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Recommended Citation

(2001) "BS News," *Building Services News*: Vol. 40: Iss. 6, Article 1.

doi:10.21427/D75705

Available at: <https://arrow.tudublin.ie/bsn/vol40/iss6/1>

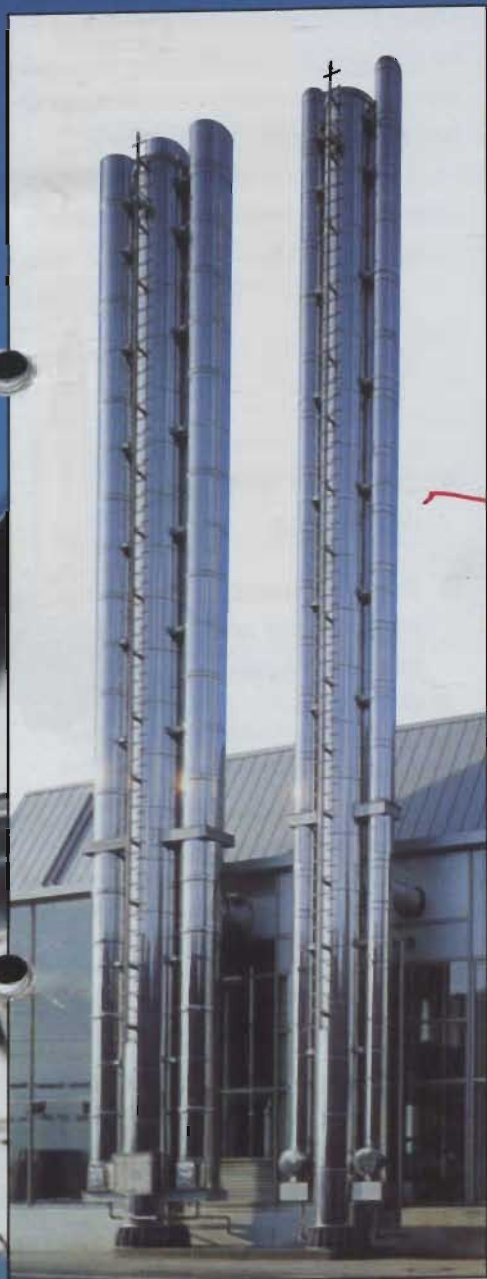
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BSNews

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BSNews*

MECHANICAL & ELECTRICAL
BUILDING SERVICES

ISSN 0791-0878

Published by:
Pressline Ltd,
Carraig Court,
George's Avenue,
Blackrock, Co Dublin.
Tel: 01-288 5001/2/3 Fax: 01-2886966
ISDN: 01 - 211 2338/9
eMail: bsnews@pressline.ie

Editor: Pat Lehane
Advertisement Manager: Joe Warren
General Manager: Edel Burke

Origination and Design:
Pressline Ltd. Tel: 01 - 288 5001

Subscription: One Year — £30

Printed by: Kilkenny People.

© All editorial contents and all advertisements prepared by the publishers, Pressline Ltd.

* Incorporating Irish Heating & Ventilating News.

Readership Data

Irish Building Services News (formerly Irish H&V News) is Ireland's only Building Services magazine providing coverage of heating, ventilating, air conditioning, refrigeration, sanitaryware, plumbing, maintenance and environmental industries. It is the only publication catering exclusively for these industries and its circulation includes members of the following:- Chartered Institution of Building Services Engineers (CIBSE); The Mechanical Engineering & Building Services Contractors' Association (MEBSCA); The Association of Consulting Engineers of Ireland (ACEI); The Mechanical Engineering Contractors' Association; The Institute of Domestic Heating Engineers (IDHE); The Registered Heating Contractors Association; The Maintenance, Energy & Environmental Technology Association (MEETA) which incorporates energy managers and maintenance managers; The Energy Conservation & District Heating Association; The Institute of Plumbing; The Irish Home Builders Association (IHBA); Builders Merchants/Trade Supply Outlets; Irish Property & Facilities Managers Association.

In addition, Irish Building Services News circulates to independent building services contractors and key executives in industry. Government, Semi-State and local authority bodies. Essentially, our circulation is virtually saturation coverage of all those with an interest and/or involvement in the industry.

Plumb Direct in Liquidation

The appointment of a liquidator to Thorndeen Ltd (trading as Plumb Direct) at a recent creditors' meeting was not entirely surprising. Rumours had been circulating within the industry for some time and it was apparent that the company was experiencing difficulties in meeting its obligations.

However, the scale of the overall deficiency — £541,410 according to the Directors Estimated Statement of Affairs — was surprising, as indeed was the number of creditors involved.

Understandably, the mood at the creditors meeting was tense with some very probing questions from the floor. Some of the creditors had legal representatives present and it was one of their nominees — rather than that of the directors of Thorndeen Ltd — who was ultimately appointed.

No doubt the liquidator will thoroughly examine the circumstances surrounding the company's demise and the members appointed to the Committee of Inspection will have ample opportunity to examine and question developments as the process unfolds. However, the bottom line for unsecured creditors is that they will have to accept the inevitable and write off the debt.

But that is not the end of the story and unfortunately the matter will not rest there. The weeks since the creditors meeting have seen a tightening of the credit loop. Ironically, many of those in the firing line are the self-same companies who have suffered most because of the Plumb Direct collapse. Already pressed for cash, they now find themselves targeted by their suppliers who, understandably, are concerned and anxious.

The domino effect of this vicious circle is going to gather momentum with pressure being exerted on each link in the supply chain. Even those with their affairs in order are likely to feel the backlash. Additionally, it is likely that the number of companies — be they product suppliers or service providers — who are currently over-trading and hence delicately balanced are higher than average.

A knee-jerk reaction now would be counter-productive as a swiftly-imposed credit squeeze will only cause panic. Yes the matter has to be addressed, and yes credit days must be pulled back. However, this must be done gradually over a number of months. Throwing the baby out with the bathwater is not the solution!

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Powrmatic Heater Driven by 'Customer Power'

Powrmatic has included a key component in its new PGUH series of space-saving suspended gas unit heaters ... customer power. In a client-driven approach to product development, the design concept of the PGUH has been established in consultation with end-users, installers and service engineers. The result is a heater range that is aesthetically pleasing and energy-efficient, as well as being simple to install and maintain.

The PGUH series provides warm air heating to areas where floor space is at a premium and is suitable for the vast majority of industrial and commercial premises.

Twelve models provide heat outputs ranging from 12kW to 150kW. A wide

range of optional extras is available including stainless steel heat exchangers and modulating burners to name but a few. A comprehensive range of control options and modular duct components give designers the ability to create the optimum heating package.

Ease of installation and maintenance was fundamental in the design process of the new PGUH. 90° suspension points now give direct connection to drop rods while the electrical connections are of the new-style speed-fit type.

To help service engineers, all models incorporate a hinged side door that allows speedy access to the burners,

controls and associated wiring. The door is quickly opened by two push-back catches and can be lifted off the hinges if required. Heat exchanger flueways are also easily accessible via the hinged bottom panel.

PGUH units are supplied

as standard in reef green, Powrmatic's new colour scheme. Other colour options are available to special order.

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



One of the new PGUH series of space saving suspended gas unit heaters from Powrmatic Ltd.

Pubs Promise Big Business

The Vintners Federation of Ireland (VFI) has launched a major initiative to help pubs get rid of their smoke ... without getting rid of the smokers. We need your help to meet our members' — and their customers' — demands for clean air, writes Tadhg O'Sullivan, VFI Chief Executive.

The latest Tobacco Bill left the pub industry in this country unharmed ... for now! Despite this reprieve, the Health Minister has made it very clear that the industry's progress in managing the smoking issue responsibly will be monitored closely. We urgently need your help to ensure that our members banish the image of the Irish pub as a smoky pub.

The Vintners Federation of Ireland formally launched the clean air initiative, Pub Atmosphere Improves Results (PubAIR) in November last year. The aim is to encourage and assist our members to get rid of the smoke ... and not the smokers ... from their pubs, through investing in mechanical ventilation.

Clean air standards agreed between the VFI and the Western Health Board state that a minimum of 12 airchanges per hour is needed to remove tobacco smoke from pubs to an acceptable level. To help our members to achieve this, we have provided ventilation surveys that suggest what equipment they need. We now have at least 100 pubs with surveys, ready to buy the right equipment, with many more expected to follow.

We are looking for local or national companies that can supply air movement specialists to our members. The work is there now and will remain steady for the foreseeable future. There is no need for cold calling or the 'hard sell' ... we have produced a booklet that explains all the benefits of investment to our members, endorsed by the VFI.

This is an excellent opportunity to access the pub market and build on your business success.

Contact: Kay Mulford. Tel: 0004 2076 543505.



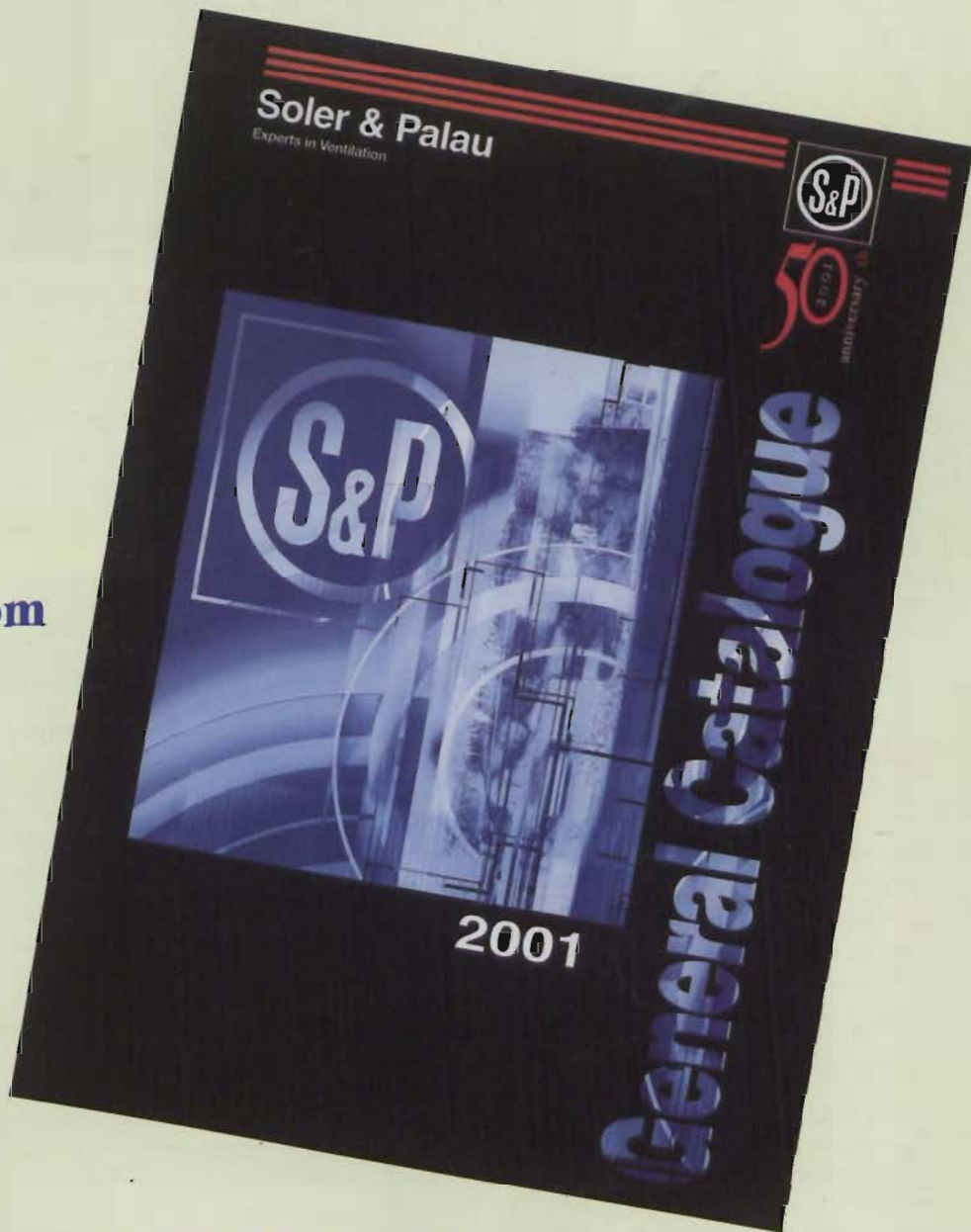
Tadhg O'Sullivan, VFI Chief Executive.

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TRADE NEWS

Cylindrical Cased Axial Flow Fans

The TTT range of belt-drive special application cased axial fans from Ventac consists of six nominal diameters 450, 500, 560, 630, 710 and 800mm respectively. All models are available with 3-phase motors in 4-pole, 4-speed and two (models 450 - 630) or three (models 710 and 800) impeller blade angles.

via the swing-out fan casing assembly.

Air volume performance ranges from 5,400 up to 40,000 m³/hr.

Applications

The TTT range is designed to be mounted within, or at the end of ducted ventilation systems. They are suitable for many special industrial



All motors are located externally to the fan casing and incorporate a belt drive impeller transmission. Once installed the complete motor/impeller assembly can be accessed (without removing from duct work)

applications including: paint cabin extract ventilation; extract of hot gases up to 150°C; and extract of corrosive/harmful gases.

Contact: Ventac Sales Office. Tel: 01 - 667 1077.

New IPFMA Chairman

Felix McKenna, Group Property Manager at Eircom plc, has been elected Chairman of the Irish Property & Facilities Managers Association.



