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BS News

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BSNews

JULY/AUGUST 1997

IRISH BUILDING SERVICES NEWS

New Radiator Standard Implemented

The long-awaited and much-needed new European Radiator Standard came into effect on 1 July last, superceding BS 3528 which now no longer exists or has any relevance. Denoted EN442, this new European standard is a more stringent test procedure with a higher degree of accuracy. It will apply across all markets within the EU, replacing existing national standards and eliminating the situation to date whereby different test institutes and certification resulted in different heat outputs for the same radiator.

At a recent press conference in London to introduce the new standard, European manufacturers presented the

unanimous message that the heat outputs of radiators tested under the new EN 442 Standard would reduce by 11%.

Stelrad, Myson and Barlo, together with BSRIA, attended the Paris event, and the initiative is also being fully supported by BSI and Thermal Rad who were unable to be present.

Stelrad's product development director Richard Monk – who has represented the UK manufacturers in discussions about the new Standard – said manufacturers were not expecting the changes to come into effect overnight for projects already in progress.

"We have approached CIBSE, NHBC and DOE for confirmation. But this is our expectation which we will of course confirm as soon as possible".

He added that specifiers, merchants and installers would need to take the input change into consideration when designing and sizing central heating systems. He also confirmed that the manufacturers would be working closely with all parties to help minimise any confusion in the changeover period and beyond.

Mr Monk pointed out that new test methods brought about by the Standard would be far more accurate and consistent: "After an initial transitional period during which all existing catalogue figures will be converted to BS EN 442 by conversion factors, gone will be the absurd situation in which a radiator could be sold in the UK, France or Germany at four different outputs, sometimes very different.

"Coupled with the close manufacturing tolerances and quality requirements, the new Standard gives the specifier greater confidence in the sizing of radiators, besides offering full compliance with the Construction Products Directive".

INTERCLIMA



Inside view of one of the pavilions at the last Interclima. For details of the forthcoming event – and special travel/accommodation packages – see page 9/10.

Every manufacturer holding a Kitemark licence, whether a UK manufacturer or importer, will receive detailed instructions from BSI on how the new Standard will be implemented.

From 1 July all new catalogues and technical literature must show outputs derived from BS EN 442, and manufacturers are advising the trade to throw away their old catalogues to avoid any confusion.

Mr Monk said the new Standard would replace the series of national Standards that exist throughout Europe, and would give a reliable and consistent measure of performance, quality and safety.

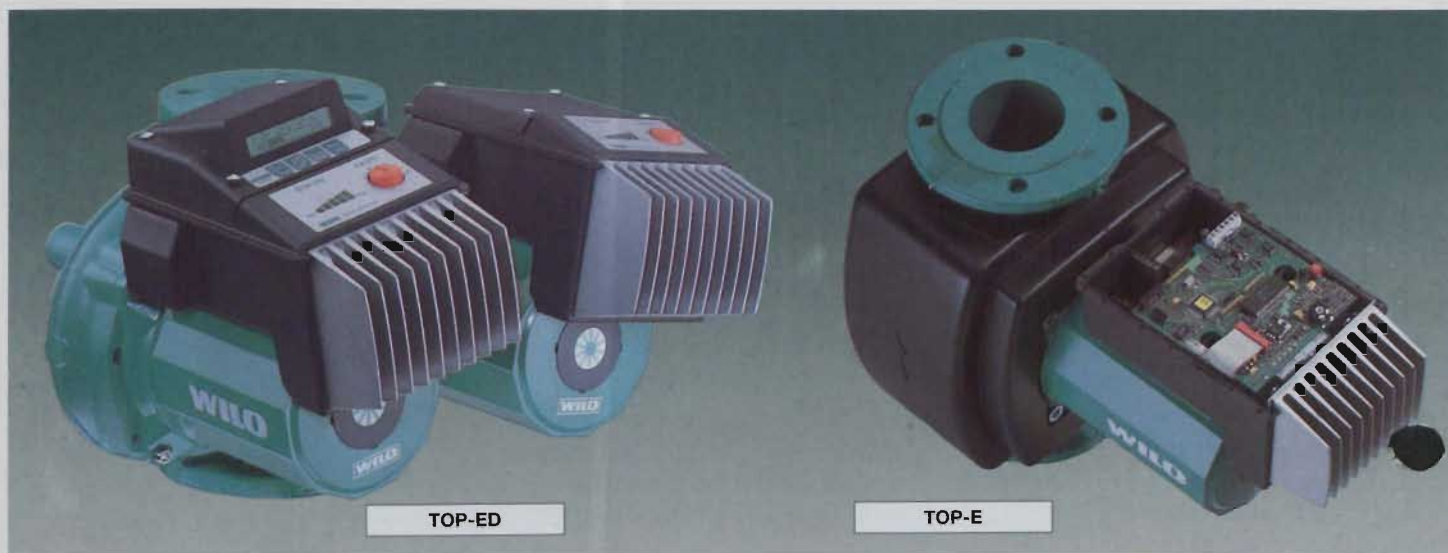
• continued on page 6

MFP Appointment

MFP, part of the Grafton Building Products Group, has appointed Tom Lyons to further develop Customer Service in the UK. Born in Co Mayo, Tom gained considerable experience in the construction business in England before joining MFP five years ago. Currently dividing his time between Ireland and Britain, Tom is already working hard to ensure that all MFP's customers get the best from the company's products and services. He may be contacted through MFP's head office.



Innovative Technology in Heating Circulators



From the Company who patented the first circulator back in 1929 and introduced the first electronic circulator back in 1989 comes a heating circulator with completely in-built pump management.

- Micro processor controlled inverter drive
- Infinitely variable performance
- Energy savings up to in excess of 50%
- LCD, giving operating parameters at the pump head
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Building Services News*

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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.

et al.: BS News

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A round-up of results from the Newlands and Forrest Little outings.

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TOTAL UNITARY CONCEPT

In response to the growing demand for ever-more environmental-friendly heating, ventilating and air conditioning systems, York ACR has developed the Sunline Hydro multi-split chilled/hot water system.

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HARMON AIR CONDITIONING CELEBRATING 10 YEARS

After 10 years providing a professional, yet simple and direct all-embracing air conditioning service to the building services industry, Harmon Air Conditioning Services Ltd is now the first choice of specifiers, contractors and clients alike.

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VEHA RADIATORS – LOOKING TO THE MILLENNIUM & BEYOND

Veha Radiators new Super V40 range represents a unique blend of experience, technical expertise and the latest design and manufacturing techniques.

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BOILERS – EMPHASIS ON COST-EFFECTIVE, ENERGY EFFICIENCIES

Baxi Genesis – a new beginning; Rendamax – energy savings and finance from Eurogas; Monoflame sets up in Cork; Hevac's formidable triumvirate – Chappee, Hamworthy and Sime.

NEW PRODUCTS AND LITERATURE

Carrier Shapes the Air

Just arrived from Carrier is the newly-published product catalogue for the current year. This comprehensive, 56-page, volume gives a comprehensive breakdown of the entire range, including full technical specification and colour illustrations. Copies are available on request from Core Air Conditioning Ltd.

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

DC Link Filters & EMC Filters

In a modern commercial building many "non-linear" loads – frequency converters for fan and pump speed control, UPS (uninterruptible power supply) systems, computers, fluorescent lights etc – exist, all of which can cause voltage distortion and radiated electrical noise. Frequency converters alone can often be the major electrical load on the building's supply.

When choosing a frequency converter for building services use, therefore, particular consideration must be given to two areas of the frequency converter's design to ensure minimum disturbance, these are:- the inclusion of a DC link filter and the inclusion of an EMC filter.

The majority of basic frequency converters are of the PWM (pulse width modulated) type. The incoming mains is rectified by an uncontrolled diode bridge to provide a fixed level of DC voltage, the "DC Link", which is then "converted" by a variable voltage, variable frequency bridge to feed the motor (Figure 1).

Such a design will certainly give speed control, but it will also give high mains harmonics, falling

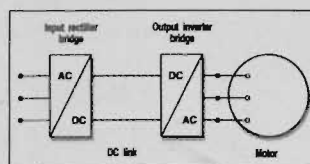


Figure 1: Basic frequency converter design

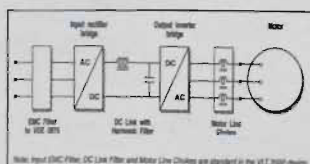


Figure 2: Frequency converter with DC link and EMC Filter (RFI filter)

power factor and RFI (radio frequency interference) outside of the limits of VDE 0875. In a modern commercial building these factors must be taken into account.

The Danfoss VLT series of HVAC dedicated frequency converters has been designed with these factors in mind and incorporate the features set out in Figure 2 to ensure that problems are not encountered.

Figure 2 shows the basic frequency converter with the addition of DC link filters and EMC (electromagnetic compatibility) filters, (RFI filters).

Contact John Sampson, J J Sampson & Son Ltd. Tel: 01 - 626 8111.

High-Quality, Low-Cost, Gas Fires

Island Fires has launched a range of coal-effect gas fires which are quality-assured and claimed to offer outstanding value for money.

There are three models available – the Aran decorative gas fire; the Baskin hotbox; and the Achill convector fire which provides both radiant and convected heat. The specially-designed ceramic burner offers a glowing heart to the fire and bright yellow flames, giving an "exceptionally-realistic" appearance to this economy range.

A stylish classic black fret for all models is included in the package, as well as exclusive brass trims for the hotbox and convector. Safety was also a design priority and all Island Fires are fitted with atmospheric sensing and flame supervision devices, plus push-button piezo ignition for easy lighting.

The fires are designed to be installed in standard 16" fireplace openings and are available in LP Gas (Propane).

Contact: Island Fires. Tel: 01 - 837 5144.

