Innovation in Pumping Technology

Wilo-BL, DL and IL range

This new range of glanded pump is suitable for mechanical building services applications such as Heating, Air Conditioning and Refrigeration. (-10 to +140°C). Available in single, twin or end-suction configuration, the new hydraulic design enables high efficiency operation and lower operating costs. Features include: standard frame IEC motors, bi-directional mechanical seals, cast iron impellers and IP 55 rating throughout the range.

WILLO ENGINEERING LTD
Enterprise Centre, Childers Road, Limerick, Ireland
Tel: 061-410963 Fax: 061-414728
E-mail: sales@wilo.ie Internet: www.wilo.ie

Pumping-Perfection
and more...
Inflation, reduced tax revenues to the national Exchequer, planning delays, erratic weather — and being knocked out of the World Cup — are all having a negative effect on the psyche of the nation. The upbeat, feel-good factor of recent years has certainly dimmed, leaving the overall economy with something of a hangover.

Construction — which is used as the barometer of the well-being of the economy as a whole — is static. The optimism expressed following the first quarter is gradually being replaced by one of caution. Indeed, certain pockets within the industry are feeling the pinch.

For instance, the building services sector has already seen the demise of another two companies in recent months — Drogheda-based Thermal Heat Exchangers and Dublin-based Keston Heating Products Ltd.

But let’s get real ... some sort of drop-off was inevitable. It is important to remember that the reduction in trading levels is just that ... a reduction. Even more important is to realise that it is but a slight reduction considering the excessive highs of recent years.

Of course it is necessary to be cautious and to re-assess the situation. However, this should be done in a positive, constructive, and forward-looking manner, not out of fear and in panic.
Heavy Duty Restorer

As part of its continual product improvement programme Fernox has redeveloped its long-standing Superfloc and re-launched an improved formulation with a new name and packaging livery.

Fernox Heavy Duty Restorer contains even more active ingredients and has been designed for the fast and effective removal of sludge and scale from existing systems of all ages, and for debris and flux removal on pre-commissioning of new installations.

As with Superfloc, Heavy Duty Restorer is supplied in 1-litre containers and can be added via the header tank, or in a sealed system, via the radiator air vent using a Fernox Injector. Restorer is particularly effective when used with a powerflushing unit.

Heavy Duty Restorer is a neutral, non-hazardous product that is well inhibited and compatible with all metals and materials commonly used in heating systems. Being neutral it can simply be discharged to drain without contravening environmental regulations.

Contact: Hevac, Dublin. Tel: 01 - 419 1919. Hevac, Cork. Tel: 021 - 432 1066.

International Awards for DIT Graduates

Ciara Ahern pictured with other CIBSE/ASHRAE Group Winners.

Academic year 2000/2001 has been a vintage one for the building services engineering degree program at the Dublin Institute of Technology. One of the abler class groups of recent years produced a creditable final year result and then, when placed in competition with their peers from other colleges, went on to win no less than two international student awards.

Ciara Ahern was one of five graduates short-listed for the HAC Graduate of the Year Award, which is held in conjunction with the CIBSE national conference each year. The group made presentations to a judging panel led by ASHRAE President, William Coad.

This competition is one of a number of initiatives of the CIBSE/ASHRAE Group, which was set up to foster links between the two institutions. Ciara was adjudged winner and her prizes included an all-expenses-paid trip to the recent ASHRAE Winner Meeting in Atlantic City. There she addressed a gathering of young American engineers as "young ambassador" for the British and Irish building services engineering profession.

Another building services engineering graduate, Gavin Power, was placed second in this year's CIBSE President's Prize. He was guest at the Institution at the President's Awards Dinner in London earlier this year where the announcement was made by Professor Max Fordham.

Last year Darren Walsh won this same event and in 1999 Ruth Kelly finished first in the CIBSE/ASHRAE sponsored event. Both graduated with high honours from the same degree program. The majority of applicants for these events come from UK colleges but they are open to all colleges with CIBSE connections, i.e. in Australia, New Zealand and some African and Asian countries. The events include mature students and postgraduate students among the applicants and are therefore quite competitive.

Contact: Don Byrne, DIT, Bolton Street. Tel: 01 - 402 3636.
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Published by ARROW@TU Dublin, 2002
VenTac/AcTech 7-Acre Blessington Complex

Since the beginning of May 2002, VenTac/AcTech have been operating from their new premises in Blessington Co Wicklow. They moved from their premises in Fitzwilliam Quay in Ringsend Dublin, for several reasons, primarily due to the requirement for additional space to facilitate the increased demand for storage and production.

The premises in Ringsend consisted of approximately 1000 sq m of office, production and storage space on a site of approximately 0.75 acres, while the new premises comprises 4000 sq m on a site of approximately seven acres.

VenTac has always endeavoured to carry as wide a range of stock equipment as possible. However, due to the limited space available in Ringsend and the difficulty of accommodating large delivery vehicles in a city-centre environment, it became apparent that a move was necessary.

Another major factor in the decision to move was the considerable expansion of the AcTech side of the business. AcTech has recently won several major contracts in the architectural acoustic field such as Ballyfermot Senior College, The Royal Irish Academy of Music and the Sligo Gaiety Theatre.

Also, the increased demand for engineered acoustic solutions from OEM customers such as Caterpillar, Terex, JCB etc, meant that considerable additional production facilities became necessary. The other major influencing factor was the requirement to enlarge the NCRL acoustic laboratory facility. This facility plays a considerable part in AcTech’s technical abilities as well as operating as the only commercial testing facility currently available in Ireland. The increase in the level of AcTech’s business necessitated the upgrading of the laboratory, but due to the space constraints this could not happen in Fitzwilliam Quay.

A new facility is currently under construction in Blessington which will comprise two Acoustic Transmission Suites and an Aerodynamic test lab. The new NCRL facility should be fully operational by December 2002 and will give the group companies access to a state-of-the-art, world-class acoustic and aerodynamic laboratory.

Since making the move, business levels have picked up and the Ventac group of companies are working hard to market their increased capabilities.

Contact: AcTech: Ray Walsh, Building & Architectural Acoustics Manager; NCRL: Brian Topping, Laboratory Manager; VenTac: Mark Moran, Sales Manager (Ventilation Products). Tel: 045 - 851500; email: info@ventac.com

Lennox New Test Facility

Lennox Europe — who recently appointed Airconditioning Technology Ltd Irish distributors (see BSNews May 2002) has unveiled a new test facility at Longvic, France. Designed to test packaged rooftop units up to 250kW, the centre is said to be the largest of its kind in Europe.

