New Cross-Border Heating Competition

Inside
- SFA – the Voice of Small Business
- Polymers – A New Direction in Air Distribution
- CIBSE News
- IDHE News
Innovation in Pumping Technology

Stainless Steel Vertical and Horizontal multistage pumps for water supply, boosting, sprinkling, irrigation, high pressure wash, fire protection and water treatment (De-mineralisation, Filtering).

- Water supply
- Boosting
- Sprinkling
- Irrigation
- High pressure wash
- Fire protection
- Water treatment
- Boiler Feed

Wilol Engineering Ltd., Enterprise Centre Childers Road, Limerick, Ireland
Telephone: 061-41 09 63 Telefax: 061-41 47 28

https://arrow.tu.dublin.ie/bsn/vol37/iss7/1
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Opinion

Diary Date MUSTS!

With business booming, it has become increasingly-difficult for architects, consultants, contractors and other specialists to keep abreast of all new product innovations and developments. However, help is at hand in the guise of two excellent forthcoming trade exhibitions.

The first is Building Services At Plan Expo. Plan Expo is the established construction industry showcase, featuring new products, innovative developments, changing trends, and marketing initiatives. As the name suggests, Building Services at Plan Expo is just that ... the renowned Plan Expo formula applied to the building services sector.

The other is The Energy Show '98. Energy management has come of age in recent years, thanks in no small measure to the influence of The Energy Show '96, which took what was a fledgling industry and put it on the road to maturity.

The Energy Show '98 heralds the introduction of a new generation of dynamic, innovative products and services, designed to take the industry into the next millennium and beyond. Block off the following diary dates NOW!

- Building Services at Plan Expo .... 5/6/7 November
- The Energy Show '98 .... 18/19 November
Fridge Spares Annual 5-a-Side Goes National

The Fridge Spares-sponsored (and run) refrigeration and air conditioning annual 5-a-side indoor soccer tournament was a truly national affair this year with a total of 28 teams from all corners of the country participating. This event has taken on a life of its own over the last few years and all credit is due to Dermot Byrne, his brother Derek, and their colleagues within Fridge Spares, for the tremendous amount of work they put in to making it such a success.

It is now firmly established as the largest single social event within the refrigeration and air conditioning sector and, as such, plays an ever-increasing role in bringing all sides of the business together in a relaxed and informal manner.

This year’s tournament was held in the Sports Hall at Dublin City University and took the form of a round-robin competition with the winners and runners-up in each group going forward to a knock-out stage.

The final proved to be an exciting affair with Masterair A and Reconair still locked evenly at full time. The dreaded penalty shoot-out followed with Master A emerging victorious on the day.

It is now firmly established as the largest single social event within the refrigeration and air conditioning sector

Left:
Dermot Byrne presenting the victorious Masterair A team with the winner’s trophy.

Right:
Runners-up Reconair receiving their trophies from Dermot Byrne.

Below:
Fridge Spares Wholesale, Dublin.

Whiriskey Refrigeration, Galway.


Right:
Anglo Irish refrigeration, Ashbourne.
TRADE AND PRODUCT NEWS

Top Apprentice Plumbers

This year saw the start of an annual competition for apprentice plumbers from all three levels of the training structure. It was conducted in the form of a written composition, based on a topic relative to the industry chosen by the organising committee, made up of representatives from Intel; The Institute of Plumbing; FAS; and Bolton Street.

A prize-giving presentation was held in The Engineers Club, Clyde Road, Ballsbridge with John Smartt, President elect of The Institute of Plumbing and Paul Dunne, Design Manager for Intel Ireland’s Fab 14 Instal and Qual project, making the presentations.

The main aim of the competition was to encourage, nurture and ultimately reward the efforts of these apprentices who are prepared to further their careers by participating in this type of event. Intel’s commitment to excellence is readily apparent by its involvement with The Institute of Plumbing in organising this contest.

Within the competition there were three separate levels, one for each phase of the apprenticeship structure.

The winner and two runners-up in each phase were as follows:

**Phase 2**
- Winner – Clinton Freaney, Co Wicklow;
- Runners-Up – Mark Hodson, Dublin 3 and Gerard Cullen, Co Kildare;

**Phase 4**
- Winner – Patrick Dillane, Co Kildare;
- Runners-Up – Sean Gorman, Co Meath and Cathal Dunne, Co Carlow;

**Phase 6**
- Winner – Emmet Kelly, Co Westmeath;
- Runners-Up – Oliver Craughwell, Co Galway and Declan Connolly, Co Monaghan.

The Phas! 2, Phase 4 and Phase 6 respective winner and runners-up apprentices in this year’s inaugural annual competition jointly sponsored by Intel, The Institute of Plumbing, FAS and Bolton Street.

Schiller cubicle systems are a uniquely designed range which feature exclusively the use of non-ferrous metals throughout, but particular emphasis is placed on the use of stainless steel.

The system is extremely robust and will provide many years of satisfactory service in almost any environment. Each system is produced to individual customer specification. A full measuring and design service is available upon request.

For more information or a free brochure/colour charts, please contact either Brendan or Gearóid Byrne at:

**EXCEL INDUSTRIES**

Manufacturers and Distributors of Building Services Equipment

Coolmine Industrial Estate, Clonsilla Road, Dublin 15.
Tel: 01 – 820 7900; Fax: 01 – 820 4797
email: excel-industries.com
**Differential Pressure Transmitter for Liquids and Gases**

Manotherm Ltd has just introduced Dwyer Instruments' new CE-listed Series 645 wet/wet differential pressure transmitters which deliver exceptional ±0.25% of full span accuracy.

Designed for use with compatible liquids and gases, these controls feature premium-quality wetted parts, including 17-4 PH and 300 series stainless steel, Viton and silicone rubber O-rings and seals. They employ a 2-wire circuit design with a fast response (30 to 50 msec) capacitance sensor to produce a 4-20 mA output signal. Zero and Span controls are included for field calibration if needed.

The Series 645 is available in 14 factory-calibrated ranges from as low as 0-1 psid to 0-100 psid and centre zero ranges from -0.5/0/+0.5 psid to -50/0/+50 psid.

Units require an 11 to 30 VDC power supply and will deliver rated current to any external load from 0-1000Ω. Maximum line pressure for all models is 250 psig (17.22 bar) and temperature limits are 0 to 175°F (-22 to 80°C). Process connections are dual 1/4" NPT female ports and a 7/8" opening is provided for wiring to accommodate 1/2" conduit.

Bleed screws are included for both sides of the sensor to allow for purging of trapped air when used with liquids. A heavy-duty mounting bracket and detailed instructions are included.

Contact: Bob Gilbert/Brian Harris, Manotherm. Tel: 01 - 452 2355.

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**Apex Appointments**

As part of its ongoing development programme to ensure a comprehensive, nationwide quality service to its many customers, Apex Fire Protection Ltd has made a number of senior appointments.

David Bridgeman-Smith, formerly Divisional Director of the company, has been appointed to the Board.

Meanwhile Trevor Burns, who has been with Apex for eight years, has been appointed Regional Manager, Commercial Contracts Division.

---

**Mark ... The ‘Rolls Royce’ Cabinet Heater**

Mark FOHN air heaters, constructed for use with oil or gas, ensure an economically-sound choice for virtually any heating project, especially due to the possibility of variation in the duties of kW output to m³/h air flow (kw per m³/h). The heat-up time of a space to be heated is remarkably short with this equipment.

