BSNews
MECHANICAL & ELECTRICAL BUILDING SERVICES

Pumps & Circulators

Published by ARROW @TU Dublin, 2006
Add new facilities anywhere you want

An elegant, low-cost way to improve your home

The new Sololift+ lifting stations let you install a cloakroom under the stairs, a kitchen in the basement – even a bathroom in the attic. Minimum pipe work is required, so real home improvements can be made at very low cost. And the elegant design of the Sololift+ means that you won't have to compromise on style.

With Grundfos Sololift+ you can add value to your house.
Sustainable Design in Building Services

The last couple of years have seen a great emphasis on sustainable products but, what is now increasingly apparent, is that such products are pointless without sustainable design.

This is especially so in respect of building services.

Essentially, the traditional design process is not the best model from which to produce sustainable design in building services. That said, CIBSE has recognised the problem and is intent on rising to the challenge now facing the industry.

Consequently, it will host a day-long seminar on the subject — with Sustainable Energy Ireland (SEI) as the principal sponsor — in Clontarf Castle in Dublin on 9 March next. The speaker line-up is impressive and comprises a mix of home-based and international experts.

Delegates will include consultants, architects, contractors, project managers and property and facilities managers. While SEI is the principal sponsor, a limited number of additional sponsorship opportunities are available. These are being offered to building services products suppliers. For a contribution of €350, they will be allocated a free delegate place, plus prominent acknowledgement by way of signage at the seminar venue, and on all related literature produced for delegates.

This is an ideal opportunity for all involved in building services to participate in, and help influence, a process which will undoubtedly lead to a new model covering the design, specification and installation of sustainable building services in the future.

Don't miss this opportunity — call Tony McKinley at Tel: 01 - 202 7915 or Jim Fogarty at Tel: 01 - 409 2800 NOW!!.
The untimely death of Eamon McGrattan — while expected over the last couple of months — was none the less shocking when it actually occurred just after Christmas. Eamon was a larger-than-life character whose personality and generosity of spirit was legendary within the building services industry.

He came across as permanently jovial, even mischievous. That said, those who were really close to him know that he was also a complicated person, a very private person who could, at times, be quite determined, demanding, even belligerent. Frank Lawlor and Ray Elliott — two of his closest personal friends — had many a sparring match with him.

His passions in life were his family, work, golf and friendships. He was intense about them all ... he gave 100% ... and then some!

He was a perfectionist to the point of obsessional, totally committed to whatever the task in hand. The stories of how this manifest itself down through the years are the stuff of legend.

Very much a “man’s man”, he still charmed the wives of his closest friends. Eamon could do no wrong in their eyes. He had a heart of gold with a unique generosity of spirit that was subtle, yet effusive. For instance, for decades he personally attached a Christmas Wreath to the front doors of his closest friends in the dead of night on Christmas eve.

You would also have to be careful not to mention a problem in his presence. It immediately became his problem and he would move mountains to solve it for you, with or without your involvement!

Frank Lawlor and Ray Elliott relate countless instances of this, a case in point being the removal of Ray’s infamous Saab. These stories are now fondly remembered, and will be endlessly recounted, as part of the rich heritage of McGrattan folklore.

This generosity of spirit also extended to the community at large, especially through his membership of Dublin North Rotary. Eamon was extremely active in Rotary and his contribution was recognised when he was made a Paul Harris Fellow, the highest accolade Rotary bestows.

A call from Eamon was something of a summons. You knew when you answered the phone and he asked what you had on for the day that he had a plan in mind, a scheme or excursion that you simply could not refuse. This could be anything from going fishing in his beloved boat “The Duchess”, to meeting up for a coffee or a pint.

More often than not though it was golf. Eamon was consumed by his passion for golf and was a member of any number of clubs and industry societies. Some of these were formal bodies while others were ad hoc get-togethers. Once it was golf Eamon was on board.

Not content with that he organised his own Christmas Classic which, sadly, he was too ill to participate in this year. It was the first one he missed in 33 years! His absence from another annual golf jaunt to the Canaries — which this month marks its 30th anniversary — will also be poignant.

His friends will especially miss “Eamon’s Earner”, his role as official bookie for the trip. To this end he distributed a special newsletter to all participants on the flight out; pre-prepared actual betting slips for each day; set and revised the odds throughout the trip; and aimed, at the end of the day, to come out a few euro up.

To say that he will be sadly missed is an understatement. Yet, was the strength of his personality, his fierce loyalty, integrity and honesty, that those who miss him most are indeed the lucky ones. They can consider themselves truly privileged to have been his friend ... and for him to have reciprocated that friendship.

While it is customary to finish appreciations such as this with Ar Dheis De go Raibh a Anam, it can be taken as read in this instance that McGrattan has already replaced John Peter as God’s right hand man ... he wouldn’t settle for anything less!
53 new models for 2006

SANYO
AIR CONDITIONERS

SANYO will be launching an unprecedented number of new products into Ireland to provide the all round air conditioning solution. All of the new products will utilise R410A refrigerant and feature our very latest energy saving and acoustic technologies. For example, the new Aire 75 wall unit which has just won the Japanese Good Design Award, has a COP of 5.0 and operates at just 22dB(A).

Product introductions include:
- Next generation 2 pipe heat pump ECOi with COPs of 4.1
- New expanded range of 2 pipe ECO G R410A Gas Heat Pump VRF
- New range of 3 pipe ECO G R410A Gas Heat Pump VRF
- New range of SPW DC inverter commercial split systems: 2 - 10HP
- New range of SAP DC inverter small split systems: 2.2 - 6.2kW
- New range of SAP online split systems 2.2 - 7.0kW

In addition, we will also be opening our new European production facility in Hungary which should ensure we can maintain our position as Ireland’s fastest growing Japanese air conditioning manufacturer.
Safegard V3 System Advance

Safegard Systems, the specialist in smoke/fire dampers and damper control, has introduced the latest evolution of its V3 system in Europe. Intelligent control is what makes Safegard’s smoke and fire damper systems different and its market-leading expertise in this area has made its range one of the smartest and safest on the market.

Smoke/fire dampers are lifesavers which, when correctly incorporated into a building, automatically close off when an emergency alarm is activated. This prevents the spread of smoke from one fire zone to another, thus saving lives.

The Safegard V3 damper control and monitoring system incorporates a graphical user interface providing live status of all activities with complete clarity of information. The V3 system handles this with ease and is permanently open to change in the future.

On projects of this size, 11th-hour changes to damper numbers, inputs/outputs, strategies, zones etc are the norm and, whereas with conventional systems this poses a logistical nightmare, such changes can be easily accommodated by the V3 system without the need for special software.