The Longvic centre, which spans some 450sq m, is capable of simulating a wide range of internal and external conditions, from -15° C to 55° C. In order to ensure such a range of temperatures can be achieved a total of four Lennox ABXN air handling units — with capabilities from 24000 m³/h to 35000 m³/h — have been installed, together with an air-cooled water chiller, reverse cycle heat pump and AMKA box with a capacity of 30000 m³/h.

The facilities complement Lennox’s existing testing capability for fan coils at its Northampton plant. It comprises two test chambers, one that can be used to provide relative sound tests.

Contact: Philip McEvitt, Airconditioning Technology Ltd. Tel: 01 - 829 5590; email: aircond@iol.ie
New Trane Catalogue

Trane has introduced a brand new format for the 2002 version of its general catalogue. In fact it is more than just a catalogue, it is a “Systems Guide”, according to Trane’s Aidan Flannery. The new format contains more technical information than just an overview catalogue and it is designed as a tool for all specifiers and purchasers to establish quickly and easily the Trane Products best suited to an application. It is also available on CD.

The entire Trane range is covered, from air cooled and water cooled chillers, 50kW to 6000kW; building automation systems; air handling units; fan coil units; and rooftop units.

Contact: Aidan Flannery, Trane Ireland. Tel: 01 - 460 6030.

Electronics Production Hall Opened at Wilo

The Wilo AG group is continuing to expand at its headquarters, located in Dortmund, Germany. After 15 months of construction activity, it has opened its new production hall for electronic components, which will supply the entire Wilo AG group.

The company invested approximately €2.55 million in the building and a further €2.76 million in the highly-modern production machinery. All 110 staff in the Electronic Department within the Competence Centre for Electronics (CCE) have now been accommodated in the new premises. The new building not only houses the production department but also the development and purchasing sections, and has created an additional 43 jobs within this strategically important sector.

In the production hall — which measures 1,400 sq m — it is planned to produce 600,000 electronic modules per year for the worldwide Wilo AG group. Around 80% of these components are incorporated directly within pumps made in the Dortmund plant. To ensure both efficiency and high standards of production quality, modern production techniques such as one-piece flow and just-in-time production are used. Each member of the production staff guides ‘his’ module, in small assembly units, from the first to the last machine, and therefore carries direct responsibility for the quality of the product. Transport channels and warehousing are reduced to a minimum with this new process, in comparison to conventional conveyor-belt production, and as a result there is an increase in productivity.

High Efficiency thanks to Electronics. Since the introduction of the first pumps with integral speed regulation by Wilo GmbH at the end of the 1980s, the importance of this technology has continued to increase. Thanks to electronic motor control, pumps used in building services applications no longer run continually at full power but can adapt their output automatically according to the system’s requirements. This allows for a reduction in electricity consumption of up to 50% in comparison to conventional pumps.

Electronic components also play a central role in the new high efficiency pump by Wilo, the Stratos, which is suitable for use in both heating and cooling systems. The new EC motor, which virtually doubles the efficiency of the pump in comparison to conventional glandless pumps, owes its existence to the precise electronic control afforded by the use of electronics. A microprocessor continually detects the position of the rotor and provides constant torque by means of a precise supply of current to the coils. It is the use of electronic modules which enables a pump such as this one to exist with such low energy consumption. This development has already celebrated its first success, winning the prestigious Dortmund Environmental Prize.

Contact: Wilo Engineering Ltd. Tel: 061 - 410 963; email: sales@wilo.ie Web: www.wilo.ie
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Dorot Pressure-Reducing Valves from Honeywell

The high specification and performance of the 300 Series automatic control valves from Dorot of Israel so impressed Honeywell that it has rushed to add them to its water control product range as the D300 Series, available through its usual Ireland distribution channels. “The valve’s exceptional performance over a wide range of flows simplifies valve selection and reduces the cost of providing water pressure reduction in buildings and industrial processes,” stated Honeywell’s Jeremy Bevan, Market and Sales Manager, Water. The D300 Series is unique as a pressure-reducing valve in being able to regulate near-zero flows in all valve sizes and provides accurate control up to continuous operation flows as high as 3900 m3/hour on its 500mm (20 inch) valve. “This means users do not have to estimate the band of flow rates where accurate pressure regulation is required and suffer compromised performance at higher and lower flows,” explained Bevan.

The D300 Series also greatly reduces the cost of pressure reduction installations. Not only does its ability to regulate near-zero flow eliminate the need for an additional low flow device such as a throttling plug, but there is no need for a low flow bypass valve. This also results in very low head loss in the fully open condition. The valves are provided with face-to-face dimensions and flanges to ISO standards, in sizes from DN40 to DN500. This enables quick and easy replacement of old equipment, without pipeline modifications. They have an internal floating shaft, allowing for no friction or leakage, eliminating the need for shaft sealing. The unique shaft design provides easy field maintenance, while its resilient seal disc is guided by an almost frictionless centring device. An easily-replaceable seal made of SST maintains durability against erosion, ensuring a drip-tight seal. Valve bodies are of ductile iron to withstand both high hydraulic and mechanical stresses.

A valve position indicator is provided as an option. This is attached by a floating ball and socket connection, resulting in smooth movement, so there is no wear or tear on the indicator seal.

Full details on this and all other Honeywell water control products can be found on the Honeywell’s website at www.honeywell.com/uk/homes.htm.

Contact: Honeywell Control Systems.
Tel: 0044 1344 656000; email: uk.infocentre@honeywell.com

The D300 Series pressure-reducing valve now available from Honeywell.

IPFMA Officers

Felix McKenna (right), Group Property Manager at Eircom Plc has been re-elected Chairman of the Irish Property & Facilities Managers Association (IPFMA) for 2002/2003 for a second one-year term of office. He is pictured with Jerome O’Connor of CB Hamilton Osbourne King, Dublin, elected First Vice-Chairman and Patricia Crisp, consultant to Gandy Walters Ltd, Dublin, Second Vice-Chairman. She is the first woman ever to be elected to a senior office in the Association.
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**Trade News**

### BBA Certifies Eavemaster

The prestigious and widely-respected British Board of Agrément (BBA) has certified MFP's widely-praised Eavemaster's PVCue Fascia and Soffit System as meeting its strict specifications. To earn certification, Eavemaster had to measure up to a series of gruelling verifications of the product's design, practicality, ease-of-assembly, strength, stability, fire-resistance, ventilation, durability, maintenance and resistance to wind and weather. Available in a wide range of colours and styles, Eavemaster is a complete system that incorporates unique internal angles and pre-formed gable boxes, includes all trims and accessories, and dimension indicators to make installation faster and more precise. Precision-formed to exacting specifications, Eavemaster fascias last a lifetime and are virtually maintenance-free. Unlike conventional wooden eaves, Eavemaster will never crack, rot, peel, flake, discolour or warp. In the detailed report which accompanied Eavemaster's certification, the BBA said that “accelerated weathering tests and natural exposure trials indicated that Eavemaster will retain adequate impact resistance for a period in excess of 20 years”.