While considered the “Rolls Royce” of equipment, Mike O’Donoghue of Mark Eire told BSNews that the price structure is extremely competitive.

Benefits offered by the range include:
- A choice of sizes from 100,000 to 1,500,000 BTU’s, horizontal or vertical, all CE-approved and manufactured in Ireland;
- Riello Burner CE Approved, and a comprehensive range of accessories;
- Flue gas cooler, powered flue fan, if required;
- Easy-assembled outer casing painted in Ral colour;

Mark FOHN cabinet heating, horizontal model, from Mark Eire.

- Control panel, fire valve, oil filter or gas train integrated in unit (stainless steel heat exchanger optional);
- The renowned Mark customer care and backup service.

Contact: Maurice Byrne, Mark Eire. Tel: 01 - 668 0510. Michael Keane, Mark Eire. Tel: 026 45334.

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**Vent-Axia ‘98/’99 Catalogue**

Vent-Axia has published a new-format Domestic and Commercial Product Range Catalogue which features a comprehensive fan chart to simplify selection.

Also included are the company’s integrated ranges of sensor/controllers and complementary ductwork products. New to the catalogue are low-watt, low-energy, domestic extract fans; the PoziDry whole-house ventilation system; and the HR150 range of domestic heat recovery ventilation units.

New for the commercial market are the "Wireless" digital radio control system, the FocusAir air cleaning system, and the four-in-one portable air conditioner.

Copies are available from Vent-Axia Ventilation Ltd.
Tel: 01 - 450 4133; Fax: 01 - 450 4570.
DESIGNED FOR THE DEMANDING NEEDS OF COMPUTER ROOMS AND TELECOMS INSTALLATIONS

FLEXIBLE PRECISION AIR CONDITIONING FOR SENSITIVE ELECTRONICS

- Versatile system offering efficiency and durability
- Advanced microprocessor with built-in networking capability
- Sophisticated electrode boiler steam humidifier with integral fuzzy logic
- High performance, low-energy compliant scroll compressor
- Wide choice of installation options
- Orthogonally mounted coils ensure energy efficiency and low noise
- Stainless steel finned tubular reheater
- Interface to most Building Energy Management Systems

Challenger M

Published by ARROW@TU Dublin, 1998

Unit C1, Three Rock Road, Sandyford Industrial Estate, Dublin 18.
Tel: 01 - 294 3110; Fax: 01 - 294 3115
Cleanroom Technology Course

With the rapid expansion of cleanroom use in many areas of Irish industry, workers new to the technology find it difficult to obtain concise information on the technology and management of cleanroom facilities. This one-day course on Cleanroom Technology is a basic general course for those new to the field, or those who wish to "brush up" their knowledge. Venue is the Industry Centre, UCD, Belfield, Dublin.

Date: 29 October.

The course has been developed and continually updated over the last 10 years by Bill Whyte of Glasgow University and has been attended over the years by about 2,500 people. The event held in Dublin last year was a sell out and, following the recent inauguration of the Irish Cleanroom Society, the response is predicted to be equally enthusiastic this year.

Bill Whyte is an expert in contamination control and cleanroom design. He has the unusual combination of a degree in bacteriology and a strong engineering background, being a Research Fellow in the Mechanical Engineering Department, Glasgow University. He has been involved with cleanrooms for over 30 years, having published over 100 reports and papers on contamination control and cleanroom design in the field of pharmaceutical manufacturing, electronics and healthcare, as well as editing a book "Cleanroom Design", published by J Wiley & Sons.

He is also a founder, former Chairman and now Secretary of the Scottish Society for Contamination Control, and a member of the European CEN Technical Committee and International Standards Organisation writing the new European and International Cleanroom standards.

ABB Acquires Alfa Laval Automation

ABB, the international electrical engineering company, has signed an agreement with Alfa Laval of Sweden, to acquire its Alfa Laval Automation unit. With annual revenues of about US$ 150 million, Alfa Laval Automation is one of Europe's five largest suppliers of process control systems and automation equipment. The Sweden-based unit employs 1,200 people in 14 countries. The acquisition is subject to approval of regulatory authorities.

The acquisition complements ABB's current position as a leading global supplier of process control and automation products, systems and services to a wide range of industries including metals, chemicals, pulp and paper, oil and gas, and power.

"Alfa Laval Automation's strength in the pharmaceutical and food sectors allows us to significantly broaden our scope in this important business", said Göran Lindahl, ABB's President and CEO. Sigge Haraldsson, CEO of Alfa Laval, said the sale "is part of our objective to concentrate on our core businesses while providing our automation business with the opportunity to grow through ABB's global resources".

Des Byrne Retires

One of the most popular men associated with the builders merchant and hardware trade, Des Byrne, has retired. He was Sales Manager for Sanbra Fyffe Ireland. He joined the company nearly 40 years ago when it was known as Fyffe Couplings (Ireland). He represented Sanbra Fyffe in South Dublin and Munster for 22 years before becoming Sales Manager in 1985. Many tributes were paid to Des Byrne at a number of retirement parties held recently in his honour. His colleagues at Sanbra Fyffe spoke highly of the commercial and personal benefits he has brought to the company over the years. Des Byrne (left) is pictured at a retirement party in Dublin with Tom McNally and Gerry Byrne, Euro Heating and Plumbing, and John Darcy, Sanbra Fyffe.
Danfoss Time and Temperature Control

Danfoss Randall's new 16(4) A-rated programmable hot water thermostat, the WP75H, brings new horizons to the control of all types of stored water heating applications, including electric loads up to 4kw. It controls stored water at different chosen temperatures between 35-65°C for three programmed periods each day, and directly relates to, and meets, the new Building Regulations for time and temperature control of hot water cylinders.

Supplied as a true 7-day programmer that allows completely independent settings each day, the WP75H can be programmed for either weekday/weekend operation as preferred and is particularly suited to today's lifestyle. It uses an electronic remote sensor that clamps onto the hot water cylinder, allowing the main control unit to be positioned wherever convenient.

The factory preset programme saves installation time by eliminating the need for the installer to set times and temperatures on site. However, users can easily amend these settings to suit their exact needs.

Convenient push-button overrides provide the choice of Off, On, Auto or All Day operation as well as a "one shot boost" that rapidly brings stored water up to the highest programmed temperature and then switches the system off.

WP75H programmable hot water thermostats have large, clear LCD display panels that show the time of day, Off/On status and the set temperature. Power is supplied by two AA/MN1500/R6 batteries, backed up by a capacitor to ensure there is no programme loss while they are changed.

Benefits include:
- It prevents hot water scalding;
- Choice of on/off, three times daily;
- A 20% reduction in energy use which would save the average household up to £100 per annum;
- It is easy to install;
- It is easy to programme;
- Can utilise ESB’s night time rates.

Because of the current interest in the WP75H, its adaptation to the new Building Regulations, and its particular suitability for the ESB “Serenity” system, JJ Sampson & Son is offering a special introductory offer, contact David Sampson or Brian Maguire at JJ Sampson & Son Ltd.