This flexibility is a key advantage, not only during the initial commissioning stage, but also during the life of the building, as it enables future extensions to be accommodated with similar ease.

Intelligent control is also a critical feature during routine testing, which is now becoming an increasingly important issue, with BS5588 and various insurance bodies strongly recommending six-monthly testing of all dampers. As yet, these are only recommendations but new EU legislation currently being prepared will demand frequent testing and certification of all “life safety” dampers.

Without an intelligent control and monitoring system, this will prove to be an extremely costly, disruptive and laborious task for building and safety managers.

Safegard V3 offers the following damper Interfaces:

- Damper Interface: Application;
- SFDI — Smoke Fire: Motorised spring return for smoke containment extraction;
- 3PDI — 3 Position: Balanced motorised spring return for smoke extraction;
- SDI — Smoke: Motorised on/off for smoke containment/extraction;
- FDI — Fire: Electrical release or monitoring only of fire containment;
- HDI — Hot: 300°C for 1 hour.

Contact: Conor Walsh, Safegard Systems.
Tel: 01 - 276 1600; email: info@safegard.ie

CTS Formally Seals Dunham-Bush

As mentioned previously in BSNews the Dunham Bush range of Refrigeration and HVAC equipment is distributed in Ireland by CTS. This agreement was formally signed and sealed last month in the Malaysian Headquarters of Dunham Bush International between Mr SC Yeo, Chief Executive officer, DB Group, and Rob Addink, Managing Director DB for Europe, and David Killalea, General manager CTC in Ireland.

“This agreement shows the extent of the Irish influence and its impact on global refrigeration companies. A high level of technical expertise in both operations, well organised logistics and the ability to co-ordinate client requirements with factory design options meant this agreement was a very workable synergy between the two companies”, says Killalea.

Contact: Dave Killalea or Kevin Myler, CTS. Tel: 01 - 405 6777; sales@crossstechnicalsolutions.ie
Versatile Agencies has taken the traditional concept of heating and given it form. This is achieved by applying its own extensive knowledge and experience to the product portfolios of cutting-edge, innovative, brand leaders like Jaga, Runtal Zehnder and Vogel.

Heating solutions are custom-designed to facilitate each application. Where visible, the heat emitters contribute to the aesthetics of the setting; however, they can also be unobtrusive to the point of being invisible.
EPH Black Book in Everyone’s Hands!

Far from being concerned that his “not so little Black Book” is being distributed freely to all readers of BSN with this issue, Trevor Casey of EPH Controls is delighted that EPH’s first dedicated product/price catalogue has finally been published.

Established in 1997 as importers and distributors of controls for the HVAC sector, EPH has seen rapid expansion year on year to the point where it is now one of the foremost suppliers of controls and related equipment for all market segments, including commercial, industrial and pharmaceutical applications.

EPH specialises in providing tailored controls solutions using its portfolio of brand-leading, quality products, Sauter being a typical case in point.

EPH and Sauter have become synonymous in Ireland in recent years, not just for the broad range of everyday applications catered for, but also for the more specialist needs served.

EPH is constantly adding new names to its portfolio, the latest being the German-made Elodrive valve and damper actuators, and the renowned Horstmann range of residential heating controls. The latter is a significant milestone for EPH as it marks the company’s breakthrough into the domestic controls sector.

DAB’s Venetian Delight

Further to a Consolidated Pumps promotion which ran for most of last year, the company recently hosted a group of architects, consultants, contractors and installers on a trip to Venice which mixed business with pleasure.

The group convened at Dublin Airport where they linked up with DAB personnel from the UK and flew direct to Venice. On arrival they went straight to Padova’s exclusive restaurant for a dinner of traditional Italian fare after which they checked in to their hotel.

The following morning the group visited the DAB facility at Mestrino where DAB personnel outlined the history of the company and its plans for future development. They then had a guided tour of the facility where they saw every step of the manufacturing process, from initial design through to testing and packaging.

The tour proved to be very informative and enjoyable. Next came a visit to DAB’s nearby Brendola facility for another short tour before the group returned to their hotel and had dinner at another classic Italian eaterie.

On Friday morning the group transferred to Venice and enjoyed a traditional water taxi tour of St. Marks Square and a guided tour around the Palazzo Ducale, the birthplace of the Republic of Venice and home to the infamous Bridge of Sighs. After the tour they were given the freedom of the city for the afternoon to indulge in shopping and whatever took their fancy.

“Overall the trip proved extremely successful”, says Roy Tolan of Consolidated Pumps. “While being very enjoyable, it was also informative and gave both our clients and our staff alike an opportunity to witness first hand the hard work which goes into developing and manufacturing the products we all sometimes take for granted”.

Jobs Corner

BSS SALES REPRESENTATIVE, CORK

BSS (Ireland) in Cork is looking to appoint an experienced sales representative to develop its existing customer base in the region.

The successful candidate will have a proven record of creating effective business relationships within the sector, and especially with heating contractors and end users. Good communication skills, a professional manner and smart appearance are essential.

An excellent remuneration package is offered, along with a share-saving scheme and pension scheme.

Those interested should apply in writing — enclosing CV and other relevant documentation — to Michael Quinlan, Area Director, BSS (Ireland) Ltd, Unit 20, South Link Park, Ballycurreen Road, Grange, Cork.
Safeguard Systems, the damper and controls specialist company, are delighted to announce their appointment as sole Irish distributor and stockist for Sontay field control solutions.

Safeguard offer full technical support, product selection and application guidance for the full range of Sontay controls. Based in Bray and local to the Irish user Safeguard offer a speedy, efficient and professional service with leading product lines available ex stock for next day delivery.

Sontay's comprehensive range of high quality sensors, controls and peripheral products are renowned across the industry for their reliability, accuracy and cost-effective performance.

All products are rigorously tested and quality controlled to our own high standards to ensure that the Sontay name is synonymous with an unrivalled choice of quality measurement and control products. Offering you a fast, professional and personal service at the very best prices.

Call 01 2761600, email info@safegard.ie or visit www.safegard.ie for more information.
Davies Looks To Next 70 Years ... and Beyond!

With a pedigree stretching back 70 years and an enviable portfolio of world-renowned brands, the Davies Group of companies is perfectly suited to avail of the synergies represented by the various companies within the Grafton Group. As such, its acquisition last month by the Grafton Group came as no great surprise. Both Davies and Grafton are strong on loyalty, not just to their respective customer bases but also to their suppliers.

Established in 1933 Davies spent so long at its original premises in Richmond Road, Dublin 3 that it was commonly referred to as Davies of Fairview. Now, following its move to a five-acre, €15 million purpose-designed complex in 2003, it is a case of Davies of Harmonstown, Dublin 5, so to speak.