RAGS Forrest Little Results

Overall Winner: P J Killigrew (8), 37pts
 Class 1 Winner: Tom McDonald (18), 35pts; Second: Aiden Genocchi (11), 34pts
 Class 2 Winner: Dan Dowling (19), 33pts; Second: Joe Cribbin (25), 31pts
 Front 9: Michael Nolan, 18pts; Back 9: Paddy O'Brien, 19pts
 Visitor Winner: Bill Loughlin (9), 37pts; Second: Kieran Hannon (19), 36pts



Carr Appointed Wavin MD

Larry Carr, Sales and Marketing Director of Wavin Ireland Ltd, has been appointed Managing Director of the company. He took over on 1 July 2001 from Des Byrne who is retiring. Des Byrne has been Managing Director since 1981 when he joined Wavin from Guinness Ireland where he was Personnel Director. Larry Carr has extensive experience of the building material and civil engineering industries. He has been with Wavin in a number of sales and marketing positions since the late 70s. He was appointed Sales and Marketing Director in 1980. Des Byrne (left) is pictured congratulating Larry Carr on his appointment.

Alutec Classic from Marley

Developed by Marley Plumbing and Drainage in response to the demand for a smaller, more ornate aluminium gutter at a more affordable price, Alutec Classic offers distinct advantages in terms of looks, installation and performance.

Alutec Classic features a unique "snap-fit" jointing system, offering a sleeker profile against the roof,

while installation time is reduced by up to 40%.

Measuring 120mm x 75mm, this advanced ogee-style design can drain over 200m² of roof area at the rate of 4.5 litres per second.

Alutec Classic gutter and 62mm square downpipe is available in standard colours of white, black and brown. Seventeen further colours are available to order.

Contact: MFP Sales. Tel: 01 - 630 2500.



Alutec Classic from MFP

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WILO's Quantum Leap In Pump Technology

It is estimated that around 70 to 90 million heating pumps are in use throughout Europe. Although they are scarcely considered to be high-energy consumers, the sheer magnitude of their use does in fact result in substantial electricity consumption. They account for 35 to 50 billion KWh every year, which corresponds to around one percent of the annual primary energy requirement of Germany, so there is huge scope for savings here.

pumps with asynchronous motors are traditionally used in heating systems. These pumps are quiet and require no maintenance, but their motor design means that they cannot go beyond a certain efficiency level. The new "Wilo-Stratos" pump is different. Here for the first time a highly-efficient EC motor is used which combines the advantages of glandless pumps with excellent efficiency.

The energy consumption of a pump in relation to the procurement costs is, and always will be, a major factor. The new Wilo-Stratos "high-efficiency pump" will have paid for itself after approximately two years, depending on its use. If you consider that in general there are several pumps operating in one building, this innovation gives building operators' considerable potential for reducing running costs.

All over the world, countries have joined forces to reduce world-wide emissions of CO². In view of the large number of heating pumps in operation, the new pump generation by Wilo can make an important contribution to reducing greenhouse gases. In this way, the company has made a quantum leap in the development of energy-saving heating technology.

Contact: Wilo Engineering Ltd.
Tel: 061 - 410 963.

At the recent ISH 2001 in Frankfurt, Wilo GmbH presented a new pump type for the first time, which can reduce electricity consumption by up to 80% compared to standard pumps. This technology — which is revolutionary for the heating sector — has the potential of largescale electrical savings in the medium term.

The key for this reduction in energy consumption is in the motor technology. Up to now, glandless (wet can)

Multiflow: Multitude of Benefits

Less is definitely more when specifiers use "Multiflow" fan technology, according to Fantech Ventilation's Brendan O'Toole, Irish distributors for Elta Fans. Brendan says Elta's mixed-flow adjustable pitch Multiflow range can provide either 25% more airflow performance or a 25% space saving when compared to many fixed-blade models in the market. Also, dBA sound levels, when compared to other types of fans of the same performance, are considerably reduced, allowing for wider environmental usage.

Multiflow fans are available in square and cylindrical cases. There are nine impeller sizes varying from 250mm to 800mm in diameter producing nominal fan sizes from 315mm to 1000mm.

Blade angles are factory set according to customers' specific air performance requirements, but if needed can be adjusted using Elta's top/bottom locking screws. All units have a minimum of five alternative blade angle settings.

Accessories, including speed controllers, mounting feet, anti-vibration mounts, matching flanges, flexible connectors and silencers, non-return dampers and wire guards, can all be supplied to order.

Contact: Brendan O'Toole, Fantech Ventilation.
Tel: 01 - 628 6088.



Photo shows an impeller from Elta's mixed-flow adjustable pitch Multiflow fan range.

St Luke's Thanks Finheat

In keeping with a practice which has become more and more frequent, Finheat has donated four Celtic FC match tickets box seats to help raise funds for St Luke's Hospital for cancer cure, control and care. The occasion was the Celtic FC v St

Mirren FC game and the prize included flights, overnight accommodation and chauffeured limousine to and from the ground. The tickets were raffled in a private members draw co-sponsored by the Dropping Well in Dublin 6, and Corporate Management. The occasion raised a total of £3,550 from which patients will greatly benefit. Pictured on the night the winning ticket was drawn were Ken Doherty; Jim King of Finheat; Peter Cassidy, The Dropping Well; Fran Hurley; and Eamon Dunphy.



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COMPETITION

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RATTLED.



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TRADE NEWS

Mould-Breaking Portable A/C from Carrier

Environmental concerns are addressed in the most elegant way by the latest addition to the Carrier range of portable air conditioners. Available



The new Carrier Elite portable air conditioner from Core Air Conditioning has been designed to operate with environmentally-friendly HFCs R407C and R410A depending upon size.

with a white or pearlised finish casing, the new Holiday Elite has been designed by the renowned Italian industrial designer, Guiliano Galeazzi, to echo the sleek aesthetics of the fan coil range manufactured in the Carrier factory, just outside Milan.

"Not only does its stylish appearance set it apart from other units on the market", says Austin McDermott of Core Air Conditioning, "the Holiday

Elite is the only portable air conditioner designed to operate with environmentally-friendly 407C or Puron, the Carrier brand R410A refrigerant, depending on the size selected.

"Noise pollution has also been addressed, and particular attention has been paid to minimising operating sound levels, with the extensive use of special insulation materials around the fan".

In addition to standard high surface filters, active carbon filters handle smells and moisture. Electrostatic filters for smoke and pollen may be supplied separately as an air quality kit.

The Holiday Elite is available as a stand-alone unit or a split system, in a range of sizes with cooling capacities ranging from 2.3 to 4.2kW.

Contact: Austin McDermott, Core Air Conditioning.
Tel: 01 - 294 3110

New Twister from Wilo

Wilo Engineering Ltd has launched a new range of TM and TMW 32 "Twister" submersible drainage water pumps. These pumps now supercede the previous TM 30 range. The TMW range is fitted as standard with the new Wilo patented "Twister system", a unique design feature that causes a turbulating action around the pump suction inlet and base. This action keeps solids in suspension and helps prevent the formation of sludge and build up in the sump, reducing maintenance required in clearing sumps.



All pumps in the new range have a 10mm solids handling capacity, and have built-in motor thermal overload protection. The range also includes a new HD version, which is suitable for aggressive fluids (PH 5 to 9.5) such as sea water, pool water, condensate or partly de-mineralised water.

Contact: Wilo Engineering. Tel: 061 - 410 963.

Pointer Controls Move

Pointer Control Systems has moved to new premises to cope with the increasing demand for its services in Ireland, England and on the Continent. The company, founded 15 years ago by Robert Maguire and John Coffey, is now in its fourth home, a newly-refurbished 8,000 sq ft building in Barrow Road in North Dublin, a few hundred yards from its previous premises.

Pointer Control Systems employs 25 people who undertake panel building, controls system design, installation supervision, and commissioning of building systems from Cylon and TAC.

The company is deeply involved with Lonworks open system technology with multi-skilled engineers at an IT and control applications level giving true control network integration of multi-application systems. It offers design, consultancy and engineering of Lonworks solutions from the simple primary application to the technically-challenging network integration of a multi-vendor system.

Pointer Control Systems is also the agent throughout Ireland for Swedish controls company A B Regim and for Nordmann Humidifiers from Switzerland.

Contact: Robbie Maguire, Pointer Control Systems. Tel: 01 - 830 0533.



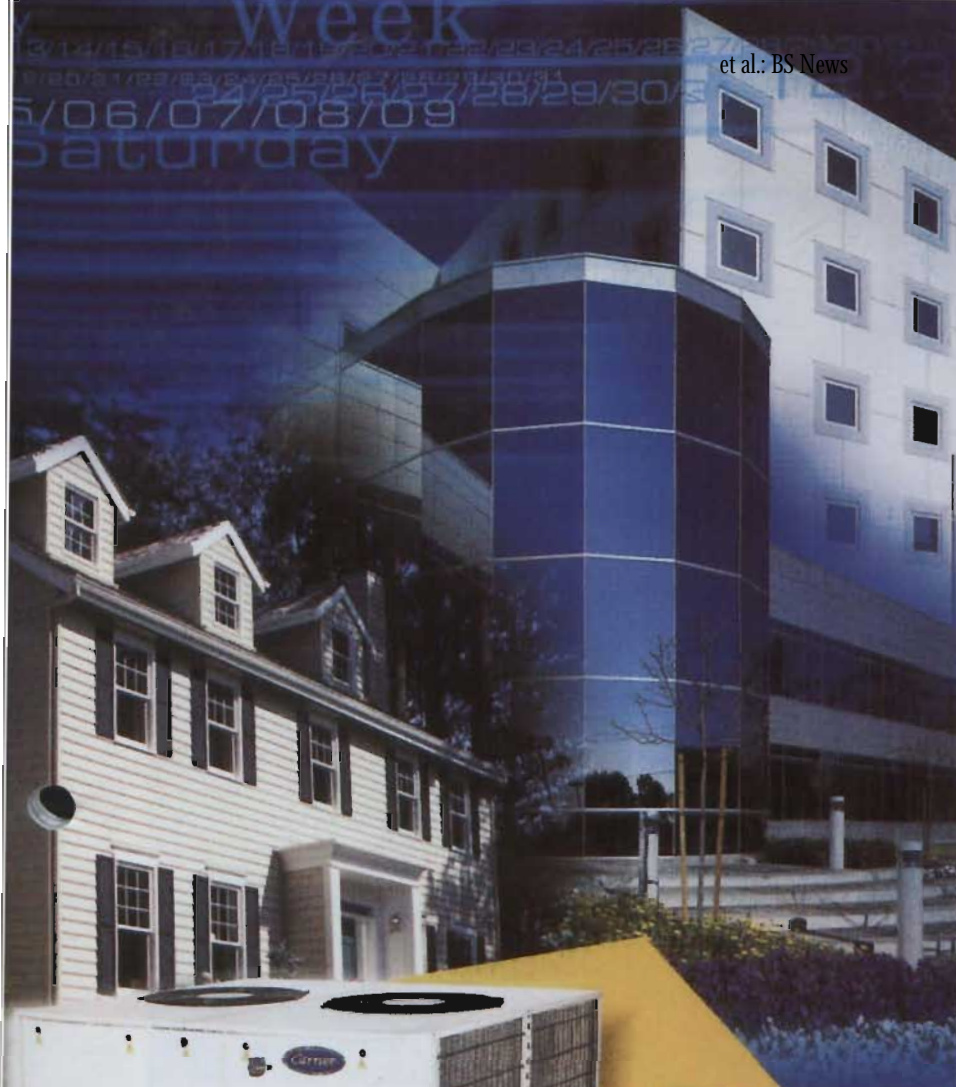
Pictured above are Robbie Maguire (left) and John Coffey outside their new headquarters in Dublin

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TRADE NEWS

IOP Apprenticeship Awards

The Republic of Ireland branch of the Institute of Plumbing held its Annual Apprenticeship Awards ceremony at the FÁS Training Centre in Baldoyle recently.

The evening was a great success with over 100 people in attendance representing all aspects of the industry and travelling from all parts of the country. Apart from the award winners and their families and friends, it was particularly gratifying to see so many of the

Speaking to the audience, Mr Wilson said he was very impressed with the apprentice training programme in Ireland and commended FÁS, DIT School of Construction and the other institutes for the standards they are achieving. He encouraged the apprentices to take every opportunity they could to continue to improve their knowledge and education within the industry.

The competition is held every year, and apprentices

winner were:-

Phase 2

Gold Medal Winner — Ciaran Lancaster

Silver Medal Winner — Gerard Barry

Bronze Medal Winner — Eoin Moore

Phase 4

Gold Medal Winner — Ian Hayden

Silver Medal Winner — Gary Kelly

Bronze Medal Winner — Thomas Brady

Phase 6

Gold Medal Winner — James Curtin

Silver Medal Winner — Jonathan Cussen

Bronze Medal Winner — Barry Gilbourne

Before the conclusion of the formalities the Branch Secretary, Tom McCormick, presented John Smartt with the Institutes Exceptional Service Certificate in recognition of the tremendous work he has done in promoting the institute for over 30 years.

With the formalities over all present were invited to a buffet in the training centre canteen where the FÁS catering staff provided some excellent fare. The Institute would especially like to thank Eamon Earley, Manager, FÁS Training Centre, Baldoyle, for the use of the venue on the night.

In conclusion the Institute would like to thank sincerely the sponsors of the competition without whose help and support this event would not take place. They include Wavin Ireland Ltd; MT Agencies Ireland Ltd; BSS (Ireland) Ltd; Vokèra Ireland.

from phases 2, 4 and 6 are nominated by instructors and lecturers with the assistance and co-operation of FÁS and the Institutes of Technology. Each candidate is invited to submit a paper on a plumbing-related topic. Each submission is given a code number so that judges cannot identify individuals by name.

The Republic of Ireland Branch has had a medal struck especially for the competition and this year's

Institute of Plumbing Apprenticeship medal winners pictured with IOP President Peter Wilson and committee members

apprentices' employers at the event.

The ceremony was hosted by John Smartt, who told the audience that 120 apprentices entered this year's competition. This is by far the biggest number of entrants to date in the four years since the competition was inaugurated.