Liebert Issues Challenge

First unveiled at Interclima in November and then to the Irish market earlier this year, Liebert’s Challenger M Series has already won widespread acclaim, says Austin McDermott, Managing Director of distributors Core Air Conditioning. “Right from the outset we knew we had a unique product”, says McDermott, “nonetheless, it’s still nice to see that, nine months later, the industry at large endorses that view”.

Now in full production, Challenger M comprises a single module which is designed to go through a standard door and is available as either air-cooled, water-cooled, chilled water or glycol cooled with or without free cooling. In addition, there is a dual source version.

The system is also available as a dual module unit.

The new “SystemLink” controller is designed to provide a simple and flexible means of interfacing with a building management system.

The new electrode boiler humidifier handles a wide range of water conductivities completely, automatically using an exclusive Liebert fuzzy logic routine.

The airflow distribution arrangement over the coil is unique to Liebert and ensures maximum efficiency with minimum air turbulence and associated noise.

This advanced new product range sets new standards in energy efficiency and flexibility. It is available with zero ODP refrigerant R407C as a standard option.

Other products in the extensive, precision air conditioning range by Liebert include DataMate; MiniTower; the LS400 Console; Modular 3000; Climate 3000; Controllers; Chiller; TeleMate; SlimCool; Intelecool; Site Monitoring Systems; Power Protection, etc.

Contact: Austin McDermott, Core Air Conditioning, Tel: 01 - 294 3110.
Honeywell Appoint McCool Controls

Honeywell Vice President, Leo Quinn, paid a visit to Dublin in July to formalise the appointment of McCool Controls as sole representative for Honeywell Control Systems in Ireland.

"This combination of Honeywell - with their position as market leader worldwide in control systems - and McCool Controls, who for many years are the leading company in the controls sector in Ireland, now provides the HVAC industry in this country with undoubtedly the best option for energy management and controls systems projects", says Managing Director Finn McCool.

With a wide range of competitively-priced and state-of-the-art products from Honeywell, McCool Controls can now offer the total control solution for specifiers, contractors and end users.

Honeywell offer a vast range of building services products and the link with McCool Controls gives a major boost in technology and engineering capability to the building services industry in Ireland.

There is a comprehensive range of state-of-the-art products for HVAC control solutions;

- The valve and actuator controllers; Energy management controllers; and AHU/air conditioning systems.
- There is a full range of pneumatic control products, including spares and accessories.
- Other specialised products include inverters, gas detection, fire detection, access control systems and transducers and monitoring equipment.

Examples from the extensive range of Honeywell HVAC control systems now available from McCool Controls.

Contact Finn McCool or Amal McCarthy at Tel: 01-855 0542; Fax: 01-855 0546.
Cork offices - Tel: 021 - 382055; Fax: 021 - 382348.

Pictured following the announcement of the appointment of McCool Controls as sole Irish distributors for Honeywell HVAC control systems were: Tom O'Neill, Engineering Manager, McCool Controls; Greg Connolly, Manager, Honeywell Industrial Automation; Finn McCool, Managing Director, McCool Controls; and Leo Quinn, Vice-President, Honeywell Control Systems.
Gas safety in schools, hospitals, laboratories and kitchens is of paramount importance and the recent introduction of the amendment (see BSNews May 1998) to cater specifically for schools and other educational establishments fully endorses this fact.

In anticipation of this vital industry need, Heatequip Ltd has sourced a comprehensive range of top-quality products from Black Teknigas to help specifiers and installers comply with the new requirements.

Proven gas is designed with safety in mind and has been tested and certified by BG Technology to the latest standards. It also has CE approval.

The system provides an easy, automated means of proving the integrity of any gas installation on a regular and routine basis. An integral time switch is provided so that timed automatic control of gas installations may be achieved. For security, the system is key-switch operated and is provided with its own emergency cut-off switch.

Additional safety features such as remote emergency cut-off switches, fireman's switches and thermal fuses can be included in any scheme.

Typical applications include schools, laboratories, kitchens, workshops or any other installation where manual gas taps etc, may be left open, either deliberately or by power failure or human error for example, causing a potentially explosive atmosphere. Proven gas is also suitable for many industrial applications such as process kilns or bakery machinery where ignition and shut down are performed manually.

The system is relatively simple, requiring no complex pipework volume and orifice sizing calculations. It comprises two units, namely the gas isolating unit and the control panel which are used in conjunction with a gas safety shut-off valve (new or existing) complying with BS EN 161. The isolating unit connects into the gas supply upstream and downstream of the gas safety shut-off valve. The control panel may be mounted in any convenient location.

A mains electricity supply is required, together with electrical connections to the isolating unit and gas safety shut-off valve. The operation of Proven gas is controlled from the control panel which comprises a 7-day time switch, a key switch, an emergency cut-off switch, a "prove" switch and an LED drive legend which shows the status of the system at any moment in time.

Contact: Alan Seery, Heatequip.
Tel: 01 - 451 9711.

Proven gas, a new concept for an old problem ... from Heatequip.

Olympia Becoming First-Preference Choice

Pictured above are Jim Barry, Pan Firefly Products with Paul Campbell, Brookfield Builders’ Depot; Ben Hollaar, European Marketing Director, Olympia; and Charles Wheeler, Pan Firefly Products. The photograph was taken in Brookfield’s Blackrock, Co Dublin premises on the Dublin leg of Mr Hollaar’s nationwide tour of outlets stocking Olympia. Pan Firefly Products were recently appointed sole Irish distributors for the extensive Olympia range which includes handshowers, shower-sets, shower hoses, and bathroom accessories. “Even at this early stage”, says Wheeler, “stockist reaction has been excellent, the quality of the range coupled with the ready availability and strategic price points making it the first-preference choice of more and more installers”.

PAGE 9 BSNews July/August 1998
Racing to Sweet Success

Adaptability and versatility are the key to Reznors' success in commercial and industrial heating. Through distributors Euro Gas, its gas-fired systems are installed in premises as varied as Cadbury's, keeping the chocolate warm, to Fairyhouse Equestrian Centre, keeping the punters warm.

Euro Gas Ltd recently supplied eight Reznor indirect-fired air handling units to the new Equestrian Centre in Fairyhouse. Designed especially to supply heating and ventilation by duct distribution system, the units are quiet in operation and a variety of optional equipment gives them flexibility to deal with a diverse range of requirements. They serve the restaurants, bars, kitchens and toilet areas.

The air handling units are fitted with fully-modulating burners, filter racks, and damper motors. Each one has its own control panel incorporating thermostatic control, remote reset button, winter/summer switch and 7-day time clock.

The Reznor air handling units vary in size and duty, ranging from the small RPVJ/2025 with a duty of 2,500m³/hr; to the large RPVJ/2095, having a duty of 12,000m³/hr.

Other applications where Reznor equipment was used were the Drug Rehabilitation Centre in Pearse Street, providing heating and ventilation to the outpatients department; Dundrum Church, heating and ventilation combined with a Novojet air induction system; Capri Hotel, heating and ventilation to the bar/restaurant areas; Gateway 2000, heating of warehousing; and O'Neill's

Sportswear, heating and ventilation of production areas.

Reznor air handling equipment has also been used as industrial door curtains. The equipment has been coupled with a Novojet System of air induction nozzles. The induction nozzles are fitted into a conventional duct system and the nozzles induce large volumes of secondary air, thereby achieving very good air mixing, making the Reznor industrial door curtain ideally suited for a large door opening.