Complementing its portfolio of top-quality brands is a team of highly-qualified and experienced personnel. They underpin the company’s reputation for quality of service and professionalism, yet deliver it in a customer-friendly, flexible manner.

Looking to the future, “it’s not so much a case of business as usual”, says Managing Director Gerry Tobin, “but rather more of the same, only better, thanks to the combined strengths and synergy afforded by joining such a market-leading giant as Grafton”.

Contact: Gerry Tobin, Davies. Tel: 01 - 851 1700; www.davies.ie

Versatile SmartAct Actuator

A new linkage kit from Honeywell allows its SmartAct direct-coupled actuators to be mounted easily on site to ESBE and CROVAL 3- and 4-port rotary valves used in building services.

SmartAct is also ideal for operating air dampers, air handlers, ventilation flaps, louvres and VAV (variable air volume) units. It can replace existing actuators of most types.

The new linkage kit features an internally-profiled connector that locates firmly onto a D-shaped ESBE valve stem and is secured by a screw into the existing thread.

This is preferable to using a grub screw on the flat of the stem, which may slip or permanently damage the stem.

Honeywell plans additional kits that will allow SmartAct to be installed as a replacement for other-branded products, or to offer a variation on the standard Honeywell solution.

The SmartAct direct-coupled actuator series is designed for fast installation, increased reliability and extended life. Its features include a self-centring shaft adaptor for “plug-and-play” installation, the ability to mount in any direction, a detachable wiring box for easy connection, a rotation direction switch, and a position indicator.

Honeywell offers more than one control function per model, so just two to four models need be stocked instead of 10 to 12 competitive models.

Contact: Honeywell Building Control Products at email: HVACProductsUK@honeywell.com; web: www.smartact.com

Energy Show 2006

The Energy Show will take place in the RDS Industries Hall, Ballsbridge, Dublin 4 on 10/1 May 2006. Established as the major national showcase for energy in Ireland, the show will follow the successful format of previous years with a 2-day trade exhibition running in tandem with a comprehensive and varied seminar programme. It will cover all aspects of energy efficiency and renewable energy relevant to Irish business.

Contact: email: energyshow@sei.ie
Efficient Quiet Compact Chillers

Tempo orchestrates all that you have been waiting for; low sound, plug and play R410a air-cooled chillers with first class energy efficiency. A product developed to provide reliability, assured quality and precise operating performance verified at YORK’S Eurovent certified environmental test facility. Giving total peace of mind.
Sygma Automation — BMS Specialists Serving the Munster Region

Sygma Automation is a relatively new company in the Munster area which specialises in the installation, service and maintenance of building management systems (BMS) in both the commercial and industrial sectors of the Irish market. While Sygma as a company was established just 12 months ago, principals Kieran Cooke and Tim Jones are long-established in the industry, with over 25 years combined experience between them.

Given this background together with extensive experience with Cylon BMS Systems, it is hardly surprising that Sygma Automation has attracted the attention of the leading market players. It is already an approved system integrator for TAC Satchwell and Trend, while as we went to press it was appointed the European distributor for the innovative Thermo-fuser thermally-powered diffuser range.

Indeed, over the years both Kieran and Tim have been involved in the design, management and commissioning of high-profile validated BMS projects in the pharmaceutical and medical devices industry, along with providing similar services for commercial, industrial and leisure industries. These are the services they are now providing to all sectors as Sygma Automation.

From the tender award stage through to client handover, Sygma Automation works with both the consultant and end-user to achieve the desired result. It provides all field instrumentation, control panels, and end-user software, along with a comprehensive handover manual in both electronic and hard copy forms. All projects undertaken are covered under a 12-month warranty.

In addition to new installations, Sygma Automation provides support services for existing BMS installations.

Johnson Completes York Acquisition

Johnson Controls Inc — the global energy management and building controls conglomerate — has completed the acquisition of York International, one of the largest independent suppliers of heating, ventilation, air-conditioning and refrigeration equipment and services in the world. A spokesperson said the complementary capabilities of the two businesses create an offering that will reshape the industry. Whether it’s a single facility or global organisation, customers now have access to unmatched, end-to-end integrated products and services.

For example, a multi-site global company will now have a single source to purchase, install and service mechanical equipment and other integrated systems and services. The result will be the delivery of one-stop systems, faster installations, more efficient operations, and a competitive cost structure.

Some systems-related priorities include the convergence of Johnson Controls building management system and York’s ISN ConneXsys controls to ensure uninterrupted operations. In addition, factory-mounted controls from Johnson Controls will feature on select light commercial York equipment to offer packaged rooftops with both N2 and BACNet protocols.

Waste Water Management Show

The Irish Water Waste & Environment (IWWE) show will take place in the Main Hall and Industries Hall of the RDS on Wednesday and Thursday, 8 & 9 March 2006.

More than just an exhibition, IWWE includes product demonstrations and an extensive programme of seminars.

Contact: www.environment-ireland.com
Stainless Steel Gauges From Manotherm

The new Series SGD, SGT and SGB stainless steel gauges from Dwyer Instruments are now available from Manotherm.

The Series SGD gauges have dual English/metric scales with 1.6% full-scale accuracy and are available in 2.5” dial sizes. Like the Series SGT these units are designed with 304 SS housings and 316 SS wetted parts for excellent chemical compatibility. A wide selection of ranges are available, from full vacuum to 15,000 psi.

These durable gauges are designed to withstand ambient temperatures up to 60°C and process temperatures up to 248°C. They too are easily liquid-filled in the field without the need for a separate kit.

Dwyer’s Series SGB range of stainless steel gauges have dual English/metric scales with 2.5% full-scale accuracy and are available in 1.5” or 2” dial sizes. Like the Series SGD and Series SGT, these units are designed with 304 SS housings and 316 SS wetted parts for excellent chemical compatibility. A wide selection of ranges are available, from full vacuum to 4,000 psi. Units can withstand ambient temperatures up to 60°C and process temperatures up to 180°C.

Contact: Bob Gilbert, Noel Walsh or Robert Gilbert, Manotherm.
Tel: 01-4522355; email: info@manotherm.ie

Healy Joins CTS

Frank Healy has joined Cross Technical Solutions as Service Manager. A qualified refrigeration engineer, Frank has been involved, directly and indirectly, in the Irish refrigeration industry for the last 30 years. During that time he has amassed a wealth of information in system troubleshooting, scheduling of effective maintenance regimes, compressor overhauls, and system diagnostics.

His experience covers ammonia and HFC applications and industrial and commercial installations. He is noted for his expertise in devising the most effective forms of maintenance schedules to improve system performance and efficiency, leading to reduced running costs and stable plant operation.

Contact: Frank Healy, Cross Technical Solutions. Tel: 01-4056777.

