Pressed For Time?
Joints in 3 Seconds!

- Unipipe (by Uponor) multi-layer pipe offers a proven alternative to steel, copper and plastics for mechanical services.

- Available in straight lengths (all sizes 12 to 110mm) and coils (to 32mm).

- Corrosion proof, faster, cleaner. No welding screwing or painting. Longer lasting and lower installed costs.

- One pipe...no waste...offcuts from one application can be used elsewhere on the job.

- From Sweden NIBE offer ground-source, Air-to-Water and exhaust air heat pumps. NIBE are Europe's largest producer of heat pumps.

www.unipipe.ie
Think You Have the Answer ... Let’s Hear It!

Following the enormous success of the CIBSE’s (Irish Branch) first annual conference earlier this year, preparations are now underway for next year’s event which will be held in Clontarf Castle, Dublin, on 22 March 2007.

The main theme is sustainable building services design, the intention being to foster and promote an all-inclusive, cooperative approach between architects, consultants and contractors. Unfortunately, this is not happening at present. Of course there are notable exceptions but, in the main, traditional demarcation lines prevail.

Time and again bs news has sat in the company of architects, consultants and contractors, all of whom claim to know exactly where the problems lie. Invariably, it is never with themselves but always with some other discipline.

Well, now is the time to stand up and be counted. CIBSE is looking for a number of speakers to make a presentation at the forthcoming conference. The idea is to relate their experiences — both good and bad — with regard to projects incorporating sustainable design innovations. The objective is not to get into the blame game but rather to identify where the system is falling down and to devise a constructive way forward.

If you have a view, opinion and/or experience of sustainable building services design to share, the forthcoming CIBSE Conference is the place to do it. With up 300 of your peers in attendance, you won’t get a better opportunity.

Contact: Kevin Kelly, Conference Coordinator. Tel: 01 - 402 3609; email: kevin.kelly@dit.ie
Mark Eire air handling units

Mark Eire air handling units are suitable for all manner of applications such as offices, factories, abattoirs, showrooms, hotels, retail outlets, gymnasiums, restaurants, warehouses and public houses. Depending on the requirement, they can provide heating, cooling, filtering, (de)humidification, ventilation, re-circulation and heat recovery.

The specially-designed housing for the units consists of a self-supporting frame of aluminium profiles. The aluminium panels incorporate intermediate mineral wool quilts that have been glued, under pressure, and are heat resistant. Panels that can be opened have been fitted with clamps for incidental maintenance work.

Moreover, access doors are fitted with re-adjustable hinges, robust pressure-adjustable and lockable plastic handles, and a weather-proof EPDM rubber seal. This seal has been fitted with a steel band reinforced polyester fabric.

All units are built in accordance with the EN 1886 Standard.

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

Protection of vacant properties

If vacant property protection is both an administrative and financial burden on you or your company, then Camelot Property Management’s “protection by occupation” is the solution. This unique concept was pioneered by Camelot over a decade ago and has since proven successful all over Europe.

Camelot Property Management Ltd has now opened an office in Dublin to bring its unique service to the Irish marketplace.

Contact: Aidan Devlin, Camelot Property Management. Tel: 0818 - 270244; infoie@camelotproperty.com

Cylon out in front with lead-free controls

Cylon Controls' UnitronUC32 Building Energy Management System is now RoHS compliant. The initial compliance deadline from the EU for the removal of lead and other hazardous substances was 1 July and, while some companies took advantage of derogations to postpone implementation, Cylon delivered on this initiative in June.

Cylon started work on this project in 2004 and it has touched every aspect of its business and supply chain. Compliance with the RoHS directive is just one part of its environmental policy and it will continue to operate best practice and to exceed regulatory requirements whenever possible.

“We have shown that it is possible to deliver the highest quality product that is also environmentally friendly”, says Cylon’s John Fallon. “Looking to the future, we are committed to protecting people and the environment and will strive in every way possible to eliminate any materials used in our products and processes that pose a potential hazard.”

Contact: John Fallon, Product Marketing Manager, Cylon Controls. Tel: 01- 245 0500; email: john.fallon@cylon.ie
SANYO Air Conditioners, proud to be the official sponsor of the PGA in 2006

A world leading commercial air conditioning manufacturer

Best of Luck to the European Team in the 2006 Ryder Cup
compact toshiba digital inverter split systems

The compact Toshiba Digital Inverter Split System has captured significant market share since its launch and is now being installed in retail and office developments throughout Ireland. These systems are lighter and as much as 40% smaller than previous Toshiba models, which were already smaller than the alternative choices.

The Toshiba inverter driven heat pump compact outdoor unit produces the same capacity with a single fan configuration as others can with a double fan, double height outdoor unit. The unit incorporates new fan designs that save power and reduce noise even further. The secret is a three-row, multiple-tube, heat exchanger which dramatically increases heat exchange capacity over traditional two or single row designs.

In addition to being light and easy to handle, the unit can accommodate long pipe-runs and only requires a single-phase power supply. Utilising a high-efficiency DC twin rotary compressor, capacity ranges are from 5kW to 12.5 kW in cooling and 5.6kW to 14 kW in heating. The system is also capable of functioning in ambients down to -15°C.

The new models can be twinned, tripled or quadred and the indoor unit options include the new 600x600 cassette, compact high wall, ceiling suspended, ducted and standard ceiling cassette design. All systems operate on ozone-friendly R410A refrigerant. All Toshiba product is covered by a full three year parts and labour warranty.

Contact: Derek Phelan, GT Phelan. Tel: 01 - 286 4377; email: info@gtphelan.ie; www.gtphelan.ie

safeguard systems opens in cork

Safeguard Systems, the damper specialist company with headquarters in Bray, has opened an office at 5 Lapps Quay, Cork, to serve the Munster region. Tony Corbett, who has worked in the sector for many years and has extensive experience in the industry, will be the familiar face heading up the office.

A spokesman told bs news that continued growth in the Munster region — coupled with its commitment to quality products and quality customer service — made the opening of a Cork-based office inevitable. "This now allows us to deliver the continued and prompt high levels of service we demand of ourselves and our customers have grown to expect, but at a local level and as part of the Munster community", he explained.

Safeguard Systems is one of the market-leading suppliers in this sector, offering a complete range of dampers, actuators and damper control and monitoring solutions to achieve smoke/fire containment/extraction in HVAC systems for offices, hospitals, hotels, schools, apartments, shopping centres, etc.

The service provided also encompasses design advice, product selection, product supply, commissioning and final system certification.

Market-leading brands represented include:— Actionair (smoke/fire and air control dampers); Belimo (HVAC actuators and valves); Ruskin (industrial dampers); Edelweiss and Schischek (explosion-proof actuators); Gebhardt (smoke extract fans); Sontay (controls peripherals); Safeguard V3 (Intelligent addressable damper control and monitoring systems); and Safeguard SCMP (damper control and monitoring panels).

Contact: Tom Corbett, Safeguard Systems (Cork). Tel: 021 - 494 3989; Safeguard Systems (Dublin). Tel: 01 - 276 1600; email: info@safeguard.ie; www.safeguard.ie
micropump’s annular gear pumps

Micropump’s micro annular gear pumps offer precise flow rate control for a variety of applications. Offered in a low pressure (Series ML) or high performance (Series MH) configuration, these compact, versatile pumps help conserve valuable liquids and increase the overall efficiency of systems.

For maximum dosage accuracy, Series ML and MH pumps feature high-precision rotors that provide tight flow rate control, even at differential pressures as high as 80 bar (1,160 psi). These rotors allow the pumps to dispense volumes as small as 0.25 microliters and handle flow rates from 0.15 to 300 ml/min, with accuracies within +/- 1%.

In addition, the pumps use gear tooth forming technology that keeps pulsations to a minimum to provide the smooth, constant flow necessary in applications such as analytical lab instruments, medical diagnostics, chemical processing, fuel cells, biotechnology, reaction technology, and other critical application processes.