Contact: Pat Curran/Des Prendergast, Euro Gas. Tel: 01 - 286 8244.

WP 75H PROGRAMMER FOR TIME AND TEMPERATURE CONTROL OF THE HOT WATER IMMERSION CYLINDER

- **YES**, it does prevent hot water scalding (particularly important for children or elderly users).
- **YES**, there is a choice of On/Off's, three times daily.
- **YES**, your customer will have a saving on their running costs as the immersion will not heat the water above the required chosen temperature.
- **YES**, the WP 75H is approved by use on the ESB "Serenity" and/or "Night Time Rate" systems.
- **YES**, the WP 75H is easy to install.
- **YES**, the WP 75H is very easy to programme.
- **YES**, it meets the new Building Regulations for Time and Temperature control of hot water cylinder.

Danfoss Controls – Ask for them by name
A new competition will give heating installers throughout Ireland the opportunity to win valuable prizes.

The OFCHEC (Oil Fired Central Heating Efficiency Competition) was launched by the Minister of State for Public Enterprise, Joe Jacob TD, at the Irish Energy Centre in Dublin recently and will run until the autumn. It aims to find the most energy-efficient domestic central heating systems incorporating an oil fired boiler or cooker, and modern heating controls.

In his speech the Minister emphasised the importance of conserving energy while, at the same time, keeping domestic heating costs down. "The domestic sector is one of the large users of energy in our economy. Our increasing economic prosperity of recent years, while most welcome, has led to an increase in our demand for energy", he said.

The competition has been organised by OFTEC, the Oil Firing Technical Association for the petroleum industry, and prizes, which consist of a variety of appliances, have been donated by its manufacturing members. Many Irish manufacturers are prominent in the Association, and all entries must incorporate a sponsor's product.

The Minister congratulated the oil heating industry in having the foresight to see the marketability of energy-efficient heating systems. "It is indeed welcome to see an industry willing to take the initiative and to take a lead role in putting in place the necessary resources to run this competition", he said.

Steward Cuddy, Deputy Chief Executive of the Northern Ireland Housing Executive, said that as the energy conservation authority for Northern Ireland, his Executive fully supported the competition, and he was delighted that it was a cross-border initiative, especially in the light of present events.

OFCHEC sponsors, who will supply installers with details of the competition, are: Aga Rayburn, Firebird Products, Gerkros Boilers, Grant Engineering, Potterton Myson (Ireland), Trianco Redfyre, Warmflow Engineering, Waterford Stanley, Worcester Heat Systems, Balmoral Group, Kingspan Group, Teddington Controls and Irish Shell.

Alternatively, contact OFTEC at Century House, 100 High Street, Banstead, Surrey SM7 2NN for more information.

Minister Joe Jacob (right) with (left to right) Duncan Pollock, OFTEC; Virgil Bolger, Irish Energy Centre, and Stewart Cuddy, Deputy Chief Executive, Northern Ireland Housing Executive.
Thermo Systems – Air Conditioning for the Year 2000 and Beyond

Having established itself as one of the leading market players in refrigeration and air movement in the space of just three years, Thermo Systems recently unveiled an extensive new product portfolio which will consolidate that position, and position Thermo Systems to make further market share gains over the next years.

As the sole distributor for McQuay, Thermo Systems has worked very closely with this world-renowned principal, continuously bringing innovative and technologically-advanced products to the marketplace.

“This joint-venture trading relationship has grown in strength and understanding over the last three years”, says Thermo Systems’ Managing Director, Aidan Lynch.

McQuay ALR air cooled water chillers offer unsurpassed efficiency, flexibility, reliability, and serviceability in a total package concept.

“The ALR units are available in 24 sizes covering a range from 447 to 1513kW nominal cooling capacity. When equipped with special accessories they can operate with an external air temperature of -18°C and with coolant temperature between +10°C and -8°C. Many optional features can be added to fit all installation requirements.

“McQuay ALS units are designed to minimise energy costs.

“McQuay has also improved its air handling unit systems by extending the CDC range to provide air volume up to 110 000 m³/h. The Wespaclim CDC air handling units can, from now on, offer five more sizes (15 sizes in total) to increase the flexibility of the unit selection when it comes to large air volume applications.

Capacities: 1500 to 110,000 m³/h.

“Full technical details on the foregoing will be featured in forthcoming issues of BSNews”.

Contact: Aidan Lynch, Thermo Systems. Tel: 01 492 5340.
Irish Fan Distributors
"For Better Air"

Your Efficient Partner for Ventilation

Irish Fan Distributors
Unit 5B, Park Road, Waterford.
Tel: 051 - 852404; Fax: 051 - 873440
Irish Fan Distributors ... Your Efficient Partner for Ventilation

Today, more than ever, the quality of the air in buildings — be it in homes, offices, restaurants, pubs, factories or warehouses — is the subject of great debate. It is now generally acknowledged that poor quality air affects people’s health and even work performance. Indeed, such is the concern within the community at large that stringent controls in the form of Statutory Regulations are now being enforced to ensure adherence to minimum air quality standards.

“Nonetheless”, says Billy Wright, Managing Director of Irish Fan Distributors, “the whole issue of ventilation in relation to the building services sector is still somewhat neglected. For too long it has been dismissed as insignificant and unimportant and there is now an entrenched mind-set of indifference which needs to be overcome.

“It is against this background that Irish Fan Distributors was established. Our objective from the outset was to create an environment whereby ventilation was given its due standing by all sectors of the building services professions.

“To this end we provide quality, brand-leading products, complemented by structured management control mechanisms which ensure thorough analysis before the project is undertaken, and full support during installation and after the project has been completed.

“Where appropriate, we will work closely with the specifier, consultant, contractor and/or client to analyse the requirement for each particular situation and devise a solution that is uncompromising on performance.

“Having done so we can provide the entire product requirement, from the main body of key items through to all related ductwork, components and accessories. Our principal product supply partners are Maico, the renowned German manufacturer of fans and ventilation systems and Dynair, its sister-company, who specialise in industrial ventilation. We have the added advantage of being able to tap into the vast reserves of technical support systems and research data that they have at their disposal.

A further aid is a specially-devised PC-based, fan selection programme which is available on request.

“Together, we bring this partnership of experience, technical know-how and full understanding of the fundamentals of ventilation — and of the statutory requirements governing same — to bear on each particular project. “When it comes to air movement and air quality, Irish Fan Distributors will deliver the most energy-efficient, cost-effective and environment-friendly solution. Whatever the application, talk to us first ... you won’t be disappointed.

Billy Wright
Managing Director

Maico Air Solutions

Maico is one of the leading German manufacturers of fans and ventilation systems with a history going back 70 years. Its current market-leading status is based on rigid adherence to a driven trading philosophy which highly values research and development; innovative technology; product availability across the entire range; and an uncompromising approach to quality, expressed by DIN EN ISO 9001 Certification.

The Maico portfolio is all-embracing, catering for the ventilation requirements of small rooms with an air volume of 60 m³/h through to ventilation systems for homes and commercial use, right up to industrial fans with an air volume of 43,000 m³/h.

Moreover, for those looking for an “all-in-one” solution, Maico offers the perfectly-matched Maico ventilation systems which can be used for domestic, commercial and industrial applications.