Contact: MFP Sales. Tel: 01-6302500; Email:sales@mfp.ie

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**Siemens At Mount Juliet**

The Siemens Building Technologies/Sirus Engineering Systems golf/shooting/fishing extravaganza will take place on 10th July 2002 at Mount Juliet, County Kilkenny.

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**RKD & McCarthy Lynch Merge**

Dublin-based RKD Architects and McCarthy Lynch Partnership in Cork have joined forces in a recent merger. The new venture will practice under the name RKD McCarthy Lynch Architects and will continue to be based in Exham House, Douglas, Co Cork.

"With our long-established reputation in Cork and the addition of resources from RKD, we now have the perfect platform to enhance our activities in the area. It is remarkable how similar in approach and ethos both offices are with their emphasis on service to clients and excellence in design “ said Gerald McCarthy.

Between Dublin and Cork, RKD McCarthy Lynch now employs over 100 people, making it one of the largest architectural practices in Ireland.

The practice will continue to concentrate on the sectors in which it has well established experience and expertise. These include private and public healthcare, electronic and computer industries, healthcare products and pharmaceuticals, office and commercial, second and third level education, interior design, leisure and masterplanning.

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**RKD McCarthy Lynch Directors — David Browne with John Lynch, Gerald McCarthy and Geert Douterlungne.**
A breath of fresh air.

Heating, ventilating & air-conditioning solutions - all under one roof.
CRISTAL AIR AT DRUID’S GLEN

To mark its fifth year in business Crystal Air Ltd principals — Domnick Ward and David O’Brien — hosted a select golf outing at Druid’s Glen earlier this month. The outing comprised a team format with the participants competing for an excellent array of prizes.

On arrival guests were offered a light snack in the Spike Bar and the services of a sports therapist to ease those tense muscles before going out on the course. They could also avail of the golf clinic provided by professional Pat Geraghty.

In addition to the overall team prize there were a number of individual awards for nearest the pin, the longest drive, and the amazing new Toyota Camry for anyone making a hole-in-one!

Results on the day were as follows:—

Winners — Brian McPhillips, Derham McPhillips; Seamus O’Reilly, O’Reilly & Co; Snane Cunning, Irish Distillers; and John Brosnan, Bank of Ireland.

Second — Joe Russell, Berkeley Court Hotel; Joe Quinn, Jury’s Doyle Group; Tom Burke, Grafton Group; and Dermot Furey, Gatlan Furey.

Third — Brendan Keaveney, KES; John Doherty, McGrattan & Kenny; Tom Gilligan, Parkway Properties; and Domnick Ward, Crystal Air.

Nearest the Pin — Joe Warren, BSNews.

Longest Drive — Brian McPhillips, Derham McPhillips.

There was no hole-in-one winner.

The presentation of prizes took place over dinner later that evening.

Crystal Air Ltd now employs 22 people and specialises in air conditioning supply and the installation of VRV, VRF and split systems. Recent projects include The Berkeley Court; Westbury; Ashtown Gate office development; Blackrock Business Park; West Block Abbey Street; and Crunch Fitness Centres.

The company is an authorised supplier and installer from all leading brand equipment and operates out of purpose-built premises located in Butterstream Business Park, Clone, Co Kildare.

Anthony Reddy & Associates New Premises

Minister for the Environment Noel Dempsey, TD, is welcomed to Dartry Mills Dublin 6, by Tony Reddy, Managing Director of Anthony Reddy & Associates, where he performed the official opening of the newly refurbished studios.
The introduction of the extensive Honeywell range of unique reverse rinsing filters, backflow preventers and direct acting pressure reducing valves won the approval of WRAS and also water engineers, consultants, architects and contractors.

Now Honeywell is going underground with their range of flow and pressure control valves and the Hawle range of valves, fittings and adaptors; and System 2000 with its unique restraint system couplings.

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Technical support line +44 (0)8457 678999

Honeywell Control Systems Ltd,
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Berkshire RG12 1EB.
Integrated Lossnay Ventilation From Mitsubishi Electric

For creating and maintaining indoor environments that are comfortable, healthy, and cost-efficient an air conditioning system alone is not enough. Indoor air can grow stale with time, becoming polluted with formaldehyde, pollen, cigarette smoke, dust, and carbon dioxide. This is where the Lossnay line of ventilators comes to the rescue, simultaneously expelling stale air and pumping in the vital fresh air needed to maintain optimum health and comfort. What’s more, sensible and latent heat are both fully recovered, saving energy and — by extension — reducing the overall operating costs of the system.

Mitsubishi Electric has responded to the growing need for the total, integrated management of building facilities by making it even easier to interlock and control Lossnay ventilators together with air conditioning systems. An adaptor that was once required for interlocking now comes as standard equipment that is integrated into the Lossnay unit, and a separate power supply is no longer necessary when using an LCD remote controller. These improvements not only make the system easier to install and maintain, they also make it easier on the user who can now automatically control ventilation just by turning on the air conditioning. An added advantage is that ducts can be connected in two different directions to the outdoor vents. Improved sound attenuation makes Lossnay units quiet enough for places where silence is a must. A free-cooling function is also available to help reduce costs and bolster efficiency. The integrated system design makes installation and system management rationally efficient. Because no two buildings ever have precisely the same needs, a wide range of choices is available, from the LGH RS2 range to the LGH RX3 range. Capacities range from 150 m³/hr to 2000 m³/hr.

Mr Slim ... Perfect for 2-by-2 Ceilings!

The new Mr Slim SLH series of ceiling cassettes are the perfect size for 2-by-2 ceilings. “The 570mm SLH-1AR, SLH-1.6AR and SLH-2AR models are slim, aesthetically attractive, yet very powerful”, according to Milke Sheehan, Manager, Mitsubishi Electric Air Conditioning. “The SLH’s size and shape — which perfectly match 2-by-2 ceilings — and its light weight of 15kg (SLH-1AR), make installation even easier and more convenient. They are ideal for cafes, bars, restaurants and shops”.