Contact: Morgan O’Brien, Combiflow Tel: 01-450 4522.
hennessy to head up sanyo uk & ireland

Barry Hennessy has been appointed General Manager, Sanyo Airconditioners, for the UK and Ireland. Barry has been responsible for Sanyo's dedicated Irish operation since it was established five years ago and this appointment reflects well on the standing he now enjoys within Sanyo Airconditioners Europe, and in particular on the job he has done in Ireland.

Obviously, the plan now is for him to sustain, and continue to grow the brand’s penetration in Ireland while doing a similar job in the UK. Over the last couple of years Barry worked very closely with Bob Cowlard — who recently stepped down as European Vice President for Sales — and so has a firm understanding, and knowledge of, the UK operation. Bob has left the company for personal reasons but remains on in a consultancy and strategic planning role.

Barry will continue to be based in Sanyo Airconditioners Ireland at its City West headquarters but will initially spend more time in the UK to ensure the smooth running and transformation from the current set up to a newly-refreshed operation.

"This is obviously a great honour, and challenge", says Barry, "Not just for me but for all of us at Sanyo Airconditioners in the UK and Ireland. I'm confident that the team we have in place — in association with our existing loyal customers — is capable of significantly growing the market penetration of the Sanyo brand over the coming years. We are ready to step up to the next level of our growth plan, and work harder than ever to reach the market share we know we are capable of, and with the introduction of some new ground-breaking products on top of our already extensive range, it can only go one way".

Contact: Barry Hennessy, Sanyo Air Conditioners. Tel: 01 - 403 9900; email: barryhennessy@sanyoaircon.com.

irish thermography association

The Irish Thermography Association (IRLTA) was established in 2005 to highlight and advance the use of thermography for electrical and mechanical preventative maintenance. Its core aim is to compile a database of qualified thermographers operating in Ireland and to have this available to any interested parties who wish to employ a thermographer for preventative maintenance inspections.

IRLTA is currently looking for new members. Anyone in the thermal imaging industry interested in joining should contact Stephen Fox, IRTLA Secretary, at Stephen@rfe.ie

energy-efficient housing

Sustainable Energy Ireland (SEI) has part-funded an energy-efficient housing development in Tuam, Co Galway which is being built by Coffey Construction Ltd. Houses in the development are over 70% more energy efficient than houses built to standard Building Regulations and the increased energy efficiency will result in lower energy bills and reduced running costs.

Special features of the houses include increased levels of insulation and sealing; argon-filled glazing; air to water heat pump; heat recovery ventilation system; and programmable computerised and weather compensation control system.
Versatile Agencies has taken the traditional concept of heating and given it form. This is achieved by applying its own extensive knowledge and experience to the product portfolios of cutting-edge, innovative, brand leaders like Jaga, Runtal Zehnder and Vogel.

Heating solutions are custom-designed to facilitate each application. Where visible, the heat emitters contribute to the aesthetics of the setting; however, they can also be unobtrusive to the point of being invisible.
Hy-Save Delivers Up To 40% Savings on Refrigeration & Air Conditioning Systems

For years, the refrigeration and air conditioning industry has functioned on the basis of operating systems with a high head pressure. The principle was that, if you lowered the head pressure, the cooling effect of the evaporator diminished. However, high head pressures mean that the compressor has to work harder and so requires greater energy. Power costs were not a problem many years ago but, in today's environment, they are seen as critical.

The simple solution to reducing power consumption within refrigeration and air conditioning systems would be to reduce the head pressure. The problem is, as head pressure decreases, flash gas in the system increases. This in turn means that the evaporator loses capacity and oil return to the system is no longer reliable. Thus the life of the equipment may be greatly reduced.

So, the challenge facing the industry was to prevent the formation of flash gas. The patented system developed by Hy-Save does just that, delivering energy savings of anything between 20% and 40%, depending on the particular application. Take the example of a one-ton, R-502 system at -7°C. At 38°C condensing, it will consume 1.14kW. At 15°C condensing it will consume only .57kW.

"When the people at Hy-Save took a fresh look at the problem", says Michael Clancy, MD Advanced Energy Technology Ltd, "the solution they devised was so simple, yet so effective, that it has surpassed all other technology. By increasing the pressure of the liquid refrigerant with its liquid pressure amplifier (LPA) technology, it becomes subcooled and cannot 'flash'. With this simple process, head pressure controls can be eliminated or drastically reduced."

The simplicity of the system is what makes it so unique. A small, refrigerant pump is inserted in the liquid line. The pressure of the liquid is increased 10psi to 30psi, above the flash point. The refrigerant cannot vapourise until it passes through the expansion valve. This is now the ideal system and can be applied to any refrigeration, air conditioning or thermal storage unit using an expansion valve.
According to Michael Clancy, field tests have been run on R-12 systems with only a 35% head pressure that still maintain a 5% suction pressure. Even with this extremely low head pressure, no flash gas was detected.

Apart from the very obvious energy savings, added benefits include prolonged equipment life, fewer breakdowns and less frequent maintenance intervals. Refrigeration and air conditioning equipment works very hard to supply cooling needs and, the harder it works, the more it costs to operate and maintain. Overheated compressors not only fail sooner, but they also require expensive maintenance or repair or replace. Cooler compressors mean longer life. Repair costs have been reduced by as much as 75% in some applications.

As with all innovative ideas and concepts, it is equally important that they are applied properly. Hence the excellent build quality of the Hy-Save liquid pressure amplifier unit, and the ease with which it can be installed.

There are six sizes of pumps available, dependent on the mass flow rate of refrigerant through the system. In the larger systems, pumps can be installed in parallel to meet the flow rate required. The Hy-Save technology can be retrofit to any existing system. Depending on the system, modifications may have to be carried out to the pipework and/or receiver to allow fitment of the pump. By fitting the Hy-Save technology, the system CoP is raised by around 40%, the system capacity by around 18% and the energy saving by between 20 - 40%.

In summation, Michael Clancy says: "It is well documented that reduced discharge pressures and the corresponding reduction of compression ratios are beneficial, both in terms of system longevity and reduced operating costs. The addition of the Hy-Save pump to a refrigeration or air conditioning system realises both of these goals".
core appoints acmsl
Core Air Conditioning has appointed ACMSL to handle all enquiries and installations in relation to the Carrier roof-top range. Established by principal Ray McCormack approximately 15 years ago, ACMSL specialises in ventilation and air conditioning and has a reputation for providing quality-driven air handling solutions.

ACMSL provides full turn-key services through its team of highly-trained, fully-qualified engineers with Garry Duff at the helm as Service Supervisor and Keith McDonnell as Installation Supervisor.

Contact: Ray McCormack, ACMSL. Tel: 01 - 283 7403; email: acmsl@eircom.net

sentinel’s x800 jetflo hits the shelves
Sentinel has re-packaged its Ferroquest heavy duty "one visit" chemical system cleanser as Sentinel X800 Jetflo to fit in with the family of products installers are already familiar with. The bottle is the same colour and size and will still carry the name Ferroquest for a short time during the changeover process.

Ferroquest does in three hours what its normal domestic cleanser partner -- X400 — does in four weeks circulating in a system. It is designed to remove iron oxide and calcium-based deposits from heat exchangers, radiators and pipework. X800 Jetflo is suitable for use with all common metals and alloys but a maximum cleaning time of three hours is recommended for aluminium.

The use of X800 Jetflo with a jetflushing unit is a very powerful option. After cleaning, a system should be drained and flushed until the water runs clear. On refilling the system, it should be treated with sentinel X100 inhibitor to keep the system operating at optimum efficiency levels.

Contact: Sentinel Technical Helpline. Tel: 1800 882374; www.sentinel-solutions.net

nu-heat extends controls range
Nu-Heat, the leading warm water underfloor heating supplier, has added a number of new heating controls to its thermostat portfolio which now includes state-of-the-art self-learning programmers, along with dial-type thermostats.

Nu-Heat also has a number of controls in its range offering optimised efficiencies, such as the wireless dial or programmable heating controls, as well as deluxe low-voltage programmable thermostats.

Wireless thermostats are ideal for renovations where channelling wiring can be problematic and Nu-Heat reports that wiring is only necessary at the manifold and receiver – making installation quick and straightforward.