The latter includes specialist applications where fan heaters and fresh air heaters can be incorporated, or where there are additional safety requirements such as rooms without windows or rooms with a potentially-explosive atmosphere.

Apart from the quality, energy-efficiency and optimum performance of Maico products, an additional benefit is the low noise levels when in operation, even at full capacity. An excellent example is the Maico-ER range for apartment duct ventilation (see panel right).

Maico’s product portfolio caters for virtually every conceivable ventilation requirement, the following breakdown illustrating the scope of this diversity, and the vast choice of solutions on offer.
FAN SELECTION PROGRAMME

To further assist customers in devising the most appropriate ventilation solution, Maico has produced a PC-based fan selection programme which is available on request from Irish Fan Distributors.

The Maico Air Solutions package comprises a comprehensive and diverse range of innovative, quality products (above) catering for all conceivable ventilation requirements. Apart from stocks held by Irish Fan Distributors in Waterford, the company also has on-line access to Maico’s massive central European distribution centre (right).

**Domestic Ventilation**
- Fans for small rooms AWB 100, 120;
- Wall-mounted fans AWB 150;
- Duct-mounted fans;
- Surface mounted centrifugal fans ERA 11.

**Domestic air extraction systems according to DIN 18017, part 3**
- Surface-mounted centrifugal fans ER;
- Recessed-mounted fans ER-U;
- Fire protection ceiling barrier;
- Shaft covers.

**Domestic room ventilation systems**
- With heat recovery;
- Heat pump;
- Without heat recovery;
- Air supply elements;
- Fresh air devices.

**Fans for domestic and commercial applications**
- Window and wall fans EV;
- Wall-mounted fans ET, EN.

**Industrial ventilation systems**
- Channel fans EPK, explosion-proof;
- Accessories for channel fans;
- Duct fans ERM, explosion-proof;
- Duct fans ERR, ESR;
- Accessories for duct fans.

**Industrial Fans**
- Axial duct fans EZR, DZD, DZR explosion-proof;
- Axial wall fans EZQ, EZE, EZF, explosion-proof;
- Greenhouse and stable ventilation fans;
- Roof fans ERD, ETU, EZD;
- Wall and ceiling fans, fresh air heater, fan heater DHL.

**Accessories for fans**
- Filters;
- Louvre shutters, internal and external grilles;
- Time lag relay, follow-up switch;
- Speed controllers, step switches;
- Automatic control devices.

**Series ER Setting Industry Benchmark**

Maico’s Model Series ER surface-mounted and recessed, single-duct ventilation system is a unique ventilation solution which has set new performance standards that are fast becoming the industry benchmark for apartment ventilation.

Apart from optimum performance (see below), aesthetically it offers many advantages. Indeed, the recessed model is so unobtrusive when installed that it is often difficult to locate.

Series ER is designed for ventilation of interior bathrooms, toilets and kitchens by single-duct ventilation systems with a common main duct according to DIN 18017, part 3, as well as single ventilation installation.

**Features & Benefits**
- Extremely steep performance graph with high pressure capacity. Maximum available pressure rate for ER 60, 258 Pa. These make the fan suitable for complex ducting systems with high resistance.
- Extremely quite, only 36 dB(A) with 62 m³/h;
- For wall and ceiling installation, also with second room connection;
- Ball-bearing motor & continuous duty motor – Maico’s ball-bearing motor eliminates rotor axle/impeller vibration, thereby reducing noise and inefficiency. The motor is rated “Continuous Duty”, thanks to the quality of the Maico mechanism.
- Fire protection class K90-18017 tested by the laboratory for research and testing;
- Protection type IPX5. Suitable for installation in area 1 showers according to DIN VDE0100 part 701.
- Filter & Clean Air System – All air is prefilted through fiber filter, thereby preventing dirt from building up. This reduces the risk of vibration and noise. Backdraught shutter equals clean;
- Programmable timers are available.
As a sister-company of Maico, Dynair Industrial Ventilation operates to the same exacting manufacturing, quality and service performance standards though, as the name suggests, it caters exclusively for the requirements of the industrial sector. Benefits include easy, trouble-free installation and extremely low noise running levels.

Through substantial investment in research and design, Dynair has always been to the forefront with the introduction of new technologies and innovative solutions to meet industry’s ventilation needs.

The range offers ventilation solutions for all manner of general applications, while customised units can be provided for specific industry requirements such as industrial processes, etc

Dynair’s complete range of industrial fans meets all requirements. Benefits include:
- Air delivery from 100m³/h to 150,000m³/h and more;
- Total pressure up to 1200mm, w.g.;
- Type of fluid (air, vapours, gas, smokes, etc);
- Watertightness (IP44, IP54, IP55);
- Explosion-proofness;
- Acid and corrosion resistant (construction in PVC, polypropylene, polyethylene, stainless steel etc);
- High temperature (up to 300°C and further);
- Noise reduction by silencer box or duct attenuators;
- Adjustable pitch impellers.

**Fire Regulations**

Emergency aspiration in case of fire is now obligatory in law in some European countries, and this type of legislation is expected to be made mandatory sooner rather than later in all EU countries, Ireland being no exception.

In the FC-HT centrifugal roof extractor range, which is certified to 400 degrees centigrade/2h, Dynair has addressed this issue.

Benefits of the new FC-HT range include:
- Keeping room temperature low (300/400°C) - in the case of a sealed room where the temperature exceeds 1000°C causing spontaneous ignition, fire intervention is all but useless. However, by keeping the temperature low it is possible to avoid the collapse of load-bearing structures while the higher percentage of oxygen causes better combustion of materials, lowering the amount of toxic smoke.
- Forced induction creates a vacuum, thereby preventing a build up of smoke and aiding the escape of people from buildings;
- The excellent performance curves of this range of fans permits connection of ducting to one or several induction points in the building (the FC-HT range is easily ducted);
- Forced induction permits extraction of cold smokes which can stratify at a low level and are consequently extremely dangerous;
- Forced induction by FC-HT centrifugal roof extractors permits ventilation of buildings with two speeds built in to the motor ... less noise for standard speed, high speed for emergencies.

**Dynair MP Range for Destratification**

Dynair’s MP800 range is the ideal solution for the elimination of hot air stratification, associated loss of heat. The various models are suitable for all manner of applications, be it industrial use or general public-use installations such as sports halls, etc.

Designed for optimum performance and long-lasting durability, the accessories include speed regulators and electric panels for automatic control.

The motor is an asynchronous 3-phase IP 54, Class F, adjustable from 160rpm to 650rpm. A thermoprotector is incorporated, with ball bearings double-screen free of maintenance.

**Stock Contractors Components**

Irish Fan Distributors is the ultimate one-stop-shop for all ventilation requirements. Apart from the primary product ranges of Maico and Dynair, the company carries ex-stock availability of all necessary ventilation accessories and related equipment. Included are:

- Spiral round ducting;
- Semi-regid duct;
- Flexible ducting;
- Grilles and louvres;
- Filters, HEPA etc;
- Slotted channel;
- Threaded bar;
- Flexible connectors;
- Vibration connectors;
- Fire isolation dampers;
- Natural vents.

**FAN SELECTION PROGRAMME**

Like sister company Maico, Dynair has also devised a PC-based fan selection programme. Copies are available on request from Irish Fan Distributors.