An added benefit is the new 2500-hour, long-life, filter. This greatly reduces the frequency the filter needs to be replaced, making maintenance all the easier. Annoying drafts and smudging are also said to be reduced. Noise levels of 31dB mean whisper-quiet operation. Contact: Mike Sheehan, Mitsubishi Electric. Tel: 01 - 419 8800. email: michael.sheehan@meir.mee.com

Mr Slim 407C

With the introduction of the new Mr Slim 407C products, Mitsubishi Electric has now introduced a full range of 3-phase units. All outdoor units are now available in 3-phase, which include 1.6hp, 2hp, 2.5hp, 3hp, 4hp, 5hp and 6hp. There are also the single-phase outdoor units from 1.6hp through to 4hp.
Anderson Pressure, Temperature Sensors & Gauges

The Anderson line of pharmaceutical and dairy pressure instruments includes gauges, indicating switches and transmitters designed to meet the most stringent specifications for accuracy, surface finish, and temperature stability. Pressure transmitters are available with fractional (3/4") clamp fittings as well as standard 1.5" and 2" sanitary connections. The new “CPM” fitting line provides a means of eliminating pockets or dead-legs in critical application. Applications include process lines and vessels, filtration equipment, pumps, heat exchangers, and other pressure-dependant devices or processes.

Anderson RTD’s and temperature transmitters are designed for pharmaceutical processing and sterilization applications that operate between -50° and 350°F. They provide accurate and reliable temperature measurement and mate easily with a wide variety of direct process connections and thermowells.

Also available are a wide variety of bimetal thermometers along with the new Digitherm digital thermometer with replaceable battery pack.

All electronic sensors are available with sanitary clamp configurations in 1/2" through 4", as well as in thermowell mountings.

Thermowells can be specified as weld-in or clamp style, with all 316 “L” stainless materials and electropolished finishes. Weld-in thermowells are supplied with material certifications and permanently marked “heat numbers” as standard.

Contact: Bob Gilbert/Brian Harris, Manotherm Ltd.
Tel: 01 - 452 2355;
email: manotherm@eircom.net

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UPGRADE
TO AN EASY TO INSTALL, FASTER MODEL
Multipurpose Vents, Chimneys and Flues from Selkirk

Selkirk produces a comprehensive range of vents, chimneys and flues for most domestic and commercial applications, covering appliances such as boilers, diesel generators, cooking ranges and incinerators, and garbage chutes.

Chimney and vent systems are single- or twin-walled multi-application prefabricated products. Available in a large range of sizes (100mm to 1200mm) and materials, they are designed to convey gases, particles, fumes, smoke and products of combustion from a wide range of fuel-burning and process equipment.

Designed to be used as an alternative to heavy welded steel, the systems are light in weight and capable of accommodating continuous temperatures up to 760°C and pressures from 0 to 1500mm w.g., with fire ratings from 30 minutes to 40 hours.

With a variety of fittings and straight lengths available, Selkirk vents can be installed in many different configurations, both internally and externally. Being fabricated and, in most cases insulated, the systems are easily handled and quickly installed. Materials are chosen to suit the particular application to hand.

The Selkirk IL is a gas vent designed for use with gas appliances, typically in domestic and small commercial installations, with draught-hoods or with flue gas temperature not exceeding 260°C and zero or negative pressure in the flue.

The factory-made twin-wall IL comprises a range of straight pipe lengths and associated fittings and accessories, and the aluminium liner is protected by an outer casing of Zalutite.

Selkirk SMW is a twin-wall mineral-wool insulated stainless steel system designed for use with oil and gas fuels. It is available with a full range of fittings and accessories in 12 diameters ranging from 127mm to 600mm.

Diameters of 127mm to 203mm are specially manufactured, tested and Kitemarked to BS 4543 Part 3 for use with oil and gas fired equipment.

Selkirk QC system comprises a range of prefabricated Zalutite outer, aluminium inner, twin wall vent pipe lengths and fittings for use over gas fired appliances. These must be draught-hooded, have a flue gas temperature not exceeding 260°C, and have zero or negative pressure in the flue. Such appliances include cooking equipment, central heating boilers, modular boilers, small furnaces, water heaters and unit air heaters. The system is available with a full range of fittings and accessories in 10 sizes from 178mm to 600mm.

Selkirk SW is a single wall stainless steel flue system for gas and oil-fired air heaters, gas-fired ceiling heaters, warm air blowers and gas appliance connection. Designed for use with flue gas temperatures up to a maximum of 260°C, the product is available with a range of fittings and accessories in eight sizes from 125mm to 350mm.

Europa is a versatile twin-walled stainless steel system suitable for commercial and industrial applications that require a pressure-tight extract and where the high-quality polished stainless steel finish gives an aesthetically-pleasing appearance.

For commercial applications, Selkirk chimneys can be supported on freestanding masts up to 50m high; the mast provides easy access for inspection and maintenance.

All products within the range are made to stringent standards such as BS 5750 quality assurance (ISO 9002) with a number of products being approved in most major markets. The company also offers technical advice, quotations, computer-aided designs, assistance with sizing, installation advice and field assistance through Irish distributors Hevac Ltd.

Contact: Declan Kissane/Karl Carrick, Hevac.
Tel: 01 - 419 1919;
Fax: 01 - 458 4806;
email: karlc@hevac.ie
Cork —
Tel: 021 - 432 1066;
Fax: 021 - 432 1068.

The broad range of Selkirk chimneys and vents from Hevac caters for all requirements, from small projects right through to the largest.
The sky’s the limit

Rite-Vent is the only company in the world to be awarded the prestigious QA and Komo marks by Gastec, one of the foremost appliance testing authorities in Europe. We have met the criteria required to attain this approval for corrosion resistance on our stainless steel chimney systems.

Through BSS Eire we can supply commercial chimney and exhaust products for every possible application, from residential installations to turbine heat recovery systems. In conjunction with BSS we can also offer design advice for every conceivable chimney, smoke extraction or exhaust system: from air movement and ventilation systems, multi-flue chimneys, to offshore oil and gas applications.

The sky is our only limit!
Systemflue By Powrmatic

Powrmatic’s System 250 is a high-quality, prefabricated chimney system suitable for oil and gas fired appliances with flue gas temperatures up to 760°C continuous firing. System components from 125mm up to 200mm internal diameter are also suitable for solid fuel appliances.

The system consists of straight lengths and associated fittings, available in 12 different internal diameters from 125mm to 600mm.

System 250 is a twin-wall chimney constructed generally as detailed here. The inner liner is manufactured from stainless steel grade 316 0.46mm, while the outer casing is stainless steel grade 304 0.46mm. The insulating material on internal diameters — 125mm - 200mm — is a high-quality, silica-based, powder which ensures optimum performance.

