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The more intelligent system wins.

The fastest underwater hunter is the shark. Its skin possesses excellent characteristics which enable the resistance to tides and currents to be minimised. The skin's surface is not smooth but scaly. Today airbuses are encased in a similarly-structured film, which results in a saving of up to 10% of kerosene.

Mother Nature demands top performance at all times in all places while expecting, at the same time, the lowest energy consumption. This is the ambitious goal that WILO also aims at in its research and development programmes. With its high-efficiency pump, Stratos, WILO has introduced a new yardstick.

Experience the technology of the future. The Wilo Stratos pump saves up to 80% of energy. It heralds the beginning of a new era of pumps, the generation of the high-efficiency pumps. Place your order for the High Efficiency folder with its wealth of information. And on Wilo's "Green Pages" on the Internet, you can find a list of qualified High Efficiency engineers and analysts.

Further details can be obtained from:
Phone: 061-410963
Fax: 061-414728
www.high-efficiency.com
Don't Let the Lemmings Win Out!

Here we go again ... business gets tighter, margins are cut further and nobody makes any money. The building services sector has seen it all before yet somehow, the lemmings manage to prevail and lead the way over the cliff of no-margin, below-cost tendering practices.

Thankfully, it is not commonplace ... yet! However, this is the undesirable — and unnecessary — route being taken by some. It is a road to nowhere but oblivion. Everyone has a responsibility to ensure that this defeatist and panic-driven practice is stopped in its tracks.

Competition is good. Indeed, competition is essential. Nonetheless, when it leads to fool-hardy, self-destructive pricing practices then it is a nonsense. You don't need to be a genius to work out that you cannot supply and install a product/system at less than the manufactured/sourced cost. But it is being done by some, not on a small, isolated, loss-leader basis but as a matter of day-to-day trading policy.

Consultants and contractors have an obligation to get the best value for the client. However, lowest price does not necessarily mean best value. There is a grave danger in driving prices down by playing one supplier off against another.

It is imperative given the construction industry downturn that everybody involved in the building services sector — from architects through to consultants, contractors, installers and product suppliers — revert to basic business principles. Quality products and services must be charged out at value-for-money prices which afford a fair and just profit margin for all concerned.
The new "bunded" tanks from Powrmatic

Powrmatic has recently introduced a new range of oil storage tanks to meet the demands of new Environmental Agency Regulations on the control of pollution.

The regulations stipulate that commercial, industrial and institutional sites storing over 200 litres of oil must have a bund around the tank. A bund is a container around the tank capable of holding 110% of the tank contents.

All new installations from 1 March 2002 have had to meet these regulations and existing installations within 10 metres of a watercourse, or 50 metres of a well by 1 September 2003. All other installations must comply by 1 September 2005.

Powrmatic bunded oil tanks are manufactured from high-grade polyethylene and are guaranteed for 10 years. They are available in a choice of vertical or horizontal units with capacities of 1220 to 5000 litres.

A wide range of optional extras is available, including float gauges, electro gauges, overfill and bund alarms, and filter and isolation valves.

Contact: Tony Delaney, Powrmatic Ireland Ltd. Tel: 01 - 452 1533

Carrier ‘Global’ Condensing Unit

Carrier has launched a new range of split system air conditioning units for retail, small commercial and residential applications.

This new design Carrier ‘Global’ condensing unit comes in standard or low-ambient versions, in cooling only or heat pump, and operates with R410A. A larger 4KW version has extended the previous range of available duties. The new high-performance plastic cabinet (using a UV resistant polymer) eliminates any possibility of noise from vibration, reduces the weight of the unit and improves durability.

The complete range of indoor units — starting with the Carrier “Niceday” hi-wall range is also environmentally-friendly even the packaging is polystyrene free. It is twinned as a split with the Global condensing unit in sizes from 2.3KW to 4KW, in cooling only and heat pump.

Installation is simple and the equipment connects to a single phase electrical supply. Just five screws give easy access to all core components of the external unit for ease of maintenance, and just four wires connect the indoor and outdoor units, eliminating any risk of miswiring.

Contact: Austin McDermott, Core Air Conditioning. Tel: 01 - 409 8912; email: info@coreac.com
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New AECI General Secretary Appointed

The Association of Electrical Contractors (Ireland) has appointed a new General Secretary, Noel Jameson. He succeeds Des Flood, who will be a consultant to the association for a year.

Noel has 26 years' experience in electrical contracting and instrumentation, most recently with Randridge Services Ltd of Bray, Co Wicklow. As Project Manager, he had responsibility for major projects — from tender stage through procurement to final handover — in the industrial, commercial and petrochemical industries throughout Europe.

He also had responsibility for health and safety, manpower, financial control and planning, and for sourcing, recruitment and co-ordination of personnel.

After gaining experience on major industrial sites with Mercury Engineering Ltd, he joined MF Kent Ltd and saw service in many countries as QA/QC Engineer, installing and commissioning various major projects.

Soft Starters Save Hard Cash

Soft starting of fan, pump and compressor motors has the effect of dramatically reducing plant wear and cutting energy costs. Trend's newly-launched range of Cutler-Hammer electronic soft-starters have the further attraction of being just as simple or even simpler to apply than traditional starting systems. Claimed to be smaller than any other soft-starters on the market, they are also the only ones to have both a by-pass contactor and overload protection built in, which like their size is a major cost-saving feature, according to distributors Standard Control Systems.

Designed for use on 3-phase asynchronous motors, the standard range comprises nine models covering ratings from 2A to 135A. The starters' built-in by-pass contactor with its patented design, makes it unnecessary to either wire in a separate contactor or make provision for high heat emissions. This, together with compact construction, means the units can be housed in much smaller enclosures.

All models take a 24V DC power supply, which enhances both safety and reliability. Also, unlike AC control — which is normally used — it results in completely quiet starter operation.

Like other soft-starters, the new units avoid the large current in-rush associated with direct on-line starting and (to a lesser degree) with star-delta arrangements — today's two most commonly used systems. This cuts costs through lower peak electrical demand as well as preventing lights from dimming every time motors are switched on.

Contact: Standard Control Systems.
Tel: 01 - 4291800; email: info@standardcontrol.ie

Noel Jameson, newly appointed General Secretary, AECI

 Byrne Appointed General Manager of Tony Harmon Services

Mick Byrne, formerly Technical Service Manager with Tony Harmon Services, has now been appointed General Manager of the company. Mick is widely known and respected throughout the industry and has been very much to the fore in the development and expansion of Tony Harmon Services over the last 20 years. While retaining the technical managerial brief, Mick will now also be responsible for more of the day-to-day management of the company.

Soft starters save hard cash says Standard Control Systems

Furthermore, by eliminating the torque "spikes" that characterise traditional techniques, mechanical stresses are much reduced.

The lower current levels at start-up also allow smaller cable sizes and fuse ratings to be used. Significantly, all the new starters occupy the same footprint as their electromechanical contactor equivalents used for direct on-line starting. Retrofitting is thus very easy.

Contact: Standard Control Systems.
Tel: 01 - 4291800; email: info@standardcontrol.ie
Space Heating & Building Temperature Control Solutions From One Source

For complete catalogue information, technical support, or for an immediate quotation contact:

Thermelec Ltd, Old Naas Road, Bluebell, Dublin 12
Tel: 01 - 456 8111; Fax: 01 - 456 8108; email: sales@thermelec.ie
New from Manotherm

With a high accuracy of ±0.5% FS, the new Dwyer Series 655 wet/wet differential pressure transmitter from Manotherm measures low pressure ranges of 5.0 inches w.c. differential (1.24kPa) and withstands high working pressures up to a maximum 100 psi (6.89 Bar).