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PAGE 16 BSNEWS JULY/AUGUST 1998
EDI and Creda held their third annual golf outing/clay pigeon shoot at City West Golf Club recently with 120 guests enjoying an excellent day's outing, followed by a meal, the presentation of prizes and entertainment later that evening.

Those in attendance included consulting engineers, contractors, wholesalers and ESB personnel, some of whom choose to participate in the gold, some in the clay pigeon shoot, and some who did both! Prize winners were plentiful and, as is customary, where EDJ/Creda personnel were due an award, the prize was raffled on the night.

The golf was a stableford, 3-ball, team event and the results were as follows:

**Winners** — Howard Collins, John White and Robbie Burke (88pts);
**Second** — Mick Tuck, John Carney and E Grey (83pts);
**Third** — E Doyle, Des Kenny and M O'Shea (82pts).

Right: Des Bradley and Harry Griffiths with Bernie Gibney, winner of the lady's clay pigeon shoot.

**Front Nine** — E Clarke, P Conlon and B Nutley (40pts);
**Back Nine** — E Mitchell, B Woods and Sean Mooney (46pts).
**Longest Drive** — John McGinley.
**Nearest Pin** — Paul Scanlon.
**Most adventurous round** — Terry Byrne, Paul Mortell and Eugene Fitzgerald.

The clay pigeon shoot provided a great deal of amusement and entertainment, Gerry Davey's 2Spts on the day proving sufficient to take first prize. Victor Waters took second with 23pts while Jimmy McKenna and Gary Murphy shared third spot with 20pts apiece. Bringing up the rear was Tim O'Brien with 7pts.

Leading lady was Bernie Gibney with 12 pts, her nearest rival being Margaret Boyle on 5pts. ♦
The Annual General Meeting of IDHE was held on 23 June 1998 at Doyle Tara Hotel. Members were notified by new data base which will form the basis of the forthcoming Register of Members. The AGM was opened by the IDHE Chairman Dave Harris who thanked the members present and expressed his satisfaction with the Development Plan which has proved to be a great success. This view was wholeheartedly endorsed from the floor.

The minutes of the previous AGM were ready by Hon Sec IDHE Eamon McGlade, and accepted.

The Treasurer’s Report was displayed in easy-to-read slides which demonstrated the interest of the heating industry in becoming Corporate Members, so as to increase the expertise and professionalism of their companies. Even with the absence in the past year of revenue-generating activities and capital spending up, the Institute returned a healthy surplus to reserves.

Election of Committee members was next and the following structure was agreed at a subsequent committee meeting.

**Chairman**
Jimmy Hamilton

**Vice Chairman**
Joe Holton

**Hon Sec**
Eamon McGlade

**Treasurer**
Mario Mowlds

**Education**
Kevin Sullivan

**Communications**
Dave Harris

**Registration**
Paul Cleary

**Marketing**
Phil Morley

**Promotions**
Joe Newman

**Correspondence**
Karen Kelly

IDHE wishes to pay a special thank you to Dave Harris for his contribution as Chairman and in steering through the Development Plan. He will now concentrate on communications to forward the aims and objectives.

The Institute further thanks Joe Keogh for his many years on the committee and his contribution to the standing of IDHE. Three new committee members are welcomed – Paul Cleary, Phil Morley and Joe Newman.

**Register of Members**
The 1998/99 Register of Members is gone to print and will be sent to current members only, when available in the near future.

At a meeting with the Institute of Plumbing on 27 April 1998, they have decided to become a Corporate Professional Member in line with the professional aims of both learned bodies. IDHE extends its congratulations to new President Institute of Plumbing, John Smart, and wishes him every success.

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**Domestic Heating Engineers Diploma**

This is a 2-year part-time course offered as an evening course. The objective is to give persons employed in the industry an understanding of the principles and techniques involved in the heating engineering. The course content is as follows:

**First Year**
(a) Heating and hot water technology;
(b) Mechanical services drafting.

**Second Year**
(a) Heating and gas technology;
(b) Quantities and estimating;
(c) Management.

**Examinations**
Students are expected to take a 3-hour written examination paper in each of the subjects being offered in the contents;

**Entry Requirement**
Department of Education senior examinations in plumbing, or equivalent;

**Certificate**
Students who successfully pass all the examinations will be presented with a CPD Diploma in Domestic Heating Engineering;

**Location**
Faculty of the Built Environment, Plumbing/Refrigeration Department.
Like the Russian dolls, Honeywell's HVAC Systems can grow as you grow, and now with the recent appointment of McCool Controls & Engineering as the Honeywell HVAC Systems representative, the broadest range of technological solutions for commercial buildings has opened up in the Irish Republic.

The winning combination of a product range which is second to none from the worldwide technology leader and McCool's established position in the Irish building controls industry makes for better solutions for existing and new customers.

With branches in Dublin and Cork, McCool are ideally situated to market, design, engineer, install and provide outstanding support throughout the Republic of Ireland.

So if you would like to know more contact McCool Controls and Engineering Limited,
Unit 31, IDA Enterprise Centre,
East Wall Road, Dublin 3.Z
Telephone 01-8550542
or Fax 01-8550546
Unit 10, Ashdale House, Blarney, Cork.
Telephone 021-382-055
or Fax 021-382-348
‘Must Promote Building Services as a Career’

The CIBSE Republic of Ireland Branch annual general meeting was held at the Engineers Club, Clyde Road, recently. The outgoing Chairman, Herbert Taylor, thanked his committee for all their efforts during the Centenary year of the Institution. Record numbers had attended the various technical meetings and CPD courses held during the year while almost 500 attended the Centenary Ball, reflecting the support that the Institution has from the industry. Herbert stated that he had enjoyed his term of office and wished the incoming committee every success.

The following appointments were made:

Chairman – Jim Curley
Vice Chairman – Sean Ascough
Hon Secretary – Margaret Dolan
Hon Treasurer – Peter O’Dowd

The committee also nominated the following members:
John Murray; Joe Lawlor; Albert Byrne; Paddy Clonan; Brian Homan; Barty Leach; Greg Traynor; Bill Moore.

James Curley was elected Chairman. In his address he took the opportunity to remind the members of the responsibilities of the Institution as set out in the Charter. They are to promote the art, science and practice of building services engineering for the benefit of all, and the advancement of education and research. He reflected on how the Branch was doing against these objectives and suggested that we needed to continue to promote building services as a career so that the best students are attracted to it.

He also proposed that we promote and support local research into building services. Members need to be encouraged to come forward for full membership and chartered engineer status, he concluded.

James finished by welcoming on board his committee, and thanking them for giving of their valuable time and energy, particularly during this busy time for the industry.

Pictured at the recent CIBSE AGM were: Brian Homan; Jim Curley; Herbert Taylor; Peter O’Dowd; Sean Ascough; Greg Traynor and Colin Murphy.
Distributors in Ireland for:

**AAF International Air Handling and Recirculation Units**
- Unique solid panel modar construction
- Air Handling and Recirculation Units duty to 83 m³/s
- 80% more energy efficient than glass fibre panelled units
- Three times design life of steel framed units

**McQuay International HVAC Chillers**
- Single chillers to 10,000 Kw
- Single Screw 25% more efficient than Dual Screws
- Single Screw oil free and virtually maintenance free
- Worlds most efficient reciprocating chillers
- Worlds most efficient centrifugal chillers
- Crystallisation proof absorption chillers
- Refrigerants R22, R407C, R134A, R410A
- Directly addressable by BMS
- Chillers in stock
CIBSE Centenary Yearbook

The following are extracts from Chairman Jim Curley’s address at the formal launch of the Centenary Yearbook prepared by the CIBSE Irish Branch.