The President of the Institute, Peter Wilson, flew in especially from England to present the awards.

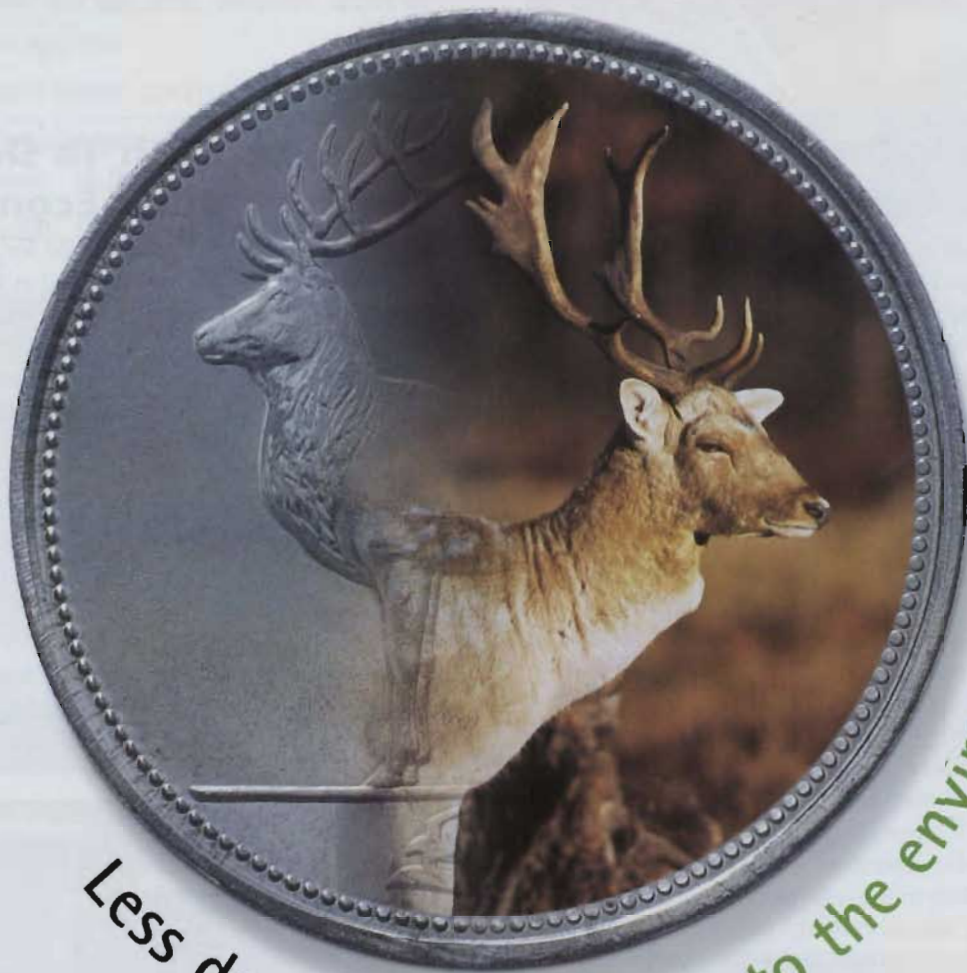
McQuay Infinitely -Variable Screw Chillers

McQuay has introduced "an industry first" with the launch of competitive large-frame, oil-injected, infinitely-variable, air-cooled screw chillers. "This means that inefficient under/over capacity in operation is a thing of the past, you can exactly match your load capacity as it changes", says Aidan Lynch of Thermo Systems, McQuay's distributors for Ireland.

"This range of chillers is also the largest air-cooled chillers available in the world, with single chiller capacity up to 1900kW, another real first, and available in high and low COP options. The high COP options are an advantage where payback and economy are a special issue.

"Acoustically and turndown-wise, these McQuay infinitely variable screw chillers cannot be beaten with sound pressure level of 52 dBA available at 1 metre and turndown to 6.25%".

Contact: Aidan Lynch, Thermo Systems.
Tel: 01 - 409 2588;
email: aidan.lynch@thermosystem.com



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TRADE NEWS

Massive Industry Support for Plan Expo

An unprecedented number of exhibitors are set to take part in this year's Plan Expo, Ireland's showcase for the built environment, which will be held in the Simmonscourt Pavilion at the RDS on Thursday 8 until Saturday 10 November next. According to Garret Buckley, organiser of Plan Expo which will be held in association with the Construction Industry Federation (CIF) and the Royal Institute of Architects of Ireland (RIAI), this year's event is expected to be attended by an even greater number of major players in the construction industry than in previous years.

"Only 15% (just over ten stands) of exhibition space remains available for Plan Expo 2001 at this early stage", says Buckley. "Many companies who exhibited at last year's Plan Expo are returning safe in the knowledge that this show attracts the key decision-makers in the construction industry and that they can showcase, view and experience all that the construction industry has to offer at the one location. This is an important factor for key decision-makers, specifiers, senior buyers and constructors working in the construction industry. Reinforcing this, independent exit polls carried out at last year's event indicate that 98% of the 7,100 visitors who attended the exhibition would be returning in 2001".

Plan Expo has evolved significantly over the last number of years with the active involvement and participation of leading players in the construction industry such as the CIF, the Royal Institute of the Architects of Ireland and the Irish Homebuilders Association.

Garret Buckley explained that plans for a major conference event for Plan Expo 2001 are well underway. "Building on the success of last year's event, it is our intention that the conferences and seminars, which have provided an important forum for industry figures to express and exchange views and ideas, will be developed even further, concentrating on the topical issues of the day for the construction industry".

Contact: Garret Buckley, EXPO Exhibitions.
Tel: 01 - 295 8181

Heatmerchants Product Call

Heatmerchants Commercial Division is now selecting and categorising products for distribution through its 16 trade counters nationwide.

If your company has products relating to the mechanical services sector and you would like an opportunity to establish national distribution, send all relevant information to the Purchasing Department at Heatmerchants, Commercial Division, Fonthill Retail Park, Fonthill Road, Dublin 22

ECO — As Much To Do With Ecology as Economy

Mech-Elec has been selling Greenwood for a number of years now in Ireland and is established as a major player in this important sector of the ventilation market. "It has been our experience", says Mech-Elec's Niall Cleary, "that when a customer or specifier uses Greenwood, they come back again and again.

"Traditionally, Greenwood Airvac was renowned for its small bathroom fans and in fact still has 60% of the UK market in this sector. A quality manufacturer competing successfully with products from the Far East, Greenwood has now applied this same quality ethic to the commercial fan sector to produce the ECO range.

"This range was devised following extensive customer market research and an in-depth study of traditional fan technology. The combined results led to the development of the ECO range, the ultimate in commercial fan technology.



"We have already had considerable success with ECO, their extensive use in the Portlaoise Prison being a typical case in point. The versatility of the range of fans proved ideal in matching a variety of applications on the project".

Greenwood ECO fans were also chosen for the prestige LUAS Light Rail offices. Again the various materials and control options proved a flexible solution to providing quality ventilation.

"ECO fans sit comfortably side-by-side with the best manufacturers in the commercial fan industry in terms of quality, appearance and performance. Nonetheless, the price structure reflects more a mid-sector product. Additionally, ECO fans are as much to do with ecology as economy ... boosting low power to performance ration".

Contact: Niall Cleary/Jim Dunne, Mech-Elec.
Tel: 01 - 450 8822.

The **ECO** range of 6", 9" & 12" commercial fans from **Greenwood** are efficient, smooth, quiet in operation and look great.

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A PIPELIFE PRODUCT

TRADE NEWS

ebm Opens Facility in Portlaoise

The Tanaiste, Mary Harney, TD, officially opened ebm's new manufacturing facility in Portlaoise. Founded in 1963, the ebm Group currently employs over 8,000 staff worldwide. The factory will manufacture fans and blowers for the electronics market and it will also stock the comprehensive range of fans available from ebm and its sister-company, Ziehl Abegg. Both companies are credited with the development of the external rotor motor, which constitutes the fan hub and is therefore cooled effectively by the airflow. The range of fans available from Portlaoise are:-

- ◆ Plate Axial
- ◆ Cased Axial
- ◆ Forward Curved Centrifugal
- ◆ Backward Curved Centrifugal
- ◆ Mixed Flow
- ◆ Plug Fans
- ◆ Explosion Proof Fans
- ◆ Speed Controllers
- ◆ Accessories

With airflow rates from

100m³/hr – 100,000m³/hr, there are fans suitable for every application.

These fans are used extensively in the HVAC and refrigeration industry in Ireland and ebm is hoping to build on its existing client base with the opening of the new factory.

ebm & Ziehl Abegg will also stock a large range of DC-powered fans and motors in the new facility. These motors are referred to as "EC Motors", where EC stands for electronically-commutated. They are brushless DC motors. This range of fans offers up to 50% saving on running costs against a normal AC motor.

The company plans to create 145 new jobs over the next five years, which will consist of semi-skilled sheet metal fabricators, assembly operatives, technical sales and account managers.

Contact:

Niall Horgan, ebm Ziehl.
Tel: 0502-64500.



Pictured at the ebm factory opening were Niall Cleary, Mech-Elec with Jim Bollard, Dan Chambers Ventilation; and Martin Kearney, Mistral Air

S&P In-Line Fans

The ILHT range of direct drive in-line fans from Ventac is designed to withstand the extract of air streams (only air stream within fan enclosure) of 400°C for a minimum period of two (2) hours. The ILHT range of direct drive in-line fans consists of eight nominal product sizes covering a total of 31 models. All models are supplied with the motor located out of the air stream mounted on the external face of the casing.

All standard ILHT models are suitable for connection to 3-phase electrical supplies and are available with single speed 4, 6 or 8 pole; or twin-speed 4/6, 4/8, 6/8 or 6/12 pole motors. Air volume performance ranges from 2,333 up to 19,000 m³/hr, with static pressure developments up to 750Pa.



Installation options — The ILHT series of centrifugal in-line fans offers a truly flexible solution to installation whereby the configuration of both the inlet and discharge ports can be changed by simply altering the positioning of casing side panels.

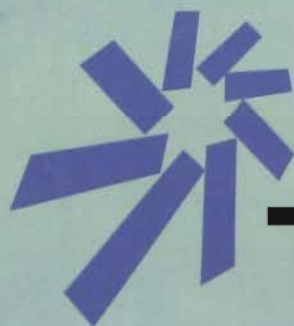
All models are certified for 400°C/2hr for the purpose of extracting hot smoke in the case of a fire.

The ILHT range of fans has been specifically designed to extract hot smoke in the event of a fire and are certified to withstand the extraction of airstreams (only air enclosed in fan casing) of 400°C for a period of two hours.

The ILHT Series is suitable for a wide variety of applications including commercial kitchen and car park extract ventilation systems.

Certified by CIICM Laboratory, with certificate numbers PV no. 95A256 for models 035, 050, 060 and 065; and PV no.95E132 for models 085, 110, 140 and 190.

Contact: Ciaran King, Ventac. Tel: 01 - 667 1077.



Airconditioning Technology Ltd

Perfect Partnership Means Total Solutions



TRANE™



Trane's light commercial range of rooftop units is ideal for large and medium-sized commercial business locations such as shopping arcades, industrial sites, restaurants, cinemas etc. The key benefit is the ability to multiply the number of rooftop units in order to avoid more complex and costly configurations.

These units provide a full "all air" air conditioning system giving ventilation, heating, and cooling without any refrigerant piping and, more importantly, less refrigerant gas.

In tandem with Trane's varitrac variable air volume system, Air Conditioning Technology can provide a multi-zone control system giving fresh air as an integral part of the system, thereby making it more competitive than conventional VRF systems.

The product range is from 9kW to 145kW in cool only, heatpump and indirect gas-fired versions. The gas product is CE certified for use with natural, butane and propane gases.

This type of product is particularly appreciated for its simplicity of installation, reliability and cost, and the fact that it can also be used on buildings of more than two floors.

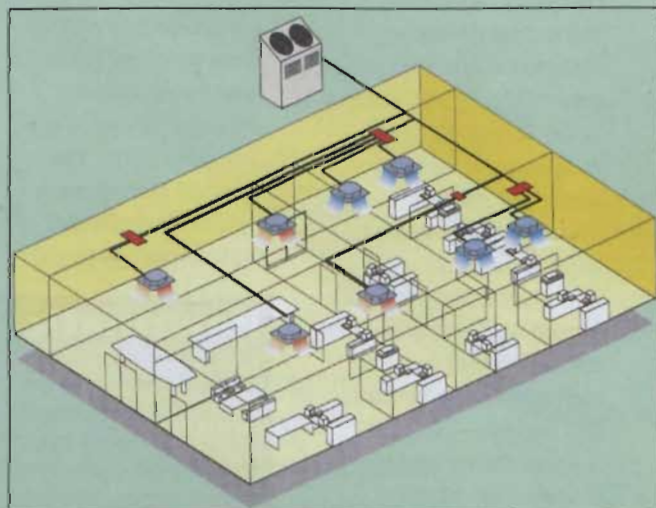


MITSUBISHI HEAVY INDUSTRIES, LTD.

KXR is a VRF heat recovery multizone system offering high levels of flexibility and control in office environments. Mitsubishi Heavy Industries' ducted and cassette units come as standard with condensate pumps and spigot connections, giving savings of up to £150 per unit.

KXR units are among the quietest and slimmest in the business.

Rotary scroll compressors (8 and 10 HP models are equipped with two compressors) allow the best use of inverter technology and a seasonal power consumption saving that is even higher than previous models.



Range Includes

- ◆ Ceiling suspended units
- ◆ High-wall mounted units
- ◆ One-way ceiling cassettes
- ◆ Two-way ceiling cassettes
- ◆ Four-way ceiling cassettes
- ◆ Floor mounted units
- ◆ Ceiling ducted units

CONTACT

Airconditioning Technology Ltd, Unit C5, Northwest Business Park, Dublin 15.