SEI Energy Efficiency Courses

SEI’s energy efficiency training schedule for the coming months includes the following:

- **Boiler Efficiency Course**
  - Wednesday 8 March, Alexander Hotel, Dublin;
  - Energy Auditing Course
  - Thursday 16 February, Alexander Hotel, Dublin;
  - Tuesday 25 April, Clarion Hotel, Limerick;
  - Wednesday 26 April, Alexander Hotel, Dublin.

Legionnaires’ Disease Course

The forthcoming Legionnaires Disease Course planned by Mike Knight of Knight Consulting & Training is aimed at local authority and housing association personnel, along with all those involved with the installation and maintenance of hot and cold water systems, spa baths and other water systems.

On completing the course delegates will have a basic understanding of how Legionnaires’ Disease occurs and how to help prevent it. They will also be able to carry out cleaning and disinfections on hot and cold water systems as it also incorporates a “hands-on” element.

The one-day course is accredited and a certificate of attendance will be supplied.

Lunch will also be provided.

Contact: Mike Knight.
Tel: 0044 7966 196383.

Energy Efficient Lighting Course
- Tuesday 4 April, Silver Springs Hotel, Cork.

Energy Management Course
- Tues 28 to Thurs 30 March, Alexander Hotel, Dublin;
- Tues 25 to Thurs 27 April, Silver Springs Hotel, Cork.

Refrigeration Course
- Monday 27 February, Silver Springs Hotel, Cork.

Contact: Deirdre Farrelly, SEI.
Tel: 01-8082087;
email: deirdre.farrelly@sei.ie

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‘Sanyo & BL Group Embrace The Awakening Giant’

When Sanyo Air Conditioners joined forces with the BL Group late in 2004 the timing was excellent. BL is one of the most respected air conditioning companies in Northern Ireland and just then the Northern Ireland economy was turning round so that the partnership was forged as a new wave of optimism began to take hold.

Since then the marketplace has taken off with development increasing at a considerable rate. Moreover, in some areas the speed and scale of these developments reflects the experience in the 26 counties during the heady days of the so-called celtic tiger.

Barry Hennessy, General Manager of Sanyo Airconditioners says: “Having recognised the massive growth potential in the North, coupled with the massive progress in the political arena, it was always going to be very much onwards and upwards for the Northern Ireland economy. We are proud to be involved with BL as we now prepare to take the next step in our commitment to the Irish air conditioning market. The sleeping giant has awakened and we are perfectly positioned to serve its needs”.

Anticipating the demands of this growing market Sanyo Airconditioners have established a flourishing relationship with the BL Group, putting the full weight of their resources behind the valued reputation and experience of their new trading partner.

The recent appointment of Keith Elliott as Technical Director of BL Group serves as testimony to the confident and committed approach which BL Group has shown in the future of the industry. He now joins John Davidson, Managing Director and David Bailie, Engineering Director, in developing and implementing the company’s long-term plans.

Commenting on the relations with Sanyo John Davidson said: “Since joining forces with Sanyo we have been in a position to provide the market with the range and quality of products at the very highest level. This has allowed us to secure an increased share of the growing commercial air conditioning market in Northern Ireland.”

Included among the prestigious installations completed over the last year are Belfast City Airport, Vodafone, and the MM Group project at the innovative NISP Business Park (Northern Ireland Science Park). This is one of the first of many buildings to be completed as part of the Titanic Quarter Development Scheme which will see an investment of approximately €150 million in this area. For this project BL used Sanyo’s R410a ECOi technology making the installation the first Sanyo GHP (Gas Engine Heat Pump VRF system) to be installed in Northern Ireland.

“These developments reflect the positive standing and presence of BL Group and Sanyo in the Northern Ireland market”, says Barry Hennessy, “and auger well for the continued success and future expansion of our joint trading partnership”. Contact: Barry Hennessy or Sinead Duffy, Sanyo Air Conditioners. Tel: 01 - 403 9900; email: info@sanyoaircon.com

Twyford Option from Usher
Usher Bathrooms has introduced the new Twyford Options bathroom suite which was designed specifically for the affordable housing market. It retains the high quality standards associated with the Twyford brand but is available at much more competitive prices.

“Our intention with Twyford Options”, says Ray Sissons, Sales Manager, Usher Bathrooms, “is to offer our established customer base of building professionals an alternative to cheaper brands which still ensures quality standards, ease of fitting and a long, trouble-free, life”.

Contact: Ray Sissons, Usher Bathrooms.
Tel: 01 - 817 9755;
email: info@j-usher.ie

https://arrow.tudublin.ie/bsn/vol45/iss1/1
Potterton Myson's pump range is extensive, offering all manner of pumping solutions across the entire building services spectrum. Range details are as follows:— The “Compact” range of domestic heating circulators offers the installer assured reliability, high performance, and ease of installation for all domestic heating systems.

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

Uniquely, all compact pumps are guaranteed for 30 months.

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

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

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

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

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

With a specialist team of field and in-house technical engineers to take customer queries, Potterton Myson has been providing expert advice on specification and installation for 30 years. Full after-sales service and spares are available, and these are complemented by the company’s unique training facility which is located on the Belgard Road, Dublin.

Contact: Potterton Myson.
Tel: 01 - 459 0870;
email: post@potterton-myson.ie
Drainage Systems Dublin Ltd

Ireland's Largest Supplier of Drainage and Pressure-Pipe Systems

Drainage Systems Dublin Ltd is Ireland’s largest supplier of drainage products. Drainage Systems provides the widest range of high-quality drainage materials to the building services, civil engineering, local authority and merchant sectors. Drainage Systems Dublin Ltd is committed to providing the highest standards of customer care, quality products and competitive prices. Drainage Systems’ team of specialists provides assistance in the design of system solutions, along with the selection and specification of those products to best satisfy each particular application. There are six primary divisions within Drainage Systems Dublin Ltd. These are:

**Architects and Engineers**
This division works closely with architects and engineers, specialising in new and innovative products. It regularly organises CPD seminars on new and impending legislation, in addition to new products and systems as they become available.

**Municipal Castings**
This division specialises in the supply and specification of municipal castings to the construction industry and merchant trade. Applications include motorways, bridges, airports, business parks, shopping centres, housing and sewerage treatment plants.

**Local Authority**
This division specialises in providing design options to local authorities. The range of products includes street furniture, municipal castings, pipes, fittings, adapters and couplings for ductile iron pipes.

**Civil Engineering**
This division specialises in the supply of pressure pipe systems in ductile iron, uPVC and HDPE. The range covers sizes from 80mm to 1600mm and all relevant ancillary products.

**Mechanical Engineering**
This division specialises in the supply of soil drain and rainwater systems in cast iron, uPVC, HDPE and stainless steel. A full range of ancillary products – including floor drains, roof drains and bracketing systems are available.