The sockets and spigots are manufactured from stainless steel grade 316 0.46mm, their construction having bayonet type engagement which lock rigidly together.

The inner liner is lock-formed and fixed to the upper male spigot only. The outer casing is lock-formed and is joined to both the male spigot and female socket end caps. This form of construction allows the inner liner to expand and contract with the varying temperatures without affecting the outer casing.

System 250 — in internal diameters from 250mm to 600mm — is constructed in the same manner as the smaller diameters. These diameters are additionally available in a wide range of optional material specifications. This allows total flexibility in terms of application and budget limitations.

Installed lengths of 1500mm, 1000mm, 500mm, 250mm and 150mm are available as standard. Adjustable lengths of 400mm - 700mm, 300mm - 450mm, and 100mm - 150mm are available where it is necessary to provide a flexible intermediate section or to facilitate the removal of the appliance.

Components — 45°, 30° and 15° elbows are available to alter the route of the chimney, or by using two elbows, a variable offset can be achieved. A wide range of tees are available to suit all applications including 90° equal tees, 135° tees and booted tees. Also available is a range of 90° and 135° reducing tees which will be specially manufactured to exact customer requirements.

Draught stabilisers are supplied to ensure positive draught correction. Tee caps are supplied to close off tee openings and offer ideal access for inspection and maintenance. Tee caps with drain are normally situated at the base of a chimney and prevent the build up of condensation and rain water within.

New from Powrmatic is System 90 AVZ, a high-quality, prefabricated chimney system suitable for 28-second oil, or gas fired appliances with flue gas temperatures up to 250°C continuous firing.

The system consists of straight lengths and associated fittings and is available in three different internal diameters — 100mm, 125mm and 150mm.

System 90 AVZ is manufactured under the strict control of BS5750, ISO9000 and is manufactured to the requirements of BS715, the British Standard for the specification of metal flues, fittings and terminals for gas fired appliances with a rated input not exceeding 60kW.

All lengths and fittings are of twin wall format with a 10mm insulated cavity. The vertical seams of the flue lining and outer casing are lock formed. The 10mm insulated cavity is maintained by a male spigot end cap at the top, and a female socket end cap at the bottom. This construction allows the liner to expand and contract with varying temperature without affecting the outer casing.

Contact: Tony Delaney, Powrmatic.
Tel: 01 - 452 1533; Fax: 01 - 452 1764.
Web: www.powrmatic.co.uk
To find out which Selkirk chimney, gas vent or exhaust system is perfect for your next project, phone 01 - 419 1919.

New build or refurb, commercial or industrial - there's a Selkirk chimney, gas vent or exhaust system to suit your particular project requirements.

It might be the unique Europa twin wall stainless steel chimney/exhaust system or the Selkirk SM twin wall insulated chimney.

But whichever innovative system you specify, the entire Selkirk range comes with a well-earned reputation for superb quality, ease of installation and outstanding technical back-up.

And, as you would expect from the world-leader, all Selkirk systems are available nationally in a wide range of sizes.

Reflecting your project needs.
Established for over 35 years, Rite-Vent is one of Europe’s leading and innovative manufacturers of flue and chimney products. During the past 12 months the company has concentrated on increasing its market share in the commercial sector of the business. Brendan Coghlan, Commercial Director of BSS in Dublin, told BSNews: “We are pleased to be associated with Rite-Vent; their range of products adds a new dimension to our total product portfolio of commercial products in Ireland. Rite-Vent has by far the best quality, and most versatile product range; they are competitively priced, and have a proven track record.

Recent installations include projects for some of Europe’s largest blue-chip companies, from football stadiums and hospitals to universities and automotive manufacturers. Through BSS Rite-Vent can offer a full CAD design service, with unrivalled technical support, including flue sizing and design consultation and installation. Design advice is available for every conceivable chimney, smoke extraction or exhaust system, from air movement and ventilation systems through to multi-flue chimneys, offshore oil and gas applications. Typical of the unique solutions Rite-Vent can provide are illustrated by recent projects. For instance, supplied and installed ahead of schedule, Rite-Vent’s ICS flue system has proved its flexibility and ease of installation at Southampton FC’s new 32,000 capacity stadium. The two ICS flues were fitted to a single flue from the stadium’s main boiler. Rite-Vent were also contracted to supply and fit flue systems for the supporters club and the “Football in the Community” building.

Brendan Coghlan explained: “The ICS system was specified due to its reputation for ease of installation and reliability. It is manufactured to hold the aggressive condensation and pressure that new generation boilers produce”.

Rite-Vent claim to be the only company world-wide whose products have achieved the criteria to attain European approval for corrosion-resistance on stainless steel chimney systems. This approval was awarded by Gasteck, one of the foremost appliance testing authorities in Europe. Rite-Vent flues are also flying high at British Airways new sales offices at Hayes in Middlesex and at Didsbury, Manchester. Contractor, Drake and Scull Engineering required the company to design and manufacture the systems, which comprise three separate ICS flues for the Hayes complex, and at Didsbury, a rectangular fan dilution system was installed due to space restraints.

At Newcastle Regional Airport’s new terminal Rite-Vent designed eight ICS flues, each rising 20 meters vertically. The installation serves five boilers, two generators and a combined heat and power unit.

On the remote Shetland Islands, Rite-Vent’s expertise and knowledge was called on. A 15-metre, free-standing mast supporting two ICS flues was designed for the base, and a specialist team contracted by Rite Vent battled through extreme weather conditions on the island to complete the project on schedule.

As the foregoing illustrates, no matter what the requirement, BSS and Rite-Vent can provide a tailor-made solution.

Contact: BSS Dublin.
Tel: 01 - 416 5100;
email: 1930.sales@bssgroup.com

BSS Cork:
Tel: 021 - 432 1588;
email: 1960.sales@bssgroup.com
Sanyo Launch Direct Sales Operation in Ireland

Following their recent success within the Irish market, Japanese air conditioning manufacturer Sanyo opened their Irish head office in Dublin last month. Sanyo are market leaders in several other European countries, including Germany where they currently enjoy 30% of the air conditioning market. This latest move is designed to build on strong European growth and support their continued success in Ireland.

At the helm of the Irish operation is Barry Hennessy who, in his new role as Sales Manager, brings with him six years of valuable Sanyo experience. His aim is to support a dedicated network of dealerships to deliver the benefits of the Sanyo range to the consultant sector. "I'm thrilled to be at the forefront of this exciting stage in Sanyo's development." Says Barry. "Our product range is very broad, but the one thing that never varies is the quality. Now we're putting together a team that can match that quality and the flexibility our products are known for and it's a winning combination."