Tel: 01 - 820 5590; Fax: 01 - 820 5606; email: aircond@iol.ie

TRADE NEWS

DIT MBA in Project & Facilities Management

The Master of Business Administration (MBA) Programme, available at a number of Irish Universities as well as academic institutions further afield, has gained repute as a highly-effective engine for career development and acceleration.

The MBA Programme at the Dublin Institute of Technology — presently accepting applications for its second intake of students — comprises all central components of the traditional MBA model. The programme is offered on a part-time basis over two years. A rigorous curriculum comprises a comprehensive overview of current theory and practice in key functional areas such as financial analysis, marketing, HRM, operations management, business law, and information systems, and is capped with corporate level courses such as strategic management and business and society.

Focus throughout the courses is on analysis, decision-making and problem-solving. Group work is a central element of the programme in order to leverage the peer-learning opportunities arising through participants' work experience and skills. The educational approach utilises case analysis, discussion sessions,

individual and group presentations and project work, and guest lectures from visiting specialists from industry and academia. An international emphasis is apparent through relevant course materials, and international guest speakers.

The DIT MBA also offers significant scope for "focused customisation" of the curriculum, as participants can choose one of four elective components:- Accounting and Finance; Marketing; Construction Project Management; Facilities Management.

Each elective area is made up of six specialist courses, which are delivered alongside the core curriculum. The Facilities Management Option, for example, explores property



Pictured at the laying of the foundation stone and unveiling of the plans for the Quinn Undergraduate School, UCD were (left to right): Donal Murphy and Denis Brereton, RKD Architects, and Professor Philip Bourke, Dean UCD Business Schools.

development process, corporate property strategy, project management, strategic benchmarking, outsourcing, and property finance and valuations.

Applications for the September 2001 intake for this programme are presently being accepted.

Contact: Elish Carr, MBA Programme Manager, DIT.

Tel: 01 - 402 3033;
Email: elish.carr@dit.ie

BTU Malahide Results

Overall Winner: Dermot Ryan (10), 39pts

Class 1

Winner: D Cranston (13), 36pts

2nd: V Broderick (12), 34pts

3rd: E Vikers (8), 32pts

Class 2

Winner: D Lynch (15), 37pts

2nd: G Phelan (14), 35pts

3rd: G Carlton (14), 33pts

Class 3

Winner: M Murphy (24), 33pts

2nd: R Byrne (17); 32pts on B9

3rd: B Daly (19), 32pts on B9

Front 9: M Melligan (18)

Back 9: S Smith (18)

Sponsors Prize: Dessie Ward (34)

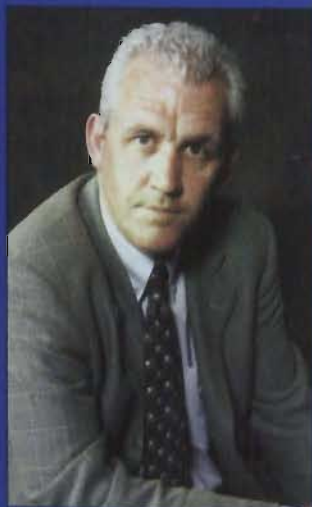
Visitors: Mike Clare (35)

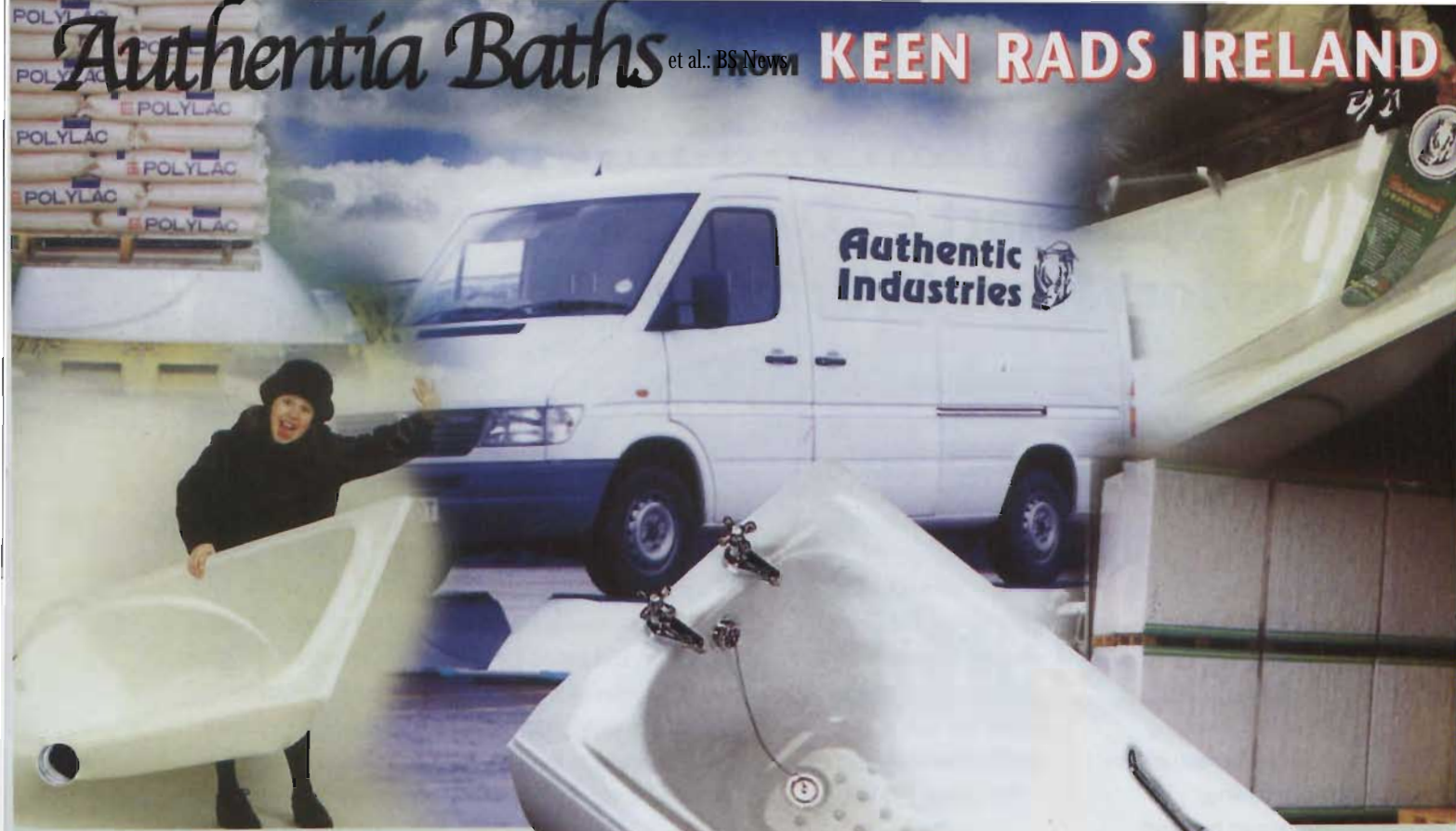
As we went to press the prize-giving photographs were not available.

Powrmatic Appointment

Tony Delaney has been appointed Area Sales Manager for the Republic of Ireland, Powrmatic Ireland. He has been involved in the building services sector for many years and brings extensive experience of commercial heating and flue products to the company. Tony is also a well-known figure throughout the country because of his involvement with GAA club and county teams over the years.

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





Also from Keen Rads



The Purmo Compact heralds a new era in radiator design with every single and double panel model coming complete with factory-fitted side panels and top grille as standard. Purmo Compacts are manufactured under a quality system conforming to ISO 9000. Each radiator undergoes the most stringent production, anti-corrosion and finishing treatment to ensure a product of the highest quality and integrity. The Purmo Compact also carries the British Standards Kitemark, which certifies quoted heat outputs to BS EN 442.



Contact

**KEEN RADS IRELAND, Lakelands, Ballydangan, Athlone, Co Roscommon.
Tel: 0905 - 73006; Fax: 0905 - 73006; email: keenrads@eircom.net**

THE COMPLETE WATER-BASED A C SYSTEM

Aquasmart — Complete Comfort from Hydronic System

With six patents pending on its new Aquasmart Hydronic System, on top of five held by its Aquasnap chiller, Carrier is confident in making big claims for its first complete factory-assembled chilled water system to be launched in Europe. "It is much more than the sum of its parts", says Austin McDermott, Managing Director of distributors Core Air Conditioning.

"Aquasmart has been designed as a complete system of perfectly-matched components with product-integrated electronic control. It has been developed to provide the fastest, easiest installation, connection and operation, and a single source of everything for the installer".

The system is tested and connected at the factory. It incorporates an Aquasnap chiller or heat pump with its integrated hydronic module, complete with a water pump, expansion tank, water flow switch and valves — everything the installer needs. The auto-adaptive control protects the compressors and eliminates the need for a buffer tank. There is also an advanced control system and a complete range of pre-wired "active" air distribution terminals.

Centralised monitoring of

the installed system cuts diagnostic and intervention time and completes the establishment of peace of mind for the contractor and the end-user. Further remote access is also possible via the Carrier Comfort Network or the Internet. A CD-based selection programme has also been developed to ensure the ease of specification of the system.

The system can operate

Combined with Flying Bird fan technology and the latest speed adjustment refinements, this produces the quietest possible operation.

Relatively small quantities of the green refrigerants — R410A in the case of the small units and R407C for the larger ones — are used in the chillers. Only chilled water circulates in the occupied space.

electronic tools are compatible, including remote supervision.

It can control from five to 128 units, and have four time schedules a day per week for a maximum 32 zones. The menus are easily accessed at two levels of security and are user-friendly with two one-touch adjustment buttons, four menu buttons and four navigation buttons. Instant individual control is achievable in each zone.

Consoles, cassettes, hi-walls, and ducted fan coil units can all be matched more precisely than ever before. Cooling or heating is available via 2-pipe change-over, 2-pipe/2-wire, and 4-pipe versions. Each unit is also supplied complete with valves, electric heater, condensate pump and temperature sensors.

The system's capacity range is broad enough, and its component choice varied enough, to offer

complete flexibility in the application of this system for most medium-sized building applications.

Installation has been simplified to such an extent that only the water connections, 3-phase electricity and the communications Bus need to be linked up.

Contact: Austin McDermott, Core Air Conditioning.
Tel: 01 - 294 3110;
Fax: 01 - 294 3115;
email: info@coreac.com



Aquasmart System overview. Details from Core Air Conditioning

efficiently at temperatures from -10°C to +45°C. With outdoor air-cooled units it has a capacity from 5kW to 250kW, and air-cooled plant-room sited units from 17kW to 160kW.

Size matters too, and many of the chiller units have exceptionally small footprints. Up to 160kW, for example, the units are only 1.3 metres high.

From the smallest to the largest units, scroll compressors are used.

The Aquasmart System Manager links all the componentry in the system.

Using an 8-line dot matrix display, it has text and graphics capabilities.

It provides the widest possible range of control functions including cooling or heating, alarm reporting, time scheduling, and access to each component to reset setpoints. It replaces service tools, making life easier for the installer, and it is built on a CCN Bus, so all Carrier's

Honeywell

Non Return Valves
Flanged and BSP connections



Reverse Rinse Filters
Patented mechanism the most effective filter cleaning valve available



OVERGROUND REGULATORS



Backflow Preventers
Lightweight, stainless steel BA type backflow preventer with outstanding performance



Pressure Reducing Valves
Direct acting pressure reducing valves range 1/2" to 2"

The introduction of the extensive Honeywell range of unique reverse rinsing filters, back flow preventers and direct acting pressure reducing valves won the approval of WRAS and also water engineers, consultants, architects and contractors.

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

Find out more.

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Technical support line +44 (0)8457 678999

WITH THE BEST

UNDERGROUND



Flow Control Valves
Pilot operated for precise pressure control Sizes DN50 to DN250



Pressure control Valves
Direct acting DN40 TO DN200



Pipe Fitting
Unique restraint system, suitable for PE and PVC and flanged



Pipe connection
Unique restraint system suitable for PE and PVC

CONNECTIONS

Honeywell

Honeywell Control Systems Ltd,
Honeywell House,
Bracknell,
Berkshire RG12 1EB.

RETROFIT: THE ENVIRONMENTAL FRIENDLY OPTION

York Codekit Driveline Retrofit

Picture the scenario ... an old chiller which is oversized, operates inefficiently, and runs on environment unfriendly R11. The obvious solution is replacement but, on investigation, it turns out to be located in a very tight space within an old plant room. Access is extremely limited, thereby making replacement virtually impossible.

This is the situation met by York ACR's engineers recently when they were called in to deal with a 25 year old Carrier low-pressure centrifugal chiller operating on R11 to provide air conditioning to a largescale plant. After years of service all the wear and tear was showing on the chiller's driveline. Bearings, motor windings, seals, gaskets and more all needed to be replaced. Additionally, there were no electronic controls and mechanical enhancements to deal with the need for today's energy management requirements.

Then there were the environmental considerations. Apart from the moral responsibility, impending legislative action required a move away



The in-situ Carrier chiller before work commenced



The suction connection prepared for new suction elbow

from R11 which is no longer available in the industry.

There was only one answer to the problem ... retrofit or, to be more precise, York's Codekit Driveline Retrofit.

A York® CodeKit™ Driveline retrofit replaces the heart of the in-situ chiller. It provides a new replacement open-drive motor and compressor that is fully compatible with R-123, the refrigerant-conserving Turboguard purge system, and state-

Installing CodeKit Driveline

1. CodeKit™ Driveline installation is simple: York technicians start by examining shells and piping and make any necessary repairs.
2. The old driveline is removed.
3. Gaskets, seals, and joints are replaced on the refrigerant loop as required.
4. Then the York® CodeKit™ Driveline is installed.
5. Finally, York recommissions and starts up the retrofitted chiller to put new state-of-the-art performance on line.

