, the SFP values for individual units and fans can vary within a wide range, especially in multi-purpose buildings.

The following example presents how to calculate the SFP for the whole building as a weighted average of all individual SFP's, as the total power consumption of all fans altogether, divided by the total supply or extract air flow, whichever the greater.

(1) Power supplied to the fan

This means the power supplied to the fan at design air flow and given pressure loss of the ductwork. This value can be calculated for example using the manufacturer's dimensioning software. This figure is used as input data for calculation of the SFP for the entire system. This figure includes the efficiency of fan, motor, belt drive and frequency converter. This is also the power, which should be verified by measurements in the completed installation after balancing and final adjustment of air flows.

(2) Ductwork pressure, in case of separate extract air fan

AHU Equipped with Both Supply and Extract Air Fans

Supply Air Fan	Air Flow (m ³ /s)	Ductwork Pressure Pa	Power Supplied to the Fan ¹⁾ (kW)	Extract Air Fan	Extract Air Fan Air Flow (m ³ /s)	Ductwork Pressure Pa	Power Supplied to the Fan ¹⁾ (kW)	SFP of this AHU (kW/m ³ /s)
S-1	0.5	300	0.98	E-1	0.5	250	0.85	3.66
S-2	2.5	250	3.36	E-2	2.8	250	3.93	2.6
S-3	6.9	300	9.17	E-3	7.2	300	8.71	2.28
S-4	3.3	250	4.33	E-4	3.6	250	4.83	2.54
Total	13.2		17.8		14.1		18.3	

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Supply Air Fan	Air Flow (m ³ /s)	Ductwork Pressure Pa	Power Supplied to the Fan ¹⁾ (kW)	SFP of this AHU (kW/m ³ /s)
S-5	0.4	300	0.66	1.65
S-6	1.2	220	1.44	1.2
Total	1.6		2.1	

Separate supply air unit or fans

Supply Air Fan	Air Flow (m ³ /s)	Ductwork Pressure Pa ²⁾	Power Supplied to the Fan ¹⁾ (kW)	SFP of this AHU (kW/m ³ /s)
EF-5	0.1	160	0.06	0.6
EF-6	0.2	220	0.17	0.85
EF-7	0.5	350	0.35	0.7
EF-8	1	220	0.67	0.67
Total	1.8		1.25	

Separate extract air unit or fans

Total supply air flow	13.2 + 1.6	14.8 m ³ /s
Total extract air flow	14.1 + 1.8	15.9 m ³ /s
Total electrical power	17.8 + 18.3 + 2.1 + 1.25	39.4 kW
SFP =	39.4/15.9	2.48 (kW/m³/s) or 2.5 (W/l/s)

In the foregoing example the SFP exceeds the maximal allowable SFP as set out in the Irish Building Regulations (2.0 W/l/s). Therefore, the design of the system will require modification in order for it to comply with the building regs. This could involve looking at AHU S-1 & E-1 to reduce its SFP by increasing the AHU size, hence dropping the face velocity and/or increasing duct dimensions, low resistance bends, etc.

Conclusion

Air handling units should ideally be specified with face velocities of around 2m/s, or to achieve an SFP of between 1.5 and 2kW/m³/s. Air handling units

clearly indicate that significant reductions in the whole life cost and energy consumption of mechanical ventilation systems are possible simply by designing to lower face velocities. This would lead to air handling units requiring greater plant room space, which would need to be taken into consideration in terms of building costs and/or reduced usable space.

These limits on specific fan power mean that the plant must be correctly sized to suit the application and that the plantrooms and risers are sized to avoid excessive ventilation power demands. It is likely that in

some buildings this will mean that the proportion of space required for the ventilation equipment and ductwork will increase from currently accepted levels. Engineers therefore not only need to secure the additional space required to enable them to design to Part L standards, but must also be able to assess this sufficiently at an early stage in the project.

The laws of physics though, stay the same. When it comes to designing energy efficient mechanical ventilation, no amount of clever electronics or high-efficiency heat recovery can compensate for high pressure drops, wildly-extended hours of operation, or excessive air change rates. If a system has any of these vices, your carefully-modelled energy targets will miss by a mile.

References

1. EN 13779 Ventilation for non-residential buildings - performance requirements for ventilation and room-conditioning systems. Revision, 2007.
2. CIBSE TM22: Energy Assessment and Reporting Methodology
3. CIBSE TM8: Design Notes for Ductwork.