**Linear Drainage**
This division provides the design, specification and supply of products for the entire ACO range of linear drainage channels. Applications – airport runways, petrol forecourts, car parks, business parks, roof and domestic drainage.

Critical to Drainage Systems’ success is its extensive portfolio of Europe’s leading manufacturers, including Saint Gobain, ACO, Wade, Howe Green, C4 Industries, Weavin, Emtelle, JFC, Naylor, Geberit, Watershed & Hoofmark. Products include:

- Cast Iron Drainage Systems;
- Floor Outlets;
- Roof Outlets;
- Internal Stainless Steel Drainage;
- Specialist Manhole Covers;
- Petrol Interceptors;
- Access Duct Chambers;
- Linear Drainage Channels;
- Watermain;
- Manhole Covers;
- Road Gully Gratings;
- Geotextiles;
- Ducting;
- Surface and Storm Water Pipe.

Drainage Systems Dublin Ltd
150 Harmonstown Road, Raheny, Dublin 5
Tel: 01 - 851 1800 Fax: 01 - 851 1801
email: info@drainagesystems.ie www.drainagesystems.ie
Cast To Last Ensign

Cast iron drainage systems above & below ground
Kitemarked approved to BS EN 877

Features & Benefits

- Pipes and fittings in 50mm to 600mm diameter;
- Stainless steel or ductile iron couplings;
- Range of high performance couplings capable of up to 5 bar;
- Extensive range of access and connection fittings;
- 100% recyclable;
- Fire resistance – the safest of all drainage materials;
- Best choice for sound deadening;
- Strength and rigidity;
- Requires fewer brackets;
- Longevity – in excess of 50 years.

or a lifetime of service in commercial public buildings
York Ups The Tempo

York’s new Tempo air-cooled scroll chiller line is said to combine top-class energy efficiency with low sound, plug and play installation, reliability, quality assurance and precise operating performance.

Complementing the Sonata range, the competitively-priced Tempo is in step with the needs of customers requiring a smaller machine, in terms of both cooling capacity and footprint, but with the same low sound and high-efficiency options.

Tempo offers cooling capacities from 180kW to 480kW and uses non-ozone depleting refrigerant R410A. The economical standard efficiency models achieve an average Energy Efficiency Ratio (EER) of 2.74, while the high-efficiency units reach 3.1 EER.

By introducing multi-scroll compressor configurations to increase full and part-load performance, York has ensured Tempo customers will benefit from high European Seasonal Energy Efficiency Ratio’s (ESEER), sound pressure levels to 54dBA at 10 metres distance.

Other options include an integral Hydrokit with no increase to the unit size and active controls to eliminate the need for a buffer tank, power factor correction, condenser coil protection, high head fans and a de-superheater to provide hot water at 60°C.

Contact: Andrew McEvitt, York ACR.
Tel: 01 - 466 0177; email: yorkdublin@ie.york.com

Vienna & Vonoplan Rads From Versatile

Versatile Heating Solutions is constantly adding to its radiator portfolio, introducing new and innovative lines which offer increased outputs and a greater diversity of aesthetic appeal. Latest additions include the Vienna line compact range and the Vonoplan T6 collection.

Vienna line compact radiators are function in its purest form, designed to be used in all traditional areas of the home or commercial applications. Each radiator is supplied with a factory-fitted toe grille and side panels, with the added bonus of the grille being quickly removable for ease of cleaning.

The white décor clips supplied as standard can be changed to chrome or one of the many other available colour options required to complement individual decorative requirements.

Each Vienna line compact radiator has 4 x BSP tappings allowing maximum flexibility of connection.

The Vienna line compact range comprises two radiator types — K1 single convector and K2 double convector — which are supplied complete with side panels and toe grille.

The Vonoplan T6 radiator offers style with the simplicity of a smooth surface, which is aesthetically pleasing to the eye in any environment. This is provided by the care in manufacture and the superior paint finish, making it ideal for the latest modern decorative designs, as well as the more discerning commercial applications.

There is also the Plan radiator which combines the revolutionary technical advantages of the T6 standard radiator with the added bonus of a smooth clean line and flush fascia panel.

Contact: Andrew Tracey, Versatile Heating Solutions.
Tel: 01 - 046 - 902 9444; email: sales@versatile.ie; www.versatile.ie
DAB BOOSTER SET

- 2 Multistage Centrifugal EUROINOX Pumps
- Suction & Delivery Manifolds in Stainless Steel AISI 304
- 2 AISI 304 Stainless Steel manifold Caps
- 1 Active Driver Unit on the Delivery of Each Pump

Operating range:
Up to 14 m³/h at 7 Bar.

Also available ex-stock delivery.
In March 2005, Europump, the European Association of Pump Manufacturers, introduced an energy efficiency labelling scheme to distinguish circulators which are the most energy efficient from those which perform poorly.

Circulator pumps in heating systems induce "hidden" energy consumption, and are said to account for up to 15% of the electricity of an average European household. By driving the European market towards more energy-efficient circulator pumps, an average European household will be able to save up to 10% of its total consumption of electricity.

The European Commission clearly sets a priority on energy efficiency (Energy-Using Products Directives 2005, Green Paper on energy efficiency 2005). In 1992 a series of Directives were adopted in order to introduce the mandatory labelling of energy-using products. Although they were not covered by this legislation, some circulator pump manufacturers, in consultation with the EC, voluntarily decided to put in place a scheme using the energy label designed for the implementation of the Directives.

Five major European manufacturers — Biral, Circulating Pumps, Grundfos, Smedegaard and Wilo — all of whom are members of Europump — joined this self-regulation labelling initiative with the objective of setting a higher standard in energy consumption of circulator pumps.

Prior to the official launch of the scheme, experts collaborated within a Europump working group to devise the technical protocol required to measure the energy efficiency of circulator pumps on a basis that could be implemented across Europe. This was a challenging task since heating systems are used in many different situations.

Nonetheless, the final harmonised measuring system adopted should now foster competition between circulator pump manufacturers and encourage the development and marketing of more energy-efficient circulator pumps.

"Energy consumption has become a very important issue on the agenda of European consumers and businesses", according to Paolo Marinovich, President of Europump. "In the last decade, washing machines and refrigerators have been labelled according to their energy consumption. The Europump labelling scheme will both raise the awareness among consumers on energy consumption and circulator pumps, and provide them with a clear and efficient tool to buy energy efficient products. We call on the EU Commission to support and encourage this industry initiative on energy efficiency which complements and sustains the European policy".

The first products actually labelled are now appearing on the marketplace and Europump intends to closely monitor the influence on sales and report on the evolution of the demand for such products.