RETROFIT: THE ENVIRONMENTAL FRIENDLY OPTION

Giving New Life to Your Chiller



HGV was added as a load requirement for this installation



Installing new shell insulation



Major components completed



The completed retrofitted unit with new York Driveline

of-the-art Microcomputer Control Centre with accurate digital readouts.

York CodeKit Drivelines are fully compatible with HCFC-123, including o-rings, seals, and gaskets. They use the same proven open-motor design found on HCFC-123 compatible York® CodePak™ Chillers. As a result, the system can be charged with HCFC-123 right away.

Once the CodeKit Driveline is installed, the client can expect the same reliability and life span as with a brand-new York HCFC-123 compatible chiller. That's

why York backs the CodeKit Driveline retrofit with the same warranty as a new chiller.

A retrofit is perfect for tight places, since the driveline can be disassembled this avoiding the need to move existing equipment or walls. Piping and wiring already in place are simply reused.

It doesn't matter who originally manufactured the chiller, CodeKit Drivelines are available for nearly any brand. York will look at all chiller applications and advise on the best financially-viable option available.

Save up to 30% in Energy
Another user benefit is the option to include York optispeed variable drive. This is offered on all centrifugal chillers and can save up to 30% in electric power consumption on a chiller plant.

Contact

 **York® ACR**

John Guiden, Service Sales Manager.
Tel: 01 - 466 0177; Fax: 01 - 466 0198;
email: john.guiden@ie.york.com
Website: www.york.com

C H I M N E Y S & F L U E S

Desirable and Legislative Guidelines and Standards Covering Emissions From Chimneys and Flues

Over the last few years, it has been recognised that legislation relating to combustion flue gas discharge required amendment. Appliances burning solid fuel, wood, gas and oil, may all produce what is thought to be common combustion gases at similar temperatures, but they are all very different. In addition to the water and CO₂, content common to all fuel combustion processes, solid fuel and oil combustion gases contain acidic by-products, and are generally at higher temperatures than gas.

Furthermore, European as well as Member State autonomous legislative influences, are forcing efficiency levels on combustion equipment upward, to a point where those differences increase. The result impacts both the flue gas exit requirements, as well as the type of chimney through which they discharge, writes *Barrie Meridew, European Product Marketing Manager, Selkirk Manufacturing.*

Solid fuel and wood flue gas temperatures normally range 250°C - 450°C. If the appliance malfunctions, or is used incorrectly, those temperatures can quickly exceed 1200°C, and seriously damage any type of chimney construction. That is why Building Codes are more strict for such equipment, and always dictate vertical discharge

well above roof level. UK Building Regulations will soon require chimneys to terminate at least 1.8m vertically above any combustible roofing materials, such as a

thatched roof.

Termination over non-combustible roofs are not permitted to be less than 1m, and may be significantly more, depending on the roof

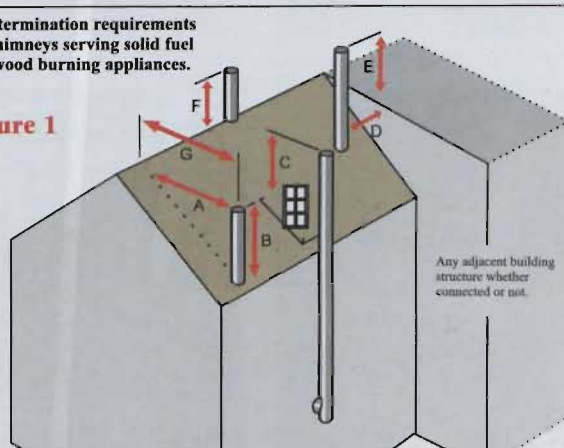
pitch, as the flue outlet must be 2.3m horizontally clear of the roof surface or any other structure on the roof. The new UK Building Regulations Approved Document J will be incorporating an illustration which more easily explains the termination requirements (see Figure 1).

Gas combustion technology has probably made the most significant advances impacting flue design. Many appliances are now available, the flue gas temperatures of which, in order to extract the maximum amount of heat out of the combustion process, are intentionally driven so low that they leave the appliance below "dew point"; about 60°C, which is the temperature at which water condenses, hence "condensing appliances". Such equipment is always room-sealed and incorporates a fan, as that is the only way that the combustion gases can move through the deliberately-restrictive heat exchangers to achieve the high efficiency levels required.

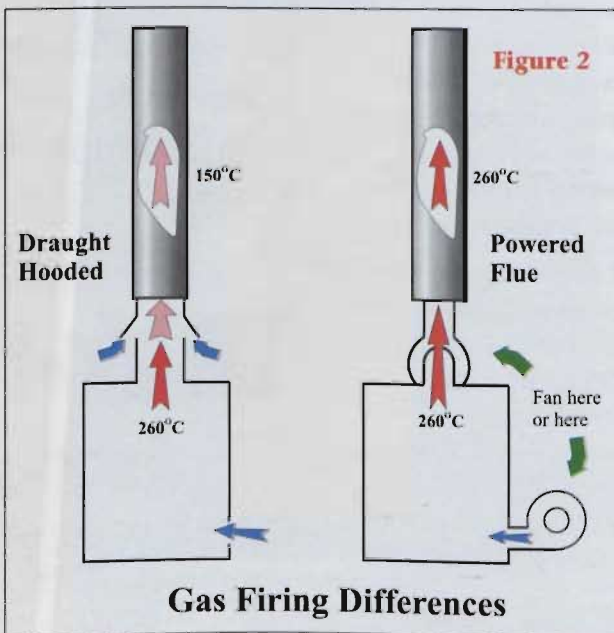
Flue arrangements for such appliances often don't need anything more than a drain to handle the condensates and a small diameter flue which most inconveniently discharges the gases, often, but not necessarily, at low level. As the heating flow and return water temperature characteristics of this type of appliance differ of

Flue termination requirements for chimneys serving solid fuel and wood burning appliances.

Figure 1




Dimension	Minimum distance measured from the top of the chimney construction, excluding any pot or terminal.
A	2.3 metres horizontally clear of the roof surface, eg. if the roof pitch is 45°, then the chimney should project 2.3 metres above it.
B	1 metre, provided A is satisfied, or 600mm above the ridge if G is less than 600mm.
C	1 metre above the top of any flat roof, and the top of any openable roof light, dormer window or ventilator, etc., if it is located within 2.3 metres.
D/E	If D is less than 2.3 metres, E shall be not less than 600mm.
F	600mm above the ridge.
G	Edge of chimney to roof ridge.




powrmatic



 **Comprehensive range of gas vents, flues, liners and chimneys**




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 **Comprehensive technical sales support**



 **Also a full range of warm air cabinet and unit heaters available ex-stock**



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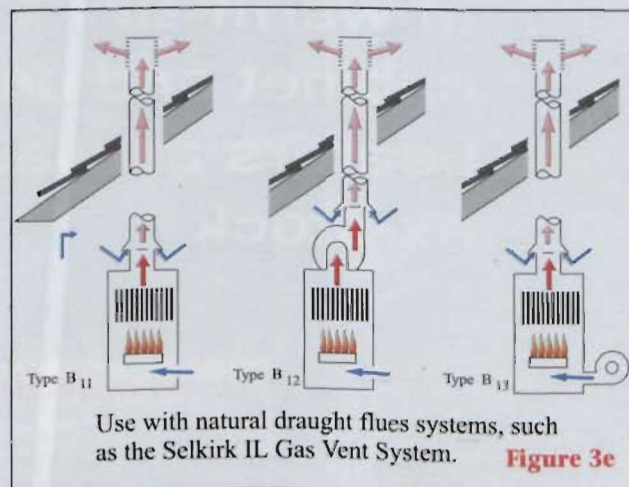
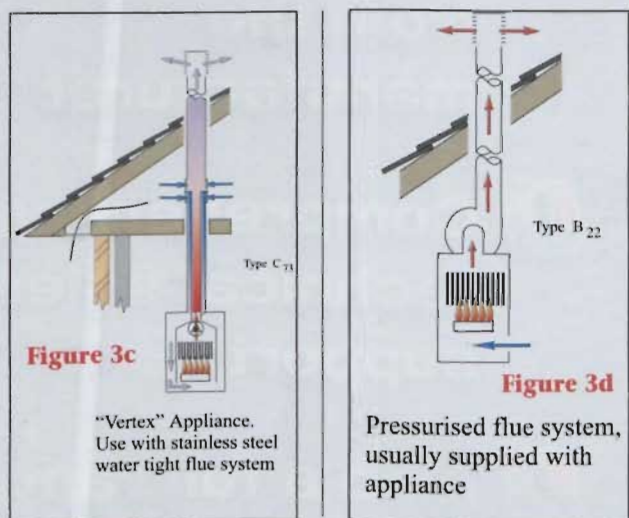
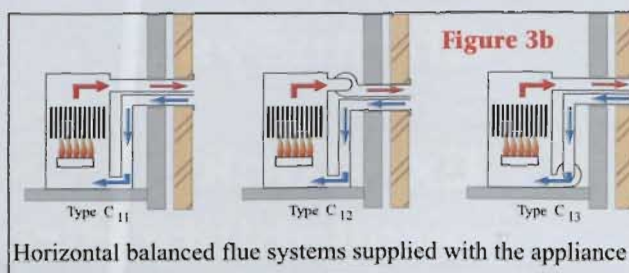
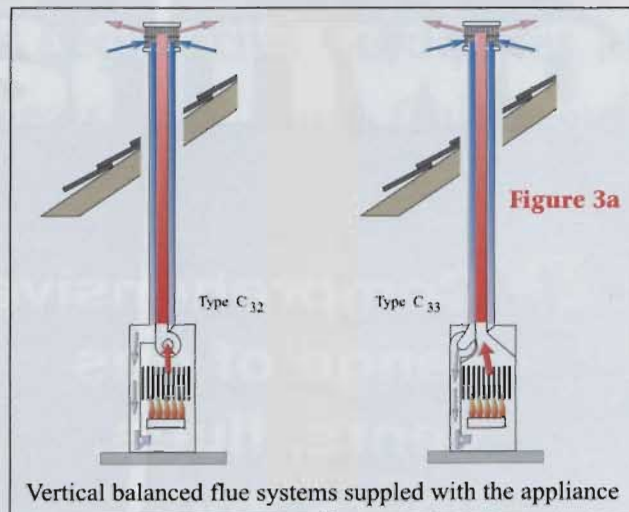


C H I M N E Y S & F L U E S

necessity from traditional heating design, they are best incorporated into a purpose-designed heating system, so that they are able to perform as intended.

Conventional gas combustion processes still provide a necessary requirement in two ways. They enable the provision of replacement appliances connected to existing heating systems, as well as the use of equipment which can be used where condensing appliances cannot be easily located or are too expensive. More importantly, they permit the continued development of equipment which meets the growing popularity of decorative gas appliances, albeit within EEC dictated minimum efficiency requirements. Flue gas temperatures over gas fired appliances will differ, dependant on their either having a draft diverter/hood, or being fan powered (see Figure 2).

Within the last two years, European Technical Committees have issued classification data which defines the various types of gas appliance. The British Standard relating to the installation of chimneys and flues serving gas fired appliances, BS5440: Part 1 has changed and the UK Building Regulations Document J, which incorporates comments on the same subject, is about to be amended. The European Classification illustrations already appear in BS5440: Part 1, and have been adapted in Figures 3a - 3e, to illustrate the various types of flue system



with which they can be used.

Significantly, both the British Standard, and the intended Approved Document J, now feature new illustrations dictating that natural draught chimneys serving gas appliances, have to discharge at a greater height above the roof. Figures 4 and 5 illustrate the new mandatory requirements. The main difference from the previous requirement is that the minimum discharge height can now vary relative to the roof pitch, subject to other openings in the roof being taken into account.

Legislation has also been revised for low level discharge gas appliances (balanced flues). Figures 6 & 7 indicate the differences between old and new requirements. Note that if the appliance is fan powered, then the existing arrangement as Figure 6 continues to apply. However, horizontally-discharging powered flues can create other difficulties, as the escaping high velocity gas "plumes", can cause nuisance problems when they are ejected over boundaries into public areas, or into neighbouring properties, particularly open windows. When taking into account the increased safety clearance criteria for non-powered, as well as potential nuisance factors of powered balanced flues, it can be seen that a satisfactory location for the discharge on the outside of the building, is not necessarily going to be convenient for the internal

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.

To find out which Selkirk chimney, gas vent or exhaust system is perfect for your next project, phone 01 - 419 1919

 **SELKIRK**

 **Hevac Limited**

Muirfield Drive, Naas Road, Dublin 12.
Tel: 01 - 419 1919; Fax: 01 - 458 4806

CHIMNEYS & FLUES

location of the appliance.