Mitsubishi Electric A/C Binder on CD-Rom

Mitsubishi Electric has launched a complete technical binder on CD-Rom. The CD, which details every Mitsubishi Electric air conditioning product available in the market, carries a wealth of information including full specifications, schematics and product specific correction factors.

Included in the product specifications are complete performance, electrical, mechanical and environmental specifications. Accessing the information is remarkably simple. The CD has a simple-to-follow structure, beginning with a five choice list which divides Mitsubishi Electric's product range into M Series split systems; P Series split and multi-split systems; City Multi VRF Systems; control devices; and Lossnay heat exchangers.

"We have produced the CD with the sole aim of making life easier for the people who select Mitsubishi Electric air conditioning equipment", explained Mike Sheehan, Sales Manager, Mitsubishi Electric Air Conditioning Division. "It will be updated regularly as new products and developments come into the market and, while some people will always prefer to use our paper binders, for those customers who are comfortable with computers, the new CD carries all the information in the full technical binder in a much more convenient package".

The CD will run on either a 486 DX 25 MHz or higher PC with a minimum of 8Mb of RAM, and Windows™ 3.1, Windows™ 95 or NT, or an Apple Mac 68040 with 8Mb of RAM. Both systems only require a double speed CD-Rom drive and a 256 colour monitor.

Contact: Mike Sheehan, Mitsubishi Electric. Tel: 01 - 460 2385.

BTU GOLF NEWS

Newlands

Sponsor: ABB

Winner – Michael Carroll (9) 37pts

(1-12) Class 1 – John Lawlor (9) 34pts

2nd: Michael Kennedy (11) 31pts

3rd: Michael Morrissey (8) 30pts

(13-16) Class II – Noel McKeon (16) 36pts

2nd: John White (14) B9 32pts

3rd: Ray Byrne (16) 32pts

Class III – Aaron Wold (17) 34pts

2nd: Neil Ryan (19) 34-2 32pts

Bob Daly (18) 31pts

Front Nine: Dan Chambers 18pts

2nd: Brendan Bracken 15pts

Back Nine: Gerry Tobin (B6) 18pts

Jerry Maher 18pts

Visitors: Winner – Brendan Blake 37pts

Tommy Dunne (Capt, Newlands) B9 35pts

Pascal Looney 35pts.



Forrest Little – Des Prendergast, Winner Class 1, with BTU Captain Gerry Phelan and Tim O'Flaherty, Liberty Air Technology, sponsors



Forrest Little – Overall winner Bill Penrice, receiving his prize from Tim O'Flaherty of sponsors Liberty Air Technology. On the left is BTU Captain Gerry Phelan



Newlands – Overall winner Michael Carroll with Michael Murphy, ABB (sponsor) and BTU Captain Gerry Phelan



Newlands – Class 1 winner John Lawlor (centre) with Michael Murphy, ABB (sponsor) and BTU Captain, Gerry Phelan

Forrest Little Golf Club

Sponsor: Liberty Air Technology Ltd

Overall Winner – Bill Penrice (25) 41pts

Class 1: Des Prendergast (10) 40pts

2nd: Bernard Sweeney (7) 40pts

3rd: Brendan Keaveny (10) 39pts

Class 2: Jim Smith (13) 37pts

2nd: John White (14) 36pts

3rd: Captain Jerry Phelan (14) 35pts

Class 3: Brian Kearney (21) 39pts

2nd: Dave McMeniman (21) 37-1 36pts

3rd: Michael Hannen (18) 36pts

Back Nine: Winner: Tony Gillan 19pts

2nd: Michael Wyse 19pts

Front Nine: Winner: Gerry Tobin 21pts

2nd: Aidan Shield L3 21pts

Visitors: Seamus Hoare 35pts

YORK ACR TOTAL UNITARY CONCEPT

In response to the growing demand for ever-more environmental-friendly heating, ventilating and air conditioning systems, York ACR has developed the Sunline Hydro multi-split chilled/hot water system.

Even at this early stage consultants, installers and end-users rate the system as something of a breakthrough, judging it the first genuine cost-effective alternative to VRV systems, according to York's Donal Keane.

The savings in installed cost and

running costs have been achieved by the application of York's technical expertise and manufacturing know-how. Moreover, it has been done without compromising on energy-efficiency or performance.

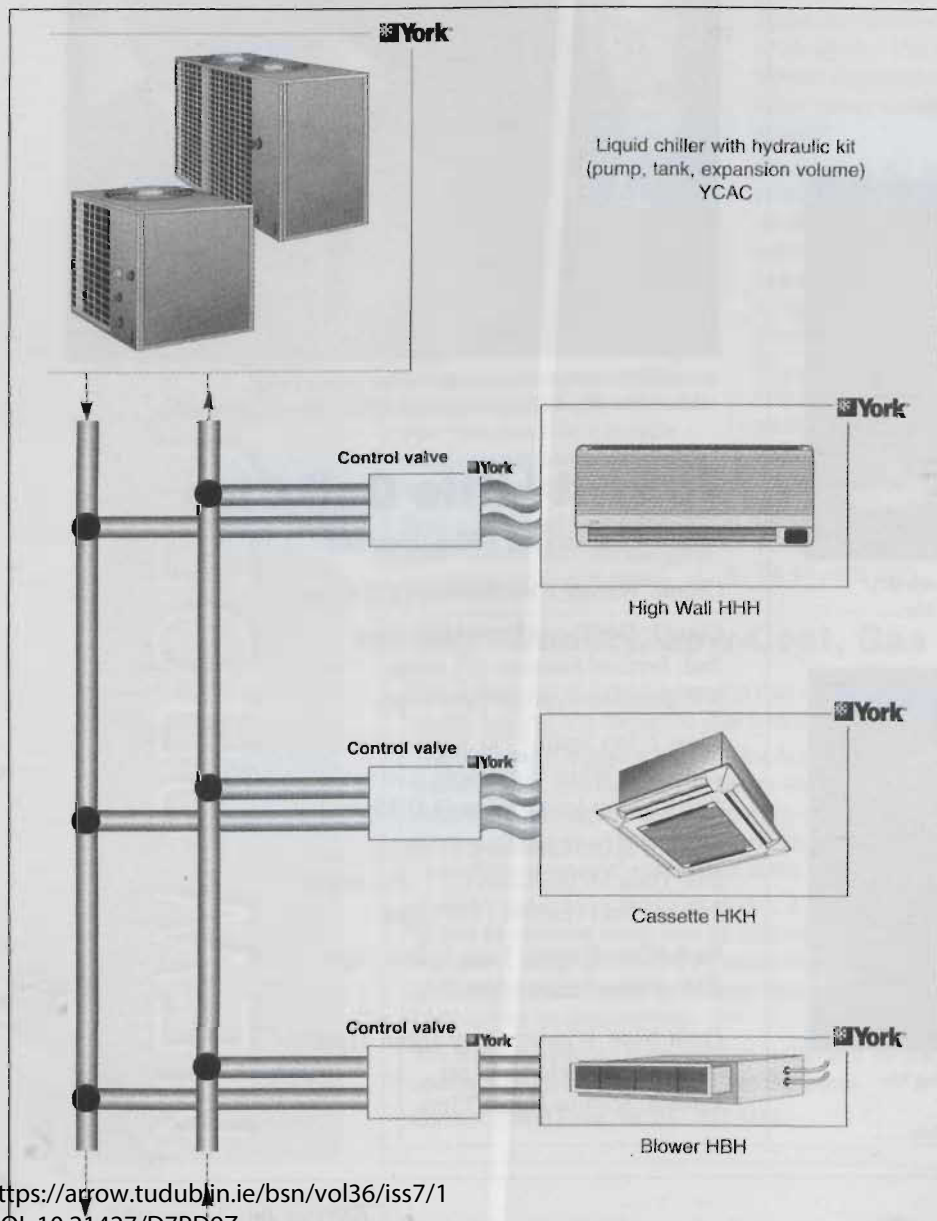
Using proven York equipment, components and accessories, Sunline Hydro offers an extensive choice of air conditioning/hot water solutions, York's renowned packaged air cooled chiller range lying at the heart of the system. Operating range is between +45°C and -15°C outdoor air temperature, outputs going from 6kW upwards.

Sunline Hydro System will operate with, and is compatible with, all leading proprietary makes of 2-way and 3-way valves, the fundamental design offering greater added-value for mechanical contractors.

Indoor components comprise York wall, cassette and under-ceiling units, the modular design enabling problem-free building re-arrangements or extensions. All indoor units are fitted with electronic regulation and infrared remote control.

The cassettes are also available in 4-pipe versions, making them fully compatible with existing low-pressure hot water systems. The Sunline Hydro system also lends itself to York fan coil units.

Full technical support is available from York ACR through its offices in Dublin and Cork, and via its nationwide network of appointed dealers. Where appropriate, York technicians will also liaise with system designers.



York/Roca Unitary Portfolio

- ◆ Air-cooled, water-cooled liquid chillers (6kW upwards)
- ◆ Split systems (2kW to 15kW). Full range available
- ◆ Roof-top packaged systems — refrigeration & gas-fired
- ◆ Air-cooled condensing units
- ◆ Sunline hydronic systems
- ◆ Portables

CONTACT

**Donal Keane,
York ACR.**

Tel: 01 - 466 0177

Fax: 01 - 466 0198



Sunline[®] Hydro

MULTI-SPLIT CHILLED/HOT WATER SYSTEM



- ◆ The ecological principle of Sunline Hydro uses water as the heat transfer fluid : it is far simpler and less dangerous than other substances.
- ◆ Hydraulic kit and Hydro Control kit for easy installation by mechanical contractor.
- ◆ Longer piping lengths possible, using standard water pipework.
- ◆ Cooling only or heat pump operation.
- ◆ The Sunline Hydro system is as quiet indoors as it is outdoors. Low noise levels are achieved with variable speed fan operation.
- ◆ Lower running costs.
- ◆ Lower installation costs



York[®] ACR

DUBLIN: Unit 20004/3, Citywest Business Campus, Naas Road,
Dublin 22. Tel: 01 - 466 0177; Fax: 01 - 466 0198.
CORK: Tel: 021 - 346580; Fax: 021 - 346586

TRADE NEWS

New Radiator Standard Implemented

• Continued from front cover

In the past there have been different test institutes and certification bodies, resulting in differences in heat output for the same radiator, as well as different pressure testing requirements, product quality and material specification.