Contact: www.europump.org/
For automated building services.
Intelligent bus controller.
Suitable for heating / air conditioning
from -10 up to +110 °C.
80 % energy savings.*
Highly efficient.

The Wilo-Stratos is the first high-efficiency pump in the world. Thanks to its innovative ECM technology it permits energy* savings of up to 80 % compared to standard pumps. This applies both for heating systems and for air-conditioning and cooling systems. In conjunction with its intelligent bus controller this makes it the ideal solution for building automation. Ingenious?
We call it Pumpen Intelligenz.
If we do not succeed in reducing the energy consumption drastically, the small heating circulators in all European households will, in the year 2030, consume almost 43,000 GWh of electric power per year – this is the conclusion of a forecast by the International Energy Agency (IEA) in Paris, according to Tony Cusack of Wilo Engineering. Moreover, because of the continuing expansion of the EU, this value will rise to about 60,000 GWh.

As part of the Kyoto agreement, European governments are making efforts to considerably reduce the output of CO₂. An important control instrument for this is the energy labelling of household appliances which consume relatively large amounts of energy, such as washing machines and refrigerators in order to inform the consumers of the amount of energy consumed, and to help them to select appliances which consume less energy. This instrument has already led to a considerable global reduction in the amount of energy consumed by such appliances. At the moment, however, there is no corresponding EU regulation for the pumps used in heating systems.

In order to contribute to the saving of energy, leading European pump manufacturers such as Wilo have now declared that they will voluntarily label their pumps with respect to their power consumption. This means that dealers and end users can see, with the aid of an already well-known classifications system, whether the product they select is particularly energy-efficient.

The energy efficiency of heating circulators is classified by means of measurements. The power consumption of the heating pump is measured at four different operating points in accordance with the load profile. Since a Dp-variable regulation characteristic is advantageous, this curve is used as the reference. Deviations from the reference curve result in higher characteristic energy values. The measured power consumption figures at the four operating points are weighted with the durations of these operating points in the load profile.

The resulting average power consumption is then compared with the typical power consumption of comparable heating circulation pumps with the same hydraulic output. This is the so-called reference power consumption, which was determined from measurements made on many commercially available pumps. The result of these calculations is the Energy Efficiency Index EEI (see Table 1). The smaller the EEI, the less electrical energy the pump consumes and the better its energy classification.

Although the energy requirements for Class A pumps are very high, pumps of this best energy class are already available for the complete power range, from a single-family house to a large building. This has been made possible by the new generation of DC motors with electronic commutation, with which wet-running pumps with very high efficiency can be built. The high-efficiency pumps of the Wilo Stratos series have, due to their extreme energy efficiency, set the standard for Energy Class A.

In addition to the energy classification, other factors affect the energy consumption of a pump. This is where an expert planner is absolutely necessary as further savings can be achieved by suitable design of the piping, by matching the components of the system to each other and by avoiding idle-running phases.

"We are totally committed on the collective Europump initiative", says Tony Cusack of Wilo Engineering, "but, from our own point of view, we will also continue to spearhead innovative developments such as those incorporated in the Wilo Stratos range to underscore that commitment".

Contact: Tony Cusack, Wilo Engineering, Tel: 061 - 227 566; email: sales@wilo.ie

Table 1 shows the division of the energy efficiency index into seven different energy classes:
Calpeda Fire Fighting Systems

There When You REALLY Need Us

Calpeda Pumps (Ireland) Ltd
Estate House, Dunshaughlin, Co Meath
Tel: 01 - 825 8212  Fax: 01 - 825 8215
email: sales@calpedaireland.com  web: www.calpedaireland.com

Published by ARROW@TU Dublin, 2006
Calpeda is renowned throughout Ireland for the quality of its pump range and the scope and diversity of applications catered for. However, it is only recently that its strength in providing customised fire-fighting systems has become apparent.

“Critical to fire-fighting systems”, says Graham Fay, Managing Director of Calpeda Ireland, “is that they perform when you really need them. They are not a lifestyle choice but a key, potentially life-saving, element of all building services installations. As such it is vital that they perform as intended when the need arises.

“Essentially, fire-fighting systems are all about fail-safe operation in emergencies and, to that end, Calpeda offers a wide choice of many different configurations to suit each particular application. Included are high and low pressure units, high and low flow units, close-coupled and long-coupled arrangements, and electric and diesel-powered units.

“In designing fire-fighting systems we take a belt-and-braces approach. All our systems incorporate a jockey pump to maintain system pressure in the piping network at all times. There is also an automatic weekly test function to ensure the pumps are working correctly. Each fire pump operates independently with its own electrical supply and control panel.

“We also recommend a diesel-powered unit for standby use. These are direct-injection engines fitted with their own electric control panel, fuel tank, starter batteries and silencer. They too are subject to pre-programmed, automatic (or manual) weekly testing.

“Moreover, in designing a system we also consider the matter of guaranteed water supply and recommend an appropriate solution, be it above ground water tank storage, the use of a pond or lagoon, ground water sources, etc.”

Calpeda Ireland just recently completed the installation of a fire-fighting system for the Administration Building at the Toll Plaza on the M4 Motorway Extension. This covered everything from initial site investigation through to design of the most appropriate solution, project management, installation, commissioning and final hand-over.

“The business of firefighting systems is not just about product supply”, says Graham Fay, “but about providing a fail-safe system that will automatically deliver guaranteed, optimum performance when needed. That is the commitment Calpeda Ireland gives”.

Contact: Graham Fay/Stephen McDowell, Calpeda Pumps (Ireland). Tel: 01 - 825 8212; email: info@calpedaireland.com
Grundfos Pumps — For All Market Segments & All Applications

With annual production of more than 10 million units — representing in the region of 50% of the world market — Grundfos is one of the world’s leading pump manufacturers. It includes circulator pumps (UP), submersible pumps (SP) and multistage pumps (CR), as well as a complete range of sewage and wastewater pumps. While Grundfos also manufactures electric motors for its pumps and has a considerable production of electric motors for separate merchandising.

Furthermore, Grundfos develops and sells state-of-the-art electronics for controls for pumps and other systems. Grundfos circulator pumps are used for heating, ventilation and air-conditioning in domestic houses, office buildings, hotels, etc. In industry they are used in processes, as well as in the area of plant maintenance and as important built-in parts in OEM products. Grundfos offers a wide range of reliable pumps for irrigation, greenhouses and for municipal, private and industrial water supply, as well as sewage applications.