Designed for use as a wet/wet differential pressure transmitter, units can be used to measure gas or liquid pressures compatible with 316/316L stainless steel wetted parts. The Series 655 Transmitter converts a differential pressure measurement into a standard 4-20 mA output signal, and is ideal for measuring process fluid flow rates when combined with a differential sensing device such as a Dwyer DS-300 flow sensor.

Applications include refrigeration equipment and HVAC; harsh industrial environments; water filter and chill water line pump monitoring; and process control.

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

Fläkt (Ireland) and Siemens Sign New Agreement

Following the incorporation of Fläkt (Ireland) Ltd in February of this year, Fläkt recently re-established its agency agreement with Siemens, one of its main business partners. The signing of the new agency agreement took place last month at the Fläkt offices at Belgard Road, Tallaght, Dublin 24. Siemens Controls form an integral part of Fläkt's product portfolio while Fläkt is a specialist in both domestic and industrial controls.

Fläkt offers a wide selection of controls and has a widespread wholesaler and heating and plumbing customer base nationwide. The range of domestic controls includes thermostats, time switches, programmers, zone valves, radiator valves, and heating controls. The range of industrial controls includes valves, actuators, damper actuators and sensors. Siemens are delighted to transfer its agreement to Fläkt and hopes to continue a long business relationship with the Fläkt Woods Group.

Contact: Fläkt (Ireland) — Michael Murphy: Domestic Controls; David McMenamin: Industrial Controls.
Tel: 01 - 405 7300; website at www.flaktwoods.com

Core AC Move to Freon Valley

The Nangor Road area in Dublin 22 is now home to so many businesses in the air conditioning and building services sector that it is increasingly being referred to as "Freon Valley". Core Air Conditioning is the latest to move to the region. It has just taken possession of a purpose-designed office and warehouse complex which will act as corporate headquarters serving the entire country. BSNews will carry a comprehensive report in the October 2002 issue.

Meanwhile, new address details and telephone/fax numbers are as follows:—
Core Air Conditioning Ltd, Unit 6A, Centre Point Business Park, Oak Road, Clondalkin, Dublin 22.
Tel: 01 - 409 8912; Fax: 01 - 409 8916; email: info@coreac.com
Not all VRF systems are inverter.

**Main Compressor Body**
- Heavy steel construction acts as a noise muffler ensuring very quiet operation
- No oil pump required, differential gas pressure system utilised, resulting in greater reliability
- Compressor shell designed to act as effective oil separator
- Unique high-pressure design enables an oil less sump resulting in increased reliability

**Orifical Scroll Compression**
- Scroll profiles separate to allow liquid refrigerant slugs to pass ensuring no damage
- Suction gas enters the scroll chamber not the sump ensuring no oil dilution
- Scroll tips utilise oil as the tip seal, not neoprene, to ensure reliability
- No thrust washers or springs required to force scroll tips to seat

**Inverter Motor**
- Unique stepless speed control, fully linear operation
- 30-115Hz operation matching load requirements precisely
- High temperature motor design ensuring greater operating tolerance

Hitachi believe that truly inspirational design leads to the most innovative and effective product technologies, and an integral underpinning of the design and manufacturing procedure, is our belief in the need to protect the global environment. Performance, cost and environmental responsibility are not mutually exclusive considerations but rather a powerful combination.

That’s why we invest over 6% of our total global sales turnover directly into research and development, with almost 17,000 of our 330,000 employees focussed exclusively on the development of technologically advanced products, you can be sure Hitachi Air Conditioning will continue to lead where others follow – Hitachi Inspiration.

Hitachi VRF technology has been designed to fulfil the parameters of good system design: occupant comfort, ease of installation, speed of response, the ability to cope with evolving building layouts, and of course environmental considerations.

For example the unique Hitachi Pressure Scroll Compressor, fitted in the Set Free VRF range, meets the design criteria we set our engineers: reliability, performance and energy efficiency. The result... a linear controlled inverter, high-pressure scroll compressor, constant lubrication through differential pressure control, robust construction and only 9 moving parts.

A truly inspired design.

To find out more about the Hitachi High Pressure Scroll Compressor and our range of Set Free VRF systems (Heat Pump: 5.8, 10, 12, 16, 20HP and Heat Recovery: 8, 10HP) please contact your local Hitachi distributor to receive a catalogue or arrange a visit.

As we say, not all VRF systems are inverter; indeed not all inverter systems are the same.

For more information visit our website at www.hitachiaircon.com
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Foundation Mark Cert for Thermodial

Thermodial Ltd has been awarded the prestigious Foundation Mark Certificate which is a continuous business improvement programme designed for small and medium-sized business organisations wishing to implement and operate quality management procedures. Pictured following the presentation of the Certificate by An Tanaiste, Mary Harney, TD, recently were (standing): Tom Morrisey, Thermodial HR Manager; Karen Byrne, Thermodial; Liam Ryan, Excellence Through People auditor; (seated): CatherineFranzone, Thermodial; Roddy Molloy, Director General, FAS; and Imelda Sherry, Thermodial.

New Combination and Condensing Boilers from Vaillant

Taney Distributors has introduced two new Vaillant products — a combination boiler and a condensing boiler — to the Irish marketplace. Both come with a 2-year guarantee and incorporate innovative design features which, says Neil Gaffney of Taney, will set the benchmark for others to try to emulate.

The combination boiler has a 37kW output to the instantaneous hot water side of the boiler while the central heating has a range-rated output from 14kW up to a maximum of 28kW. This unit addresses the shortfall of many traditional combi-boiler types where there is a limitation on the hot water output. This new boiler is ideal for homes with more than one bathroom.

The standard fan-assisted flue can go up to 3.2m in length but, with the optional 125mm flue, the distance can be extended up to 10m.

The new condensing boiler comes in non-system format — a deviation from Vaillant’s normal production of sealed type products — and is intended for the replacement market where open-vent systems are already in use. The lower cost of production of the more traditional type boiler makes it a more affordable alternative with very high efficiency and low running costs.

This new boiler has a high condensing efficiency reaching standard SEDBUK Band A and is manufactured in two outputs — 18kW and 28kW. Standard flue lengths extend to 10m.

Design and Deliver!

This year’s IEI annual conference takes place on 3/4 October in the Silver Springs Hotel, Tivoli, Cork. The theme is Design and Deliver — Engineering and Executing Projects in a Changing Business Environment.

IEI Conference 2002 sets out to evaluate global economic trends and forecast Ireland’s economic prospects over the next five years.

The Conference will look at the changing engineering service demands of private industry, and at those of the public sector.

The Conference will look at the role of the service providers, both from the design and contracting viewpoints, and on the area of technology to implement projects in a shorter time and to a consistently high quality.

Education, training and sourcing of tomorrow’s engineers will also be considered.

Contact: Grace FitzGerald, IEI Public Affairs Manager. Tel: 01 - 609 0210.
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THE NEW MYSON TRY 2-WAY IS SET TO MAKE YOUR LIFE SO MUCH EASIER, SINCE THERE'S NO NEED TO CHECK THE DIRECTION OF THE WATER FLOW.

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Some Like It Hot!

Some like it hot! ... others prefer to work in a cooler environment. With Panasonic's new Urban Multi Series of air conditioners, simultaneous cooling and heating can be attained, meeting everyone's diverse and individual air conditioning needs.

Panasonic has launched three new Urban Multi air conditioning systems. The ME1(R) Series has the ability to provide cooling and heating operations with a single refrigerant piping system. By using a combination of a triple-pipe system and a heat recovery box (HR Box), exhaust heat generated by the cooling operation is utilised to provide heating. This system also provides a reduction in power consumption by about 20%.