Another addition to the collection is the deluxe low-voltage programmable thermostat. This model now includes a central touchscreen console capable of setting up to 32 room thermostats from one location.

Contact: Sarah Jepson, Nu-Heat. Tel: 0044 1404 549770; email: sarah.jepson@nu-heat.co.uk
New VRF Series: R410A MiNi-SMMS

Designed for professionals by professionals. The MiNi-SMMS delivers the ideal comfort level in a compact, quiet and lightweight unit ensuring ease of installation and operation. Capable of operating up to 9 indoor units, from a choice of 13 designs including the new 600 x 600 mm ceiling cassette.

PERFORMANCE
- Best COP in the industry, 4.61
- Capacity range; 12 – 15.5 kW cooling and 12 – 18 kW heating
- Twin rotary compressors

FLEXIBILITY
- Ultra-quiet utilising remote PMV kit (optional)
- Automatic addressing
- Extended refrigerant piping capability

GT Phelan Ltd
Tel: 01 286 4377
or email: info@gtphelan.ie
www.gtphelan.ie

Contact us today for the MiNi-SMMS brochure, prices or for training.
**mk electric wins infringement suit**

The High Commercial Court in Ireland has ruled in favour of MK Electric, a business within Honeywell International, in its lawsuit against MPT (Electrical Wholesale) Ltd in the Republic of Ireland for patent, trademark, and copyright infringement relating to the company’s Logic Plus® wiring devices.

The Court granted a permanent injunction against MPT from selling infringing electrical sockets and awarded MK Electric its legal costs. In existence for over 80 years, the MK portfolio includes circuit protection, wiring devices, cable management and data communications products.

Mike Southgate, Managing Director of MK Electric, said of the decision: “Each year, MK Electric invests significantly in intellectual property and new product development. As industry leaders in innovation, we will not allow our investments to be misappropriated through infringement.

“Imitations from copycat manufacturers are not subject to MK’s rigorous design and test regime. Our high standards and protocol help customers ensure electrical safety, whereas ‘look-alike’ products or counterfeits do not always offer the same assurance”.

**loop is also a workmate**

LOOP, originally a graphic drafting of the Lowara trademark, has become quite a character, able to explain technical concepts regarding pump applications and the Lowara technologies.

Hence LOOP4U, a software package that analyses the data supplied by the user and recommends the pump and fittings best suited to the application in question. It provides quick answers and complete technical and commercial information.

A single tool guides the user through the selection process for pump, fittings and spare parts according to a single, coherent logic. The final result is the drafting of the sales offer, complete with the customer’s logo, address and layout. This can be supplemented with documentation not included in the program database.

Contact: Terry Murray, Lowara Ireland. Tel: 01 - 452 0266; email: sales-irl@lowara.ittind.com; www.lowara.com

**new lg floor-standing ac units**

Core Air Conditioning has introduced the new four-model LG range of floor-standing units which are ideal for one-to-one applications instead of larger systems which can’t be employed because of space, budgetary or planning restrictions.

Models include features common to all LG indoor units – which come as standard — and offer comfort cooling capacities from 8.1kW to 21.1kW and heating outputs of 6.9kW to 20.5kW. Two indoor models measure 570mm by 1820mm by 317mm; the third is 570mm by 1820mm by 440mm; while the fourth is 1050mm by 1880mm by 495mm.

All models are in a stylish and attractive housing case with finishes in wood and silver and come complete with an infrared remote control unit.

Contact: Austin McDermot, Core Air Conditioning. Tel: 01 - 809 8912; email: info@coreac.com
think renewable
think heat merchants

Solar Panels    Geothermal Heating    Wood Pellet Burners    Underfloor Heating

HEAT MERCHANTS
Branches nationwide. www.heatmerchants.ie

Contact:
Southern Ireland - Stephen Sheenan 087 2464231
Dublin Area - Eoin McKiernan 087 0505969
Midlands, West & North - Ken Lenihan 087 9978414

Published by ARROW @TU Dublin, 2006
heat merchants & brooks group in €400,000 rebrand
Sister companies Heat Merchants and Brooks Group, two of Ireland's biggest names in timber, heating and plumbing, are currently investing over €400,000 in rebranding their outlets nationwide. Forty Heat Merchants and 18 Brooks Group stores are currently undergoing the new look with all outlets scheduled to be completed before the end of the year.

Both companies are part of the Wolseley Group and the new look will align them to its family of brands. The Wolseley Group is the world's number one distributor of heating and plumbing products, pipes and building materials, operating in 14 countries across Europe and America.

Marketing Manager Dara O'Reilly-Daly says: "The new logos highlight each company's individual expertise while, at the same time, giving a readily-identifiable and contemporary common look, so that the relationship between the two is very clear."

sanyo appoints colbert
David Colbert has been appointed Technical Business Executive, Sanyo Airconditioners. David is a fully-qualified refrigeration engineer who initially worked in his native New Zealand before coming to Ireland some years ago to take up his position in this country.

He has worked for a number of market-leading brands and companies in Ireland, from hands-on installation to the highest level of design and technical sales. David now brings his considerable experience to Sanyo where his main duties will be to work closely with Vincent Mahony providing sales and technical support to consultants, and continuing to help service the Sanyo Dealer Network throughout the country.

Contact: David Colbert, Sanyo Airconditioners. Tel: 01 - 403 9900; email: davidcolbert@sanyoaircon.com

honeywell online catalogue
Honeywell has launched its new, re-designed web catalogue of over 6600 home and building control products which can be located at online at http://europe.hbc.honeywell.com/products

This e-catalogue is an invaluable resource for all who use, maintain, design or specify HVAC, central heating, water and other systems in all types of building. Product categories include controllers and field devices, gas and water valves, actuators and filters, sensors and thermostats, burner and boiler controls, inverters and indoor air cleaners.

Honeywell has made navigation simple using either a sophisticated search engine or a tree structure from the home page – which also spotlights new products and sales tools for resellers. Detailed product descriptions are displayed on the screen, while full technical and application data is downloaded as PDF files.
Knowledge in Ventilation
Jobs Corner

Large Commercial Company Seeks 'Energy Specialist'

A large commercial company requires an energy specialist to assist the Energy Manager devise, implement and oversee a dynamic energy-saving programme across all aspects of its business. The position is in a new and developing field and offers an excellent opportunity for someone interested in this area to acquire a new set of skills which will add to their experience.

The ideal candidate will have a background in building services with a bias towards electrical. Previous experience in energy management would also be an advantage. Project management skills will be needed and good proficiency with Microsoft excel, PowerPoint, Word outlook must be possessed. Experience supervising contractors and liaising with consultants will be required.

The applicant will need to have good people and communication skills and be capable of working on own initiative. The position will involve travel throughout the Republic of Ireland and occasionally abroad. Company vehicle will be supplied. Applications to Michael McEnery, Tesco Ireland, Property Services Department, Dun Laoghaire, Co Dublin.

ventilation & airconditioning sales

Woodleigh Ventilation, a leading supplier of ventilation and air conditioning equipment based in the north side of Dublin, seeks the services of a mechanical engineer or similarly-qualified person to head up a small sales office handling a busy schedule of enquiries.

Some knowledge of fan engineering and air conditioning would be ideal, together with a thorough understanding of computer systems so that tenders and quotations can be prepared and submitted to a network of consulting engineers and mechanical services contractors.

The position is indoors and the successful candidate would liaise with existing staff in sales, accounts, etc. Applications, together with CVs, to Woodleigh Ventilation, 65a Moyle Road, Dublin 11.

Jobs Corner

Technical Support Engineer — Cylon

Celebrating 21 years in business Cylon is entering a new phase of rapid international expansion. The company has been identified by Enterprise Ireland as one of 40 high-growth Irish companies with the capability of doubling turnover in the next five years.

As part of this growth Cylon has a career openings for a Technical Support Engineer. This role is within Technical Services Group (TSG) which provides a variety of customer services including technical support and training. This team player will have experience of building managements systems and the HVAC industry in general.

If you think you are the right individual for this position send a curriculum vitae to Steve Kear, Technical Services Manager, Cylon, at steve.kear@cylon.com

stillorgan shopping centre go-ahead

Bord Pleanala has upheld Dun Laoghaire Rathdown County Council's decision to grant permission for the €40 million development of Stillorgan Shopping Centre in south county Dublin.