Brief details of all market segments catered for, and the applications covered, are:

**Heating and hot water**
Circulator pumps for circulation of hot water in central and district heating systems and circulation in domestic hot water service systems;

**Cooling and AC systems**
Circulator pumps for circulation of cold water and other liquids in cooling and air-conditioning systems;

**Industrial applications**
A wide range of pumps for the transfer of water, cooling lubricants and other liquids;

**Pressure boosting and liquid transfer**
Vertical and horizontal, centrifugal pumps and pressure boosting systems for liquid transfer and boosting of hot and cold water.

**Groundwater supply**
Submersible and dry installed pumps for groundwater supply, irrigation and groundwater lowering.

**Domestic water supply**
Submersible pumps, jet pumps, multistage centrifugal pumps and compact systems for domestic water supply;

**Sewage and wastewater**
Drainage, effluent and sewage pumps for a wide range of applications;

**Environmental applications**
Purpose-built submersible pumps for remedial pumping of contaminated groundwater;

**Dosing**
Dosing pumps for wastewater treatment systems, swimming-pools and industry.

**Renewable-energy systems**
Renewable-energy-based water supply systems suitable for remote locations not connected to the electricity supply grid.

All Grundfos production facilities throughout the world are ISO 9001 and ISO 9002 accredited and also certified to the international environmental standard of ISO 14001 as well as the EMAS registration of the European Union (the latter only the companies in Europe).

Grundfos is not just about products but about top-of-the-line pump solutions. Where required, Grundfos personnel provide focused consultancy and system design support to match each specific application. Tailor-made solutions are the rule rather than the exception.

Grundfos invests millions of euros each year in devising new products and innovative concepts covering new materials, development of process technology, and construction of advanced production equipment and machines.

To that end it has its own dedicated Technology Centre in Denmark which was inaugurated in 1990 and a separate Innovation Centre which was established in 1993.

New products are constantly coming on stream, many of them heralding industry breakthroughs which set the benchmark for entire industry sectors. A typical example is the Sololift + lifting stations which make it easier than ever to add a new bathroom, kitchen, or utility room anywhere in the house without the need for the costly pipe work often associated with such facilities.

Apart from the practical benefits, Sololift + comes in elegant styling. The attractive, discreet design suits most interior design scenarios, the smooth lines and rounded edges making it easy to incorporate into both existing and all-new facilities.

Contact: Gemma Horan, Grundfos (Ire) Limited.
Tel: 01 - 408 9800;
email: infoie@grundfos.com

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Contact: Gemma Horan, Grundfos (Ire) Limited.
Tel: 01 - 408 9800;
email: infoie@grundfos.com

**PAGE 23 BSNEW JANUARY 2006**
DAB Fire Fighting Pumps

Fire-fighting systems are a critical element of the building services framework, especially since they protect not just property but also lives.

As a leading supplier to the pump sector, Consolidated Pumps are at the forefront in devising fire-fighting pump sets. Indeed, they have specially-designed packages for this application, a typical example being the UNI 9490-10779 compliant pressurisation units for delivering water to fire-fighting systems.

The standard version comprises of a diesel pump and a standardised pump, plus compensating pump (if requested).

The units comprise two separate and modular assemblies which can be connected together as a combined diesel pump and electric pump assembly. The diesel pump assembly can also be installed after the electric pump assembly.

Quality is a key aspect of all fire-fighting pump sets, and especially the construction characteristics. With this in mind DAB uses a galvanised steel baseplate for the electric pump, pilot pump and control panels, along with a galvanised steel support for diesel pump and control pane. Anti-vibration feet are standard.

The diesel pump comprises KDN standardised centrifugal pumps connected to a diesel motor with a flexible coupling; axial suction port, radial discharge port, pump body in cast iron, impeller in cast iron, carbon/silicone carbide mechanical seal; and direct injection diesel engine allowing overloading up to 10% on all the curve of the pump (UNI 9490 4.9.5.1) connected with an elastic joint to the standardised pump.

The fuel tank is large enough to guarantee four hours of operation. Models are air-cooled for versions up to 43 kW while the water-cooled versions are for over 43 kW.

Electric pumps are standardised enbloc NKPG centrifugal electric pumps with joint, coupled to a three-phase asynchronous motor, performance and size compliant with DIN-EN 733 (formerly DIN 24255).

Other features are axial suction port, radial discharge port, pump body in cast iron, impeller in cast iron, carbon/silicone carbide mechanical seal, and asynchronous, closed 2-pole motor, cooled by external ventilation, built to B3/B5.

The pilot pump is an essential part of all fire-fighting pump sets and DAB uses a Jet 251 centrifugal self-priming pump with cast iron pump body, impeller, diffuser and venturi tube in technopolymer. The asynchronous, closed 2-pole motor is cooled by external ventilation.

Turning to the hydraulics, there are separate suction lines for each pump, complete with vacuum pressure gauge. Delivery of each main pump to the manifold includes connections for suction tanks, pressure gauge, pump running pressure switch, check valve with upline leak test tap which can be inspected, connector for rate of flow indicator, shut-off butterfly valve, galvanised steel delivery manifold with starting pressure switches, and 15-bar expansion tank.

The pilot pump also has a ball valve on suction and delivery sides, check valve on the delivery side, starting pressure switch, and hose connection to the delivery manifold of the main pumps.

The two manifolds of the diesel pump assembly and the electric pump assembly can be joined together with a single manifold supplied with the unit.

Reliable controls are essential and DAB’s fire-fighting pump sets come with one IP 55 control panel for the diesel pump.

It has front-of-panel indicator LED’s, general switch, rev counter, hour counter, two voltmeters and two ammeters for battery chargers, two 12-volt starting batteries with two battery chargers, AUT-0-MAN selector, STOP button, recessed selector for operation to UNI 10779.

There is also one IP 55 control panel for the electric pump with front-of-panel indicator LED’s, general switch, fuses, starting contactors for electric pumps (direct up to 7.5 kW - star delta over 7.5 kW), voltmeter and ammeter, AUT-0-MAN selector, STOP button, recessed selector for operation to UNI 10779 and one outlet with switch.

Contact: Roy Tolan, Consolidated Pumps. Tel: 01 - 459 3471; email: info@consolidatedpumps.com
Another Side of...

Surf the Net? ... Real Men Surf The Waves!

Stephen Griffin, Senior Project Engineer with Arup Consulting Engineers, spends much of his time at the computer, sometimes surfing the net looking for information and inspiration. He is committed to his work and intent on engineering excellence. However, he is not passionate about it ... that he reserves for surfing the waves.

Over the last 15 years or so Stephen’s weekend routine has involved strapping the surf board and sail to the roof of the car and heading off in pursuit of high winds, high waves and, if he is lucky, both. It is not unusual to set off at six in the morning on the strength of the previous night’s weather forecast. Unfortunately, neither is it unusual to sit on a beach for hours on end because the forecast weather does not materialise.