Apart from head office facilities in central Dublin, the new set-up also comprises a small stockholding warehouse. Situated near to the airport with next day delivery from the UK, this enables Barry's team to offer excellent stock availability. Part of the reason for the considerable success of the Sanyo product line-up is that it uses common indoor units throughout, making it uniquely flexible and, at the same time, visually consistent. What is more, new products coming on line this summer mean the range continues to expand.

Sanyo’s Japanese World Cup Tour

Sanyo’s Irish direct sales operation lent support to their football heroes on a 15-day trip to Japan earlier this month. Hosting the trip was Barry Hennessy, Sales Manager, and his guests were Jim Smith of Mercury Engineering; Eugene Phillips of PMC Partnership; and Tom O’Flynn of JODA Consultants.

"Of course we went to see the football but the trip was also the perfect opportunity to show the guys our Head Office in Ashikaga and visit the factory," explains Barry. "As you can imagine I didn’t have to twist anyone’s arm too hard. It was the opportunity of a lifetime."

The visit included three matches, starting with Ireland’s first World Cup match against Cameroon at the Niigata stadium that ended in a draw. The following day was spent in Tokyo at the Sanyo plant where the Irish contingency was greeted warmly and the Irish flag was flown in their honour. An extensive and interesting tour of the factory gave Barry the opportunity to introduce his guests to the quality standards and environmental benefits of the Sanyo range. In the evening they dined with senior staff including Mr Morisaki, the company’s President, and sampled the culinary delights of Tokyo, rounding off the night with a little Karaoke.

After a day’s sightseeing, which included a boat trip to see the city from the river, it was off to Ibaraki to witness Robbie Keane’s equaliser in the last minute of the game against Germany. "What happened after that is a little sketchy," Jokes Barry. "All I can say is the atmosphere was fantastic and we celebrated in traditional Irish fashion."

The penultimate day of their visit was spent sightseeing and shopping in Japan’s second largest city, Yokohama, and ended at the International stadium to see Ireland take on Saudi Arabia. "What could be better? The lads delivered a stunning 3-0 win. A perfect end to a perfect trip. We’d seen some great football, witnessed a fascinating culture, and enjoyed excellent company," Says Barry. "We even managed to talk a little business."

Contact: Barry Hennessy, Sanyo Air Conditioners. Tel: 01- 4568910 Web: www.sanyoaircon.com

The opening also coincides with the launch of their new 3-pipe VRF product. At 1318mm high, the 3-Way Eco Multi is the smallest outdoor unit available and incorporates the highly-efficient non-inverter Super PC compressor. The solenoid valve kit, with a height of just 149mm, is also the smallest available and requires no additional power supply. Understandably then it is already proving extremely successful. "I’m looking forward to building on the existing strength of the brand in Ireland. By further increasing Sanyo’s profile we’ll hopefully share in some of the success we’ve achieved elsewhere in Europe." Barry concludes.

Eugene Phillips, Jim Smith and Tom O’Flynn celebrate Keane’s goal

https://arrow.tudublin.ie/bsn/vol41/iss6/1
The beautiful setting of the Killarney lakes and mountains provided the stunning backdrop for the annual Myson Heating Controls golf outing which this year took place at the Killarney Golf & Country Club. A broad mix of merchants and installers from all corners of the country tackled the demanding course with varying degrees of success. The very strong breeze made for an even greater challenge though a handful of participants rose to the occasion and turned in some excellent scores. All adjourned to the nearby Hotel Europe for the meal and presentation of prizes, followed by craic of the usual high calibre which went on into the early hours of the morning. Overall winner was Joe McSweeney, with Jimmy Brereton coming in second hot on his heels. Other prizewinners are as detailed in the photographs and captions.
Recovery of Debt and Repossession of A Commercial Premises

Dorothy Macken, B.SC,
Credit Control Manager with Irish Estates,
Ireland’s largest Property and Facilities Management Company.
Tel: 01 - 704 1400

We are all familiar with how Ireland’s economy, property market and commercial rents have grown at unprecedented rates over the last few years. Cost controls can become lax when the economy and revenue growth is escalating. Now is an appropriate time for all companies to review their credit control procedures, particularly as there are signs of the situation changing which will give recovery of money in a timely and efficient manner even greater importance.

Construction sector employment — if used as a barometer of the property market — has fallen by 2.8% on an annual basis in February and 3.1% overall from March 2001 to March 2002. The CIF is predicting -3% growth in 2002. Against this fixed costs in the property sector continue to rise such as rents (up to 100% commercially) insurance costs (by 150% in some cases).

Late payments are a problem for all companies. Debtor problems reduce return on investment for the landlord, and the higher the level of debt the more risk there is to bad debts. Also, money tied up in debtors could be used better by the landlord to reduce borrowings.

According to a recent survey by the Small Firms Association, 70% of small firms offer credit terms of 30 days or less with only 8% being paid within that period. Average payment period in Ireland is 54 days as opposed to 49 in Great Britain and 38 in Germany. New EU legislation will make it compulsory for all companies to pay within 30 days of receipt of invoice.

As a property/facility management company with a rent roll collected on behalf of our clients in excess of €100 million, some properties are heavily mortgaged, therefore recovery of rents expected on the due date is critical to any business going forward.

Regardless of the property, all rents are payable on the due date and grace days for payment are dependent on the clauses in each individual lease. The property business is not your regular trade account whereby 30 days minimum can be taken before payment is issued, and in all cases the lease terms must be upheld on both sides.

Improve Your Record Collection

Here are some good but simple rules of credit management which, if followed, may improve collection record:

- There must be a defined time scale to clear all debts as defined in the lease;
- Build relationship with the tenant;
- Maintain a high standard of fairness, honesty and courtesy in all dealings;
- Provide and identify clearly all charges;
- Apologise if a promised action has not been carried out;
- Show due consideration for debtors problems and deal with them according to the individual cases and company’s guidelines;
- If a claim is disputed seek details of the issues from the debtor and provide full back up documents to validate the claim;
- Overcome objections and gain a firm commitment to pay.

Collecting Arrears if a Tenant Defaults

Here are some options for collecting arrears if a tenant is in default. Remember it is always advisable to seek legal advice when in doubt.

- Issue 7-day demand letter;
- If unpaid, issue proceedings for recovery;
— Ensure any guarantors of the lease are included in the proceedings. Be aware, that when a tenant vacates a leased premises, the liability for rates falls on the landlord or subsequent occupier for the previous two years arrears of rates, if any, including the current year.