"These were issues that needed resolving and were overdue. In the UK for example, it's over 20 years since the Radiator Standard BS 3528 was introduced and our test rooms designed and built", said Mr Monk.

"Technology has moved on, both in respect of radiator manufacturing and testing, and it has been an opportunity to review test procedures and equipment for greater tolerance, accuracy and consistency. If there had been no initiative for a European Standard, the British Standard itself would also certainly have been redrafted".

Mitsubishi Electric in Scotland



Pictured above is the group of consultants from Ireland who recently visited the Mitsubishi Electric air conditioning plant in Livingstone, Scotland. Mr Tari, General Manager at the Factory, was their host for the occasion and he, along with Tom Marren from Mitsubishi Electric in Ireland, gave the main presentations.

Rom Group Acquired By Kingspan

The Rom Group of companies — consisting of Rom Plastics Ltd, Rom Plastics (Sales) Ltd, Rosplas Teoranta and Carlisle Ltd — has been acquired by Kingspan Group plc.

Rom companies are primarily engaged in the manufacture and

distribution of rotationally-moulded products for the building services industry and agriculture. Over the years — with principal Tom Davy at the helm — Rom has emerged as a leading player in the marketplace, conceiving and devising a wide variety of new products and thereafter developing the technology and manufacturing processes to produce them.

Indeed, apart from the obvious entre the acquisition affords Kingspan into the growing rotationally-moulded products market in Ireland and the UK, it also provides it with instant access to a wealth of research data and unique production technology. The value of this R&D facility is evidenced by the fact that Rom is currently working on a project in conjunction with Airbus.

From a day-to-day point of view it's a case of all change but no change. Tom Davy will continue to run the Rom companies, along with the senior personnel at each location who will also continue as normal.

Sanbra Fyffe Goes Metric

A new product development programme in Sanbra Fyffe has resulted in an extended range of metric fittings which will be formally launched later this year. The extended product range includes 8mm and 10mm microbore sizes up to 54mm size options.

With the introduction of these new metric products, Sanbra Fyffe can not only satisfy the demands of existing UK and Irish customers but is also better positioned to expand its export sales.

Contact: Tom Rooney, Sanbra Fyffe. Tel: 01 - 842 6255.

Carrier Transforms Split System Market

With the introduction of its new smart control system, Carrier now offers the owners and occupiers of larger commercial buildings a whole new range of air conditioning options. "The new controls enable simple split systems to be linked into a single entity encompassing all the sophistication normally associated with more costly, individually-engineered, commercial air conditioning systems", says Austin McDermott, Managing Director of Irish distributors, Core Air Conditioning Ltd.

The new Group Controller and Zone Manager — based on the tried and tested CCN (Carrier Comfort Network) protocol — allows commercial system technology to be applied to the control of the Carrier range of hi-wall, cassette and console split systems.

IIEEx Annual Dinner

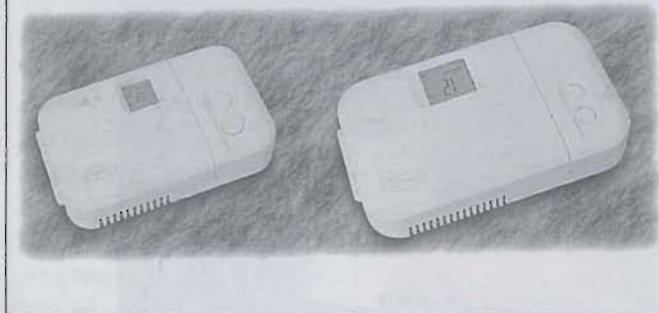


Relaxing prior to the recent annual dinner/dance of the IIEEx (Irish Institute of Incorporated Executive Engineers) held in the Davenport Hotel, Dublin where Shelagh Ennis of the AECl was the guest speaker, were: Frank McCaffrey, Chairman, Electrical Contractors Association (ECA); Chris Lundy, Chairman, IIEEx; Shelagh Ennis, Chairman, Association of Electrical Contractors of Ireland (AECl); and Jim Rice, Chairman, Electro Technical Council of Ireland (ETCI). The evening proved to be most successful and enjoyable and attracted the IIEEx Institute's largest attendance. Chairman Chris Lundy praised the continued professionalism of the industry, while noting the increasing level of attendances at the Institute's series of lectures.

TRADE NEWS

GROUP CONTROLLER

ZONE MANAGER



Carrier Group Controller and Zone Manager from Core Air Conditioning.

The Zone Manager can link up to 32 indoor units together while regulating eight different climate zones. Optimised start in each zone offers greater energy efficiency, and weekly programmability with up to four different time periods per day allows the building's air conditioning systems to be tailored to meet usage, occupancy levels and the movement of the sun around the building. Night setback gives freeze protection in each zone and local override allows individual control without disabling the programmed schedule.

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

Airedale for Clean Room Close Control

The £26 million Lexmark International plant at Rosyth in Fife, Scotland, manufactures high technology print cartridges for use in the Lexmark range of ink jet printers.

The assembly of ink jet cartridges is extremely sensitive to atmospheric conditions, and therefore requires a clean room environment within which the production process can proceed without contamination by dust particles.

Airedale International Air Conditioning recently supplied four Levant 15 T triple circuit close control air conditioners, together with 12 Cu5 air cooled condensing units, to provide accurate control of both temperature and humidity in the cartridge assembly area.

The units were supplied with non-ozone-depleting refrigerant R 407c while the outdoor units were finished in Lexmark corporate colours to blend with the immediate surroundings.

Airedale manufactures a wide range of comfort and close control air conditioning products and liquid chillers for use in industrial, commercial, retail and healthcare applications. Airedale products are available with ozone-friendly refrigerants and a variety of heating and control options.

Contact: Brendan Kilgallon, Coolair. Tel: 01 - 451 1244.

Right: Condensing units finished in Lexmark corporate colours which were supplied with non-ozone-depleting refrigerant R407c.



Slimpack

Ultra slim in-line centrifugal fans

NEW
powerful
more performance
single fans/
twin fans
lighter



What more
could you ask for?

Slimpack is an all - new ultra slim range of in-line centrifugal fans designed to out-perform any similar fan on the market. Designed and developed with university honed skills, Slimpack employs the latest in computer modelling technology and, powered by the speed controllable energy efficient external rotor motor, scores a first in 'eco flow design'. The backward curved impeller is inclined at an exact angle to maximise airflow and minimise energy consumption. Fitting is made simple with the peg and slot bracket and an acoustic pad keeps operation very quiet indeed. Available in single and twin fan versions, a special feature is the interchangeable spigot plate which allows retro changeover on site. Slimpack from Roof Units - What more could you ask for?



ROOF UNITS

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CONTACT

Caroline Fagan



Unit 8, Ashbourne Industrial Park, Ashbourne Industrial Estate,
Ashbourne, Co Meath. Tel: 01 - 835 2530; Fax: 01 - 835 2535

TRADE NEWS

Worcester Bosch/Heatovent at Kilkea Castle

The Worcester Bosch/Heatovent annual golf outing took place at Kilkea Castle recently. Installers, contractors and merchants gathered in wonderful sunshine to enjoy an excellent day's golf, followed by the customary meal and presentation of prizes later that evening.

Hosts for the day were Vincent Kavanagh, Area Sales Manager, Ireland, Worcester Bosch; Justin Sheehan of Irish Distributors Heatovent; Chris Golden, Worcester Bosch Product Manager (oil) in the UK; and Trevor Mustard, Vincent's counterpart in Northern Ireland.



Brid Stafford who took 3rd place in the merchant's prize with Vincent Kavanagh, Justin Sheehan and Chris Golden

There were three separate competitions on the day – the premier event for installers/contractors; the merchants event; and the “in-

house” competition between the sponsors, who are obviously excluded from the main prizes. Results were as follows:-

Installer competition — 1st: Pat Foley; 2nd: Mick Salmon; 3rd: Michael Burns; 4th: William Ryan; joint 5th & 6th: Dermot and Michael Fennelly.



Mick Salmon receiving his prize from Vincent Kavanagh.

In addition to first prize, Pat Foley also received the Worcester Bosch/Heatovent perpetual trophy. Additionally, he will travel to the Vale of Evesham in the UK in the first week of October next to compete in the final of the overall UK/Ireland tournament, the top three in that competition going on to Portugal to enjoy a full week's golf.

Merchant competition — 1st: Jim Furlong; 2nd: Paddy Keane; 3rd: Brid Stafford.

Sponsors own competition — Winner: Tommy Power.



Overall winner Pat Foley receiving his prize from Vincent Kavanagh. Also pictured are Justin Sheehan (left) and Chris Golden (right)



Worcester Bosch/Heatovent's guests at Kilkea Castle for the annual golf outing.

Armstrong Insulation: Technical Help for Specifiers

The successful Technical Manual for Specifiers from Armstrong Insulation Products has been totally revised, updated and reprinted with a limited quantity still available upon request.

“The ever-increasing number of detailed enquiries that we receive on a daily basis – together with product enhancement and development – told us that it was time to revise the original manual,” states Alan Beattie.

This new manual, written with the authority of Armstrong expertise and know-how, now includes even more detail to take the hard work and guesswork out of insulation specification and installation. It complements the company's popular training courses, telephone advisory service and calculation service, all of which continue to be well utilised by specifiers and installers.