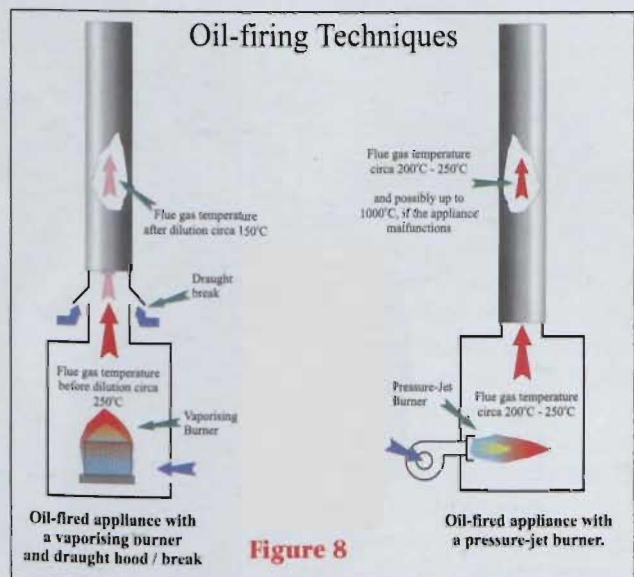
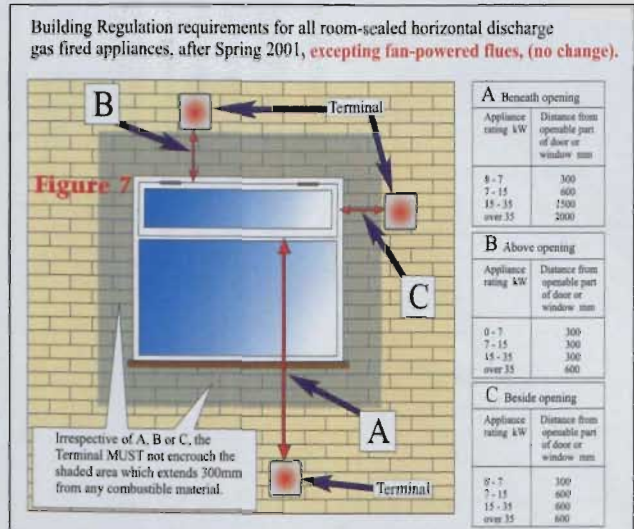
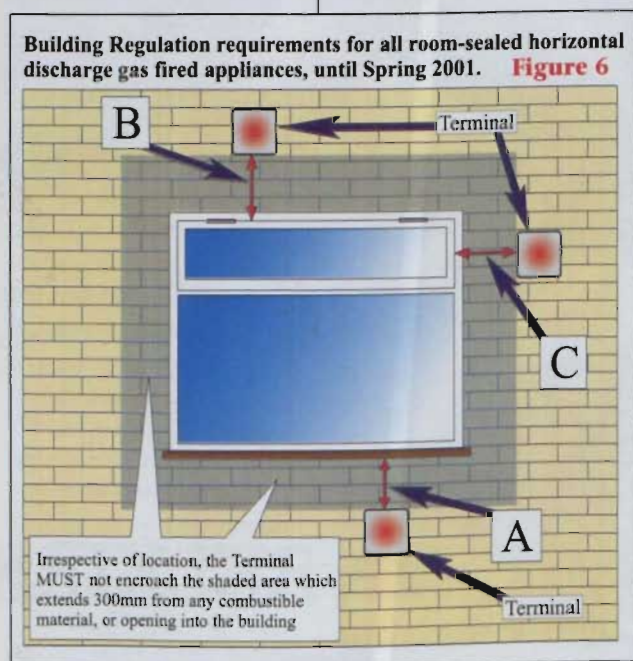
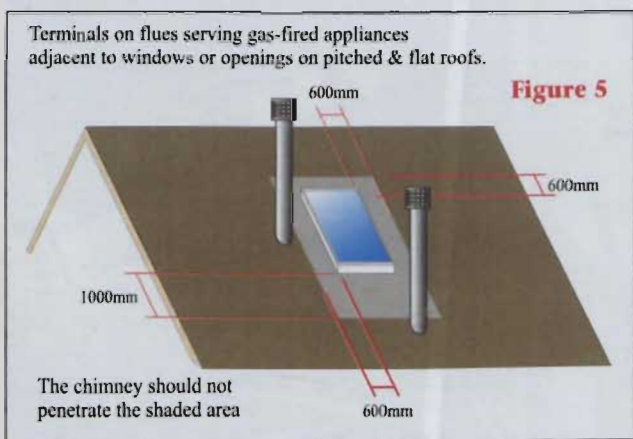
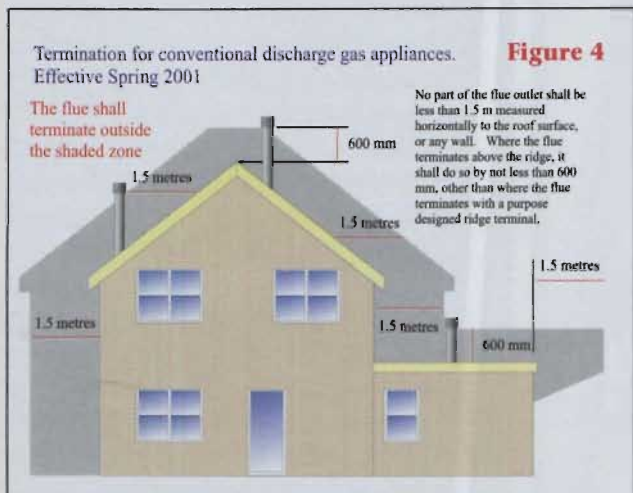
Chimney termination for oil fired equipment is reasonably simple. If the appliance has a pressure jet burner, then the

termination must project above the roof level, and be at least 600mm clear of any opening into the building. If the appliance has a vapourising burner,

and Figure 8 simply illustrates the difference between the combustion processes, then the termination has to comply with the dictates for solid fuel, in every respect. This may seem odd initially, but is logical in that a fan powered flue arrangement is less likely to be affected by adverse wind or draft conditions at roof level, compared to a vapourising burner appliance which, like conventional gas appliances, is fitted with a draught hood/break. If the appliance is a low level fan powered unit, then the discharge requirements are

the same as if a gas-fired fan powered balanced flue.

The chimney and flue installation criteria are just as important, if not more so, than the design and installation of the heating system. The process of determining the location for the combustion gas discharge of a flue serving any type of appliance, should not, (but regrettably often is), be left as the final and cheapest consideration when determining the needs of the customer. At the least, a mistake can be costly ... at the worst it can be potentially dangerous.



System 250 Achieves 4-Hour Fire Rating

To meet growing customer demand for fire-rated flue systems, Powrmatic's System 250 twin-wall insulated flue system is now available with a 4-hour fire rating across all diameters.

The 4-hour fire rating was carried by LPC laboratories and verifies the integrity of the System 250 flue system under the criteria defined in BS476:Pt20:1987. The rating applies to Powrmatic's standard material specifications only.

System 250 is a high-quality, multi-purpose prefabricated chimney system suitable for domestic or commercial oil

and gas fired appliances with flue gas temperatures up to 760°C continuous firing. Available in a range of sizes from 125 – 600mm I/D, system components from 125mm up to 2500mm I/D are also suitable for solid fuel appliances.

The inner liner is made from 316 grade stainless steel, while the outer casing is 304 stainless steel.

To make customer ordering even easier, the System 250 range now comprises installed lengths of 1500mm, 1000mm, 500mm and 250mm. Adjustable lengths are still available where dimensional flexibility between components is required.



Powrmatic now offers its System 250 twin-wall insulated flue system with a 4-hour fire rating across all diameters

"The introduction of 4-hour fire rating across the larger diameter System 250 products demonstrates our commitment to continued product development and will allow further opportunities within the

industry for this product", commented Tony Delaney, Powrmatic Irl.

Tel: 01 - 452 1533;

Fax: 01 - 452 1764;

Website:

www.powrmatic.co.uk



INSULATED CHIMNEYS (ASHBOURNE) LTD



IC(A)L T.30 Chimney at Fiat (Irl) Ltd

The ICAL pressurised chimney is manufactured in sizes from 5" to 48" diameter. It is normally used in applications where there is a positive pressure in the system. It is suitable for temperatures up to 760°C constant firing and can be installed either internally or externally. A full range of fittings i.e. tees, elbows, bends, etc complement the lengths so that most configurations can be met.

The inner liner of the system is constructed of .9mm 316 grade stainless steel which is flanged at both ends to facilitate construction of a pressure joint.

The outer casing can be manufactured from various materials depending on the application required.

The gap between inner and outer can either be air or insulation again depending on the application.

It is advisable to contact ICAL on any proposed application as each individual case tends to be unique.

**Insulated Chimneys (Ashbourne) Ltd, Unit 5B, Summerhill Enterprise Centre, Summerhill, Co Meath.
Tel: 0405 - 58123/112; Fax: 0405 - 58109**

C H I M N E Y S & F L U E S

Multipurpose Vents, Chimneys and Flues from Selkirk



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

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

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

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

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

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

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

Selkirk SMW is a twin-wall mineral-wool insulated stainless steel system design for use with oil and gas fuels. It is available with a full range of fittings and accessories in twelve diameters ranging from 127mm to 600mm. Diameters of 127mm to 203mm are specially manufactured, tested and Kitemarked to BS 4543 Part 3 for use with oil and gas fired equipment.

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

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

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

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

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

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

ICAL Twin-Wall Pressurised Flue System

The ICAL pressurised flue system is prefabricated under quality controlled factory conditions. It is of twin-wall construction, having a 30mm air gap between the inner liner and outer casing. The vertical seam is machined-formed and has an 8mm flange formed on each end of the liner.

The vent sections and fittings are joined by clamping a vee-band over the mating flanges of adjacent components. Sealant is applied to the inside of the vee-band before fitting and also to the flange faces. The inner liner is the structural load bearing component and expansion of the liner due to changes in gas temperature is catered for by expansion joints fitted, as necessary, throughout the system.

The outer casing is non-loadbearing while a locking band fitted in grooves in the outer casing is provided to close the space between adjacent components.

The system has a 4-hour fire rating when installed using the appropriate fire stop assemblies as approved by LPC Laboratories Centre for Fire & Security Testing UK to BS476 Part 20:1987.

Min 10°C above flue gas acid dew point on the inner liner surface throughout the system.

The system comprises a full range of starting components — lengths, tees, elbows, load-bearing components, flashings, and terminals — necessary to provide a complete system.

The load-bearing and wind-load capacity of all components when installed within a system are determined by the manufacturer, while the complete set of the bolts and nuts necessary for the correct assembly are also provided. Special components are available if required, along with a detailed dimensioned drawing.

Inner liner and all surfaces in contact with flue gases are of 1mm gauge stainless steel as per the following schedule:-

Gas — 35 sec oil; 304 Grade;

Heavy oil: solid fuel — incinerators or modular applications: 316 Grade;

Outer Casing: 304 grade stainless steel (stainless steel to BS 1449 Part 2);

Components: 304 Grade stainless steel.

Insulation is installed within the product annulus by the manufacturer —

(1) to meet the minimum operating conditions;



Pressurised chimney from Insulated Chimneys (Ashbourne) Ltd.

(2) where the vent is installed close to combustible material;

(3) to prevent a personal hazard.

The specification for the insulation required for a particular application will be as recommended by the manufacturer.

The installation of the complete system must be strictly in accordance with the manufacturer's instructions. Each change in direction is by means of an "easy sweep" bend using a combination of elbows, or elbows and 135 degree tees. A 90 degree tee is only used where site dimensions do not facilitate an "easy sweep" arrangement.

The manufacturer's load-bearing and lateral support components must be used in every case. Where these

components require to be extended to suit site conditions, a suitable extension bracket is supplied and fitted by the installer. Extension brackets are manufactured from a suitable gauge to suit the application.

Adequate access must be provided throughout the chimney system to enable service personnel to clean the system. A condensate collector(s), as provided by the manufacturer, is installed throughout the system as necessary, while the system must be fixed to the unit outlet using an adapter provided by the manufacturer.

Contact: Brendan Bracken/Peter Farrelly
Insulated Chimneys (Ashbourne) Ltd.
Tel: 0405 - 58123/112;
Fax: 0405 - 58109.

Working pressure: (at boiler outlet)

- (a) With Expansion joints up to 13mm wg. (0.13 KPa)
- (b) With Expansion joints up to 1500mm wg. (15 KPa)

Temperature (max)	Continuous	Intermittent
(a) Expansion joints	600°C	750°C
(b) Expansion joints	760°C	1000°C

Refrigeration Technology Skillsnet AGM

The training network for the refrigeration sector — Refrigeration Technology Skillnet — recently held its first Annual General Meeting. Individuals from a wide variety of companies attended the meeting, representing manufacturers, wholesalers, contractors and end-users from around the country.

The key objectives of the meeting were (i) to report on the progress of the network since its formation in March 2000 and (ii) to invite feedback and debate on the best way forward.

Opening the meeting the network board's Chairman, Dan Dowling (Premier Refrigeration), thanked all those companies that have given their support to the network so far. "They had demonstrated not only an awareness of the importance of training but a real commitment to providing it", he said.

Also representing the voluntary board were Garrett Keenaghan (CGK Enterprises), Seamus Kerr (RSL), Gerard Hoey (ISEP), and Vincent Weldon (Tech Refrigeration). Alan Davies (Anglo-Irish Refrigeration) sent his apologies due to ill health.

Dan also acknowledged the contribution of David Killalea (Cross Refrigeration) who resigned from the board very recently, and Harry

Flatman (ACR Calibre) who resigned last summer after assisting with the formation of the network.

The project manager, Enda Hogan, reported on the following:

Network Development

Forty-five companies have been represented at one or more of the training courses run by the network over the last 12 months. This is reflective of the management board's policy of promoting the widest possible participation in network activities. There remains considerable scope for wider participation from the sector and this will continue to be a key aim of the network.

Training Programme

One hundred and fifty trainees have participated in training courses so far. Refrigerant Handling (C&G 2078) has been the most popular training course to date, followed by the General Refrigeration short courses (A & B) accredited by DIT. Also popular were the two programmes on air conditioning and, more recently, a course on selling skills.

Despite the reported popularity of these courses, the project manager noted that it was becoming more difficult to fill all the places on courses in recent months. Companies cited staffing shortages as the principal



Dan Dowling, Chairman, Refrigeration Technology Skillnet and Managing Director, Premier Refrigeration

obstacle to training. He appealed to network members to make more time available for training.