The MA1R Series gives the flexibility to install multiple outdoor locations by the separation of the units in a flexible design — up to 82 kilowatts of power can be run off single refrigerant piping. Also, as the system is inverter driven with single refrigerant piping, it is easy to install. Valuable space is saved and costs are reduced.

The advanced inverter technology of the MX1(R) Series adds high levels of function and flexibility. The inverter control ensures a smooth, energy-saving operation. As the unit, heat exchanger and fin are coated with a special acrylic coating to protect them from damage from salt or air pollution, they are also highly reliable.

All outdoor units use environmentally friendly R-407C refrigerant. Cooling operations can be done in outside temperatures as low as -5°C, while the heating operation provides a stable performance to outside temperatures of -15°C.

Five new indoor unit types have also been introduced to complement the new systems. The compact designed built-in FM1 series is suitable for a variety of installations and conditions. Boasting a high air flow rate and high static pressure, these units can be installed with an above-ceiling space of 350 mm.

The corner type DM1 series has been designed for use in buildings where there is tight above-ceiling space. A drain-up device is included as standard equipment.

For effective use of space, the curved form and soft colour of the floor standing/concealed floor standing PM1/RM1 series creates an extra-comfortable room environment. The open type unit can be mounted on a wall or floor and the 600mm height enables installation beneath most windows.

Panasonic can also provide an air conditioning control solution for every building, ranging from a single controller through to bespoke computer software which can integrate with building management systems.

Contact: Walkair Ltd.
Tel: 01 - 456 8070;
email: walkair@walkair.ie
Website: www.panasonic.co.uk

BSS Appoints Lindfield

David Lindfield (pictured) was recently appointed Technical Sales Manager with BSS (Ireland) Ltd. He is responsible for the Technical Products Division, ensuring close customer contact with consulting engineers and mechanical contractors, and developing product specification for new and existing product lines. David comes to BSS with a wealth of experience in the building services industry, his specialist areas including controls, boilers, flues, radiators and ventilation.

Refrigeration

BSNews

October 2002

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Grundfos — ‘Cost of Ownership’ Initiative

Grundfos has embarked on a major marketing initiative — called Cost of Ownership (CoO) — which focuses on the fact that the total cost of owning a pump over its entire life is about much more than just the purchase price. It is also about selecting the correct pump for the specific application in the first instance; about availability and delivery where and when you want it; about optimum performance and minimum operating costs; about after-sales service support when you need it; and about cost-effective choices when it comes to replacement.

“Essentially”, says Gordon Barry, General Manager of Grundfos Ireland, “what CoO entails is demonstrating that we can drive down overall costs by providing high pump efficiency, technical advice, customer training, after-sales service, and reliable logistics. The fact is that something like 20% of the world’s electrical energy is used for pump systems. We at Grundfos believe that anything between 30% and 50% of this energy could be saved by looking at the bigger picture.

“The cost reductions that result from making the correct selection and purchasing decision is so significant that it invariably has a dramatic effect on the profitability of the entire installation, especially when viewed in the context of the overall life cycle. A typical lifetime cost-split for a ground water installation is initial cost — 5%; maintenance cost — 10%; energy cost — 85%.

“Our engineers have the experience, knowledge and ability to thoroughly analyse all manner of applications, and to assist designers and consultants in selecting the best combination of components and materials to suit each specific system. We can also provide comprehensive support documentation on the performance and capacities of our pumps, while the Grundfos WinCAPS pump selection software allows you to ‘test’ not only our pumps in a system, but also the pumps of other manufacturers.

“Over the life-cycle of each and every pump needs and demands will change, along with relevant environmental legislation. We at Grundfos invest 4.5% of our turnover annually in research and development to ensure that, when the time comes for replacement, we will have appropriate pump solutions. So, let the cycle begin ... again, and again and again”.

Contact: Gordon Barry, Grundfos.
Tel: 01 - 295 4926; email: gbarry@grundfos.com

New Chairman for UK Copper Board

The UK Copper Board has appointed Chris Sidle as Chairman. Now in its tenth year, the Board is part of a Europe-wide campaign and represents copper tube and fittings manufacturers supporting the use of copper within the plumbing and heating industry.

The UK Copper Board currently operates a range of support and information resources aimed at encouraging the use of copper materials by professional installers. Alongside a series of free practical guides and literature on product development and key industry issues, the Board also runs the Copper Club, a free membership scheme that offers installers a variety of useful services.
Ambi-Rad Goes Mobile

The Inthermo Mobile Radiant Heater brings the benefits of radiant heating to virtually any application needing portable or temporary heating. Radiant heat is generated from radiant tubes within the unit, while an integral forced air convection fan circulates warm air around the room and also aids cooling of the radiant tubes, once the heater is switched off. Fired by bottled gas, Inthermo burns the gas at a low rate of just 1.86kg per hour. At just 1400mm high by 1500mm long and 400mm deep, Inthermo provides a convenient mobile heating solution for the majority of premises where booster or temporary heating is required. Ambi-Rad is the world’s leader in the manufacture of radiant tube heating systems, warm air heaters, and heated or unheated door curtains.

Contact: Michael O’Reilly, Thermelec.
Tel: 01 - 456 8111;
email: sales@thermelec.ie

Ambi-Rad’s Inthermo mobile radiant heater from Thermelec
Systemair Reaches for the Sky!

Systemair is a group of 32 companies located across Europe, North America and Asia, with production facilities in Sweden, Norway, Denmark, Germany and Canada. Just recently the company established a dedicated Irish operation located in Santry, Dublin 9 (see BSNews July/August 2002) which has already made significant inroads across the entire air movement sector.

Managing Director Niall Horgan says that the reception from consultants and major contractors has been very encouraging to date, the Systemair “Straight Way” philosophy being very well received. “At a time when prices, the quality of products, and even the level of service available can be fudged and unclear”, says Niall, “we at Systemair provide a transparent approach with a published price list twice a year, a product range certified to all relevant standards, and 24-hour delivery on standard items, with non-standard systems by arrangement. “The Systemair portfolio is diverse and all-embracing. It includes circular duct fans, rectangular duct fans, heat recovery units, roof fans, air terminal devices, grilles, heater batteries, attenuators and door curtains. However, the real strength lies not so much in the products themselves but rather in the manner in which they can be incorporated into tailored systems designed to suit specific air movement applications.

To this end Systemair also provides a comprehensive design support service where its own engineers liaise with the consultant and contractor to devise the most appropriate and cost-effective solution. A typical example is a recent Government security project in Dublin where the Systemair TC45 air handling unit was installed to provide pre-heating, heating, cooling, humidification and mixing. It also incorporates Systemair twin and single fans.

Delivery on this project was critical and Systemair worked very closely with the consultant and contractor to dovetail into a 4-week schedule. The main air handling unit was a special low-profile design so that it would not be visible from the ground. All Systemair outdoor units arrive on site in one piece and are hermetically sealed and tested before leaving the factory.

Other recently-completed projects include two heat recovery units at Mallow swimming pool; fans and electric heater batteries at Dublin Airport; fans and controllers at the Causeway Shopping Centre in Belfast; air handling units and fans in Ormond House in Dublin.

Systemair products were also used in IBM Dublin and Gatwick Airport, along with European installations for Airbus Industries and Saab Aircraft.

Contact: Niall Horgan, Systemair.
Tel: 01 - 862 4544;
email: nih@systemair.ie
Idrosplit is a small water chiller which connects to a boiler and central heating system to provide both heating and cooling. It is presented as a revolutionary system which has surpassed all expectations in respect of environmental issues, running costs, energy consumption and pollution.

By reducing energy consumption there is a substantial reduction in CO2 emissions. This enables the product to reduce the actual household cost for the heating facility. With the advantage of silent-running fan coils, this creates a low-cost, efficient and pleasant atmosphere, which is easily controlled in each individual room.