Enda Gilroy

Enda Gilroy, Dip Eng, B. Eng, joined Project Management Group (PMG) as a graduate engineer from DIT Bolton St and has been with the company for three years. He works in the building services department as a design engineer and is part of the internal simulation and sustainability design team. He has written a previous article for *bs news* on "Simulation Design in Building Services". He is also a part-time lecturer with the Dublin Institute of Technology, Bolton St.

'Refrigeration Regulations Contain Loopholes'

As the European Union enters the final phase of revising its ozone depleting substances (ODS) regulation, the Environmental Investigation Agency (EIA)* has cautioned that the new regulation does not take account of past mistakes and continues to allow loopholes for illegal trade in controlled chemicals.



It says it also allows for the production and export of large quantities of ODS to developing countries, precisely at a time when efforts are underway to try to reduce and eliminate consumption of these chemicals.

According to the EIA, the loopholes mean that some ozone-damaging chemicals will be able to move in, out and through the EU under the radar and risks allowing past mistakes to reoccur. Investigations carried out by EIA in the late 1990s documented how the loophole of allowing EU importers to repackage ODS for onward export led to a series of illegal CFC shipments being sent to the US.

Proposals by the European Parliament to put an early stop to HCFC exports to developing countries were rejected by the EU Member States in favour of text that allows the production and export of very large volumes of HCFCs until 2020. Allowing large amounts of HCFCs to be exported to developing countries risks increasing dependency on

these damaging chemicals and hinders the uptake of less damaging alternatives.

The revised regulation allows for the production and export of the equivalent of about 379,000 tonnes of HCFC-22 between 2010-2019. This equates to about 20,894 ODP tonnes or 687.6 million tonnes CO₂ equivalent.

Not only will these gases have enormous environmental impacts but they are being exported to developing countries at a time when these countries are expected to take their consumption back down to 2009-2010 levels and begin phasing down consumption in 2013.

Moreover, it is likely that EU taxpayers will later have to pay to help developing countries get rid of this pile of HCFCs under the Montreal Protocol funding programme.

Virgin HCFCs will be banned from use in the EU from January 2010. After this time only recycled HCFCs are supposed to be used within the EU.

Allowing continued production of virgin HCFCs until 2020 will make it relatively simple for them to be disguised and sold as recycled, using the "placing on the market for repackaging and export" loophole.

EIA is calling for these loopholes to be closed before the final text is signed off.

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**The EIA is a non-profit NGO based in Washington, DC and London that is committed to investigating and exposing environmental crime, and to promoting lasting solutions. EIA has been actively tracking the global illegal trade in ozone-depleting substances (ODS) since the mid-1990s to provide information to the Montreal Protocol and other relevant bodies, as well as to training and regional cooperation workshops.*

See: www.eia-international.org

sponsors Danfoss Ireland

RACGS at Powerscourt

The RACGS second outing of the year was held in Powerscourt Golf Club recently with the weather mixed (as usual) for the Danfoss Trophy. However, everyone had a great day with some very close scoring. John Sampson from Danfoss Ireland was on hand to present the prizes at the customary presentation dinner.

Full details of results were as follows:—

Overall Winner

Zac Keane (18) 37pts.

Class 1

First — Jack Elstead (15) 32pts;
Second — Ger Darcy (11) 29pts.

Class 2

First — Mattie Kiely (16) 36pts;
Second — Fred Barber (16) 28pts.

Front Nine

Michael Clancy (16pts)

Back Nine

Vincent Barrett (15pts)

Longest Drive

Vincent Barrett

Nearest Pin

Liam Carroll

Visitors

First — Neil Lester (15) 34pts;
Second — Joe Keogh (18) 32pts.

golfer of the year update

Mattie Kiely, 11;
Zac Keane, 11;
Johnny Lynagh, 10;
Michael Clancy, 9;
Billy Queally, 7;
David Kirwan, 7;
Jack Elstead, 7;
Vincent Barrett, 6;
Joe Warren, 5;
Ger Darcy, 5.

Best four out of six to count for Golfer of the Year (sponsored by Hitachi Europe).

may/june 2009

<https://arrow.tudublin.ie/bsn/vol48/iss4/1>



Overall winner Zac Keane accepts his prize from Vincent Barrett, Captain and sponsor, John Sampson, Danfoss Ireland



Michael Clancy, winner, Front Nine with John Sampson, Danfoss Ireland



Ger Darcy, winner, Second Class 1 with John Sampson, Danfoss Ireland



Dave Killalea with John Sampson, Danfoss Ireland



Jack Elstead, winner, Class 1 with John Sampson, Danfoss Ireland

RACGS at Cork Golf Club

The RDL-sponsored outing at Cork Golf Club was one of the most successful to date with 30 participants taking to the course. The day began a little overcast but soon brightened up, making for near perfect golfing conditions.