Finances

The treasurer, Vincent Weldon, reported that the network finances are in a healthy state. While the network raised sufficient matching funds to draw down the entire Skillnets grant awarded to the Network for 2000, there was a shortfall in eligible expenditure. This was largely due to the delay in getting the funding in place at the start of the programme. However, it is expected that any grant funds not spent in 2000 will carry over to 2001, provided that there is sufficient activity to warrant its expenditure. It is important, therefore, that companies with a

genuine interest in training their staff should do so in the immediate future in order to avail of the subsidised training on offer through the network.

The way forward

Group discussions were held to discuss the training programme for the remainder of the year. It was agreed that the existing courses should continue to be offered. However, the network board should look at different modes of delivery that could help overcome the problems associated with release of staff for two or three days at a time. It was also agreed that a seminar programme be developed, aimed primarily at senior management and engineers, to deal with topical issues, e.g.,



Seamus Morgan, Tempar with Tom Morrissey, Thermodial

"legislation surrounding transportation and disposal of recovered gases".

Finally, a number of new volunteers came forward to sit on the management board, including John Sampson (Danfoss), Derek Byrne (Fridge Spares), John Ryan (REL) and David Roome (D C Compute Air). Further new volunteers are welcome.

The network is open to all enterprises and individuals engaged in the design, manufacture, distribution, installation, commissioning and maintenance of refrigeration technology for Irish industry.

Contact: Enda Hogan, Project Manager, Refrigeration Technology Skillnet.

Tel: 01 - 402 3044; Fax: 01 - 402 3074;

email: enda.hogan@dit.ie Website: www.dit.ie/ats



Stephan McEvoy, Tallaght Coldstores with Kevin Hoey, ISEP and Derek Byrne, Fridge Spares

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For further details, please contact:

Elish Carr

**MBA Programme Manager
Dublin Institute of Technology
Aungier Street, Dublin 2.**

Tel: (01) 402 3033

Email: elish.carr@dit.ie

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" UP TO 45% MORE EFFICIENT THAN THE COMPETITION "

Mitsubishi Electric City Multi Systems

The name Mitsubishi Electric is known the world over. It is synonymous with excellence across a variety of sectors, and associated with an incredible variety of products. Key to the success of Mitsubishi Electric has been the success of its environmental control systems.

For over 47 years, Mitsubishi Electric has been responsible for the manufacture of market-leading environmental control equipment, in addition to being at the forefront of the development and commercial

— Easily interfaced with all major BMS suppliers;

— Fewer concerns over space lost to large chillers, boilers and other peripheral plant – especially in refurbishment projects;

For the Owner

— More lettable floorspace, no need for dedicated internal plant rooms;

— Installation is possible with the tenant in-situ ... no loss of revenue;

— Off the shelf availability reduces implementation time;

— Up to 9% more energy efficient in the heating season;

— Up to 45% more energy efficient in the cooling season;

— On average, over a year, up to 20% more energy efficient;

— Saving, on average, £4,400 in electricity costs;

— Reducing CO2 emissions by as much as 37,959kgs per annum.

Heat Interchange Circuit

Extra sub-cooling provided by the unique HIC circuit offers significant performance enhancements to City Multi systems. The HIC circuit allows better refrigerant distribution to multiple indoor units and offers better control when using electronic expansion valves. Refrigerant volumes are reduced compared to conventional systems.

"Through the use of its Intelligent Power Module, and the Heat Interchange Circuit, Mitsubishi Electric City Multi systems are putting the competition in the shade, especially when it comes to technology advancement, says Mitsubishi Electric's Mike Sheehan.

"With continued research and development we are seeing the benefits of high-quality product, which allows for design flexibility, ease of installation, and decreased running costs. It also helps us maintain our position as Ireland's most popular air conditioning provider".

*** COMPARISON CRITERIA**

The data for comparison is based on the following:

- Met. Office data for ambient temperature collected over the last 10 years at Heathrow Airport
- A 12 hour running period per day, 7 days per week, indoor temp. 21°C
- 10,000ft³ building with 10 heat pump systems installed — 100% capacity connection
- Cooling/heating switchover at 13°C ambient temperature
- Published technical data available at 02/01/01
- Energy cost of £0.05/kWh, emission level 0.55kg/kwh

For the Installer

— Work is easier and quicker, thanks to fewer connections and the unique small bore, 2-pipe system that is relatively easy to integrate into existing voids and service shafts;

— Work can be phased to suit the specifier, the owner, and the tenant, making workloads easy to manage;

— Constantly up-graded training is readily available through Mitsubishi Electric.



adaptation of ground-breaking technology. This is reflected in the fact that last year the company spent at least 5% of its turnover in research and development, approximately US\$35.6 billion.

The benefits of investment in research and development is plainly in evidence in the City Multi range of products and its energy-efficient use of VRF technology. This efficiency can be measured in real monetary terms, as savings on running costs for a typical building will run into thousands in the space of a year.

Benefits of City Multi

For the Specifier

— Allows air conditioning to be offered as an affordable, energy efficient feature in any project, regardless of size;

— Simplicity of design, as there are fewer components required;

Vital Components in Success

Intelligent Power Module

Mitsubishi Electric's 2001 City Multi products benefit from the latest generation Intelligent Power Module (IPM) inverter technology to deliver precise control of environment and the energy input. This is because it uses Pulse Width Modulation (PWM) to control variations in the frequency range controlling the compressor in 1Hz increments, rather than the 5Hz steps previously the market norm in VRF systems. This gives the equipment a Power Factor Rating of up to 99%. The IPM inverter efficiency advantage really comes into its own in normal, year-round part load usage conditions — at between 50-80% of operating capacity — which just happens to be most of the year.

The Measure of Success

In comparing* the leading competitive system with City Multi, City Multi proved to be:

The "Ask the Expert — Training & Career Development" series is aimed at assisting those who want to upgrade their qualifications and knowledge but don't know how to go about it. It is presented in conjunction with the DIT, Bolton Street, with Seamus Murrán — DIT's Head of Department of Construction Skills — providing the relevant information. If you have a query vis a vis training or career development, send a brief note to BSNews, Carraig Court, George's Avenue, Blackrock, Co Dublin.

Ask the Expert



Seamus Murrán, Head
Department of Construction
Skills, DIT Bolton Street

I qualified as a plumber more years ago than I care to remember and have run my own business for 10 years now. While successful, I had no formal training in how to quote for jobs. How can I address this?

I believe you need to take a course in Estimating and Tendering for Plumbing and Heating in DIT. This course covers such areas as tendering procedures, tender documents, contracts, pricing folder, bill of quantities, etc.

The course is offered on Wednesday evening from 7pm to 10pm. Students who successfully pass the final will be awarded a Continuing Professional Certificate in Tendering and Estimating from the DIT.

I'm working as a counter-hand in a large, successful heating and plumbing outlet. I have done so since I was 16 and now, at 23, I want to learn more about the business. My employer says that if I identify a suitable course, he will pay for it. What are my options?

This question can be approached from two aspects.

(a) Making the assumption that you want to increase your technical knowledge to enable you to interact with customers and offer advice, you should enroll for the DIT/IDHE, Domestic

Heating and Environmental Engineers Course.

This course will increase your knowledge of the design installation and management of domestic and commercial heating systems. It should also increase your confidence on the topic when dealing with the public.

(b) The alternative route is for you to enroll in a course which will include commercial practices including retailing, selling, etc. This course will increase your commercial skills in relation to the retail business.

To my knowledge there is no course tailored to suit your specific requirements. You may have to take a Management Course which is as close to your requirements as possible.

Contact: The Faculty of Business, DIT.

Generations of my family have been involved in the plumbing business and I want to continue that tradition. I'm about to do my Junior Cert this summer but don't know whether to start work in the autumn as an apprentice or continue on to my Leaving Cert before doing so. What would you advise?

I suggest you stay in secondary school and complete your Leaving Certificate programme. Around 70% of all apprentices entering trades

at this time have a Leaving Certificate.

When you get your Leaving Certificate you can then decide whether you want to become an apprentice or an engineer in the plumbing/heating or building services areas.

If you follow the route of an apprenticeship, you must seek a job first and get your employer to enroll you with FAS. The training and education block release periods should follow automatically.

Whatever you do it is most desirable that you stay in secondary school and finish your Leaving Certificate programme.

I already have a DIT Diploma in heating and ventilation but want to improve my general knowledge and competency levels, especially in relation to technology, IT and communications skills. Where do I start?

I suggest that you apply for one of the many IT courses on offer within the DIT or from private institutions.

There are many courses in this area and you should get copies of the outline syllabus from the various organisations and study them carefully before making your decision.

It is important that you focus on the areas that interest you before enrolling.

Authentia Bath ... Just Purrrfect!

Tommy Kelly's Keen Rads Ireland continues to expand at a progressive rate, adding new agencies to the portfolio, taking on additional staff, and acquiring new and much larger premises.

Latest addition to the product line-up is the Authentia bath range. This state-of-the-art injection-moulded bath won't crack like acrylic; is lightweight,

yet super thick (7mm); can be fully recycled; measures a true 1700mm by 700mm; also comes in 750mm; comes in standard colours of eurowhite, pergamon and

soft cream; is available in any colour match (subject to minimum order quantity): and comes with a 25-year guarantee.

Among the optional extras are bath grips in white, pergamon, soft cream, chrome and antique gold.

All models in the range are manufactured in full accordance with BS4305 and EN198.

On the personnel side Michael Dolan, who is well known throughout the sanitary ware sector in Ireland, joined the

company some months back and he has spearheaded the drive into this market segment, beginning with bath panels and toilet seats, which have now been enhanced by the addition of Authentia.

Obviously, such a rate of expansion bring with it its own associated demands, not least being pressure on space. A critical aspect of the Keen Rads service

years ago but, with a mixture of hard work, quality service and a select stable of brand-leading, quality products, Keen Rads has carved out a significant market share in the heating and sanitary ware markets.

Purmo radiators, from the internationally-renowned Rettig Heating Group of Finland, were the main springboard to success and to this day they still

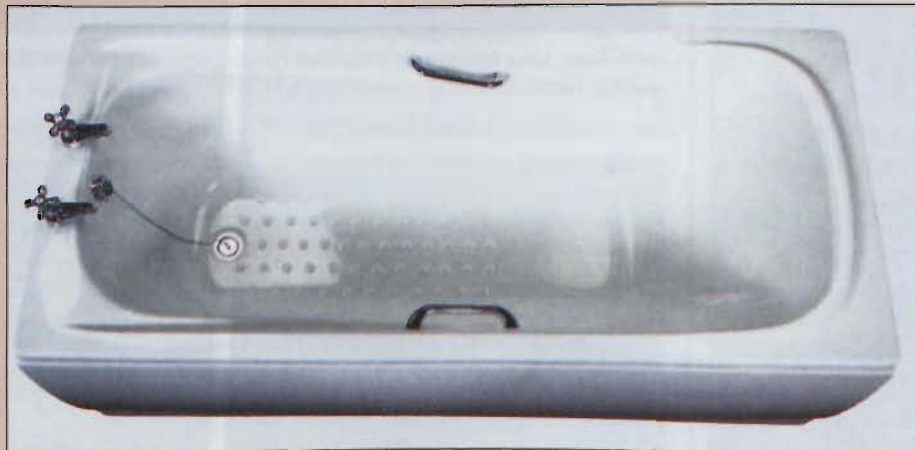
phosphated, dipped in primer and stoved before receiving a final epoxy polyester powder coating and final stoving. All units are finished in high-gloss colour white, RAL 9010. All radiators are guaranteed and certified to EN442 heat output and are supplied complete and fitted with a replaceable air vent which is a unique feature of top-seam radiators.

Completing the product line-up is the Oxypic range of leak sealers for central heating systems.

"There is no great mystery to our success to date", says Tommy Kelly. "We have an excellent product portfolio of market-leading brand names

which we can make available at value-for-money prices. In bringing it to our ever-widening customer base, we match the quality of the products with an equally quality-driven service support package. It is a trading philosophy which has worked extremely well for us and our existing customer, and one which will undoubtedly see many more joining in our trading partnership."

Contact: Tommy Kelly, Keen Rads Ireland.
Tel: 0905 - 73006;
Fax: 0905 - 73006;
email: keenrads@eircom.net



The Authentia Bath with optional grips

has been stock availability. With the portfolio being enlarged at such a rate, Keen Rads outgrew its original premises.

Consequently, Tommy sought out and purchased a new, purpose-design office and warehouse complex of approximately 8500 sq ft from which he now services the entire country, using locally-based hauliers.

It all seems a far cry from the small base Tommy started from just over two

constitute much of the core business, gaining in penetration month on month.

Purmo Radiators are available to suit virtually every possible application and system design, with a total of over 100 models in the range. This versatile and compact radiator can be supplied in both single and double configurations, with heights from 300mm to 700mm, and a choice of lengths varying from 400mm to 2300mm.

Each unit is degreased,

Be>Think>Innovate

Be responsible ... think ahead and innovate, these are the core values behind the new Grundfos global branding concept. The intention is to reflect the company's commitment — through detailed analysis and thinking ahead — to devise innovative pumps and pump systems, which offer problem-solving solutions in a cost-effective, efficient, environmentally-friendly manner.

Group President Niels Due Jensen explains it thus: "I want innovation. In everything we do, we must ask ourselves: how can we set the trend? Innovation is the soul of Grundfos and we must meet every challenge

with open minds. Innovation is the essence of what we do. I want Grundfos to be the most innovative, most responsible, and most future-oriented pump supplier in the world."

Gordon Barry, General Manager Grundfos Ireland, reiterates these sentiments. "Grundfos has always been forward-looking, introducing changes as the world changes. Indeed, more often than not we introduce innovative products and systems which pre-empt these changes and provide a positive lead for others to follow.

"Our leading market position in Ireland reflects this approach. We know that staying ahead is a challenge which we meet by constantly striving for perfection, by being open-minded, by asking questions, by listening, and by applying this knowledge with that of our own expertise to meet the industry's requirements. We understand the power that lies in taking the initiative, the advantage that gives our trading partners and, ultimately, the benefits which accrue to the end user".