The growing demand for air conditioning in the automotive industry has helped fuel an increased demand for ac in the home sector. Peoples’ expectations are now far higher, especially in respect of home comfort. Consequently, Idrosplit has been adopted by leading homebuilders which they are promoting as an additional benefit in their sales and marketing campaigns.

By using the standard heating installation — including standard plumbing fittings readily available from plumbers’ merchants — Idrosplit can be easily installed by a competent heating and plumbing contractor.

Contact: Heatmerchants.
Tel: 01 - 630 4306;
Unionaire International.
Tel: 0044 28 91828122.
Mark Pioneers Ceramic Heating

Mark Eire BV, the Coolea-based environmental technology specialists, are pioneering the use of ceramic heating for commercial and industrial buildings, and especially those over five metres high. Ceramic infra-red rays concentrate heat where it is needed, producing heat within the objects they meet such as flooring, machinery and the occupants. They propagate naturally in the chosen direction, without losing energy in transmission.

With ceramic infra-red heating the air temperature is lower than the "comfort level" temperature, thereby reducing heat loss. It is instantaneous and, as no moving mechanical parts are involved, is silent and creates no draughts or movements.

Ceramic infra-red rays heat surfaces, not volume, which is only heated indirectly by energy reflected. They do not overheat the upper parts of buildings, and losses due to air renewal are greatly reduced.

Mark ceramic radiants are surface heat emitters with 100% of the heat directed towards the ground. They have a radiated efficiency of between 66% and 70%, depending on the gas used, and can operate at any height. In lower buildings, less powerful radiants can be used to guarantee uniform comfort for the occupants. More compact ceramic radiants have an even surface temperature.

With ceramic infra-red heating the air temperature is lower than the "comfort level" temperature, thereby reducing heat loss. It is instantaneous and, as no moving mechanical parts are involved, is silent and creates no draughts or movements.

High efficiency ceramic radiants operate efficiently at any height. In lower buildings, less powerful radiants can be used to guarantee uniform comfort for the occupants.

Contact: Mike O'Donoghue, Mark Eire BV, Tel: 026 45334.
Sanyo Welcomes Crystal Air as a Distributor

Having recently established a direct sales operation in Ireland with Barry Hennessy at the helm, Sanyo is now in the process of appointing a dedicated dealer network in strategic locations to serve the entire country. The objective is to treble its market share over the next two years.

A key appointment in this respect is Crystal Air Ltd, whose principals are David O’Brien and Domnick Ward. Sanyo Ireland Barry Hennessy explains, “There is a good synergy between the Sanyo brand and the Crystal Air approach. Crystal Air is a very professional set-up and we know we can endorse the excellent quality of its installations. It is exactly the kind of organisation we need to deliver our product to the Irish marketplace, especially to consultants.

The agreement is the result of months of negotiations during which time David O’Brien looked very closely at the technical specifications of the Sanyo range. He also visited several installed sites and looked at commissioning procedures and field-testing, especially in relation to VRF 3-way and commercial systems. This is a particularly impressive and innovative product which is now available with supply air temperature control.

“We were very impressed with the quality of the range”, says Domnick, “and the efficiency and performance levels. Also, Sanyo is genuinely interested in supporting its dealers and we are looking forward to working very closely with Barry and his support team. It is great to have the security of the manufacturer’s backing and we regard the appointment as a fantastic opportunity for us to grow in tandem with Sanyo’s rapid expansion.”
SANYO DUCTED UNITS

THE UNIT FOR ALL OCCASIONS

Whatever the application, split systems, 2 pipe or 3 pipe VRF, Sanyo's indoor units are compatible for all your needs. No change of product codes, no change of controllers and no change of aesthetics - consistency and convenience throughout.

The SPW-UR ducted unit typifies the 'extras' you gain from Sanyo. The unit, which comes complete with discharge spigots and a drain up-lift pump included, has sound levels as low as 22dB-A and is therefore the most convenient and quietest available.

No wonder it's part of the fastest growing Japanese brand.

Sanyo Ireland - 41 Western Parkway Business Centre, Ballymount Rd, Dublin 12 - Tel: 01 456 8910

Crystal Air

indoor weather control

www.sanyoaircon.com
We are Crystal Air.

We are one of Ireland’s leading air conditioning specialists.

Whether you are a Consultant at design stages or an end user, it is reassuring to know that our systems will not let you down.

In order to ensure that you get the most from your investment, our preventative maintenance programmes are engineered to international standards with 24 hour service - 365 days a year.

Supported by our manufacturers we are the Air Conditioning Engineers you can trust to provide reliability, good value and exceptional quality.

But don’t take our word for it. Ask any of our clients.
Ideal Controls For Individual & Smaller Mixed Underfloor/Radiator Systems

Danfoss easy-to-install, self-acting temperature controls that are ideal for individual floor-heated rooms or smaller mixed underfloor/radiator systems are now readily available to installers through main heating supplies merchants. These controls - Danfoss FHV valves fitted with either FJVR or RA2000 sensor elements - provide the most simple, cost-effective and accurate way to achieve either constant floor surface or room temperature.

Underfloor heating, with annual market growth of 20 - 30% a year, is fast becoming a significant and profitable part of the Irish heating market that installers cannot afford to ignore. Firmly established in mainland Europe for three decades, it offers a number of user advantages over conventional "wet" radiator systems.

Perhaps the most important of these is that underfloor heating greatly enhances comfort levels by spreading warmth evenly across the entire room and from the floor upwards. Also, without the need for radiators, it provides additional usable room space, improves interior aesthetics, eliminates a major problem in room redecoration, and allows greater flexibility with furniture placement.

A return-mounted Danfoss FHV-R valve with its self-acting FJVR temperature limiter is a long-proven control method that is easy to use and simple to install. It requires no wiring, is completely trouble-free, costs nothing to run and provides the most satisfactory, energy-efficient modulating control, providing a constant floor surfacing temperature. This is a very important feature in, for example, bathrooms with ceramic tile floors. No other controls can do this in the same way.

With the FHV-R and the FJVR sensor, small underfloor heating systems, e.g. for extensions, bathrooms or conservatories, can be added directly to existing radiator systems very easily and can be a source of valuable additional earnings for installers.

The Danfoss FHV-R, used in conjunction with the plug-on FJVR sensor element, is a basic two-connection valve that is supplied in two versions — with an air vent and bleed key. The two similar FHV-A models, used with the widely-proven Danfoss RA2000 sensor, provide accurate room temperature control plus the additional advantage of being quickly and accurately presettable for the correct flow rate. All products are supplied with compact, customised and easy-to-fit wall enclosure boxes and covers within which the valve fits and all connections are made. A special optional mounting tool equipped with a spirit level is available if desired.

Danfoss, unique with its long UFH experience and in being able to provide the total range of underfloor heating controls, can be relied upon for proven products and quality support. Details of FHV valves and other controls are available on request.

For further information contact, Brian F. Maguire, Danfoss Ireland Ltd. Tel: 01 626 8111; email: marketing@danfoss.ie

Danfoss FHV valves are fitted with either FJVR or RA2000 sensor elements
Hometronic Underfloor Heating Control

The latest version of Honeywell’s advanced Hometronic wireless domestic automation system uses RF (radio frequency) links to control a home’s underfloor heating, lighting and appliances automatically. So it makes a home more comfortable and secure, while reducing energy consumption. Homeowners can set up several profiles that match their lifestyle. These tell Hometronic what to do, how and when. Each profile can provide individual temperature control in each room, as well as switching appliances, lights and services at pre-programmed times or in response to certain events. For example, it can close blinds and curtains when it gets dark, or start a garden sprinkler when it is too dry.