There are over 100 pages divided into seven sections contained within a four-ring binder, covering subjects from condensation control to health and safety, and from water vapour permeability to recommendations for liquid nitrogen lines.

As a further development, each manual is registered, enabling Armstrong to keep all new manual holders updated with both technical developments and new product developments in the future.

Contact: Alan Beattie. Tel: 045 - 432150.

Interclima Steady Growth

The year 1993 was a milestone in the history of Interclima when, for the first time, the exhibition was held at the Paris-Nord Exhibition Centre. This change, necessary because the show outgrew its limited hall at the Paris Exhibition Centre at

Porte de Versailles, enabled the exhibition to increase its net stand area by 34% between 1991 and 1995.

Interclima's transfer to Paris-Nord in 1993 proved an immediate success, as the figures confirm. The exhibition

The new, ultra reliable X range of split systems from Carrier gives a greater choice of capacities and styles than ever before.

With extended warranties and the ability to link systems through the unique group controller and zone manager, Carrier continues as

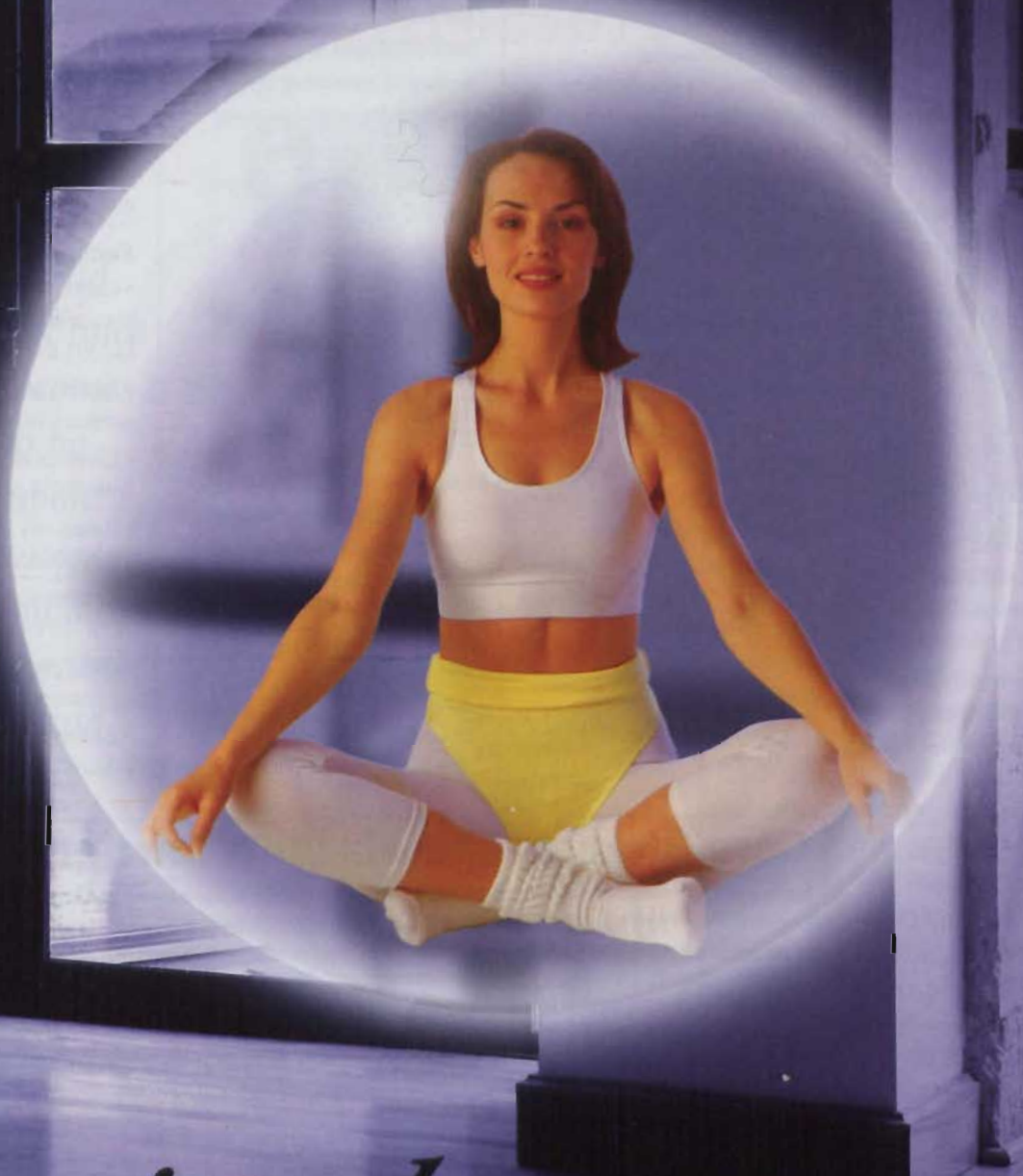
“The World’s Leading Air Conditioning Company”



SAPPORO 40 QKX

ASPEN 42 HWX

VAIL 42 VKX



Carrier shapes the air



GLOBAL CDU 38



TRADE NEWS

has expanded steadily, with a marked rise in both visitor and exhibitor numbers, especially from outside of France.

In 1995, the majority of international exhibitors were from Italy, Germany, Britain, Belgium and Spain, with a growing number of participants from the United States, Israel and Taiwan, in particular. This trend looks set to continue for the 1997 session, which will be held from 3 to 8 November, inclusive.

Interclima is organised with the active involvement of the three trade associations that are most representative of the market, techniques and skills that are covered by the event. These are:-

Uniclima – The association of aeraulics, air-conditioning and refrigeration equipment manufacturers;

Cfcc – The new name of the association bringing together members of the CMC and Sapec; manufacturers of hot water central heating systems and domestic hot water systems;

Gifam – Manufacturers of domestic appliances, especially electric heating systems, electric water heaters, individual air-conditioning systems.

Interclima covers six key sectors:

□ Heating – boilers, burners, radiators, convectors, heat recovery systems, electric heating, new energy sources, tools, home automation, technical control centres, building management systems;

□ Domestic Hot Water Systems;

□ Refrigeration – machinery and equipment for industrial refrigeration, compressors and

refrigerator exchangers, condensation and liquid cooling units;

□ Air Conditioning – ventilation, air-conditioning and treatment equipment, air conditioning for the industrial environment, exchangers, ventilators, filters, ducting, aeraulic diffusers;

□ Regulation, measurement and monitoring – energy management equipment and systems;

□ Pumps, valves and pipework.

Travel/Accommodation – A special package for intending Irish visitors to Interclima has been arranged by Co-Op Travel (Tel: 01 - 456 4588). It includes flight arrangements, accommodation at conveniently-located hotels, and daily transfers to and from the show.

AquaCal 2000 Portable Kit

The AquaCal 2000 system has been developed to provide a method of measuring the conductivity or resistivity of pure water to traceable standards. Currently, it is only possible to calibrate instrumentation on site by using precision resistors.

However, it is impossible to check the complete measurement system, including the cell.

The AquaCal 2000 overcomes this problem by providing a portable calibrated system that can be used to check on-line instrumentation by comparison. The system consists of a precision conductivity cell with a certified cell constant to ASTM D 1125 and BS 6438 and a microprocessor instrument that has been

calibrated against 0.1% resistors traceable to National Standards (NAMAS). The instrument has the facility to enter the actual calibrated cell constant value, minimising any errors introduced by the cell.

Features & Benefits

- Calibrated to traceable standards: Conforms to ASTM D 5391 test method;
- System measurement accuracy to better than 0.3%;
- Conductivity measurement from 0.055 $\mu\text{S}/\text{cm}$;
- Resistivity measurement to 18.20 $\text{M}\Omega\cdot\text{cm}$;
- Temperature measurement from -10 to +110°C;
- Clear display using a 16 x 2 alphanumeric LCD;
- Sealable voltage outputs for $\mu\text{S}/\text{cm}$, $\mu\text{S}/\text{m}$ or $\text{M}\Omega\cdot\text{cm}$ and °C;

Continued on page 17

Core Shapes The Air With Carrier

Having already captured a significant market share with Carrier in the commercial and light commercial sector, Core is now in the process of doing likewise in the mini-splits sector.

In recent years Carrier has brought extensive resources to bear on this market segment, allocating significant funds for research and design to ensure the development of a range that offers high performance coupled with energy efficiency and cost competitiveness.

That range is now available to the Irish marketplace and includes dehumidifiers, window room air conditioners, portable air conditioners, vertical split systems, console split systems, hi-wall split systems, under-ceiling split systems, cassette split systems, above-ceiling split systems, ducted split systems, air-cooled outdoor units, water-cooled outdoor units and mini-chillers.

Full technical details on all of the above are contained in Carrier's new 56-page, full-colour, catalogue. The primary market segments — Compacts, Split Systems, Multi-Systems, CDUs, and Control Programmable — are all grouped together and colour-coded to make product selection easier. There is also a much smaller complementary "Comfort Products" pocket catalogue which lists the primary products, their respective technical specification, and prices.

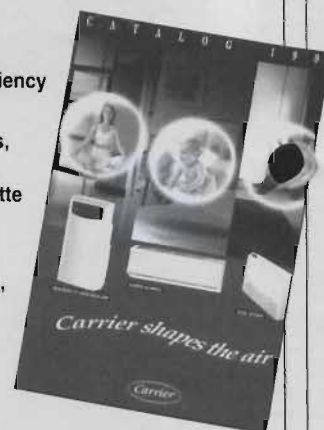
With this new product range coming on stream, plus the availability of the supportive technical literature, Core Air Conditioning is currently in the middle of a marketing/sales support programme.