Mind you, that happens less and less now that he is the father of two young children. Gone are the days when he could disappear for the entire day and simply hang about the beach in the hope that the wind would pick up. That said, he still enjoys both surfing and windsurfing immensely, and gets to do it a great deal. It just takes a bit more planning.

Where he surfs or windsurfs — especially in Dublin — depends on the tides and the weather. Skerries could be perfect in the morning but the wind could change direction meaning Dun Laoghaire could be more suitable within a matter of hours. He also travels to recognised surf havens around the country, Castlegregory in Co Kerry being a firm favourite which rarely disappoints.

There are also favoured locations throughout the world. The Canaries, South of Spain, South of France and Lake Garda all have fond surfing and windsurfing memories. Indeed, Lake Garda was a family holiday which either demonstrates Stephen’s excellent organisational and time-management skills or else the infinite patience and tolerance of his wife and young children!

There have also been trips to Hawaii and even as far away as Venezuela. Mind you, the latter was a “boys only” affair and involved wind sailing from dawn ‘till dusk for 14 days (see photograph).

Stephen says that surfing and windsurfing are ideal, all year ‘round recreational activities and he urges everyone to give it a go. He cautions that it is perhaps best to take lessons initially, and to do so in a hot climate where the inevitable dunkings will be in warm water. However, once you have mastered the basics, he says that surfing and windsurfing anywhere in Ireland is an exciting, exhilarating experience. Speeds of 35 and even 40 miles an hour are not unusual.

He also claims that it is relatively cheap to get started but, like anything else, can be a bit more expensive if you continue to update your board and sail in line with continuing developments and fashions. What type of board you use depends on the conditions and what you are doing ... some designs are for speed while others are for doing tricks such as jumps and loops.

As for the type of people who surf and windsurf Stephen says that it is predominantly a male pursuit. Even more interesting is that he has met a significant number of enthusiasts throughout the country who also happen to be engineers. He reckons that the disciplines and skills required for one are complementary to those required to do the other. Could well be Stephen, could well be.
The CIBSE Annual Lunch is a particularly special occasion in the Institute’s calendar of events. It comprises a mix of business-like professionalism with the warmth of a social occasion, the highlight each year being the address by the guest speaker.

This year was an especially poignant event with Greg Traynor taking to the rostrum in the company of an esteemed gathering which also included industry founding figure Noel Traynor, his father.

Both Greg and Noel took great delight in the uniqueness of the occasion with Greg recounting his career and sharing memories in typically self-effacing fashion with great wit and humour. It really was one to remember!

Standing: Gerard Keating, Seamus Homan, Mary Carr, Kevin Kelly, Margaret Dolan, Ted Bourke, Owen Wynne and Brian Geraghty.

Seated: Paddy Clonan, Noel Traynor, Greg Traynor, Alex Furan and ???
The CIBSE/DIT Kevin Street Annual Student Awards held just before Christmas proved, beyond any shadow of a doubt, just how successful the various courses run by Kevin O’Connell and his team are.

Moreover, the large industry attendance — and especially the many sponsors who support the night and contribute towards the awards — demonstrates the strong bond between Kevin Street and the business sector in general.

Congratulations to all concerned.
**Plumb Lines**

**Heard it on the grapevine ...**

**Plumbing Depths**
A couple of years ago I reported on the strange twist in UK employment trends with high-flying city whizz kids chucking in their jobs to don overalls and train as plumbers to meet the predicted 25% shortfall of plumbers for 2005. However, such was the massive influx of trainees to the plumbing trade that the industry is now grossly over-serviced. Trade associations have warned that, while the estimated shortfall for plumbers in the UK over the next three years is 1500, there are currently 26,000 on the various training and educational schemes!

**World Toilet Organisation**
Yes, there is such an organisation and, as if to emphasise the point, it describes itself as “a global voice on the issue of the toilet”. Later this year it will hold its World Toilet Summit in Moscow, one of the key topics being “potty parity”. Apparently, there is a need across the world to make sure women have as much access as men to toilet facilities, especially in new development projects. “It’s long overdue”, according to Jack Sim, the organisation’s Chief Executive. Do they really need a world summit to work that one out?

**Sportswoman of the Year**

Minister for Education and Science, Mary Hanafin, TD, recently presented Cork dual star Briege Corkery with the 2005 Irish Times Mitsubishi Electric Sportswoman of the Year at an awards ceremony held in the Conrad Hotel, Dublin.

Pictured are Fergus Madigan, President of Mitsubishi Electric, with Minister Hanafin and Briege Corkery.

**GO SKIING IN DUBAI!**

Yes guys, a few months ago I brought you the “palm-tree” and “islands of the world” shaped developments in Dubai ... now it is skiing! Ski Dubai (currently under construction) stands on 22,500 sq m and boasts five slopes that vary in difficulty, height and steepness; real snow; quad-chairlift and tow lift, the world’s first indoor black run; a 90-metre long quarter pipe for snowboarders; themed restaurants; and a huge interactive Snow Park. Despite temperatures of up to 45°C outside, inside is constant at between -1°C and -2°C. Nice refrigeration/ac work when you can get it!

**Copper Bottom**
American researchers have concluded that copper is running out. Copper is used in everything from kettles to cars, and is also vital for electricity conduction.

However, Yale researchers estimate that the world requirement is in the order of 1.7 billion tonnes but that world reserves are 1.6 billion at most.

**We’ll Miss You Eamon**
The untimely death of Eamon McGrattan earlier this month came as a shock to all. While expected because of his illness, his larger-than-life persona somehow gave him an air of invincibility. Alas, this was not the case. However, those who enjoyed his company over the years have reason to be grateful ...

People like Eamon are unique. To be regarded as his friend was indeed a privilege (See also page 2).

https://arrow.tudublin.ie/bsn/vol45/iss1/1
Introducing Ecolution KX4, the VRF inverter multi system from Mitsubishi Heavy Industries. Incorporating the latest in DC inverter compressor technology, it sets truly startling new industry standards, most especially in terms of energy efficiency.

The Ecolution KX4 model range spans 14 to 90kW with a choice of over 100 compatible indoor units, so there are combinations for any project. And with all new controls, extended pipe runs and enhanced diagnostics, they are the natural choice for installers and specifiers alike.

Ecolution from Mitsubishi Heavy Industries - high performance solutions.
Measurement Technology From Manotherm

Complete Solutions

- Individual sensors, power supplies and measurement display units
- National & International Approvals Certificates
- Perfect adaption to the process
- Entirely-engineered control systems
- Pressure: 0/4 mbar to 0/4.000 bar
- Temperature: -80°C to 600°C
- Level: 0/60cm to 0/100m

Bimetal and Gas Filled Thermometers

Resistance Thermometers

Level Measurement and Control Devices

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