The lengthy planning process involved extensive negotiations with residents of the area and tenants in existing centre but is now on schedule for completion in 2008.

The new scheme will dramatically improve the commercial heart of Stillorgan and was designed by architects Duffy Mitchell O'Donoghue (DMOD).

Contact:
Dave Egan,
DMOD
Architects.
Tel: 086 - 833 8546

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Contact:
Dave Egan,
DMOD
Architects.
Tel: 086 - 833 8546
AIM TO BE THE BEST WITH THE wavin SOIL AND WASTE APPROVED RANGE

Wavin Soil Systems are remarkably user-friendly and easy to use. The push-fit jointing system saves on installation time, reducing costs and increasing productivity. This is why they are so frequently specified. The systems are available in 82mm, 110mm and 160mm. The 82mm and 160mm are available in grey and 110mm is available in grey, black or white. A complimentary waste system comes in three sizes 1 1/4" (32mm), 1 1/2" (40mm) and 2" (50mm). A wide range of traps and fittings completes this comprehensive line-up.
Check out the benefits!

At last, a unique control system that provides flexible, energy saving air conditioning that's perfect for hoteliers everywhere!

The Mitsubishi Electric Programmable Logic Controller*1 (PLC) connects to our G50 control systems to provide maximum control for hotels everywhere. By simply programming the indoor air conditioning units to work in conjunction with existing key card systems, the PLC achieves the highest level of control.

When the hotel room is:

> **Occupied with key card inserted.** The air conditioning is initially set to 'Auto' mode and 21°C*2. From this point onwards the guests then have full control.

> **Occupied with the key card inserted and a window open.** When using the optional window sensor, the air conditioning is automatically switched off to save maximum energy.

> **Unoccupied with no key card inserted.** The air conditioning is automatically set to 'Night Set Back' mode which maintains the room temperature between 16°C*2 and 26°C*2.

Using the PLC with our advanced control systems (G50 or Baby G50), enables all guest rooms to be easily monitored and/or controlled from a central point in the hotel, ensuring utmost comfort and maximum efficiency throughout.

It also:

> **Ensures maximum comfort and efficiency** by preventing guest rooms being too hot or too cold prior to occupation.

> **Saves energy** by avoiding guests inadvertently setting the wrong mode (ie. Heating/Cooling instead of Auto).

for *more* control than ever call 01-4198800

or visit www.mitsubishielectric.ie

*1 No dedicated computer is required

*2 Setpoint and temperatures are configurable
Joe Nolan

Having retired from inter-county representative football with Laois some years back because the training schedule was so demanding, it’s hard to believe that Joe Nolan is currently training virtually every day in preparation for a triathlon. He swims two or three mornings a week, goes for a run three days a week, and does maybe 40k on the bike twice a week. Despite that hectic schedule he also manages to do some football training with his beloved club, Graiguecullen. Then there is Clare, his wife, and four beautiful daughters. They too ultimately live out the Other Side Of Joe.

How he finds the energy to do the day job with Thermo Air is a mystery but, as they say, when you really want something done ask a busy person. Busy Joe certainly is.

The foregoing is all the more amazing when put into the context of the very serious injury he suffered a number of years ago. Playing for Graiguecullen in a championship game he collided with one of his own teammates, snapping ligaments in his knee and damaging nerves to the extent that he had no feeling from the knee down. It took a couple of days for the seriousness of the injury to be properly diagnosed with the result that — after very complicated, cutting-edge surgery — he spent the next three years with his leg in a supportive brace.

Never one to shy away from a challenge, Joe determined that he would not only walk normally again but get back to active football, at least at club level. Over the next three years he underwent an intensive rehabilitation programme which ultimately led to the feeling coming back in his foot. He then spent another 12 months in physio, easing himself back into the game as a team manager and trainer.

While he set no definite date for a return to playing, it nonetheless crept up on him unawares during a game against bitter rivals from a neighbouring parish. During the game, injuries to key players meant that they were struggling to field a fit 15. The emotion and tension of the occasion got the better of Joe and, not really thinking about it, he entered the fray. “Had I thought it through I might never have done it”, says Joe. He has continued to play — albeit at junior level — ever since.

To play senior county representative football is a tremendous achievement but Joe modestly downplays the issue. He also tends to understate his achievements at club level, despite appearing in two Leinster Senior Finals and success in the Leinster U21 Championships, two O’Byrne Cups, two U21 Club Championships, three Leinster Inter-Firm Championships and one All-Ireland Inter-Firm Championship.

All the time living in the present and looking to the next challenge, Joe recently joined the local Triathlon Club. Hence his current energy-sapping training regime. He’s not too sure yet when he will actually do his first triathlon but, based on past performances, it will undoubtedly be sooner rather than later. Go for it Joe!
et al.: BS News

Myson Rises Phoenix-Like Out of the Ashes

Despite having been totally destroyed in a fire just over 12 months ago, the Myson Heating Controls’ factory in Newcastlewest has been rebuilt and was officially opened earlier this month by Mr Michael Martin, TD, Minister for Enterprise, Trade & Employment. To clear the site and build a new factory in such a short time-frame was an incredible achievement but, to be operational and in full production is nothing short of miraculous.

While there was some anxiety as to the company’s future immediately after the fire, the Rettig board moved very quickly to clarify the situation and pledged to provide the necessary funding to ensure that it was business as usual, as quickly as possible. With the cooperation and support of the workforce, this objective has been realised ahead of schedule.

The new Myson plant — which has been re-named Rettig Ireland — is a state-of-the-art manufacturing plant incorporating the most advanced production and tooling equipment in the industry. The original plant and equipment has not merely been replaced and replicated, it has been totally transformed with the focus very firmly on the future. It operates under an ISO 9001:2000 Quality System and an ISO 14001:2004 Environmental Management System.

This is essential considering that the company produces 4.5 million valves and controls a year. These products consist of 27 million components manufactured on site, and 35 million assorted bought-in components (plastics, sensors, olives etc). Given the vast amount of raw materials used across the entire production process re-cycling is a critical part of the process and, for the most part, something like 100% recycling is achieved, especially in respect of brass.

The factory consists of five main departments — forging, machine shop, electro plating, assembly, and stores/dispatch. Equally important are the support functions provided in respect of engineering/ R&D, quality control, toolroom, and maintenance.

Assembly is divided into dedicated lines for each of the core products produced — motorised valves; Matchmate valves; TRV/Matchmaster valves; TRV head assembly and calibration; Fullflow/ABY; and pushfit assembly and bagging. All valves are 100% leak-tested with 4-bar air, which gives them a 10-bar rating so they meet the requirements of specific standards for valves, namely BS 2767 for manual valve and EN 215 for TRVs.

Looking to the future, Rettig Ireland intends to consolidate and further strengthen its existing portfolio. Additionally, there are plans to expand its research and development programme with a view to devising and designing a whole new generation of valve and control solutions. Given the resolve it has demonstrated over the last 12 months in getting back into production, there is no doubt that this new objective will be realised sooner rather than later.

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bs news

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Gas Fired VS Electric Heat Pump

As energy costs escalate, the subject of running costs is becoming ever more important.

Heat pumps using electricity as the motive power provide a very efficient method of producing heat, writes Derek Phelan of GT Phelan.

In the rush to claim the most efficient systems, air conditioning manufacturers have switched to using inverter operated compressors in conjunction with refrigerant R410a. The world’s first inverter system was launched by Toshiba in April 1986. Since then, inverters have been refined to the point where average EER (Energy Efficiency Ratio) figures are now assumed to be in the order of 3:1 and much higher in many cases.

EER is the difference between the power consumed (power input) and the actual cooling or heating produced. Higher EER figures equate to more efficient equipment.

CO₂ represents approximately 70% of the basket of greenhouse gases produced — generally the result of burning fossils fuels to produce electricity. Therefore, by reducing our electrical consumption, we reduce the amount of CO₂ being produced.

For every 1kW of power consumed, the equivalent of 0.63kg of CO₂ is produced (SEI 2006). This figure is based on a combination of emissions from hydro, peat, gas and oil.