“This book, which has been compiled by members and friends of the Institution, is a celebration of building services in Ireland over the last 100 years. It contains wide-ranging articles on various aspects of the art, science and practice of building services engineering, while also covering the history of the branch and that of a number of its members.

“One hundred years ago a group of pioneering engineers got together and decided to share their knowledge by forming a professional institution with the aim of improving the comfort of mankind. They would do this by discussing topics of uncertainty; spreading knowledge by publication and lectures; training others to follow best practice; and examining them to ensure competence. Thus the CIBSE was born.

“Over the last 100 years technology had advanced in leaps and bounds to a point where it is estimated that the energy consumed in this period is greater than that previously consumed by all of mankind.

“So, what will be the concerns of building services engineers as we look to the new millennium and the next 100 years – apart from getting paid and holding onto staff? Well, I believe that we have a responsibility as building services professionals to develop systems to reverse the environmental damage being caused by global warning. The resolution of this problem will bring fundamental changes to building services as we know it.

“Locally, as our industry moves forward, I believe we have a responsibility to attract the top students to building services. Only this will ensure that our industry continues to grow and prosper and stay at the fore-front of construction.”
SFA – The Voice of Small Business

The Small Firms Association acts as a distinctive voice on behalf of the small business community.

Its role is to advise, assist and inform members, to ensure that their contribution to the economy is recognised, and to promote the profitable development of small business. It does this through the involvement of its members in a number of ways:

- The SFA promotes, defends and fights for the interests of small business in its dealings with Government Departments, State Agencies and the European Commission;
- It assists and advises members with problems or questions regarding the effectiveness and efficient operation of their enterprises. An enquiry line is in operation during normal business hours;
- It offers a range of group discount schemes including insurance, ISO 9000, VHI and debt collection which will reduce members operating costs;
- It holds regular briefing sessions

About the SFA

There are 160,000 small enterprises in operation in Ireland today. Of these 97% are small be definition, ie, employ less than 50 people. The Small Firms Association is the only organisation in Ireland that wholly and exclusively represents such companies. The SFA now represents over 2200 member companies directly and a further 4300 through its affiliate organisations. In 1997 the SFA enjoyed unprecedented membership growth of over 50% based on the delivery of a top quality service to member companies. In 1997 the SFA became the first professional trade association to secure ISO 9000. It also participated as a social partner representing small business interests at the discussions on the new National Programme, Partnership 2000.

During 1997 the SFA handled over 12,000 enquiries from members, while over 70 events were held throughout Ireland.

- It offers a forum for owner managers to extend contacts and to get a feel of the general business climate;
- It acts as the small business watchdog, providing member companies with an opportunity to voice concerns and have them raised with Government agencies;
- Its press releases, business briefs, questionnaires, seminars, training programmes and conferences, all reflect the needs and difficulties encountered in all everyday running of small business;
- It can help with staff problems, Health and Safety issues and Conditions of Employment.

Members of the SFA are drawn from all sectors of small business – services, distribution, retail and manufacturing. They all have one thing in common ... they are entrepreneur driven and employ less than 50 people.

If you are not already a member, contact the SFA now and add your enterprise to membership of an association that really does make a difference.

Membership costs

1 - 20 employees — £200 + VAT
21 - 30 employees — £250 + VAT
31 - 40 employees — £300 + VAT
41 - 50 employees — £350 + VAT

Contact: Pat Delaney, SFA, 84/86 Lower Baggot Street, Dublin 2.
Tel: 01 - 605 1611/660 1011;
Fax: 01 - 661 2861.
Safety First for Schools, Hospitals, Laboratories, Kitchens and Industry

Approved by Bord Gáis and Department of Education

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BTU Captain’s Day
Trim Golf Club

Captains Prize
Winner – Tony Delaney, 41pts
Overall Medal Winner – Bob Daly, 39pts

Class 1
Winner – Tom Noone, 38pts
Runner-up – Eamon Vickers, 37pts
Third – Brendan Keavney, 36pts

Class 2
Winner – Frank Lynam, 37pts
Runner-up – John White, 37pts
Third – Tony O’Leary, 37pts

Class 3
Winner – Larry McGettrick, 37pts
Runner-up – Paddy Delaney, 36pts
Third – Brian Kearney, 36pts

Front Nine
Winner – John Lavelle, 23pts
Runner-up – Michael Carroll, 20pts

Back Nine
Winner – Michael McDonagh, 19pts
Runner-up – Bernard Sweeney, 19pts

Past Captain’s Prize – Tony Delaney

Visitors Prize – Tim Carr, 37pts

President’s Prize – Gerry Phelan, runner-up Class 2, receiving his prize from BTU Captain Brendan Bracken.

Thank You Potterton Myson

BTU at Harrogate – BTU Captain Brendan Bracken with Fiona O’Neill, Potterton Myson; Michael McDonagh, President, BTU; and Vincent Broderick, Potterton Myson. Potterton Myson generously sponsored the team jumpers for the trip to Harrogate.

BTU President’s Prize
Newlands Golf Club
Sponsors: Runtalrad Ltd.

President’s Prize – Liam Stenson, 38pts

Class 1
Winner – Tony Delaney, 35pts
Runner-up – Gerry Baker, 34pts
Third – B Keavney, 34pts

Class 2
Winner – Des O’Sullivan, 37pts
Runner-up – Gerry Phelan, 34pts B9
Third – John Littlefield, 34pts B9

Class 3
Winner – Garvan Evans, 38pts
Runner-up – Brian Costelloe, 37pts B9
Third – Michael McDonagh, 37pts

Back Nine
Winner – Tony Gillan, 20pts
Runner-up – Paddy Delaney, 18pts

Front Nine
Winner – John White, 19pts
Runner-up – Michael Wyse, 19pts

Visitor’s Prize
Winner – David Harmon, 38pts
Runner-up – Stephen Sheehan, 35pts

President’s Prize – BTU Captain Brendan Bracken presenting overall winner Liam Stenson with his prize.
Polymers – A New Direction in Air Distribution

Any history of product design and manufacture in the 20th century would have to record the spectacular rise of plastics as raw materials and their consequent effect on the nature and design of products, writes Roy Nutley, Technical Director, Waterloo Air Management.

This rise is all the more noteworthy given plastics' inauspicious beginnings ... all-too-often as the means to cheap and inferior alternatives to traditionally-made products. Improvements in materials technology and manufacturing techniques, however, now see plastics affecting in beneficial ways almost every aspect of our lives. The houses we live in, for example, use various forms of plastic for rainwater systems, facia and bargeboards, windows and even entrance doors to make the maintenance-free exterior a very real possibility.

The material's progress has been such that "plastic" is no longer a derogatory term and, indeed, no longer an appropriate term. Nowadays, it is necessary to name the specialist plastic - PVCu, ABS, polycarbonate, polymer etc - to indicate the particular properties being exploited in a given application.