A typical “wake up” profile might start laundry machines during the night to take advantage of cheaper electricity, raise temperatures in each room just before the family wakes, then welcome them with fresh coffee from a coffee maker that Hometronic has started automatically. A single press of a button can take Hometronic into the “leaving” profile, which saves energy by reducing temperatures throughout the home to lower values while the house is unoccupied, then raises them again before the family’s homecoming. If they arrive early, by pressing the “arriving” profile button the heating is started immediately.

An “evening” profile might adjust the temperatures in rooms to different levels, to recognise that the family is at home, or that different rooms are being used. A “party” profile might postpone the time at which the heating is reduced at night.

More importantly for the homeowner’s peace of mind, they can set a “holiday” profile for use while the home is unoccupied. This can create an impression of occupancy by switching lights and opening and closing curtains, according to a normal occupancy pattern. It can reduce the heating to a level that minimises energy use but prevents freezing. If desired, it can detect a burst pipe and turn off the water supply, shut off the gas if there’s a leak, or even water the plants in the garden.

A single wall-mounted unit — the Hometronic Manager — allows homeowners to override, change or switch between pre-programmed profiles, or they can do so through an infra-red remote unit.

As the Hometronic system is wireless, it is quick and easy to install without damaging home decorations. It uses a unique multi-frequency transmission radio frequency (RF) system to ensure reliable and consistent operation.

Hometronic room modules monitor the current temperature in each room and transmit by RF to the Hometronic Manager, which can control up to 16 individual time and temperature zones within the home using RF radiator controllers. Other Honeywell products, such as air conditioners and portable high efficiency particle air (HEPA) filter units, can be plugged into any mains socket in the home, yet still be controlled by the Hometronic Manager.

Contact: Honeywell Control Systems. Tel: 0044 1344 656000; Fax: 0044 1344 656240; email: uk.infocentre@honeywell.com; Web: www.honeywell.com/uk/homes.htm
Polytherm Heating Systems Ltd
Radiant Heating Systems

Warmth everywhere it's needed.
From floor, ceiling and walls, Polytherm has the systems and ideal solutions.

Muirfield Drive, Naas Road, Dublin 12.
Tel: 01 - 419 1990; Fax: 01 - 458 4808
email: info@hevac.ie

New Build, residential and commercial.
Polycomfort®

New Build and refurbishment.
Polydynamic®

New Build, refurbishment and wall heating. Suits joisted floors.
Polypanel®

For industrial applications and heavy loads.
Polycargo®

Wall heating using Calpex®

District Heating — pre-insulated pipes.

Sprung flooring systems for sports hall.
Polysport®

Exterior heating for ramps, yards, pitches and horticulture.
Polydefrost®
Copper — Tried, Tested and Proven

Copper tube, copper and copper alloy fittings have been widely used throughout Ireland for more than 60 years and have been extensively tried, tested and proven in service in all manner of applications, from water, gas, central heating and sanitation.

Copper tube is available as:—
— Soft temper coils for use in long continuous runs suitable for cold water, central heating, fuel, oil or gas. These are normally hidden within the fabric of a building;
— Hard temper straight lengths for use on straight exposed runs and suitable for hot and cold water, central heating and gas;
— Half-hard straight lengths for easily-made bends where changes in direction are required and off-sets needed. This tube is suitable for all applications of water, gas and sanitation;
— Coils of soft, half-hard and straight lengths with external coatings for use when external protection, identification of carried substance and lower surface temperatures are required;
— Hard and half-hard straight lengths externally plated with nickel, chromium, silver, gold, etc for use where hygienic or aesthetic aspects are important;

Fittings are available:—
— With compression or capillary ends for use in water and gas applications;
— In copper or brass for above ground use, and gunmetal of DZR for underground use;
— Plain or decoratively plated for use where particular hygiene or aesthetic aspects are important.

The primary benefits of copper are:—
Long lasting — Long life, high-quality, trouble-free installations are achieved because the mechanical and physical properties of copper and its alloys are maintained indefinitely;
Health & Safety — Copper is an essential element in the manufacture of haemoglobin. It is also required for many enzymes, without which our bodies cannot function;
Value for money — Copper is an economical option for plumbing and heating systems, and the cost of components is also competitive;
Recyclable — Copper tube, copper and copper alloy fittings need never be thrown away. When they have served their purpose they can be returned, remelted and refined.

Contact: Conor Lennon, Irish Metal Industries.
Tel: 01 - 295 2344; Fax: 01 - 295 2613; email: conor.lennon@irishmetalindustries.com

Throughout this time product standards have improved immensely and are now said to be the highest in the world with copper tube made to BS 2871 Pt.1 and copper and copper alloy fittings to BS.864 Pt.2.

Copper tube, copper and copper alloy fittings are extremely versatile. They can be used in every part of a plumbing or heating system — including underfloor heating systems.

are unique. Pure copper melts at 1083° and is very ductile. It maintains its physical and mechanical properties over a wide range of operating temperatures. For example, copper tube can operate at -40°C to 250°C, covering a range of applications from cryogenics to steam lines.

Copper and its alloys also have excellent corrosion resistance in all its forms. It can easily cope with domestic hot and cold water, gases, and a wide range of fluids. The pressure resistance of copper is also high... tube and fittings can easily maintain the integrity of all normally-designed systems, including pressurised hot water and sealed central heating systems.

Copper is a homogenous metal whose structure makes it impermeable. Copper tube, copper and copper alloy fittings — unlike some other plumbing materials — do not allow contaminants to penetrate the tube wall and affect the water in the tube.

Contact: Conor Lennon, Irish Metal Industries.
Tel: 01 - 295 2344; Fax: 01 - 295 2613; email: conor.lennon@irishmetalindustries.com
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.

Unipipe provide a specialist design service for floor heating, heat-pumps and plumbing.

From Sweden NIBE offer both ground-source and exhaust air heat pumps.
Wavin’s Tigris Plumbing and Heating Pex Pipe

To ensure successful jointing, Wavin’s Tigris Pex pipe ends should be cut smoothly and squarely.

Wavin’s Tigris plumbing and heating pex pipe is an innovative range of high-density cross-linked polyethylene pipes designed for central heating and tap water applications in Ireland. Manufactured to Irish dimensions, Tigris has Irish Agrément Approval and exceeds the European requirements for high-temperature plastic plumbing pipe. "Rigorously tested and perfected with the aid of Irish plumbing installers", says Wavin’s Patrick Atkinson, “Tigris is the ultimate pex pipe system for hot and cold applications, offering a variety of general features and benefits”.

These include:

- All Wavin Tigris pipes are manufactured with an oxygen barrier;
- Designed for all applications, plumbing, central and underfloor heating;
- Superior working pressure of 8-bar at 95°C;
- Independent certification by the Irish Agrément Board Certificate No: 99/0102;
- Manufactured to, and exceeds, prEN 12318-Part 1 1996;
- IAB approved/full compliance with the European Directive for drinking water;
- Light, flexible and strong for ease of installation;
- Non-corrosive;
- Packaged in strong cardboard boxes for ease of transport and pipe protection during storage;
- Pipe marked at every metre for ease of measurement from the coil;
- Copper inserts available;
- Compatible with compression fittings to IS 239:1987;
- Ease of installation around, or through, obstacles.
- Also available is Wavin’s Tigris pipe-in-pipe. This comprises black PE ribbed pipe outer sleeve for ease of installation and maintenance and is available already inserted and coiled.

Wavin Tigris is lightweight and easily transportable on site. It is available in a range of coil sizes from 25 metres to 100 metres in length to allow for short and long pipe runs, without the use of straight connectors. It comes packaged in cardboard boxes with access through the centre where it can be easily uncoiled.