Using inverter compressors significantly reduces power consumption and therefore carbon emissions.

Some heat pumps use gas instead of electricity as the motive power. Gas type systems have an advantage only where there is an abundance of gas in the area, where a lack of three phase power exists or where consistently low external temperatures are experienced.

However, the significant difference between conventional electrically operated heat pumps and the gas driven variety is in the actual EER or COP figures. Despite advances in the design of the internal combustion engine used in gas type systems, efficiency levels are still low.

Gas type systems claim EER figures of up to 1.3 – for every 1kw of power consumed they produce 1.3kW of duty – a far cry from the industry accepted norm of three (every 1kw of power consumed results in a minimum of 3kw of duty produced)

Installation of gas systems also requires a lot more expense than conventional electrically operated VRF outdoor units — anti vibration mountings, drain pipes and an exhaust flue need to be installed. Qualified gas installers are then required to sign-off the installation.

The capital cost of gas type systems is typically double the cost of the electric equivalent.

The footprint required on a gas system is also bigger than that of electrical systems. For example, a gas system rated at 28kW (10HP) requires a footprint of 1.3M x 1M compared to an electrically operated system (55kW / 20HP) which requires a much smaller footprint of 0.9M x 0.75M.

It is interesting to note that only a handful of manufacturers have opted to produce gas fired systems. Toshiba has concentrated its efforts on the energy efficient electrically operated heat pumps and heat recovery equipment.

Toshiba has always been to the forefront of engineering design and environmental awareness and this is clearly reflected throughout the product range, especially in the residential and VRF models.

The Toshiba Daiseikai model, for example, produces the highest EER and COP figures on the market and this product has won the Japanese energy awards for three years in a row. With EER figures of 4.55 and COP figures of 4.51, it can be seen that this technology is unrivalled on the market. Imagine being able to produce 4.51kW of heat while consuming only 1KW of electricity?

The COP figures for the Toshiba VRF range are equally as impressive with average COP figures of 3.9 and EER figures of 3.4.

It can be clearly seen from the above argument that the only logical choice going forward is to use electrically driven heat pumps with higher EER and COP ratings, approximately half the carbon emissions, smaller footprint and half the price of the gas fired alternatives.

Contact: Derek Phelan, GT Phelan.
Tel: 01 - 286 4377; email: derek@gtphelan.ie
With our complete refrigeration installation packages, we've made the high quality and superb reliability of Maneurop and ECO an affordable package. But hurry – we're sure to be snowed under.

Now affordable quality is easy to find.
Ignore PAT Testing at Your Peril!

PAT testing was introduced to the UK in 1989 and to Ireland in 2001 via Statutory Instrument 188. However, it is only since the introduction of Statutory Instrument 328 in 2005 that owner managers, company directors, property and facilities managers, and health and safety officers have come to realise that it has serious implications for them.

That said, far too many people who have obligations under SI 328 are still not familiar with, or compliant with, its requirements. Essentially, PAT testing comprises procedures whereby the original manufacturer’s testing of electrically-powered equipment that is plugged in and plugged out must be re-tested at regular intervals.

Moreover, it is not sufficient to merely carry out this re-testing. SI 328 has introduced a new requirement on those responsible to retain the results of every test, on every appliance, for a period of five years.

PAT testing is especially directed at appliances in the workplace. It is also driven by increasing customer knowledge of health and safety issues, coupled with influencing factors such as business insurance requirements, new working procedures, and the sheer amount – and sophisticated nature – of electrical equipment now in use in the work environment.

Thankfully, a number of specialist companies have devised extremely sophisticated equipment and testing procedures to carry out PAT testing. One such is the aptly-named PATesting Ireland. It is responsible for distribution of the specially-designed Seaward testing equipment range throughout Ireland but, even more importantly, for the training of the equipment operators.

Most equipment on the marketplace functions on the basis of a pre-programmed code which the operator enters and is then guided effortlessly through the test sequence. However, apart from being familiar with the equipment, PAT testing operators need to fully understand the tests involved and how to interpret the PAT test readings.

To this end PATesting Ireland has a continuous programme of training seminars which it carries out throughout the country. The most recent involved a 3-day series with two events in Dublin and one in Dundalk. Apart from the more academic, theory-driven sessions of the morning, participants get to experience hands-on PAT testing on the equipment during the afternoon. They also get a detailed information pack covering every conceivable angle on PAT testing to take away.

PATesting Ireland Managing Director Tommy Maher says that this is a vital element of the whole PAT testing procedure. "When purchasing PAT test equipment", he told bs news, "it is essential that the supplier provides comprehensive training for all intending users of the equipment. It is equally important that after-sales service support is provided so that an operator in the field can contact someone experienced in PAT testing for technical advice. This is the cornerstone of the quality service we provide at PATesting Ireland."

Contact: PATesting Ireland. Tel: 01 - 465 9487; email: info@patesting.ie

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Refrigeration Skillnet has compiled an extensive programme of events, seminars and lectures which will be presented over the coming months. This includes:

- Sixteen technical training courses scheduled between September and December 2006, which will take place in Dublin, Waterford, Galway and Sligo;
- A substantial new training programme, enrolling now, leading to a City and Guilds Certificate in Refrigeration and Air Conditioning;
- Up to ten more IRI seminars in 2006, details of which will be published very shortly on the IRI website at www.instituteofrefrigerationireland.ie;
- Sponsors of the Refrigeration Crafts Section of the National Skills Competition which took place in Linenhall, DIT Bolton Street, in the second week of September 2006;
- Sponsorship of a RAGS Golf Outing in November 2006.
- Work on a new website which will come on stream in December 2006.

The training courses scheduled so far are listed right and bs news will keep readers updated as new courses and events are scheduled.

Course Schedule from September to December 2006 is as per table (right).

**Course Schedule — September to December**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Air Conditioning</td>
<td>Galway</td>
<td>11/12 September</td>
</tr>
<tr>
<td>Safe Handling of Refrigerants</td>
<td>Dublin</td>
<td>18 September</td>
</tr>
<tr>
<td>PED Workshop</td>
<td>Dublin</td>
<td>26 September</td>
</tr>
<tr>
<td>Introduction to Refrigeration</td>
<td>Dublin</td>
<td>28/29 September</td>
</tr>
<tr>
<td>Advanced Troubleshooting for Refrigeration Systems</td>
<td>Dublin</td>
<td>5/6 October</td>
</tr>
<tr>
<td>Safe Handling of Refrigerants</td>
<td>Waterford</td>
<td>13 October</td>
</tr>
<tr>
<td>Introduction to Refrigeration</td>
<td>Galway</td>
<td>19/20 October</td>
</tr>
<tr>
<td>PED Workshop</td>
<td>Galway</td>
<td>24 October</td>
</tr>
<tr>
<td>Safe Handling of Refrigerants</td>
<td>Dublin</td>
<td>30 October</td>
</tr>
<tr>
<td>Safe Handling of Ammonia</td>
<td>TBC</td>
<td>20/21 November</td>
</tr>
<tr>
<td>Introduction to Air Conditioning</td>
<td>Dublin</td>
<td>4/5 December</td>
</tr>
<tr>
<td>Safe Handling of Refrigerants</td>
<td>Sligo</td>
<td>8 December</td>
</tr>
<tr>
<td>Advanced Troubleshooting for Air-con Systems</td>
<td>Dublin</td>
<td>11/12 December</td>
</tr>
<tr>
<td>Brazer Approval (Training &amp; Assessment)</td>
<td>Dublin</td>
<td>14/15 December</td>
</tr>
<tr>
<td>Advanced Troubleshooting for RAC Electrical Systems</td>
<td>Dublin</td>
<td>18/19 December</td>
</tr>
<tr>
<td>City &amp; Guilds Certificate in Refrigeration and Air Conditioning (C&amp;G6127-01)</td>
<td>Dublin &amp; Various Other Locations</td>
<td>October 2006 to December 2007</td>
</tr>
</tbody>
</table>

**Booking Information**

To secure places on any of these courses simply download a course enrolment form from www.refrigerationskillnet.ie and return it, together with payment, to Enda Hogan, Network Manager, Refrigeration Skillnet, PO Box 389, Dungarvan, Co Waterford.