In the event of the tenant being in serious financial difficulties, then arrears proceedings can lead to an increase in the amount outstanding, due to the time it takes to get a hearing and the fact that other creditors will put pressure on the tenant. As the landlord may be an unsecured creditor in the case of liquidation, it may be more prudent to seek repossession.

Most leases contain a clause relating to re-entry but each case must always be judged on its own merits and bearing in mind the possible risks. Any re-entry must be peaceable and preceded by a letter of warning. It is a criminal offence to enter a premises forcibly. Proper records and evidence of re-entry such as photographs, video, etc, must be kept, and the tenant's goods must be recorded, stored and insured. A landlord can find himself defending injunction proceedings with substantial claims for damages if re-entry is not according to the proper procedures.

The cleanest form of recovery of possession is where the tenant simply surrenders their interest and the landlord should ensure that, in addition to recovering the keys, they also recover the original lease. Acceptance by surrender also terminates any guarantors' obligations under a guarantee. This is worth bearing in mind particularly where a tenant may have become insolvent and a receiver (on behalf of the company) or a liquidator, is offering the landlord surrender.

**Recovery of Service Charges**

Service charge budgets are estimated at the beginning of the year and recovered in equal quarters over the year with a balancing charge at year-end. A recent case in Northern Ireland that I am aware of illustrated that a failure to include some expenses in the annual certificate of expenditure is not necessarily fatal to the landlord's claim under the service charge provisions. In this case, the landlord had refurbished the entrance hall and lift areas in a multi-

The CIF is predicting -3% growth in 2002. Against this fixed costs in the property sector continue to rise such as rents (up to 100% commercially) insurance costs (by 150% in some cases)
## The Castle

**Sponsor: Liberty Air Technologies**

<table>
<thead>
<tr>
<th>Overall Winner</th>
<th>Bernard Sweeney</th>
<th>41 Points</th>
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<tbody>
<tr>
<td><strong>Class 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Brendan Keaveney</td>
<td>(7)</td>
</tr>
<tr>
<td>2</td>
<td>Graham Fay</td>
<td>(7)</td>
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<tr>
<td>3</td>
<td>Michael Carroll</td>
<td>(9)</td>
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<tr>
<td><strong>Class 2</strong></td>
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<tr>
<td>13-18</td>
<td></td>
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<tr>
<td>1</td>
<td>Dave McMenamin</td>
<td>(17)</td>
</tr>
<tr>
<td>2</td>
<td>Michael O'Doherty Jnr</td>
<td>(16)</td>
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<tr>
<td>3</td>
<td>Tony Gillen</td>
<td>(13)</td>
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<tr>
<td><strong>Class 3</strong></td>
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<td>19-28</td>
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<tr>
<td>1</td>
<td>Terry Maher</td>
<td>(20)</td>
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<tr>
<td>2</td>
<td>Sean Brady</td>
<td>(20)</td>
</tr>
<tr>
<td>3</td>
<td>Padraig Gillen</td>
<td>(20)</td>
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<tr>
<td><strong>Front 9</strong></td>
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<tr>
<td>1</td>
<td>David Lynch</td>
<td>18 Points</td>
</tr>
<tr>
<td>2</td>
<td>Jim Nolan</td>
<td>19 Points</td>
</tr>
<tr>
<td><strong>Visitor</strong></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>Dave McGrane</td>
<td>31 Points</td>
</tr>
</tbody>
</table>

**Class 1**

- 1st: Brendan Keaveney, 39 Points
- 2nd: Graham Fay, 37 Points
- 3rd: Michael Carroll, 36 Points

**Class 2**

- 1st: Dave McMenamin, 37 Points
- 2nd: Michael O'Doherty Jnr, 35 Points
- 3rd: Tony Gillen, 34 Points

**Class 3**

- 1st: Terry Maher, 36 Points
- 2nd: Sean Brady, 34 Points
- 3rd: Padraig Gillen, 32 Points

**Front 9**

- 1st: David Lynch, 18 Points
- 2nd: Jim Nolan, 19 Points

**Visitor**

- 1st: Dave McGrane, 31 Points

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Brendan Keaveney, winner Class 1, with Tim O'Flaherty, Liberty Air Technologies and BTU Captain Des Prendergast

BTU Captain Des Prendergast with Class 2 winner Dave McMenamin, and Tim O'Flaherty, Liberty Air Technologies

BTU Captain Des Prendergast with Tony Gillen, third Class 2, and Tim O'Flaherty, Liberty Air Technologies

Overall winner: Bernard Sweeney with Tim O'Flaherty, Liberty Air Technologies and BTU Captain Des Prendergast
After a successful 12 months operating with just one man, no premises, and no local stock, Fantech Ventilation has obtained new premises in Dublin in order to capitalise on the growing demand for its product range.

Fantech Ventilation, as the name suggests, is a distributor of ventilation products throughout Ireland. Much of the initial success of Fantech's development to date is attributable to Brendan O'Toole, who has more than 20 years experience in the building services industry.

Brendan's experience—combined with a first class product range—allows Fantech to operate and provide clear benefits in an ever-increasing competitive environment to its customers.

One of the jewels of the Fantech crown has been the exclusive distribution rights in Ireland for Elta Fans Ltd, a UK company with an international reputation for the design and manufacture of quality industrial, commercial and domestic fans, specific to the application requirements of its customers, such as Fantech in Ireland.

The partnership between Fantech Ventilation and Elta Fans has now been in place for 18 months, providing a formidable array of technical excellence and depth, attributable to a wealth of experience and knowledge from both sides.

Elta Fans have invested heavily in a state-of-the-art research and development facility, with testing capabilities to UK and international standards, which has enabled Elta to accelerate its programme of product design and innovation. Furthermore, all Elta products supplied by Fantech Ventilation are quality assured to procedures conforming to BS EN ISO 9001:1994.

The extensive product range that Fantech Ventilation provides is exemplified by Elta, providing a portfolio of industrial, commercial and domestic fans that provides solutions to standard air applications. The Elta "Select" range represents products all available from stock specifically developed to customer's expectations in service, quality and availability.

Fantech's modern premises, located at the recently developed Tolka Valley Business Park, Dublin 11, provide depth of stock for a comprehensive range of plate and cased axial, long cased axial, bifurcated and smoke extract fans, in line tube fans, duct or roof mounted single and twin fans, roof extract units and mixed flow fans.

Elta Fans not only provide Fantech Ventilation with blue chip products incorporating unique features and benefits, but detailed marketing support, easy-to-understand product literature, and one of the most comprehensive, yet user-friendly fan selection CD-ROM programs on the market today.