The pipe has markings every metre for ease of measurement.

Wavin Tigris has been designed with greater rigidity than other plastic pipes to avoid unnecessary “kinking” on installation, while remaining a flexible pipe to allow for easy manoeuvrability on installation. It bends to very small angles, thus creating less effort and less waste. No bending tools and fewer elbow fittings are required in a typical installation.

Wavin Tigris can be cabled around obstructions and through joists etc, and can be installed in suspended ceilings, from below, before ceilings are fitted. Wavin Tigris can be easily threaded through holes in joists, thus eliminating the need for notching which can weaken the joist.

Over the period of its life Wavin Tigris Pex pipe will not be damaged by freezing temperatures. The internal bore is smooth and is not liable to accumulation of scale in hard water areas.

Pipes will not corrode under the action of soft water. Thermal expansion is accommodated within the length of a pipe run, reducing movement and subsequent creaking noises on joists etc.

Low thermal conductivity values mean that hot pipes are cooler to touch and the incidence of condensation on cold pipe is reduced.

The Wavin Tigris oxygen barrier greatly reduces the ingress of air into the system, thus reducing the corrosion within a central heating system.

Wavin Tigris has a product guarantee of 25 years against defects in material and manufacture, and has a life expectancy in excess of 50 years.

Wavin’s Tigris piping and heating pex pipe is an innovative range of high-density cross-linked polyethylene pipes designed for central heating and tap water applications in Ireland. Manufactured to Irish dimensions, Tigris has Irish Agrément Approval and exceeds the European requirements for high-temperature plastic plumbing pipe. "Rigorously tested and perfected with the aid of Irish plumbing installers", says Wavin’s Patrick Atkinson, “Tigris is the ultimate pex pipe system for hot and cold applications, offering a variety of general features and benefits”.

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Polytherm — Warmth Everywhere It is Needed

Polytherm Heating Systems Ltd was formed in 1999 following the success of the underfloor heating division of its associate company Hevac Ltd. Polytherm systems and components are based on top German technology and experiences over many years. Since its inception it has successfully introduced a wide variety of solutions for the residential, industrial and commercial underfloor heating sector. It has also provided an innovative and time-saving solution for plumbing and radiator connections with the Polyfix pipe-in-pipe system, as well as insulated piping systems for district heating.

The Polytherm system can be installed under virtually any floor covering, such as treated wood, carpet, marble or tiles. Due to the low energy demand underfloor heating systems are extremely efficient, especially when used with condensing boilers, solar panels or heat pumps. Underfloor heating is comfortable at water temperatures of 30-40°C as opposed to 60-70°C with normal conventional systems and the lower heat losses make underfloor heating the most efficient type of space heating on the market today. For commercial and industrial applications the savings can be even greater.

Underfloor heating offers numerous aesthetic possibilities, as there are no obtrusive radiators. It is a well-known fact that underfloor heating creates a healthier indoor climate by drawing moisture away from the floor area. A dry floor is the most inhospitable environment for household mites, fungus spores and other allergens. Polytherm offers the complete quality system solution, in addition to a comprehensive system warranty, which includes not only the pipes and components, but also the entire underfloor heating system.

The Polytherm system is a proven brand that has achieved every possible European Standard and accreditation. When you choose Polytherm you have a system that is tried and tested and favoured throughout Ireland by installers, householders and specifiers alike. In short Polytherm stands for quality, reliability and security.

The most successful floor heating system is the Polycomfort® System. With its integrated insulation and piping system, the floor panels overlap and interlock together to form a completely sealed and rigid floor surface before final screeding. Heat losses downwards are negligible.

Polydynamic® is a modern system that can be installed in a low floor build up of about two inches. It is ideal for new build, refurbishment and wall heating alike. Polypanel® is the latest system to arrive. This too has made a big impact, particularly in new build and refurbishment projects. With this system underfloor heating can easily be installed in joisted floor situations with minimal fuss, no notching, no screed and no added weight. With Polypanel® floor levels may only rise by as little as 12mm above normal levels for conventional systems. In addition all floor coverings are possible. Wall heating® is also growing in popularity. It has special advantages when householders are faced with lack of floorspace to use standard UFH. Wall heating is used in swimming pool areas, sports facilities, bathrooms, residential care facilities and as regular heating in homes.

Heating of sports halls is common now with underfloor heating. With a sprung flooring system underfloor heating can enhance the safety to athletes by reducing “cold start” injuries to a minimum. Outdoor heating to pitches, ramps for vehicle access and keeping yards free of frost and ice is also possible with Polytherm's Polydefrost® system.

In short, Polytherm has an underfloor and wall heating solution to suit virtually every conceivable requirement.

Contact:
Seamus English, Polytherm.
Tel: 01 - 419 1990;
Fax: 01 - 458 4808;
email: info@hevac.ie
The elegant Smartfit programme controller has been designed to make programming easy. It also incorporates a built-in commissioning sequence, integral manual overrides and a unique diagnostics programme that will highlight any fault in the system.

Smartfit is faster to fit and commission, easier to programme and makes fault identification simple. All time and cost saving features that will improve your productivity and profit margins, offering you the flexibility to be more competitive when pricing the job.

All this, plus the quality and reliability of Honeywell, adds up to happy customers and good business for you.

Find out more from your local merchant, or contact Honeywell Control Systems Limited, Honeywell House, Bracknell, Berks RG12 1EB.

Or call FREE on 0800 521121 Ext 2000.

Fitting and Programming is as Easy as This

1. Install the base unit
2. Snap on the valve power head and plug in
3. Attach the cylinder sensor and plug in
4. Connect the low voltage room unit and switch on
5. Set the programmes for heating and hot water and
6. the Smartfit system is up and running
IT COULDN'T BE QUICKER OR EASIER!

Energy Efficiency is all initiative backed by the Government.

The Energy Efficiency Hotline 0345 2772000
Rehau Heating Systems
From Heatmerchants

Since 2002 Heatmerchants and Rehau have been working together to develop a project design team, distribution network and approved installer panel to serve the growing underfloor heating requirements of the Irish marketplace. The fruits of that effort are now coming on stream, an excellent example being the full design team which has the capacity to design underfloor heating systems for both domestic and commercial installations. A comprehensive service is provided, including heat loss calculations; full technical specification; drawing layouts up to A1 size; schematic line drawings with colour coding for electrical systems; and on-site project support.

A fully-equipped training facility has been constructed at Heatmerchants' Group Headquarters in Athlone where installers regularly attend in-house training conducted by Rehau engineers. The courses incorporate theoretical and practical training whereby the installers can lay actual circuits, room by room, having first completed project design detail.

Heatmerchants and Rehau have been very cautious in their approach to setting up this new design facility but now, having completed numerous projects nationwide and confirmed that everything is running smoothly between the design team and installers, they are confident of becoming a major player in the underfloor heating marketplace.

“We at heatmerchants”, says Director Macartan McCague, “consider customer satisfaction of paramount importance. System installation is carried out by Rehau-trained contractors with on-site technical support available at all times from experienced Rehau sales engineers, to ensure that each and every project is completed quickly and effectively. Every underfloor heating system from Heatmerchants is project designed, project driven and project supported... that’s the difference.”

The first Rehau underfloor heating pipes were installed 25 years ago and literally millions of meters of Rehau pipe have been installed since then. The Rehau system uses Rehau universal pipe made from cross-linked polyethylene pipe, with a co-extruded Eval Oxygen diffusion barrier. Rehau was one of the pioneers of this process. Rehau manifolds are made from DZR brass and the main body is one-piece.