Tel: 058 44211;
email: refskill@eircom.net

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Refrigeration Skillnet Unveils Dynamic Programme

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FOHN

Cabinet heater
CAPACITY: 30 KW - 1,000 KW

PRODUCT APPLICATION
Factories • Engineering Plants • Abattoirs • Cardboard Factories
Paper Factories • Workshops • Garages • Warehouses • Shops
Aeroplane Hangars • Showrooms • Hotels • Cash & Carry
Gymnasiums • Dressings Rooms • Exhibition Halls

GS / GC / ROOF TOP

Unit air heater
CAPACITY: 20 KW - 95 KW

PRODUCT APPLICATION
Factories • Engineering Plants • Abattoirs • Cardboard Factories
Paper Factories • Workshops • Garages • Warehouses • Shops
Aeroplane Hangars • Showrooms • Hotels • Cash & Carry
Gymnasiums • Dressings Rooms • Exhibition Halls

CALFLO

Gas-fired make up air unit
CAPACITY: 65 KW - 1,200 KW (+)

PRODUCT APPLICATION
Engineering Plants • Spray Cabinets
Paper Factories • Garages • Exhibition Halls
Process Industry • Factories • Abattoirs • Cardboard Factories

RADIANT PLAQUE

CAPACITY: 2.5 KW - 27 KW

PRODUCT APPLICATION
• Aeroplane Hangars • Shops • Cash & Carry
• Cargo Platform • Grandstand • Workshops • Warehouses
• Gymnasiums • Exhibition Halls

INFRA AQUA

Water radiant panels
CAPACITY: Project Related

PRODUCT APPLICATION
Offices • Factories • Abattoirs • Workshops • Garages • Warehouses • Shops • Showrooms/Hotel • Cash & Carry
Gymnasiums • Dressings Rooms • Exhibition Halls • Churches • Aeroplane Hangars

INFRA/INFRA MONO

Gas-fired black
CAPACITY: 20 KW - 95 KW

PRODUCT APPLICATION
Factories • Engineering Plants • Warehouses • Aeroplane Hangars
Gymnasiums • Exhibition Halls

TANNER / DOOR

Warm water
CAPACITY: 2.5 KW - 27 KW

PRODUCT APPLICATION
Factories • Engineering Plants • Abattoirs • Cardboard Factories
Aeroplane Hangars • Showrooms • Hotels • Cash & Carry • Gymnasiums

KLIMAT

Air handling units

ECOFAN

Destratification

PRODUCT APPLICATION
Factories • Engineering Plants • Abattoirs • Aeroplane Hangars • Showrooms • Hotels • Gymnasiums • Dressing Rooms

Environmental Technology
TEL.: +353 (0)26 45334
FAX: +353 (0)26 45383
e-mail: sales@markeire.com
www.mark.nl
INFRA LINE

Tube radiant heating

13 KW - 100 KW

APPLICATION
- Abattoirs • Workshops • Garages
- Shops • Cash & Carry
- Cargo Platform • Grandstand

CURTAINS

Unit air heaters

8 KW - 115 KW

APPLICATION
- Abattoirs • Workshops • Garages
- Showrooms • Shops
- Dressing Rooms • Exhibition Halls

PRODUCT APPLICATION:
- Offices • Factories • Spray Cabinets
- Abattoirs • Workshops • Garages
- Warehouses • Aeroplane Hangars
- Showrooms • Hotels • Shops
- Cash & Carry
- Gymnasiums • Dressing Rooms
- Churches • Pubs, Bars & Restaurants

VENTILATION MDV

Roof fan

CAPACITY: 1,840 to 10,200 m³/h

PRODUCT APPLICATION
- Offices • Process Industry • Construction Halls
- Factories • Engineering Plants
- Spray Cabinets • Abattoirs • Workshops • Garages
- Warehouses • Cash & Carry
- Aeroplane Hangars • Showrooms • Hotels • Shops
- Gymnasiums • Dressing Rooms

WALL MOUNTED HEATING

Gas fired wall and ceiling heaters

CAPACITY: 2.5 KW - 10 KW

PRODUCT APPLICATION
- Offices • Domestic Rooms • Creche • Meeting Rooms
- Car Show Rooms • Hotel Rooms • Banks • Shops

FAN COIL

Wall and ceiling L.P.H.W. fan coil

CAPACITY:
- Heating 3.6 KW to 16 KW
- Cooling 1.5 KW to 6.9 KW

PRODUCT APPLICATION
- Offices • Domestic Rooms • Creche • Meeting Rooms
- Car Show Rooms • Hotel Rooms • Banks • Shops

BENDER

Hydraulic pipe bending machine

PIPE DIAMETERS:
- 3/8" to 4" (thick-wall)
- 10mm to 42mm (thin-wall)

CONTROL: Hand or Electric
all winners at mount wolsley

This year's BTU weekend at Mount Wolsley proved a tremendous success with the course in magnificent condition and participants enjoying not just the golf but the unique blend of craic and comraderie that makes this occasion so special.

Sponsors were Calpeda Pumps (Ireland) and principal Graham Fay and his wife Ann Marie presented a fabulous array of prizes.

Winners were as follows:

- Overall Winner
  - Kieran Ryan (39 pts).
- Class 1
  - Winner — Michael Morrissey (35 pts);
  - Second — Graham Fay (34 pts).
- Class 2
  - Winner — Peter Kelly (33 pts);
  - Second — John Littlefield (30 pts).
- Class 3
  - Winner — David Daly (30 pts);
  - Second — Sean Brady (28 pts).
- Ladies
  - Winner — Geraldine Hutchinson (31 pts);
  - Second — Marie Lavelle (32 pts).

captain’s outing

Winners were as follows:

- Overall Winner
  - Robert Kenny (41 pts).
- Class 1
  - Winner — Brian Molloy (38 pts);
  - Second — Kieron Ryan (37.5 pts);
  - Third — Dermot Ryan (35 pts).
- Class 2
  - Winner — Jim Treacy (38 pts);
  - Second — Frank Lynch (37 pts);
  - Third — John White (32 pts).
- Class 3
  - Winner — Damien Mooney (38 pts);
  - Second — Terry Maher (37 pts);
  - Third — Ray Byrne (36 pts).
- Front 9
  - Winner — Stephen Jones (24 pts).
- Back 9
  - Winner — John Lavelle (19 pts).
- Visitor
  - Winner — Colm Murphy (34 pts).
Kelly Refrigeration, Ennis, Co Clare

Terry established the business in 1990, having returned from Australia where he had spent two years learning about, and studying, refrigeration. He began in a small way with one van on the road and primarily providing service, maintenance and breakdown call-outs to retail outlets, hotels, butcher shops and public houses. As the company’s reputation grew, customers sought additional services, particularly the supply of products.

When the demand for commercial refrigeration and air conditioning began to take off in 1992, both the existing customer base and new clients sought out the services of the company. Expansion was rapid. By the year 2000 employment levels had grown to 18 and that figure has more than doubled since.

Quality of service is the cornerstone upon which the company has been built. Terry is a firm believer in not just doing the job properly and professionally, but in doing so in a manner which is better than anyone else. That he has succeeded in this objective is obvious. Apart from an ever-increasing number of new clients, he still trades with virtually everyone he dealt with in the early days.

Terry puts this down to good management systems, carefully-structured operational procedures, highly-qualified engineering personnel, and high-calibre product supply partners. Ongoing training of all engineers is a priority, a key strength being a commitment to the traditional apprenticeship system whereby young engineers learn their trade on the job while still studying.

As for the product supply side, Sanyo is Kelly RAC’s key trading partner. Terry and his team work very closely with Barry Hennessy and his colleagues at Sanyo Airconditioners Ireland. Since they began working together Kelly RAC has seen a major upsurge in trading activity while the Sanyo brand has continued to take additional market share.