Grundfos took the initiative with the launch of its first circulators in 1959 and, since then, has been responsible for the introduction of many industry "firsts". In the following years materials such as ceramics and aluminium were introduced, to be followed by the use of electric regulation which provided major advances in terms of energy savings and comfort.

The 1990s saw the arrival of the electronically-controlled circulator, which in turn was refined to make

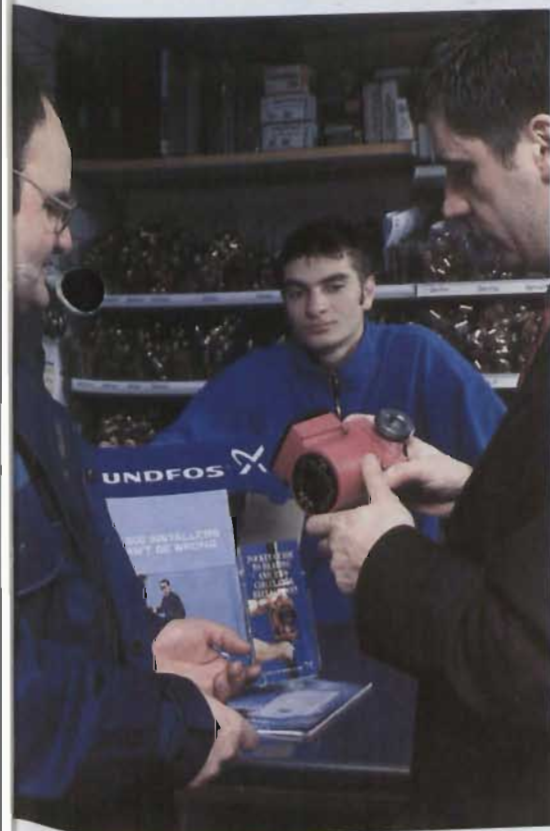
adjustment and monitoring by remote control and network connection possible. The latest result of this ongoing innovative process is the Grundfos Magna circulator.

A key consideration in this respect is sustainability. Grundfos work practices, and the choice of raw materials used, are designed to have the minimum impact on the environment, to produce the least amount of waste, and to be as energy-efficient as possible.

This commitment is also evident from the solar-powered water pump systems developed by the company for use in dry and remote areas of the world. These pumps provide a valuable resource at no cost to the environment and provide an excellent example of the connection between responsibility and sustainability.

While the research and development programme is disciplined and focussed, researchers are encouraged to pursue their own individual initiatives. It is this creative independence which often leads to the most surprising — and beneficial — solutions.

"This fundamental philosophy also applies to the manner in which we deliver the products, and related support services, to our customers", says Gordon. "At Grundfos we are highly flexible. We understand that customers' requirements vary enormously, and we respond accordingly. We understand that if the trading partnership is to work, it must be mutually beneficial. We do everything in our power to make sure that it is".



"At Grundfos we are highly flexible and realise that, to work, the trading partnership must be mutually beneficial"

Honeywell Home & Building Control

Honeywell Home & Building Control is a US\$5.5 billion business that provides products and services to create efficient, safe, comfortable environments. The business offers controls for heating, ventilation, humidification and air-conditioning equipment, security and fire alarm systems, home automation systems, energy-efficient lighting controls and building management systems and services.

Honeywell is a US\$24-billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; power generation systems; specialty chemicals; fibres; plastics; and electronic and advanced materials. The company is a leading provider of software and solutions, and internet e-hubs including MyPlant.com, MyFacilities.com and MyAircraft.com (joint venture with United Technologies and i2 Technologies).

Detailed below are two of the company's latest, innovative, new product introductions.

Honeywell Corrosion-Resistant Pressure Reducing Valve

Honeywell's corrosion-resistant D15P pressure reducing valve now features an epoxy powder coating that protects valve components, so ensuring long-term, reliable operation in underground chambers. The epoxy powder coating is applied inside and outside the valve body to provide a high degree of protection against corrosion. The powder coating is physiologically safe and non-toxic. Other new features include an increased outlet pressure range of 1.5 to 8.0 bar and a position indicator on the spring bonnet to provide easier setting.

Built to a reliable and well-proven design, the Honeywell D15P is designed

for use in potable water supply systems and is used in municipal, industrial and commercial water networks. It is WRc approved for use with potable water and all materials in contact with the water are KTW approved. It also carries full WRAS approval.

Honeywell D15P pressure reducing valves minimise water consumption and repair costs by protecting water installations against damage from excessive pressure in the water supply. By reducing the operating pressure and maintaining it at a constant level, the Honeywell D15P also minimises flow noise in the installation. They can be used in multi-dwelling buildings as well as industrial and commercial premises. The set output pressure is



Honeywell back-flow prevention valves installed at Ralken Colours

held constant across a wide inlet pressure fluctuation.

Honeywell supplies the D15P in sizes from 50mm to 200mm (DN 50 to DN 200) and with a maximum inlet pressure rating of 16.0 bar.

Honeywell Back-Flow Prevention Valves

Ralken Colours has installed two Honeywell back-flow prevention valves to prevent chemicals entering the public water supply during a wash-down process, so safeguarding water supplies and meeting the back flow requirements of the Water Supply (Water Fittings) Regulations 1999.

Yorkshire Water carried out a Water Regulations survey that highlighted the need for the Honeywell BA294 RPZ (Reduced Pressure Zone) back-flow prevention valves. They warned that, under certain conditions, the cleaning of chemical drums using trigger-operated hoses could result in contaminated water being sucked into the water main.

Honeywell RPZ valves are often used where reliable back flow prevention is required, as they can provide a cheaper and more compact solution than a traditional break tank and booster pump.

Honeywell D06F pressure reducing valves are also installed at Ralken Colours to protect the RPZ valves from high overnight pressures and from pressure fluctuations in the water main. D06F valves are widely used throughout industry in this way to provide stable pressure to the RPZs, so ensuring smooth and trouble free valve functioning.

It was a requirement of the installation that a strainer be fitted before each RPZ valve assembly and that isolation valves were installed on both sides.

The requirements for the installation and testing of RPZ valve assemblies are given in the WRAS Information and Guidance Note 9-03-02 Issue 3. www.honeywell.com/uk



Honeywell D15P pressure-reducing valve

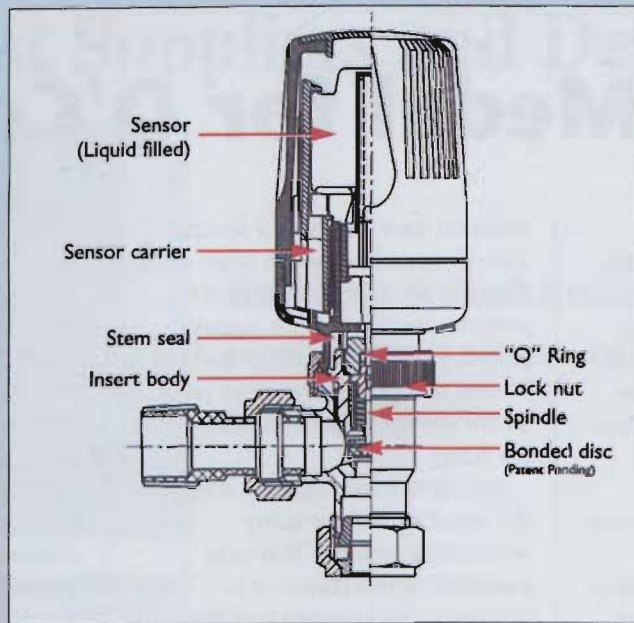
Innovative Myson Heating Controls

Myson Heating Controls has designed a comprehensive range of controls which guarantees complete control of home heating. Manufacturing of the highest standards have allowed the company to produce a top-quality product that's kinder to the environment and reduces energy consumption. The range incorporates three main methods of heating control — time, temperature and flow control.

Time Control — Myson Heating Controls provides an extensive range of electronic programmers, which cover every possible time control application. Accuracy and reliability result from this fully-electronic range, which is easy to set up and programme. A clear digital clock display with an LED status highlights how the system is working.

For less complex controls, Myson Heating Controls offers the Mini Minder E and Es. These controls merge the high accuracy and reliability of advanced electronic time control, with a user-friendly, easy-to-read clockface.

Temperature Control — (TRV-2-Way) — The Myson TRV 2-Way is a highly-innovative product which is fully designed and engineered by Myson Heating Controls in Newcastle West, Co Limerick. Complete with



Myson Heating's TRV 2-Way radiator valve specification

the benefits of the well-established TRV, such as the temperature-sensitive liquid element and the sculpted white wheelhead, it is available in a range of sizes. It also comes in a wide choice of finishes, including polished chrome, satin brass and nickel.

In standard TRVs many components comprise the internal spindle and disc assembly. However, in the TRV-2-Way, Myson uses a new bonding technique (patent pending), which prevents the flexing of this internal disc when water flows in the "wrong" direction. What results is the elimination of those all-too-familiar rattles and bangs.

To complement the standard 15mm Myson TRV2-Way, an extensive range of accessories is also available, including remote adjusters, remote sensors and theft controls.

Thermostatic Cylinder Valve (TCV) — Designed for use in domestic central heating systems, the new Thermostatic Cylinder Valve provides non-electric control of the domestic hot water temperature by limiting the primary flow or return. Manufactured by Myson Heating Controls in Limerick, the TCV is both easy to install and simple to operate.

Flow Control (Power Extra Motorised Valves MPE) — The Myson Heating Controls MSV Range of System Control Valves was recently rebranded as Myson's Power Extra Motorised Valves (MPE). This range of system control valves has been designed for use in fully-pumped combined central heating and hot water systems.

The MPE 222 and MPE 228 2-port valves will control the central heating

or hot water circuit. Used in combination, these two valves will satisfy the requirements of most fully-controlled systems. If necessary, additional MPE 2-port valves can be used to split the central heating system into several circuits to provide greater control. The MPE 322 and 328 3-port mid-position valves which can boast a market-leading 6-Watt Class 'F' Motor, will control both the central heating and hot water circuits simultaneously. These valves may be operated directly by the system programmer, or indirectly, by room and cylinder thermostats.

To complement the existing 22mm 3-port valve, Myson Heating Controls has introduced a 28mm 3-port valve.

Automatic Bypass Valve (ABV) — The Automatic By-Pass Valve is a system relief valve which can be used to balance the heating system. Combined with the thermostatic radiator and motorised valves, it allows the system pressure to be relieved when all other components are closed down.

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Silver Medal for O'Connor

The Royal Institute of the Architects of Ireland (RIAI) has awarded the Institutes' Triennial Silver Medal for Restoration to the Architectural Service of the Office of Public Works (OPW) for its work in restoring the Turner Curvilinear Glass Range in the National Botanic Gardens, Glasnevin, Dublin. An Taoiseach, Bertie Ahern TD, presented the award to architect, Ciaran O'Connor of the OPW, at a ceremony in the Botanic Gardens itself, which was also attended by the Minister for Arts, Heritage, Gaeltacht and the Islands, Sile de Valera TD.

The judging panel — which was made up of John O'Connell, James O'Connor and Susan Roundtree — also nominated Dunphy O'Connor Baird Architects for a Special Commendation for the restoration work carried out on No 17, Eustace Street in Dublin's Temple Bar area.

Commenting on the presentation of the Restoration Award, the judging panel said that they were particularly pleased to be in a position to recognise restoration work of the highest standard, which had been carried out by a public service body, in a building that has always been used for public enjoyment.

"The Turner Curvilinear Glass Range is of great historical importance and is significant on a European scale. The objectives of the restoration were to reinstate and restore the fabric of the building while, at the same time, introducing with care the most up-to-date technology required for the environmental conditions. The OPW's

architects have also done a service to students of architecture in terms of the clear and precise explanation of the processes involved in this remarkable project, ensuring that the project can be used as a valuable reference point for the general public and architects of the future.

Bearing in mind the sheer scale of this building, and the many engineering problems that were presented by this project, it is particularly encouraging that this entire project was undertaken by the Architectural Service of the Office of Public Works", the judging panel said.

Ciaran O'Connor of the OPW's

"The building itself was in an advanced state of decay and was closed to the public. Extensive research was carried out into developing restoration techniques in wrought and cast iron, and glass and paint. Traditional and modern techniques were used by blacksmiths and other technicians to ensure that 87% of the structure's original metalwork remained intact. Interestingly, some of the new structure came from Kew Gardens, which was designed by Turner at the same time as Glasnevin in the 1840s".

Overall, 10.6 kilometres of wrought iron was restored with all building

components tagged, dismantled, repaired, painted and re-erected. Remarkably, no items were lost in the process. The Curvilinear Glass Range consists of a total of 8,427 glass panes and a modern, high-tech computer controlled heating, ventilation and water system has

been carefully installed to ensure minimal visual impact.

Ciaran O'Connor concluded: "The quality of the research and development put into the project enabled the restoration work to be economically feasible. The success of the project in restoring one of Europe's most important 19th century glass houses has been recognised internationally with many city authorities including Leeds, Liverpool, Glasgow and Washington DC, having sought professional advice from the OPW architects on the restoration of glass houses in their cities".



An Taoiseach, Bertie Ahern, TD with Ciaran O'Connor and Michael Carroll, Senior Architects with the Office of Public Work (OPW) Architectural Service and Arthur Hickey, President of the Royal Institute of the Architects of Ireland (RIAI). Mr O'Connor and Mr Carroll received the RIAI Restoration Medal for the work carried out by the OPW in restoring the Turner Curvilinear Glass Range at the Botanic Gardens in Glasnevin.

Architectural Service explained that a large degree of research was undertaken to ensure that the team faithfully restored one of the most important nineteenth century glass houses in Europe at the Botanic Gardens.



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Building Services News, Vol 40, Iss 6 (2007), Art. 1

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