"The most recent dealer seminar proved extremely beneficial", says Core Managing Director Austin McDermott, "with the subsequent training and product development sessions also attracting a good turnout. Nonetheless, and despite the national penetration the current dealer network represents, we still have room for a number of additions to the panel.

"We divide the country into regions such as the South, the South East, North, North East, East, West and South West. There is the opportunity for a select number of dealers to come on board and share in the success we are currently enjoying. Obviously, they would also have access to our commercial and light commercial product range.

"Indeed, I'd like to hear directly from established air conditioning contractors with a view to their joining our team and forming a mutually-beneficial trading partnership".

Contact: Austin McDermott/Greg Devitt, Core Air Conditioning. Tel: 294 3110.





The First Choice of Specifiers, Contractors & Clients

It has been said that a target once attained becomes a standard to be improved upon and this statement perfectly embodies the fundamental strength behind the success of Harmon Air Conditioning over the last decade. Right from the outset when John Harmon first established his embryonic company 10 years ago, the objective was to serve the air conditioning needs of clients in a professional, yet simple and direct manner.

Quality of service, quality of product, and quality of performance underpin the Harmon trading philosophy, tailor-made solutions being devised to satisfy each particular situation. This continuous striving for perfection is now endemic to all services provided by the company, the goals of yesterday serving merely as stepping stones to still higher objectives once achieved.

Against this background it's hardly surprising that Harmon Air Conditioning is now among the leading providers of air conditioning and related services to the Irish building services sector. Mechanical consultants, contractors, architects and developers all acknowledge the confidence with which they can appoint Harmon Air Conditioning, and the positive and constructive input they bring to any trading partnership.

This is particularly so with unusual and difficult projects where flexibility and a willingness to work with the client to devise perhaps unconventional solutions is the only way forward. It means being inventive and unafraid to challenge conventional wisdom and practices. It also requires an openness to question and improve upon one's own performance. Harmon Air Conditioning meets all these criteria and has the professional organisational structure and management practices in place to provide this level of service in a cost-effective, no-nonsense manner.

All company personnel are highly-qualified, experienced, and fully-trained to carry out their appointed tasks. Moreover, a carefully-devised continuous assessment and development

programme ensures that they remain so.

Principal John Harmon is a firm believer in this process and he too, along with Sales Manager Paul Sexton, adheres to the same programme. While John's influence and leadership is indelibly etched on all activities undertaken by the company, the contribution of Paul and indeed all personnel to the ongoing success of Harmon Air Conditioning is invaluable. It is a genuine team performance, thereby resulting in a quality of service which some competitors can only aspire to.

In striving to provide the optimum service requirement, Harmon Air Conditioning aligns itself with market-leading, quality-driven, product suppliers. In this respect its name has become synonymous with Mitsubishi Electric, Clima Systems, Four Seasons, and Klimatechnik, four of the industry's most prominent and respected market players. It includes computer room packages, chillers, heat pumps, etc.

Complementing the product portfolio is a comprehensive installation, after-sales service and maintenance facility. Taken together, they represent a strength that few can match in the industry and one which specifiers and clients alike are increasingly seeking out. Endorsing this standing is Harmon Air Conditioning's ISO 9002 accreditation.



Sales Manager Paul Sexton with Managing Director John Harmon

MITSUBISHI ELECTRIC

Mitsubishi Electric is one of Europe's leading environmental control suppliers with an extensive product portfolio of individual split air conditioning systems suitable for all manner

of applications, ranging from small to medium-sized offices; retail outlets; showrooms and reception areas, through to premises of up to 10,000 sq m and beyond which are served by the Mitsubishi Electric City-Multi system.

Harmon Air Conditioning is one of its premier dealers, the level of business now being conducted making the two names synonymous with one another.

This energy-efficient system has been used on many new projects in Ireland. In developing its multi-air conditioning system for modern building applications, Mitsubishi Electric focussed on the concept of "comfortable yet flexible air conditioning". In

addition to exploiting advanced technologies such as inverter control, Mitsubishi Electric incorporated a high degree of flexibility into the piping system and designed the indoor units so that they would be interchangeable, thereby giving greater freedom in mixing units to create diversified systems. Up to 10 indoor units of different capacities/types per refrigerant circuit can be accommodated.

Further increasing the scope of application is the PRH Series of roof-top packaged air conditioners which, unlike other systems, uses a 2-pipe system, thereby dramatically reducing installation and running costs.

The design of the heat exchanger has been optimised and powerful Copeland reciprocating compressors have been used to increase the indoor air supply rate and to deliver a much-improved energy efficiency ratio. The airflow rate and external static pressure can be tailored to specific needs by using different combinations of belts and pulleys, even after installation, while an extra fan is used as an outdoor fan to reduce noise levels.

Installation is simple thanks to the single-unit configuration with all refrigerant pipework eliminated. Once the power source, drain piping and ducting have been installed, the unit is ready for operation.

The entire product portfolio has been developed as a result of extensive research and testing and comes with the assurance of compliance with all relevant quality and safety standards.

The units are manufactured at Mitsubishi Electric's Livingston plant in Scotland, which utilises state-of-the-art production equipment and practices, to deliver environmental control systems designed to meet the specific needs of the market.



Brooks Hotel, Dublin – Service Supervisor Tony Duffy, pictured on the roof of Brooks Hotel, Drury Street, Dublin where Harmon Air Conditioning has installed a City Multi R2 installation to provide simultaneous heating and cooling to the 75-bedroom hotel complex

KLIMATECHNIK CHILLERS

The Klimatechnik portfolio comprises air cooled water chillers with axial fans, designed to produce chilled water and for outdoor installation. The supporting frame consists of sturdy, electrically-welded sections, painted with a coat of epoxy primer and two coats of finish paint (RAL 7011). Cladding panels are of pre-painted (RAL 7038) galvanised steel.

The "Macroplus" Microprocessor is a centralised, microprocessor-based control system on models equipped with two or more compressors. The system allows the complete management of all controls, regulation and safety functions, through which the status of each function can be seen at any time on the display screen.

There is continuous indication of set point related to return water side, arranged for control by 4–20mA external input. It includes: compressor hour counters, comp sequence control and water pumps sequence control (stand-by working). It is arranged for connection to RS 422 module for communication with supervision software system.

For models equipped with one compressor only, regulation is by electronic thermostat.

Models available include the standard ST for applications where low noise level is not needed (industrial application) and SL execution, a low-noise chiller equipped with low-speed fans and increased cond. coil surface to keep nominal cooling capacity. The compressor box inside is covered with acoustic insulation panels.

Optional accessories: Chilled water pump and storage water vessel; total or partial heat recovery condensers; desuperheaters; liquid receivers; low ambient control to -8°C ambient; variable fan speed low ambient control to -18°C; main isolator with door lock; self-regulating evaporator heater; control transformer for auxiliary circuit; additional compressor steps; part-winding start for twin-compressor; hotgas by-pass; refrigerant and oil pressure gauges; copper/copper condenser coil; and condensing coil protection grills.



The Klimatechnik chiller range is extensive with capacities ranging from 50kW to 1000kW

CLIMA MC RANGE OF CLOSE CONTROL COMPUTER ROOM PACKAGES

et al.: BS News

The Clima MC air conditioning unit belongs to the Technical Wall Series and its vertical design guarantees a reduced footprint and minimum floor space occupancy. Because there is no requirement for lateral service areas, the units can be placed side by side.

The MC air conditioning units can be either upflow or downflow.

General Features

Frame – Manufactured with a steel frame and panels that have been treated with scratch-resistant enamel and internally have both thermo-acoustic and anti-condensation insulation.

Air filters – Pleated filters in synthetic fibre, offering a large surface area in contact with the air intake. Filters supplied with unit are EU4 efficiency.

Cooling coil – Copper-tube and aluminium-fin cooling coil; the coil surface area has been adequately sized for a high-efficiency heat exchange.

Humidification – Electrode steam humidifier with a plastic cylinder housing the electrodes; steam production and all the other functions as well as humidity control are automatically controlled;

Electric heaters – Finned aluminium electric heaters with low surface temperature. One or more stages of heating are available.

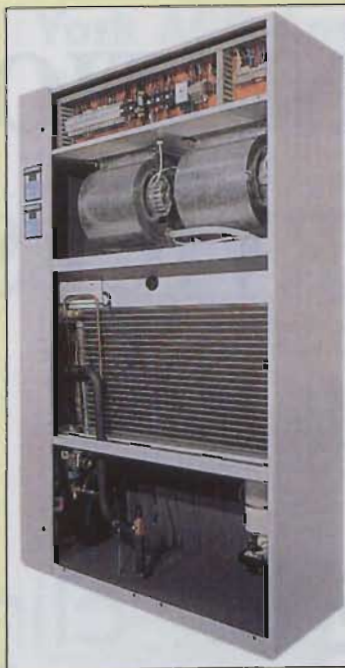
Condensate tray – Stainless steel tray to collect condensate.

Fresh air intake – Fresh air intake kit is supplied with a high efficiency filter and can be connected to an underfloor flexible duct.

Fans – The fans are direct drive, centrifugal fans.

Electrical board – Built according to CEI standards and supplied with an auxiliary circuit at low voltage.

Control system – The unit can be equipped with a microprocessor controller model "CLIMA PROCESSOR Series 2001".



Clima MC air conditioning units offer full frontal access for all standard maintenance and repair work

FOUR SEASONS

Four Seasons is yet another leading name in Harmon's portfolio. This range is divided into four primary groupings:-

- u JVA – Chillers, heat pumps and motocondensing units with axial fans and scroll compressors (5kW to 34kW);
- u JWR – Chillers, heat pumps and motocondensing units with centrifugal fans and scroll compressors (5kW to 34kW);
- u JWH – Chillers, heat pumps, motoevaporating and motocondensing units with scroll compressors (5.4kW to 36.3kW);
- u TAC – Air handling units incorporating direct expansion unit, heat pump unit and chilled water unit (5.8kW to 22.5kW);

ISO 9002 ACCREDITATION

While many claim to adhere to quality procedures in providing the products and services they supply to the marketplace, the single most important endorsement a company can have in this respect is ISO 9002 accreditation.