Terry is equally driven in his personal life. Relaxation for him is about high-octane sports such as Formula 1 motor racing, or taking on demanding personal challenges. For instance, he has visited virtually every Grand Prix circuit in the world, while on the day of our meeting he was just back from Peru having completed the famous Inca Trail. His next adventure is to tackle Kilimanjaro.

As the foregoing clearly illustrates, Terry Kelly is a challenge-driven individual. Despite the success he has enjoyed to date, there is no question of his having arrived at his destination. bs news got the impression on leaving his office that this is but the beginning!
A large industry turnout attended the recent official opening of Heatovent's new dedicated boiler spare parts division at the company's headquarters in Walkinstown, Dublin 12. Called Heatovent Heat Parts, this new division will stock an extensive collection of gas and oil boiler spare parts for all the leading industry brand names.

"We have made a massive commitment with this new venture to ensure ex-stock availability of every conceivable spare part in respect of gas and oil-fired boilers", says Paul Perry, General Manager, Heatovent Heat Parts. "We have excellent parking facilities and this, coupled with the new purpose-designed trade counter area, makes for a quick and efficient turnaround."

Among the market-leading brands featured are Anton gas analysers and extensive spare parts for Baxi, Ferroli, Glow Worm, Ideal, Potterton and Vokera.

Contact: Paul Perry, Heatovent Heat Parts.
Tel: 01-408 0282;
email: paul.perry@heatovent.ie
crystal air unveils refreshed identity at golf day

This year’s Crystal Air annual golf outing was held at the PGA National course, Palmerstown House, Johnstown, Co Kildare. Apart from the actual golf, Crystal Air also used the occasion to introduce the new company logo and branding. This refreshed imagery is designed to reflect Crystal Air’s market-leading status and to reinforce its commitment to future growth and expansion. The occasion of the golf outing was the ideal opportunity to unveil the new logo.

Returning to the golf, the large turnout played in teams of four. While the weather was wet early on, the day brightened up and conditions improved into the afternoon. Christy O’Conner Jnr was a guest on the day and he helped keep everyone firmly focussed on the challenge presented by the course.

Those who participated in the golf were joined later on in the evening by additional guests who came for the dinner and presentation of prizes.

Winning team — Mark Taylor, Seamus Carr, Shane Mullins and Dessie Haughton;
Runners up — Joe Quinn, Jan Dillon and Sean McCormick;
Nearest The Pin — Tony Reilly;
Longest Drive — Kevin Flynn;
Best Lady Golfer — Toni McQuillan;
Shot of the Day — Sean McCormick.
Fantech — ‘Building a Reputation on Product Quality & Service Excellence’

Fantech Ventilation was established in 1999 to distribute specialist ventilation equipment and accessories throughout Ireland. Under the guiding influence of Managing Director Brendan O’Toole it has grown considerably since then and now occupies a prime position within the marketplace. Key to its success is a combination of quality products, exceptional customer service, and comprehensive technical support.

Fantech Ventilation commenced trading from very small premises but, before long, moved to its present much larger location on the Tolka Valley Business Park, Dublin 11. However, continued growth means that Fantech has now outgrown this facility and is currently looking for still larger premises to facilitate further expansion and greater market penetration into the future.

As a division of the privately-owned ELTA Group — a global ventilation manufacturer and international distribution company — Fantech Ventilation continues to bring the very best in new products and services to the Irish market. One of the key brands within the portfolio is ELTA Fans, another division of the ELTA Group. ELTA Fans has worked very closely with Fantech for more than six years now, supplying a comprehensive range of fans and associated equipment specifically geared towards the Irish market. These include simple domestic toilet/bathroom extract fans; units for more specialist applications such as car park and smoke extract; fans designed to meet the latest EN 12101 standards; and ATEX-compliant fans.

A major success throughout Ireland is the ELTA Select range which includes plate and cased axial fans, long-cased axials, bifurcated fans, in-line tube fans, mixed-flow, roof extract and duct or roof-mounted single and twin fans. All are available ex-stock.

Brendan O’Toole states: “Leading ‘blue chip’ products is a cornerstone of the Fantech approach, supplying products that set Fantech apart from others by offering exceptional benefits and features to our customers. The ‘Brofer’ range of grilles and diffusers is further evidence of this philosophy, comprising as it does a vast array of products that have first class features, outstanding quality, and a growing reputation in the specification market.”

The more recent introduction of Fast Lane air handling units — comprising direct and belt drive models, bespoke units, heat recovery units and electric heater batteries — is further evidence of Fantech’s commitment to cater for the entire air movement sector.

Ultimately, Fantech’s objective is to provide a complete package of ventilation products to satisfy the requirements of mechanical and electrical consultants, and contractors. ELTA, Brofer and Fast Lane form only part of its comprehensive portfolio. Other product ranges offered include fire and smoke dampers; ductwork ancillaries from Lead Air; flexible ducting, combination and insulated from Air Connections; Spiro fittings; and tube or Hydor controls and ancillaries.

Contact: Brendan O’Toole, Fantech Ventilation.
Tel: 01 - 882 8411;
email: info@fantedventilation.com
Focus on Energy

Active Solar Systems (Collector Performance)

In last month's issue I looked at the design of a 210l vented solar Domestic Hot Water (DHW) cylinder for my home in Dublin. This month I review some of the principles relating to the performance of solar collectors. The most commonly-used collector types are vacuum tubes and flat plates. I chose to use the flat plate type as they tend to be of a lower cost while still giving good performance in a DHW application. However, there are certain situations where vacuum tubes offer advantages.

The Flat Plate module consists of a copper sheet absorber placed into an aluminium box with glass cover in front and rockwool insulation at the rear. By encasing the absorber, wind induced/natural convection and radiation losses are hugely reduced. The principal behind good solar panel design is to keep the inside of the collector box hot and the outside cool.

Active solar panels work by absorbing the sun's energy into the absorber where the heat is transferred to the DHW primary fluid passing through tubes embedded within it. The flat plate is coated with what is known as a selective Absorber coating designed to be a good absorber of sunlight but a poor radiator of infra-red (IR). Typical figures for absorption are approximately 90% with emission being of the order of 12% (i.e. net 88% efficient, conduction losses not included).

The standard method to test the effectiveness of manufacturers' products is to measure the rate of solar absorption when there is a 5°C temperature difference between the absorber water temperature and the outside ambient temperature (taken at 20 or 25°C). Under these test conditions most Flat Plate collectors will achieve efficiencies of approximately 80%.

The heat losses from collectors increase substantially however as the water temperature flowing through them rises. The efficiency of most panels will fall to 45% or so when the water/absorber temperature is 80°C and ambient air temperature 20°C. The loss in efficiency is caused because the differential of 60°C that exists between the two causes the collector to act like a radiant panel and this leads to panel losses of the order of 250-300 watts/m². It is only when we have in excess of this amount of energy coming from the sun that we can add additional useful heat to the system. Statistically then, when we try to get very hot water, we are collecting less of the available heat that exists at the marginal times of the day.

The best available solar irradiation at sea level is approximately 1,000 W/m² at noon in our latitude. Sun passing through more atmosphere (i.e. at a lower angle earlier or later in the day) will have a capacity of 700-800W/m² or less. It would be wrong however to assume that each square meter of panel will collect 700-1000 watts/m² each hour throughout the day.

One very conservative rule of thumb is that the total heat gain over a summer's day should be taken as 2 kW hr/m² collector. My own experience would indicate that this is indeed conservative but it does at least take into account the various (non-ideal) solar elevations during the day, the sun's path from east to west as well as average cloud. It also is almost certainly based on trying to get the DHW cylinder all the way up to 60°C which normally equates to a panel efficiency of only 56% or so.

Having said that I find, in the domestic situation, that my system has no difficulty achieving 55°C DHW from spring onwards. In winter when there are clear skies or ones with high non-rain-bearing clouds the panels frequently do a very good job pre-heating the DHW to 50 or even 60°C.