Rehau has designed a new compact mixer that dramatically simplifies the controls for the Heatmerchants underfloor heating system. Aimed primarily at the domestic market, it is a cost-effective solution compared to many controls which are more suited to commercial projects. This innovative mixing system combines the usually-complex arrangement of mixer unit and internal/external sensors and thermostats, to provide a fixed temperature mixed flow with all the components in a single unit, making it easy to commission. It also significantly reduces space requirements and wiring complexity. Having chosen a Rehau-designed underfloor heating system, Heatmerchants can also provide the option of high-efficiency boilers from Baxi or the new Keston commercial range; high-recovery calorifiers from Assos; and controls from Danfoss.

Typical installations include sports halls, railway stations, nursing homes, creches, old cottages and factory outlets. Heatmerchants also supplies Rehau flexible plumbing pipework systems and Rauthermex, a pre-insulated pipe system for predominantly underground installation. It is widely used for district heating or connecting buildings to remote heating plants.

Contact: Macartan McCague, Heatmerchants. Tel: 01 - 630 4306; Fax: 01 - 621 5173; email: macartan.mccague@heatmerchants.ie
All our tubes are up to the Mark

Irish Metal Industries supply a complete range of copper tube for hot and cold water installations, gas services, sanitation, central heating and numerous other building and engineering applications.

All our tubes are manufactured to the stringent requirements of EN : 1057 and we are licensed to engrave them with the coveted Irish Standard Mark which is the registered mark of the National Standards Authority in Ireland. What’s more we give a unique 25 year guarantee against manufacturing defect. So whatever your requirements you’ll receive nothing but the best quality, service and reliability with copper tube from Irish Metal Industries.

Service Line: For orders and further information.
Telephone: (01) 295 2344/295 2137.
Fax: (01) 295 2163

Irish Metal Industries Ltd, 25 Spruce Avenue, Stillorgan Industrial Park, Blackrock, Co Dublin.
**Unipipe — The Ideal Solution For Thermally-Activated Buildings**

With the benefits of underfloor heating now driving a significant increase in the number of installations throughout Ireland, those who were at the forefront of this technology over the years are beginning to capture the greatest market share. A typical example is Paul O’Donnell’s Unipipe (Irl) Ltd. Paul has been promoting underfloor heating since 1983 and has been a party to, and instrumental in, the introduction of quite a number of innovative industry developments over that 20-year period. Today Unipipe is still very much to the fore when it comes to the introduction of new developments and initiatives in respect of underfloor heating. A recent breakthrough is Unipipe’s “thermally-active” building technology which allows both heating and cooling to be carried out via the same system. A key factor in this respect is that Uponor — manufacturer of Unipipe — is the world’s largest producer of multi-layer pipes. Unipipe’s integral metal layer prevents diffusion and is guaranteed 100% oxygen tight. This is especially important as some plastic pipes can allow oxygen ingress into the heating system, thereby causing serious corrosion problems. Unipipe systems can operate in conjunction with any boiler type or make (see “Nibe Appoint Unipipe” panel inset, right). “When it comes to choosing underfloor heating”, says Paul O’Donnell, “the key motivating factors are comfort, aesthetics and lower running costs. “Comfort — warmth from the floor radiates evenly and gently upwards as opposed to radiators which create convection currents, drawing cold air across the floor and sending warm air up to the ceiling; “Aesthetics — There are no radiators invading the interior space. The only visible part of the heating system is the discreet thermostat in each room, the manifold which distributes the water usually hidden in a cupboard or press; “Lower running costs — The rooms feel warmer at lower thermostat settings. This, coupled with the lower water temperatures of floor heating, results in running cost reductions of up to 25%. As less fuel is needed, the choice of underfloor heating is also kinder to the environment because of reduced CO2 emissions. “Underfloor heating systems also allow more accurate control of temperatures in individual rooms; are more hygienic in that there are no dirt traps behind radiators or heaters; help with respiratory and nasal problems as they do not dry the air like high surface temperature systems; and are totally silent in operation”. Contact: Paul O’Donnell, Unipipe. Tel: 01 - 286 4888; Fax: 01 - 286 4764; email: info@unipipe.ie Website: www.unipipe.ie

**Nibe Appoint Unipipe**

Nibe — Sweden’s largest manufacturer of geothermal and exhaust-air heat pumps — has appointed Unipipe sole distributor for Ireland. Used in conjunction with the floor heating systems, these units represent the most environmental-friendly and economic solutions for the heating of buildings and water. There are two basic types — exhaust air heat pumps and ground source or geothermal heat pumps. Exhaust air heat pumps are intended for smaller buildings and apartments, and lower-energy, timber-frame homes. They are self-contained packages that look after water heating, space heating and ventilation. Ground source or geothermal heat pumps are designed for use with horizontal ground loops, or with boreholes for retrofit and replacement of oil, gas or solid fuel boilers. They are ideal for large installations. An additional advantage is that Uponor also manufactures the special tubing systems lowered into the bore-holes.
You will need all of these... or simply this

The radio controlled TP5000-RF range.

No pulling up floor boards or carpets.
No decorations to disturb. With the Danfoss TP5000-RF range, those particularly awkward wiring jobs are out and radio controlled thermostats are in.

Quick and easy to install, and completely stress free for you and your customer, the TP5000-RF is the ideal solution at times of upgrade.

Here is just one more way in which Danfoss solves problems. And this is before you consider the comfort, energy saving and environmental benefits.

Putting good ideas into practice is what Danfoss is all about.

Danfoss Ireland Ltd. Nangor Road Business Park, Dublin 12.
Tel: 01 6268111 Fax: 01 6269334
email: marketing@danfoss.ie
Promoting Building Services as a Career Choice

In looking to the next 12 months and beyond, Brian Sterling, the recently-elected Chairman of CIBSE, believes that the enormous growth and diversification experienced over the last few years should now be compounded to ensure that the very highest quality standards are achieved throughout the entire building services process.

Continuous Professional Development (CPD) is critical in this respect, according to Brian, and he aims to encourage the younger CIBSE members in particular to participate more in the technical sessions regularly held in the IEI.

It is my aim to encourage the younger CIBSE members in particular to participate more in the technical sessions regularly held in the IEI.

As a general strategy, he has set out three goals for his term, brief details of which are as follows:

— To generate funds for research and development projects for the various colleges that actively pursue innovative design and technology, and to increase the level of excellence that the industry as a whole should strive for;

— To set up a link from the CIBSE Republic of Ireland website to the various building services colleges so that graduates and students can register the type of employment or training they wish to pursue on a database. All the main services companies could also avail of the site to advertise the job placements they have available;

— To set up an interactive programme of events for Bolton Street that will bring in specialists in various fields to give technical talks on suitable topics which complement the course structure and promote building services as a career of choice.
Donal Finn, UCD, who received a CIBSE R&S sponsorship cheque to the value of €2500

Ben Costelloe, DIT, receiving his CIBSE R&D sponsorship cheque for €2500 from Brian Sterling, CIBSE Chairman

3rd Prize Team Event — Frank Forrest with Sean Smith, Brian Sterling, Brendan Keaveny and Michael Brady

1st Prize Team Event — Joe McCarthy with Brian Sterling, Finian Donoghue, Ciaran O’Shay and Philip Murphy

Above: 2nd Prize Team Event — Jim Curley receiving second prize on behalf of this teammates from Brian Sterling

Paul and Stephanie Campion

Right: Noel Memery with Eric Hayward and Stephen Jones

Best Front 9 — Bryan Keaveny with Conor Lynch, Brian Sterling and Niamh Sterling

Published by ARROW@TU Dublin, 2002
Health and Safety — You will be Held Accountable!

We are all aware that the construction industry accounts for virtually the highest rate of fatalities and injuries in this country (the second highest fatality rate after agriculture with 158 deaths in 2001). While health and safety legislation in the construction industry has increased significantly over the past 12 years, I am continuously surprised at the lack of basic knowledge that many people still appear to have on the current health and safety legislation and their obligations as participants in this industry.