As one would expect, Harmon Air Conditioning fully complies with, and is accredited to, this exacting standard. To achieve this accolade in respect of product supplies is one thing but, to do so across the provision of installation, commissioning and maintenance services demands a far more disciplined approach.

INSTALLATION, SERVICE & MAINTENANCE

Installation, commissioning and after-sales service support are a vital constituent in the overall package provided by Harmon Air Conditioning. The team of highly-qualified service engineers, led by Tony Duffy and Andrew Harmon, work closely together in a cohesive, closely-knit unit to provide nationwide coverage. Response time is claimed to be the best in the industry, being three hours or less in the Greater Dublin region.

This service is also all-embracing and incorporates a number of strategically-devised planned maintenance programmes, the objective being to pre-empt and minimise major problems and plant failure/downtime.

Moreover, it is not restricted to air conditioning products. It also covers refrigeration, boilers, burners, and electrical and mechanical services. In fact Harmon Air Conditioning offers a complete 'turnkey' facility to clients.

STRENGTH IN TEAM SPIRIT

At the core of the quality service provided by Harmon Air Conditioning is the closely-knit team spirit which exists between all personnel. While there are demarcation lines in respect of daily responsibilities, the reality is that everyone adopts a pro-active approach to customers needs. This applies right throughout the entire organisation, from John Harmon and Paul Sexton, the senior management team, down to the newest, most junior staff member.



The closely-knit team spirit at Harmon Air Conditioning is a strength which is fully reflected in the quality of service provided to all clients



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**Unit No 4, Long Mile Business Park,
Long Mile Road, Dublin 12.**

Tel: 01 - 456 4233; Fax: 01 - 456 4236

Harmon Air Conditioning Services Ltd is an ISO 9002 Accredited Company



AquaCal 2000 portable kit from Manotherm Ltd

Supply from Alkaline or NiCad rechargeable batteries or mains adapter;

User selectable security code to protect settings and configuration;

- Diagnostics indicate instrument and sensor faults and incorrect configuration.

Collection of the water sample is critical due to possible contamination from CO₂ or other ionic materials. The cell has been designed for direct insertion into a process line or into a flow holder for a sample stream.

The temperature effects on the conductivity of pure water are large and non linear. The cell incorporates a precision 4 wire Pt1000RTD for temperature measurement. The instrument calculates the correct compensation values over the range of 0 - 100°C for changes in water ionisation and for the ion mobility of neutral salt contaminants.

The instrument is powered from either standard AA alkaline or NiCad rechargeable batteries. Alternatively, where mains power is available, the battery charger can be used to power the instrument. Where a permanent record is required it is possible to use the isolated voltage outputs with a data logger or recorder.

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

York ACR Annual Outing

The inaugural York ACR annual golf outing took place at City West Golf Club, immediately adjacent to the company's new premises, recently. The event was blessed with some genuine summer weather, making for an enjoyable and competitive day's golf for the excellent turnout who participated.

Those who played on the day were joined by nearly as many again that evening for the meal and presentation of prizes. Overall winner was John White of Erba Engineering. Kevin Murphy was runner-up with Eamon Murphy taking third spot. Jane Russell and Ann Saunders tied for the top ladies prize while longest drive went to Damien Parlour with Frank Kennedy getting nearest to the pin.



Overall Winner – Pat Byrne with John White



Runner-Up – Pat Byrne with Kevin Murphy



Third — Pat Byrne with Eamon Murphy



No, Jane Russell is not muscling in on someone else's prize. She is pictured here (above) receiving the Ladies Prize while (below) she is collecting Frank Kennedy's prize for nearest the pin.



Longest Drive — Pat Byrne with Damien Parlour



Pictured at the signing of the contract for the building of the new Ulster Bank £30 million headquarters in Belfast are (from left to right): Eamonn Laverty, Managing Director of McAleer and Rushe; Ronnie Kells, Group Chief Executive of Ulster Bank; and Seamus McAleer, Managing Director of McAleer and Rushe.

Wilo Unveils New IPE Mechanical Seal Range

Wilo Engineering Ltd, the Limerick-based Irish subsidiary of the Wilo Salmson AG Group (which includes a manufacturing facility in Limerick) has now introduced a new range of variable speed, electronically-controlled, in-line pumps.

From the company who patented the first central heating pump back in 1929 and who, after 60 years continuous innovation introduced the first electronically-controlled glandless circulator to the market in 1990, comes a range of electronically-controlled glanded pumps (mechanical seal type).

In addition to the Top-E and Top-ED range of glandless (non-mechanical seal type) variable speed circulators already extensively used in Ireland, this mechanical seal pump range complements the existing one and includes the following features:

- Flange sizes DN 32 – DN 80;
 - Duties flow rate up to 25 l/sec and head of 28 metres;
 - Temperature range -10°C to 120°C is suitable for chilled water applications;
 - Installation can be in any position except upside down;
 - Variable speed control on a constant differential pressure (constant head) or variable differential pump head basis selected at the pump control box;
 - Motors have in-built protection by PTC sensors in each motor winding which
- continued on page 22

INTERCLIMA 97



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TRADE NEWS

Making Fan Selection Easier

Achieving the right balance between energy savings, reduced emissions and efficient ventilation is now being made that much easier with the introduction of Vent-Axia's latest interactive fan selection programme.



The programme is selected and driven via easy-to-use, on-screen menus to enable the user to select technical solutions and appropriate products from a total of over 12000 items –

and that includes up-to-date prices to help make specifying and job costing easier.

Supplied on two 3.5" floppy disks, the programme comes complete with a comprehensive guide booklet and is available free of charge.

Ambient Response Humidistats

The removal of moisture-laden air from interior environments takes a step forward with the introduction of two new software-controlled humidistats designed for optimum control of domestic and light

commercial ventilation fans, as well as heat recovery units.



Microprocessor technology and patented software enable the ARH units to react rapidly to changing humidity and temperature levels, balancing the air conditions by activating fans as necessary. A SELV version is also available. Ambient operating range varies between 5 and 40°C and 30-90% relative humidity.

The ambient Response Humidistats can be used with fans or heat recovery units up to the rated current, switching between high- and low-speed settings on two-speed fans via a volt-free output switching facility.

Contact: Michael Randall, Vent-Axia Ventilation. Tel: 01 - 450 4133.

Marks & Spencer

Redevelopment of Mary Street

Marks & Spencer Ireland has lodged plans with Dublin Corporation for a £15 million redevelopment of its Mary Street Dublin store. The plans envisage the store increasing in size from 64,000 sq ft to over 100,000 sq ft, mainly through the creation of an additional sales floor.

Subject to planning permission, work on the new store will commence in September with a completion date of September 1998. The Mary Street redevelopment is part of a £75 million Marks & Spencer programme for over four years which has included a new store in Grafton Street; a doubling size of the company's Cork Store; and the start of work on the first M&S out-of-town store at Quarryvale, which is scheduled to open in October 1998.

Flexibility & Performance

...The Advantage is Armstrong.



**...The advantage
is Armstrong**



Throughout the world Armstrong Insulation Products are at work in all types of industry and all types of climate. Couple our global network with over forty years of continued research and development and you begin to see why Armstrong have established themselves as market leader.

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It doesn't stop there. At Armstrong we believe in total customer commitment. This is reflected in our free full technical support and advice from initial specification through to installation.

Training is also an important part of the total Armstrong package.

Our programmes are aimed at helping to reduce installation costs and increase both performance and longevity of the product when in use.

In essence, when looking for the optimum in flexibility and performance specify and install Armstrong with confidence.

Armstrong ...The Advantage.



**Flexibility
Performance**

Armstrong
INSULATION PRODUCTS



LOOKING TO THE MILLENNIUM & BEYOND

Veha Radiators' ruby celebrations of last year marked a major milestone in that they aptly illustrated the company's underlying strengths which have seen its products maintain a leading position at the heart of Irish heating systems over the last 41 years.

Everyone acknowledges the benefits of experience and a proven trading history but there is always a danger that companies

The new Super V40 radiator was designed from the drawing board by the company's in-house technical and design engineers and incorporates the highest industry technical standards. The end product is one of the most efficient convector radiators in the marketplace.

The new product maintains all the advantages of the existing roll-top radiator, is more aesthetically pleasing, safer than seam-top

company which is at the forefront of European radiator manufacturing.

Veha Radiators has 120 experienced, dedicated, employees committed to delivering the optimum service. Worker participation at all levels has increased enormously with every individual employee — be it in sales, management, production, purchasing, etc — assuming far greater responsibility, not just for their own function but for that of the entire service provided by the company. Veha Radiators has always prided itself in the quality of the service it provides but today — directly because of this fundamental philosophy change — it has taken the company to new heights.

Veha radiators are supplied to the marketplace through a network of merchant outlets, there being approximately 100 in Ireland to ensure strategic, nationwide availability. Veha Radiators works in partnership with these outlets, supporting them with a comprehensive range of services which includes stock availability, sales literature, point-of-sale material, technical literature, delivery via its own fleet of vehicles, and competitive pricing structures.

Complementing their sales efforts is a generic campaign spearheaded by the company's own sales team who create the underlying market interest and re-direct subsequent sales enquiries through the appropriate local merchant.

Taken together, the foregoing clearly illustrates the fundamental strengths which have underpinned Veha Radiators' growth and prosperity to date and, more importantly perhaps, which will secure its continued success well into the new millennium.