Some excellent scores were returned with competition for the overall winner's prize fiercely contested. In the final analysis though Sean Stenson took the honour.

RDL presented a magnificent array of prizes and were most welcoming to all who had travelled to play, especially from far afield. Indeed, Derek Byrne would have been presented with a special "Longest Drive" award had he not left early to be sure to find his way home before dark!

Apparently, Derek was clearly sighted in Abbeyleix at approximately 11am on the morning in question, relaxed and carefree as he headed to Cork. Unfortunately, he somehow overshot the city and got lost. After some frantic mobile calls and some very stressed conversations, he eventually arrived at Little Island just before the final 3pm tee-off deadline.

As one would expect from the motley RACGS crew, Derek received some unmerciful ribbing rather than the sympathy he deserved. So, to be on the safe side, he headed back to Dublin early, thereby missing out on his special prize ... just as well Derek!

Full details of results were as follows:—

Overall Winner

Sean Stenson 35pts.

Class 1

First — Brian Carty 34pts;

Second — Michael Clancy 34pts.

Class 2

First — David Kirwan 33pts;

Second — Mattie Kiely 33pts.

Front Nine

Johnny Lynam 20pts.

Back Nine

Stephen Mulvaney 17pts

Longest Drive

Michael Clancy

Nearest Pin

Paddy Smee

Visitors

First — Gerry Beirne 34pts;

Second — TC. Curren 33pts.



Overall winner Sean Stenson with Vincent Barrett, RDL, sponsors and RACGS Captain Dave Killalea.



RACGS Captain Dave Killalea with Michael Clancy, winner, longest drive and second, Class 1; and Vincent Barrett, RDL, sponsors



Brian Carty, winner Class 1 with RACGS Captain Dave Killalea and Vincent Barrett, RDL, sponsors



RACGS Captain Dave Killalea with Vincent Barrett, RDL, sponsors and TC. Curren, second, Visitors' Prize

Plumb Lines

heard it on the grapevine ...



'GREEN' LIGHT BULB HYPOCRACY



While we in Europe commend ourselves for legislating for the use of energy-saving compact fluorescent light bulbs, we conveniently turn a blind eye to the environmental — and human — tragedy their manufacture entails.

The manufacture of these so-called "green" light bulbs requires workers to handle mercury in either solid or liquid form because a small amount of the metal is put into each bulb to start the chemical reaction that creates light.

In southern China, compact fluorescent light bulbs destined for western consumption are being made in factories, resulting in large numbers of Chinese workers being poisoned by mercury.

This horrific situation is further compounded by the fact that many de-commissioned mercury mines are now being re-opened to meet the newly-created demand. Here again it is the workers who pay the price for our carbon conscience.

The hypocrisy of western governments

on this issue is perhaps best illustrated by the UK Government "guidance document" which warns consumers that, if a compact fluorescent light bulb is broken in the home, the room should be cleared for 15 minutes because of the danger of inhaling mercury vapour.

Wonder how many Chinese lives — and highly-toxic mercury mines — it takes to change from a traditional light bulb to a "green" one?

STOP PRIVATE SECTOR BASHING

The latest report from ICC Information says that Irish companies have more than €37.5 billion in cash on their balance sheets, based on accounts filed in the last 18 months. In addition, apparently over 10,000 of these (excluding banks, finance and insurance companies) have cash balances of more than €250,000.

This may well have been the case 18 months ago when the said accounts were filed but, given the dramatic downturn of the last six months in particular, it is highly unlikely that this is the case today.

What's happened in most cases over the 18-month period in question is that the majority of companies have used up their cash reserves simply to survive and are now facing a very uncertain future as credit lines have virtually dried up.

Suggesting that private companies are sitting on €37.5 billion in cash and are therefore contributing to the credit crunch is misleading and unfair, particularly when the real culprits are the banks and the Government.

GOTCHA BERNIE!



Congratulations to Damian Mooney, Woodleigh Ventilation, who — like many others — correctly identified "jester" Bernard Costello in last month's competition. Damian's name was the first drawn out of the hat containing all the correct entries.