For example, I was amazed recently when I learned that a designer involved in a significant refurbishment project had little understanding of the Safety, Health and Welfare at Work (Construction) Regulations 2001 and if I were to receive €1 for every time a contractor confused his company Safety Statement for the Safety and Health Plan construction stage ...

It is no longer acceptable for health and safety to be an "add on" service, provided only when requested or questioned. It must be an inherent part of all construction projects from inception to completion and on through the life of a building. The 1997 Building Control Regulations, the Safety Health & Welfare at Work (Construction) Regulations 2001 and the Safety Health & Welfare at work Act 1989 place duties on a number of parties in this regard, but principally the client, designers, contractors and occupiers of buildings.

In terms of health and safety, a buildings life can be identified in three distinct stages as follows:—
— Inception and Design
— The Construction Process
— Life thereafter

Health and safety should be in the mindset of people at all three stages and it is primarily up to the client/owner to ensure that this happens. With each of these stages there are a number of keys factors that must be considered in order to ensure a satisfactory level of safety.

Inception & Design
Suitably Qualified Personnel — Prior to commencing a project, it is important that clients appoint suitably qualified and experienced people to handle a project, including both consultants and contractors. They have a legal duty to do so. This may mean that an assessment will have to be carried out by the client prior to appointing a party.

Design — Designers should ensure that buildings are designed so as to minimise risks, not only during the construction stage but also during the maintenance of the end product, e.g., how will a glazed roof in an atrium be cleaned?

Programme — All too often economic pressures can force clients into demanding faster building programmes. However, sufficient time must be allocated to all projects in order to identify risks, assess risks, and minimise or eliminate risks. If clients, designers or contractors want to carry out their duties competently they must allocate sufficient time to do the job.

Budget — Health and safety is not an add on service provided only when budgets or programmes dictate. Clients must ensure that each project has an adequate amount of money set aside for health and safety and, furthermore, contractors should identify a health and safety budget in their tender price.
Safety & Health Plan — The current regulations place a duty on the Design Stage Supervisor and the Construction Stage Supervisor to prepare a Safety & Health Plan. The plan must be adequately detailed and provide a focus for health and safety during the construction stage of a project. One should note that the regulations now place a duty on Project Supervisors for the Design Stage to have key elements of the preliminary Safety & Health Plan in writing, a duty which, oddly enough, was not stipulated in the Safety Health & Welfare at work (Construction) Regulations 1995.

The Construction Process
As stated above, projects must be allocated sufficient budgets, programmes and qualified personnel prior to starting on site. Once a job starts, it is the Safety & Health Plan Construction Stage that should be used as the mechanism for mapping out health and safety procedures during a project. The Safety & Health Plan must relate to the job in hand. Generic documents are a “no no” and under no circumstance accept a photocopied plan from a previous job with the cover page altered! Having a project specific document should demonstrate that the duty holders have a good understanding of all health and safety implications.

The Safety & Health Plan will normally cover a wide range of topics including overall project details, risk identification and method statements, welfare facilities, emergency procedures, etc. It is vitally important that the details in the plan are put into practice. Remember, an impressive safety plan sitting in the site office will not prevent an accident happening. In order for Health & Safety to remain an active part in any project there are a couple of key factors that should be adhered to as follows:

Communications — It is important that the right people receive the right information at the right time. This will ensure that the correct course of action is taken.

Monitoring — Projects should be monitored at suitable frequencies to determine if proper health and safety procedures are being adhered to. A self-checking mechanism will keep health and safety procedures in line.

Review and Updating — Due to the element of risk, health and safety will always be uncertain i.e., accidents can happen on sites that maintain the highest level of safety. Therefore, the details of all projects can change over a course of time and safety documentation can quickly become stale. The Safety & Health Plan should be updated to reflect changes in a project, particularly where new risks have arisen.

Compliance — Without trying to state the obvious, buildings must be built in accordance with regulations. Otherwise this will have direct implications for owners/occupiers.

Life Thereafter
Health and safety does not end once the building is handed over to the client. If anything, obligations are increased.

The Safety File — The Project Supervisor for the Construction Stage is obliged to hand over a Safety File to the client at the completion of a project. This file contains a record of information to be used by the end user during subsequent maintenance or refurbishment works. The contents should include drawings, location of plant and services, specifications, operating manuals, maintenance procedures etc. It is important that the client receives an adequately detailed file for future use and just as important, the end user must update the file to reflect ongoing maintenance or refurbishment works.

Health & Safety Audits — As Acts are introduced, regulations can become outdated. Therefore buildings will, over a period of time, fall behind current standards. All too often owners and occupiers can become complacent about their obligations, believing that if their building pre-dates the regulations they are exempt from further upgrading. This is not so.

The Safety Health & Welfare at Work Act 1989 and the 1981 Fire Services Act place obligations on the owners and occupiers of buildings to provide a safe place for its occupants. This can result in clients commissioning reviews of their building. Of particular concern is fire, where safety standards are continuously increasing. It is important that owners and occupiers are satisfied that they have a safe working environment.

Demolition — The demolition stage will present a number of health and safety risks. Safe working practices on site are critical. Of particular concern though is the identification and safe disposal of any hazardous materials such as asbestos.

Conclusion
I do not mean to frighten you. However, everyone should be aware of their Health & Safety obligations when it come to property. Ultimately, it is the directors of companies who are responsible, not just under civil law but also under criminal law.
New Wholesale Ventilation Fans From VenTac

SP Minifan from VenTac is a new generation of air extract systems designed to provide a completely flexible multi-extraction point ventilation system for residential properties. It comprises three model sizes — ST, HI and TB. Each model includes a powerful 3-speed (as standard) centrifugal fan which is designed for efficient air extraction within ducted installations. All units have been designed and developed to maximise airflow performance and minimise in-duct and radiated noise levels.

Minifan was specifically designed for ease of installation. When required, the fan assembly can be removed for cleaning without the use of special tools. All units include the option of up to four ducted inlet connections, exhausting to a single ducted outlet connection.

To complement the Minifan range, VenTac has also just introduced the Siroc self-regulating wholesale ventilation fan. This unit provides a complete residential/commercial ventilation solution for bathroom, utility room, toilet and kitchen air extract applications.

Al models are manufactured in tough shock-resistant ABS plastic and include four inlet and one exhaust port. The airflow at each respective inlet port can be precisely controlled and configured to the desired airflow by means of integrated airflow valve regulators. With boost and normal speed options (as standard), the Siroc wholesale ventilation system provides cost-effective, powerful and easy-to-use single air extract solutions for any given residential property.

The Siroc system can be purchased as a fan only or within standard residential property kit arrangements, which include all corresponding ducting and valves.

The third system to complete the S&P range of wholesale fans from Ventac is the Akor wholesale heat-recovery fan. This product not only provides powerful air extraction, but also includes the facility for fresh air input with a heat recovery facility. Similar to both the Minifan and Siroc, the Akor is designed to provide one single air extraction and supply solution for residential properties. However, the Akor unit includes an efficient "cross-flow" style that exchanger which provides the heat transfer from the exhaust air to that of the fresh-filtered incoming supply air.

The Akor product/system includes the option of a multitude of control variations, all of which can be operated via remote-mounted switches.

Available as a standard product or in a kit format, the Akor system provides one of the most comprehensive exhaust/supply residential ventilation systems available.

Contact: VenTac Sales Office.
Tel: 045 - 851500;
email: sales@ventac.com
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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.
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- Battery life up to two years
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- Memory size 2k (non volatile)
- Three stop options
- Software and cable included

For further information or a demonstration contact:

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