SINGLE CONVECTOR RADIATOR TYPE A

| Type A | 11" - 285mm | 15" - 400mm | 19" - 500mm | 23" - 600mm | 27" - 700mm |
|---------|-------------|------------------|------------------|---------------------|-------------------|
| Nom Lt. | Output | Output | Output | Output | Output |
| mm | mm | mm | mm | mm | mm |
| 500 19 | Non-stock | 1545 453 29.50 | 1886 553 35.50 | 19 2219 650 40.00 | 2548 747 50.50 |
| 600 23 | | 1885 552 36.50 | 2300 674 39.50 | 23 2708 794 47.50 | 3108 911 53.50 |
| 700 27 | | 2224 652 38.50 | 2714 796 44.50 | 27 3195 936 55.50 | 3668 1075 63.50 |
| 800 32 | | 2564 751 42.50 | 3128 917 50.50 | 32 3682 1079 61.50 | 4227 1239 69.50 |
| 900 36 | | 2902 851 51.50 | 3541 1038 57.00 | 36 4168 1222 68.00 | 4785 1402 84.00 |
| 1000 38 | | 3071 900 52.50 | 3748 1098 58.50 | 38 4411 1293 73.00 | 5064 1484 86.00 |
| 1100 42 | | 3410 999 59.00 | 4160 1219 64.50 | 42 4897 1435 78.50 | 5622 1648 93.00 |
| 1200 46 | | 3748 1098 64.50 | 4573 1340 71.50 | 46 5382 1578 86.00 | 6179 1811 108.00 |
| 1300 51 | | 4085 1197 70.00 | 4985 1461 78.00 | 51 5868 1720 93.00 | 6736 1974 115.00 |
| 1400 55 | | 4423 1296 76.50 | 5397 1582 85.00 | 55 6353 1862 102.00 | 7293 2137 123.50 |
| 1500 59 | Non-stock | | 5803 1701 92.00 | 59 Non-stock | Non-stock |
| 1600 63 | | 5097 1494 89.50 | 6220 1823 97.00 | 63 7321 2146 117.00 | 8405 2463 137.50 |
| 1800 70 | | 5603 1642 97.00 | 6837 2004 106.50 | 70 8047 2359 128.00 | 9238 2708 156.00 |
| 2000 78 | | 6276 1839 110.50 | 7659 2245 118.00 | 78 9014 2642 144.50 | 10348 3033 170.50 |

steeped in history may become complacent and inward-looking. The key to their ongoing success and development is the ability to harness the inherited strength with an outward and forward-looking approach.

Over the years Veha Radiators has demonstrated that ability on numerous occasions. Time and again it has embraced new techniques, new technologies, new management strategies, and enhanced customer service, thereby ensuring that the company is always of its time.

The most recent metamorphosis is now underway. The current investment and development programme commenced in 1995 and is now about half way through its envisaged cycle. It involves an injection of approximately £3 million in research, plant and equipment, personnel, training, management systems, and worker participation.

Even at this early stage it is beginning to bear fruit. This is perhaps best illustrated by the recent launch of the new Super V40 radiator range which is available in two versions — single convector radiator type and double convector radiator type.

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radiators and easier to clean. It incorporates a new improved design, increased heat outputs and represents better value in the marketplace. (see tables).

The new product will leave Veha Radiators at the top in terms of competitor efficiency as we head into the new millennium. It will also give Veha an opportunity to increase its presence in the UK market where it can now compete favourably with all the European importers.

Increasing its presence in the UK will result in the continued development of the Wicklow

DOUBLE CONVECTOR RADIATOR TYPE C

| Type C | 11" - 285mm | 15" - 400mm | 19" - 500mm | 23" - 600mm | 27" - 700mm |
|---------|------------------|-------------------|-------------------|----------------------|-------------------|
| Nom Lt. | Output | Output | Output | Output | Output |
| mm | mm | mm | mm | mm | mm |
| 500 19 | 2135 626 51.00 | 2865 840 59.50 | 3480 1020 64.00 | 19 4079 1196 73.50 | 4667 1368 108.00 |
| 600 23 | 2621 768 62.00 | 3518 1031 73.50 | 4272 1252 76.50 | 23 5008 1468 87.50 | 5730 1679 114.50 |
| 700 27 | 3110 911 64.50 | 4173 1223 82.50 | 5068 1485 91.00 | 27 5941 1741 105.00 | 6798 1992 137.50 |
| 800 32 | 3600 1055 75.00 | 4831 1416 95.50 | 5866 1719 106.50 | 32 6878 2016 117.00 | 7869 2306 150.50 |
| 900 36 | 4092 1199 87.00 | 5491 1609 112.00 | 6668 1954 120.50 | 36 7817 2291 139.00 | 8964 2627 182.50 |
| 1000 38 | 4339 1272 90.00 | 5821 1706 115.00 | 7069 2072 128.00 | 38 8288 2429 144.00 | 9483 2779 185.00 |
| 1100 42 | 4833 1416 102.00 | 6484 1900 124.00 | 7874 2308 136.00 | 42 9232 2706 155.00 | 10562 3096 208.00 |
| 1200 46 | 5328 1562 116.00 | 7148 2095 138.00 | 8681 2544 150.00 | 46 10178 2963 175.00 | 11644 3413 235.00 |
| 1300 51 | 5824 1707 125.00 | 7814 2290 155.00 | 9490 2781 168.00 | 51 11125 3261 192.00 | 12729 3731 251.00 |
| 1400 55 | 6321 1853 140.00 | 8481 2486 165.00 | 10300 3019 187.00 | 55 12975 3539 208.00 | 13815 4049 270.00 |
| 1500 59 | Non-stock | Non-stock | 11128 3261 198.00 | 59 Non-stock | Non-stock |
| 1600 63 | 7318 2145 161.00 | 9819 2878 193.00 | 11924 3495 209.50 | 63 13890 4057 237.00 | 15095 4688 301.00 |
| 1800 70 | 8068 2365 180.00 | 10826 3173 214.00 | 13146 3853 234.00 | 70 15413 4517 265.00 | 17634 5168 342.50 |
| 2000 78 | 9078 2658 207.00 | 12171 3567 237.50 | 14780 4332 257.00 | 78 17327 5078 293.00 | 19825 5816 322.00 |

Super V40



Veha Radiators' Super V40 range was specifically developed for current and projected market requirements. It represents a unique blend of all the technical expertise, knowledge and experience Veha Radiators has accumulated over the last 40 years with the latest design and manufacturing techniques.

The result is a radiator that is aesthetically-pleasing, efficient, and highly competitive in the marketplace.

FEATURES & BENEFITS

- ◆ Greater heat output due to fin length increase from 35mm to 40mm
- ◆ 5-year warranty in respect of defective materials and manufacture
- ◆ Kitemarked to BS 3528
- ◆ Manufactured under a BS 5750 quality management system
- ◆ Each radiator is individually tested to 7-bar pressure (103psi)
- ◆ Single and double convector configurations
- ◆ Five heights
- ◆ Fourteen length options
- ◆ Standard tapings on all radiators are 1/2" BOE (bottom-opposite-end)
- ◆ 5-stage cleaning, degreasing and anti-rust process
- ◆ Durable, electrophoretic paint coating
- ◆ Suitable for indirect systems or closed circuits at a working pressure not exceeding 4.66-bar (67.6psi)
- ◆ The built-in air vent is projection welded to the rear of the panel



CONTACT

Sales Office

Veha Radiators Ltd, The Murrough, Co Wicklow.

Tel: 0404 - 67278; Fax: 0404 - 67731

TRADE NEWS

• continued from page 17

ensure fault cut-out on overcurrent and overtemperature;

- Interface for connections to a pump control processor (PLR) or BMS station via a Wilo interface converter (digital or analog);

- Performance data and mode indication BSM interface included.

Each pump comprises a 3-phase motor with a microprocessor-controlled frequency converter which operates in response to pressure changes on the system due to valves throttling or closing etc as the system load varies. The increased duty range now facilitates heating and cooling load requirements in even larger systems of building and industrial projects.

The first pump of this type in Ireland was installed on the heating system of the Art's Block, Plantroom 1, at University College, Dublin. It has operated successfully since installation and is now approaching its second heating season. Its performance has

been monitored closely by both Wilo and maintenance engineers of the college. The college is more than satisfied with the reduced noise levels and energy savings achieved by the pump matching the varying system load requirements. Energy savings of up to 50% can be achieved in an average heating season.

This advanced range will be further extended to larger performance duties in the very near future with the ongoing development being carried out by Wilo, but the range of electronically microprocessor-controlled pumps now available from Wilo Engineering Ltd will satisfy the majority of the needs of the building services industry in Ireland where infinitely-variable speed control is a requirement.

This technology reduces the need for separate pumps/pressure sensors/frequency converters which require interwiring testing and commissioning after installation.

Contact: Tony Cusack/
Derek Elton, Wilo Engineering.
Tel: 061 - 410963.



Wilo's glanded inline pumps (series IP-E-DN32 – DN80) with integrated microprocessor-controlled differential pressure variable speed drive – 0.55kw to 4kw

'Raise HCFC-123 AEL to 50 PPM'

DuPont is recommending that the Acceptable Exposure Limit (AEL) for hydrochlorofluorocarbon (HCFC)-123 be raised to 50 ppm (parts per million). HCFC-123 is the preferred alternative for CFC-11, widely used as a refrigerant in air conditioning and for certain solvent uses.

An AEL of 30 ppm was set by DuPont for HCFC-123 in 1993. The decision to raise the limit was taken as a result of over five years' toxicology research, supplemented by further studies over the past two years.

HCFC-123 is marketed by DuPont in Europe as Suva® 123 refrigerant used in building air conditioning. The product is non-flammable and VOC exempt and is not a hazardous air pollutant.

In addition to the DuPont recommendation, the American Industrial Hygiene Association (AIHA) has already set a 50 ppm Workplace Environmental Exposure Limit (WEEL) for HCFC-123.