RACGS TO HOSPITAL RICHES

RACGS Captain Dave Killalea has donated a full set of Teitlist golf clubs, including drivers and bag, for a raffle in aid of Crumlin Children's Hospital.



Tickets are €20 each and can be bought by everyone in the industry, whether a RACGS member or not. The draw will be made at the Captain's outing in The Heritage, Killenard, on 26 June.

This is an excellent cause worthy of all-industry support.

Keep Your Name to the Fore

When the trading environment is difficult, it is more important than ever to keep your **name to the fore**.

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It's at times like this that product and service providers need to keep their **names to the fore**.

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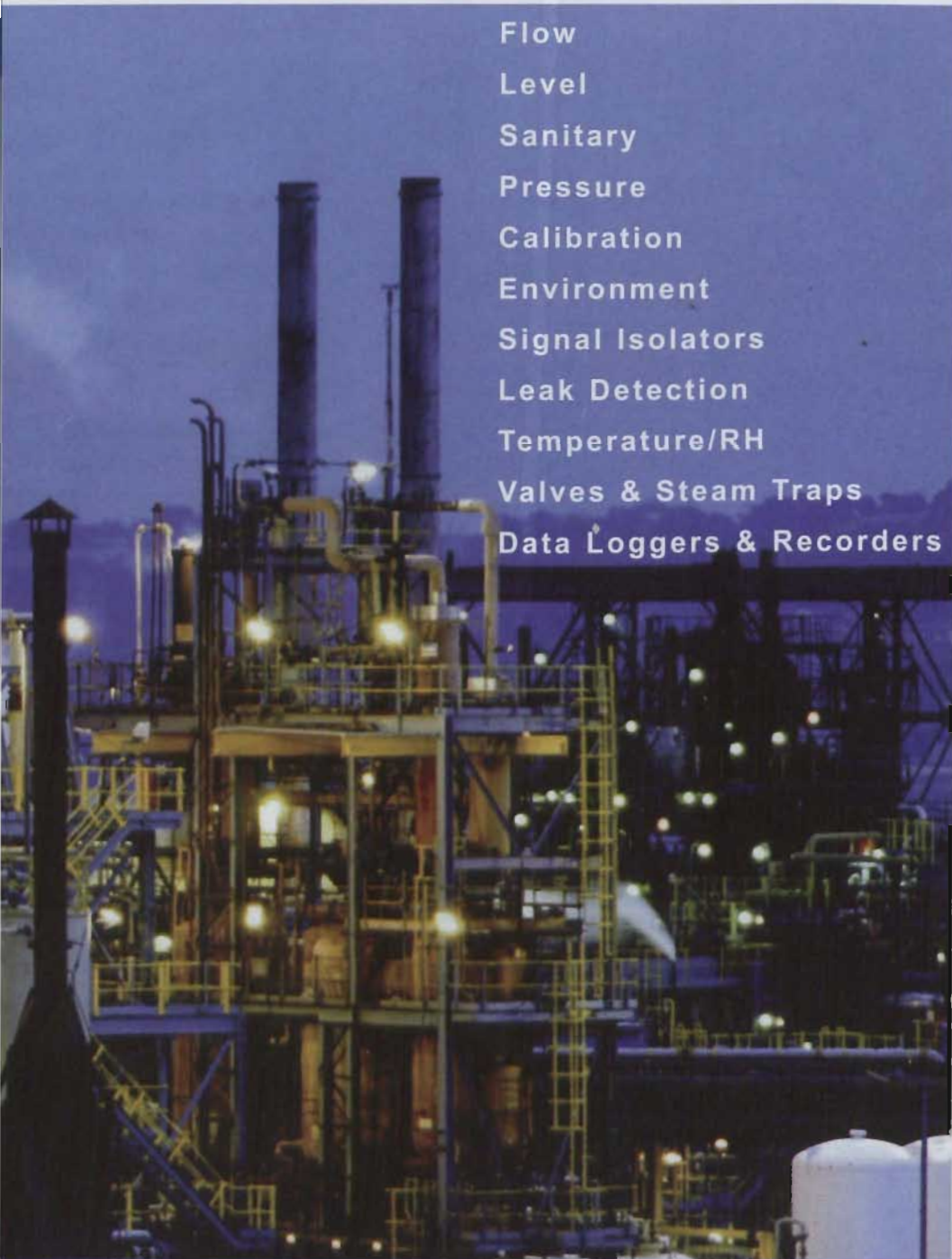


Fit & Forget

Building Services Engineering, Vol. 48 [2009], Iss. 4, Art. 1

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