No ventilation supplier can bring to customers.

Fantech Ventilation has sourced competitive products from around the globe, using the resources of its parent company, Elta Group. It can now provide consultants and contractors alike with a complete package of ventilation products.

Fantech is gaining a growing reputation in terms of customer service offering, which is second to none, from initial enquiry, to design input, to on-site investigation and trouble shooting, with experience and knowledge in ventilation to assist and advise on most applications.

All sales, distribution and customer services are conducted from the Dublin premises.

The appointment of David Connell to work alongside Brendan O'Toole has provided an experienced, motivated and hard working team for the development of Fantech Ventilation now and into the future.

Brendan O'Toole said: "We are very excited about the long-term development of Fantech Ventilation, as well as the growth opportunities ahead of us in Ireland. With a reputation being developed around the quality of our products and customer service — and a commitment to constant improvement — Fantech will continue to enhance the benefits it can bring to customers."

Contact: Brendan O'Toole/Dave Connell, Fantech Ventilation.
Tel: 01 - 882 8411; Fax:01 - 882 8412.
Web: www.fantechventilation.com
Ultimate Solution From Siemens Building Technologies

With the acquisition of Preussag Champion Fire Defence, Siemens Building Technologies are now the market leader in fire safety systems in Ireland.

To further leverage this position of strength, the Fire Safety and Building Automation (Sirus Engineering Systems) divisions of Siemens Building Technologies are now working together to offer the ultimate solution for fire safety, security, access control and HVAC BMS applications.

Buildings differ not only in size and the way they are used, but also in their requirements for comfort, safety, security and climatic conditions. Any building must provide the sort of working environment that will ensure maximum benefit in terms of efficiency and return on investment, while also guaranteeing the safety and security of the occupants.

An integrated management system enables a building to be operated more easily and with greater efficiency, so helping to reduce operating costs and increase profitability. Instead of using a variety of devices for operation, the operator can perform all activities from a single management station, keeping training costs to a minimum and reducing the likelihood of incorrect operation.

Further, if all the systems in the building are brought together in a single management station, faults and alarms can be identified and dealt with immediately for the better protection of people and property.

These factors must be taken into account when selecting the equipment and companies to design, install and commission the building systems.

When it comes to fire safety, security, access control and HVAC BMS systems, Siemens Building Technologies are an ideal partner no matter what type of building or what type of process will take place. As one of the world leaders in this field, it has acquired extensive experience and know-how over many years. This enables it to provide high quality solutions at a competitive price.

By fully understanding the requirements, Siemens Building Technologies can create added value and first class benefits for customers through leading-edge technology and superior applications.

Contact: Siemens Building Technologies
Fire Safety — Tel: 01-450 8920;
Building Automation — Sirus Engineering Systems.
Tel: 01-460 2600
Despite winds gusting at 70mph and the somewhat trying conditions prevailing on the day at Old Conna Golf Club near Enniskerry, Co Wicklow, participants in the recent Grundfos Golf Classic turned in some fine scores. A mix of consultants, merchants, representatives from the Grundfos distributor network, and their respective guests, travelled from all over the country to play in the outing.

Overall winner was Pat Curley whose 38pts was excellent given the ferocious winds. The winning team was that of Jones Environmental, made up of Billy Shiel, Pat White and Barry Hennigan. Pat also took the Class 2 prize with a score of 32pts while PJ Phelan of IIF won Class 1 with 34pts. Chris Murphy of Malachy Walsh & Partners took Class 3 with 36pts.

In the Longest Drive competition Larry Gittens from Kilkenny did the near impossible. Admittedly, he had some wind behind him but so did everyone else. At a staggering 300 yards he was something like 50 yards ahead of his nearest challenger.

Nearest the pin was Brian Kearney from BSE while the staff prize went to Ray Broughan.

On finishing the golf the participants adjourned to the nearby Summerhill Hotel in Enniskerry for refreshments, a meal, the presentation of prizes, and some late night entertainment.
Deaeration and Dirt Separation
This technical evening presented by Engineering Appliances aimed to establish why air and dirt particles are present within recirculating wet systems and the problem created in commissioning and maintenance of plant throughout its lifespan.

The lecture focussed on the correct design and positioning of deaerators and dirt separators to provide air and dirt-free systems, under the topics of Analysis of systems and plant; Background to air-related problems in systems; Temperature and pressure differential deaeration; Review of the benefits of deaeration; and Review of the benefits of dirt separation.

All persons attending this course received a CPD certificate.

CIBSE Student Awards at DIT
Right (clockwise): 1st Place Degree Course — Eric Crowe; 2nd Place Degree Course — Niall Keogh; 3rd Place Degree Course — Adrian Kenny; 1st Place Diploma Course — Cathal Donoghue; 2nd Place Diploma Course — Niall Treacy; 3rd Place Diploma Course — Brian Cosgrave.
Mitsubishi Electric's air conditioning systems are the product of an irrepressible drive to create more comfortable living and working environments.

Meticulous research, relentless testing, and a resolute determination to improve performance are poured into every product, resulting in highly reliable, user-friendly units that deliver unsurpassed air quality.

So for superior air conditioning performance, talk to the experts at Mitsubishi Electric Air Conditioning today, call FREEPHONE 1800 543210
AUTOMATIC TEMPERATURE LOGGING AT AN INCREDIBLE LOW PRICE!

Designed to meet the stringent high standards of temperature monitoring in the food transportation field, this little stand-alone battery-operated temperature logger is the perfect solution in most applications which range between -30 to +50°C. Capable of recording approximately 1800 readings with a 1 sec. to 10-day interval, and combining the flexibility of a push button or delayed start, you'll be amazed at how little it costs.

The software and cable that are included will allow the recorded information to be downloaded and presented in numerical or graph format. Data can also be transferred to other windows applications for presentation with reports. Since additional loggers can be purchased at a reduced cost due to no further software being required, businesses needing multiple locations monitored will benefit even further from the TINYTAGTRANSIT's low cost.

- 1800 readings approx.
- Two programmable alarms
- 1 second to 10-day logging interval
- Timed and push-button start available
- Offload data when stopped or when at 1-minute logging intervals
- Battery life up to two years
- Min/Max/Actual readings
- Memory size 2k (non volatile)
- Three stop options
- Software and cable included

For further information or a demonstration contact:

Manotherm Limited
THE CONTROL CENTRE
4 Walkinstown Road, Dublin 12.
Tel: 01 - 452 2355; Fax: 01 - 451 6919
email: manotherm@eircom.net