Significantly higher collection rates are achieved if we can accept lower fluid temperatures. That means using the panels to preheat the DHW and topping up with the boiler / immersion. If for example we are pre-heating the DHW to only 35°C we are not eliminating other fuels but are halving the amounts needed. We are also collecting far more total solar energy in the process. This is the usual way forward in applications using large amounts of DHW such as hospitals, hotels etc. Whereas in the case of domestic properties in which we aim to achieve 50-60% of the DHW needs in buildings with larger demands it is not uncommon to aim for a reduced fraction of the total such as 20-40%.
racgs at the heritage

The very large turnout for the RACGS' Captain's Day at the Heritage Golf Club earlier this month reflects not just the growing popularity of the course, but even more so the respect Captain Domnick Ward enjoys from his industry colleagues. All sectors of the refrigeration and air conditioning sector were represented, from suppliers through to installers, along with many more from other sectors within building services. The Heritage is a challenging course, even in the wonderful weather that prevailed on the day. Nonetheless, the scoring was high and Liam Hoctor did exceptionally well to emerge overall winner with 37pts. Full results were as follows:

Overall Winner
Winner — Liam Hoctor (37 pts).

Class 1
Winner — Mat Butler (36 pts);
Second — Joe Warren (33 pts);
Third — Michael Morrissey (33 pts).

Class 2
Winner — Barry McArdle (37 pts);
Second — Dave Killelea (35 pts);
Third — Brian Carty (35 pts).

Visitor Winner
Winner — Paul Airy (36 pts).

Mark Kiely, Gasco Ireland, sponsor with Brian Carty, Third, Class 2 and Domnick Ward, Captain

Mark Kiely, Gasco Ireland, sponsor with Mat Butler, Winner, Class 1 and Domnick Ward, Captain

Mark Kiely, Gasco Ireland, sponsor with Dave Killelea, Second, Class 2 and Domnick Ward, Captain

Mark Kiely, Gasco Ireland sponsor with Liam Hoctor, Overall Winner and Domnick Ward, Captain

Mark Kiely, Gasco Ireland sponsor with Paul Airy, Visitor Winner and Domnick Ward, Captain
In My Opinion ...

Ciaron King

Over the last decade there has been a huge emphasis on increasing the thermal efficiency in buildings, in particular homes. We now have draught-free, well-insulated buildings. This has brought with it a whole set of new problems, most notably poor air quality, writes Ciaron King, Managing Director, MTD-Solutions, and formerly of the Ventac Group.

There is a significant increase in the number of people suffering from asthma and other respiratory problems, all of which are aggravated by poor air quality. The dust particles, mites and bacteria in the air are not visible to us. Any doctor will tell you that fresh clean water and fresh clean air are vital to maintain good health. Even if you are not a sufferer of a respiratory ailment, there are other symptoms of poor air quality such as doziness, aggravated sinus, headache, eye irritation, skin irritation and a general lethargic feeling.

The most effective way to combat this is to mechanically ventilate the building by way of a balanced ventilation system bringing in an equal amount of air to that which is being extracted from the building. Ideally, the fresh air being brought into the building should be "warmed" and filtered. Air vents, as used in most buildings, are NOT a solution.

Legislation was responsible for making buildings better thermally insulated and legislation will, over the coming years, be responsible for making balanced mechanical ventilation compulsory in new buildings.

Noise is a form of pollution that most people in the world, certainly those living in built up areas, have to deal with on a daily basis. Noise can have very negative effects on health — it can cause stress, headache, nausea and much more. The new construction materials and methods used to improve the thermal insulation of a building has had a positive knock-on effect for noise control. Legislation states the minimum noise levels for transmission of noise through walls and floors which must be achieved by the builder. The problem with these legislative noise levels is people assume they are buying sound-proofed houses — this is not the case. However, the levels are universally accepted.

The second and probably the biggest problem with noise is that it is subjective. People's ability to hear within certain sound ranges varies with age and the condition of each person's ear. A person attending a concert where the sound power level is extremely high thinks the noise level is acceptable. However, the individual who lives in the apartment 1 km away and can still hear the concert feels differently about it.

What we aim to do at MTD-Solutions is to help individuals, property developers, councils and consultants to achieve an optimum sound quality. What is sound quality? Improving the sound quality of a building comes from analysing all aspects of the building and its surroundings and obviously its use.

Good sound quality in a home, for example, should allow residents to hear certain "non objectional" sounds as no one wants to live in a vacuum. It is acceptable in an apartment block or semi-detached house to hear traces of your neighbour being home. What is unacceptable is hearing your neighbours phone ringing and the conversation that follows.

At research and development stage Lexus achieved such a high level of sound-proofing in their cars that test drivers were no longer able to hear sounds which their brains translated into road condition, speed, etc. Ironically, this made the ride very uncomfortable, almost unnatural. It is all about balance — we do not want sound-proofing ... we want good sound quality.

Good sound quality is relatively easy to achieve with good planning. There are a lot of products on the market that afford simple, cost-effective, practical solutions. It is important to point out that, although it is possible to retro-fit acoustic solutions, it is considerably more expensive and often constrained by existing design. Far better to factor in the solution during design and construction.
Fancy a Bathful of Tea?

A research company in the UK has discovered that plumbers and electricians drink the equivalent of 1.3 bathfuls of tea every year in the course of their work in peoples’ homes. Generous customers apparently offer tradespeople 3.83 cups of tea during the average shift with elderly women being the most hospitable. What do they talk about while having their tea? ... 79% of tradespeople polled said their customers talk primarily about the weather.

Spare Me Political Correctness!

God how I hate political correctness, especially when it flies in the face of basic common sense. Consequently, I make no apologies now for flying in the face of political correctness and raising an issue which I know for certain, from experience and talking with dozens of other businesses, is a growing cause for concern.

I’m referring to the employment of people in positions for which they are clearly unsuited. Of course we must do everything to provide foreign nationals with employment and make them feel welcome but, employing someone who does not speak English — or who does so poorly — to interface with a customer base that is predominantly English-speaking, is nonsense.

The situation is bad enough when encountered face-to-face in retail and entertainment situations but, when you ring a company and the person who answers has difficulty with English, it makes a mockery of answering the phone at all.

So, come on people, let’s get real here. Equal employment opportunities for all is a MUST but, people must be given roles they can competently carry out.

Speedy Recovery Joe!

Comiserations to Joe Nolan of Thermo Air who suffered a broken jaw recently while participating in his “other side of” pursuit. Coincidently, Joe features in this month’s Another Side Of ... (page 20).

All at bs news wish you a speedy recovery Joe.

Everyone Knows Fred

Congratulations to Janice Tyrell of Heating Distributors who correctly identified Fred Cooney in last month’s Guess Who? competition. Despite the illustration being a cartoon, we were inundated with calls, all of them correct.

Comiserations to those of you who missed out but many thanks for participating.

Floating Cities for Ireland?

Floating cities and “invisible” seaside holiday homes are among the imaginative ideas proposed by Irish architects and featured in the world’s foremost architectural exhibition, taking place in Venice from 10 September to 19 November. The theme of the event is Cities, Architecture and Society, the title of the Irish entry being “SubUrban to SuperRural”. It looks ahead over the next 25 years, exploring in particular the problems of urban sprawl and offering imaginative, futuristic solutions.

Danfoss Drives All the HVAC Units in “The World”

Modern cruise liners are frequently described as floating hotels and as such they require all the facilities and services of a major hotel. This is especially true of The World, a 40,000-tonne cruise liner of the highest luxury that is also the only permanent residential community at sea.

With suites from $2 million to over $6 million, the residents expect the ultimate in comfort at all times. Their HVAC requirements exceed those of a land-based hotel as the environmental conditions change rapidly day to day and day to night as they cruise the oceans. In addition, the passengers are paying handsomely for, and demand, a high level of comfort.

To achieve this The World’s air handling units and chiller pumps are equipped with Danfoss VLT HVAC drives of ratings 10kW to 30kW, maintaining a stable environment through the 12 decks and over the entire 200m length of the ship at all times.

Paddy Takes Over the Mainland!

Congratulations to Barry Hennessy on his new appointment (page 10) and especially on bucking the trend whereby leading multi-nationals appoint non-Irish nationals to oversee their dedicated Irish operations.

Barry has reversed this trend and he now assumes control as General Manager, UK & Ireland, for Sanyo Airconditioners. Nice to see a “Paddy” take over the “Mainland” for a change.
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