So it has been in the HVAC industry where polymer technology was first employed for the manufacture of air distribution products from around 1985. These early products suffered not only from the then poor perception of "plastics" generally, but also from polymer products being specified and used incorrectly. There was also concern for the fire resistance of "plastics" and the discolouration that some early materials exhibited.

The fact that polymer products - such as grilles, diffusers, dampers and air valves - now enjoy a significant and growing share of the market is largely a reflection of the advances made, both in the nature of products and specifiers' and users' acceptance of them. Gone are the doubts about the material's suitability for the job ... high grade engineering polymer has been proven to perform mechanically as well as traditional materials.

Proof of this is provided by Waterloo Air Management's Aircell range of grilles and diffusers which incorporates over 20 air terminal devices and accessories manufactured entirely from engineered polymer. The latest of these is a circular floor diffuser with a unique "flip-over" design that enables horizontal or vertical air patterns to be selected simply by flipping over the diffuser disc. Manufactured from glass-filled polycarbonates, the unit will actually resist permanent deformation when subjected to point loads of up to 500 Kg.

In addition to products made entirely from polymers, there are an increasing number of traditional HVAC products that benefit from components made from polymers. These include fan impellers, moisture eliminators and damper drive linkages.

What really drives market acceptance, however, is that polymer products provide advantages to both the manufacturer and the end user ... the true win/win situation.

Depending on the product, polymer can be processed by injection moulding, blow moulding or vacuum forming. Whatever the method, the initial outlay for tooling is high but thereafter it is all gains. Automated machinery - less labour intensive than traditional materials - provides for fast and economic production, enabling tooling costs to be quickly recovered. Moulding also ensures that products are consistently produced to the same high standards and close size tolerances.
As well as enabling the design of products with aesthetically-pleasing clean, simple lines, polymer also allows manufacturers to incorporate practical advantages into their products. In this way, the obvious benefit of cost price advantage is only the beginning of what polymer products offer to end users. Outwardly, they may not appear to be too different from products made from traditional materials; the design is dictated by the function which has not changed.

However, they are inherently robust and lighter in weight, making them easier to handle and transport. Moreover, in the design process, manufacturers have paid particular attention to installation techniques and have provided such features as snap-fit assembly of grilles, dampers and plenums, very often with simple single-point fixings. This reduces on-site installation times, adding further to the products' economic advantages.

In addition - unlike the extruding of aluminium - the moulding of polymer is particularly suited to the production of the clean, curved shapes, ideally required for efficient air distribution.

The opportunity has been used to provide integrated plenum, damper and diffuser assemblies where the design has been specifically developed to promote smooth flow lines to ensure exceptional aerodynamic and acoustic performance.

At the same time, we all - manufacturers, designers and installers - now have to have regard for at least European (if not world) markets. To this end, polymers provide yet more opportunities and an example of the exploitation of these takes the form of an egg-crate grille manufactured as a tile replacement product suitable for ceiling grid systems most commonly used throughout the world. Heralded as a major advance in polymer grille technology, the product is the result of advanced computer design and modern moulding technology, and features a unique narrow flange that enables the grille to be simply laid into ceiling grids without the need for fixings.

In this context, the need to meet international standards almost goes without saying and high quality engineering polymers certainly do this. In resisting the spread of fire, for instance, they are rated Class O under BS 476 Part 6 and Part 7, the lowest possible rating for fire propagation and surface spread of flame. In addition, Waterloo Air Management's polymer air diffusion products were the first to achieve the American National Fire Prevention Agency 90A standard for smoke and fire spread.

So, from a slightly shaky beginning, polymer products are now firmly established in the H & V world, having overcome the two major obstacles to their acceptance - strength and fire resistance. The level of investment required in tooling probably means that future developments will be mainly concerned with products that have potentially-high volume sales. But with some "polymer" products already incorporating metal components, it could be that the scope for composite products utilising the advantages of both materials is only just beginning to be realised.
Wilo – Looking to 2000 and Beyond

The Wilo production facility was first set up in Ireland in 1979 by the German-owned Wilo/Salmson AG Group as one of the main production facilities contributing to the overall requirements of the global markets. The sales subsidiary for Wilo in Ireland, Wilo Engineering Ltd, was set up shortly afterwards in Limerick to service the needs of the Irish building services market and today, the two companies employ 160 people in Ireland involved in the manufacturing and distribution of the Wilo product range.

As we approach the next century, the Wilo Salmson AG Group has now no fewer than six production facilities, including the plant in Limerick; two in Germany; two in France; and one in South Korea, all involved in the production of an extensive pump range for world market requirements. The sales subsidiary in Ireland is one of 30 subsidiaries located throughout Europe, South Korea and China, and the growth continues.

In total, the Wilo Salmson AG Group at present employs in excess of 1,450 people throughout the world. As the Wilo organisation is highly committed to research and development, there is an emphasis on continued capital re-investment in this area which has resulted in a modern and extensive pump range for building services applications for the new millennium.

With the building services industry in Ireland particularly buoyant over the last number of years, many types of projects are now encountered which require wide and varied applications. These include everything from conventional office/hotel complexes to the large manufacturing facilities of the multi-nationals setting up in Ireland. There is also a growing awareness of the range of energy-efficient variable speed circulators which are now being specified by consulting engineers as the norm rather than the exception.

A typical example is the new Hewlett Packard production facility in Leixlip, Co Kildare. This extensive new facility was recently supplied with Wilo Pumps and control equipment ranging from standard Top-S range circulators for heating systems, to the ink waste pumps and controls on the factory floor production area.

The following are some of the systems installed, which are typical of modern-day challenges facing Wilo for pumps to suit an extensive range of applications:

(a) Heating systems/process cooling/chilled water – Wilo: Top-S, TPn, DPn, N-Pump ranges of inline and end-suction pumps;
(b) Cold water/process water/drinking water pressure boosters – Wilo: CoHe booster systems with BMS facility incorporating Wilo MHi, MVi, multi-stage stainless steel pump ranges;
(c) Ink waste water systems – Wilo: TM, TMC bronze, submersible range; SK 529 control system; and TMH - Box, ink waste collector tank;
(d) Brine solution waste – Wilo:

TP range ... submersible stainless steel range; SK 530 control system.

The selection of suitable equipment for these applications involved working closely with the consulting engineer at the concept design stage, and later with the mechanical contractor on site, to ensure the most economical system was selected and commissioned.

Wilo also provided the necessary link up facilities on the equipment such as building management and variable speed control.

The extensive range of equipment now available enables Wilo to supply the complete package concept as is favoured nowadays. Moreover, with further developments in variable speed control pumps which incorporate an additional 25% energy saving, it is clear that Wilo Engineering Ltd – with the full support of the Wilo Salmson Group parent company – is geared for the requirements of the new millennium.

Contact: Tony Cusack/Derek Elton, Wilo Engineering. Tel: 061 - 410963.
To find out which Selkirk chimney, gas vent or exhaust system is perfect for your next project, phone 01 830 1211.

REFLECTING YOUR PROJECT NEEDS

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

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

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

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

Manotherm Limited –
The Control Centre,
4 Walkinstown Road, Dublin 12.
Tel: 01 - 452 2355;
Fax: 01 - 451 6919