Eurovent/Cecomaf General Assembly

The Eurovent/Cecomaf General Assembly took place in Naantali, Finland early last month when over 80 delegates enjoyed the excellent hospitality offered by this picturesque region with its breathtaking views and historic buildings.

A full technical and marketing programme covered issues such as indoor air quality in industry and education, refrigeration in supermarkets and cold rooms, and energy efficiency. The programme also featured factory visits and social events with an evening reception in the presence of the Mayor of Naantali.

The General Assembly included the election of the new President, Jean Claude Faysse of Aldes, France, in succession to Alan Duttine of Airedale International, UK. The new President Elect is Dany Chalmet of Daikin, Europe.

The new president will oversee an exciting and comprehensive development programme over the coming years as Eurovent/Cecomaf adopts a more aggressive approach to environmental and energy issues. The newly-formed Environmental Commission (under the directorship of Alan Duttine) will focus on refrigerant issues and carry out a lobbying function within the European and national Parliaments.

Eurovent/Cecomaf also endorsed a recommendation to support the Swedish Life Cycle Cost initiative which focuses on energy efficiency, and agreed to commit up to 33,000 ECUs to fund the programme which it is hoped will attract EU financial support.

Eurovent/Cecomaf will also be supporting the Swedish exhibition Nordbygg through Expoclima in March 1998, and the Eurovent Certification Company is considering attending the Building Services Engineering Exhibition in the UK in 1998. The next General Assembly will be held in June 1998 in Munich, Germany.

TRADE NEWS

CREDA/EDI Annual Golf and Clay Pigeon Shoot

The annual Creda/EDI annual golf outing and clay pigeon shoot was held in City West recently. Attendance included a mix of wholesalers, ESB personnel and contractors, 54 of whom played golf while 30 participated in the pigeon shoot.

The proceedings began with soup and

sandwiches on arrival, followed by the competitions, the presentation of prizes and dinner later that evening, with Diarmuid O'Leary and The Bards providing a fitting end to the occasion.

Hosting the day were Harry Griffiths and Des Bradley of EDI, along with Paul Glover and Paul Nagel of Creda.

The golf was a stableford, 3-ball competition, the warm weather making for good scoring and thereby a closely-fought event. Winners on the day with 86pts were Eric Mitchell, Danny Myler and Jim Burke. Runners-up were Paul Scanlon, Brian Carton and Jim Duffy. They also had 86pts, the decision going against them on the Back Nine. Third prize went to Jack Sheridan, Jimmy Murphy and Peter Hennessy with 81 pts.

Front Nine was won by Pat O'Connor, Pat Lennon and Tommy Wade with Tony Dunne, Paddy O'Neill and Brendan Woods winning the Back Nine.

As Jim Duffy and Tommy Wade both work for EDI, their prizes on the day were raffled at the end of the night.

The clay pigeon competition proved equally competitive, once again scoring being very high. Out of a total of 30 shots each, Nigel Daly took first place with 25 hits; George Kennedy second with 23pts; while Liam Power and Gary Murphy shared third with 22pts.

Bogey prize went to Billy Nutley with 3pts!

Contact: Des Bradley, EDI.

Tel: 01 - 626 4366.



Runners-Up — Paul Scanlon with Brian Carton, Jim Duffy, Harry Griffith and Des Bradley



Third — Jimmy Murphy, Harry Griffith and Des Bradley. Not in the picture is third team member Peter Hennessy.



Clay Pigeon Shoot — Winner Nigel Daly receiving his prize from Des Bradley



Winners — Eric Mitchell with Peter Wolfe (standing in for Danny Myler) Harry Griffith and Des Bradley (both of EDI) and Jim Burke

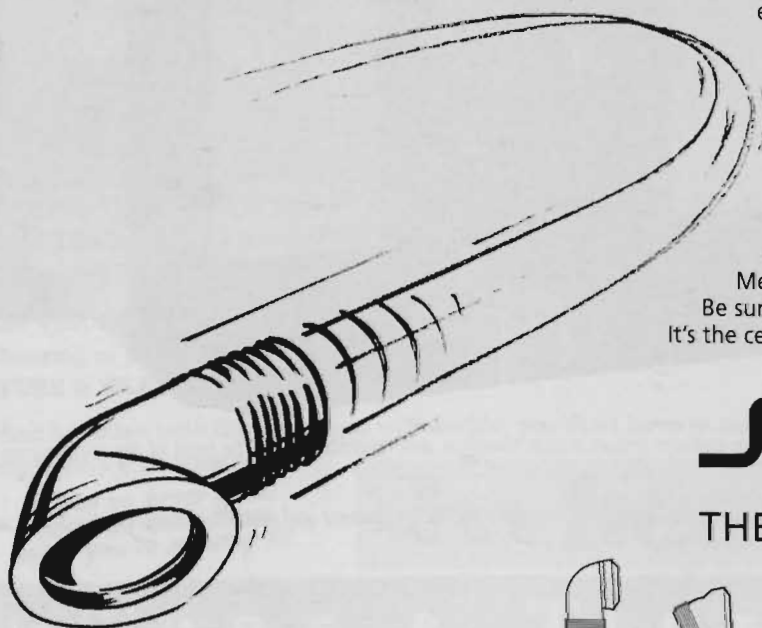
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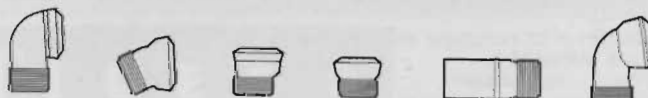
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Contact:

MFP Sales Limited, Lucan, Co Dublin. Sales: Tel. (01) 628 0696. Fax. (01) 628 1119.



CHAPPEE Oil & Gas Fired Cast-Iron Boilers

NXR3 Range – 70/290 kW

NXR4 Range – 260/800 kW

The High-powered Boiler



Chappee NXR3 and NXR4 cast-iron boilers with generous heat exchange surfaces enhance heat transfers, and therefore make the most of the combustion process making these boilers amongst the most efficient in the market.

Moreover, its double insulation, featuring one 50mm layer of glass wool on the glass fabric surrounding the exchanger and one 50mm layer around the casing, reduces dramatically the heat radiation losses.

Thanks to the design qualities of its exchanger and its insulation, the Chappee boilers achieve crucial energy savings and minimises pollution.



Heyac Ltd

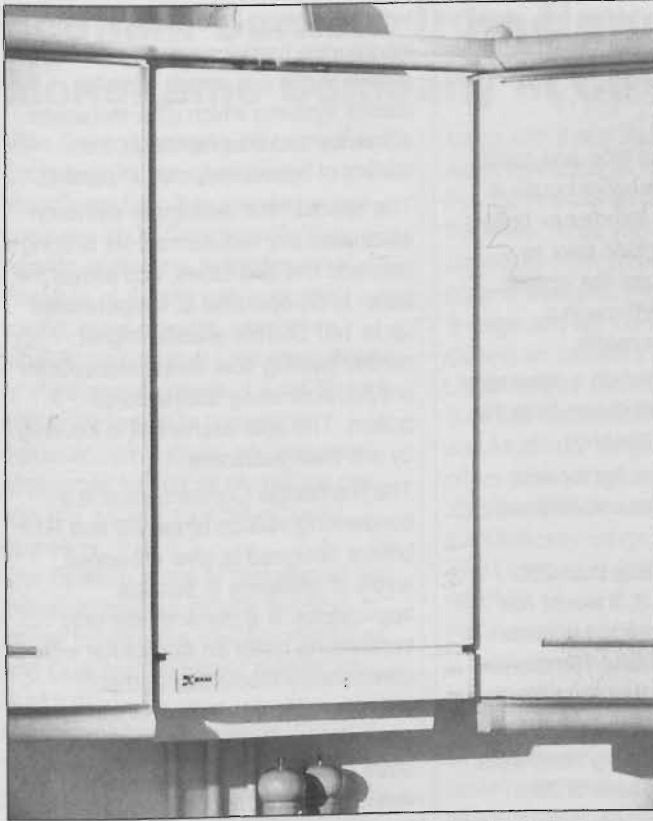
70-72 Lower Dorset Street, Dublin 1.

Tel: 01 - 830 1211; Fax: 01 - 830 1990

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DOI: 10.21427/D7PD9Z



CHAPPEE



Baxi Genesis gas combination boiler from Heatmerchants

'Baxi Genesis – A New Beginning'

Baxi boilers has a commitment to product development which has placed it at the cutting edge of home heating development.

In the 1960's, the Baxi Bermuda back boiler concept changed the face of central heating in homes. Now, with the introduction of the Genesis Combination Boiler, Baxi has brought another revolutionary product to the home heating market. The Baxi Genesis Combination boiler provides central heating, but also supplies hot water. In essence, it is a combined central heating boiler and water heating system.

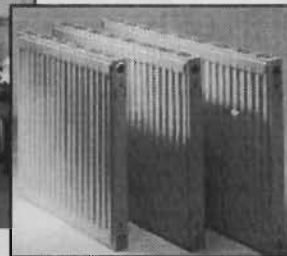
As a hot water system, the Genesis heats the water within the unit instantaneously, discarding the need for a conventional storage cylinder to contain the hot water. The Baxi Genesis is more than capable of warming the majority of homes, but it is compact and unobtrusive.

The LPG version allows householders not connected to the natural gas grid to experience the benefits of Baxi Genesis. It is available at Heatmerchants branches nationwide.

Contact: Donal Cummins, Heatmerchants.

Tel: 01 - 623 1248.

Two Respected Names. One Reliable Source.



TUBS & TILES are Ireland's No.1 tile and bathroom showrooms and are part of the **HEATMERCHANTS** group. **HEATMERCHANTS** have been the leading suppliers of heating and plumbing supplies in Ireland for the past 20 years and now are open nationwide.

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Rendamax: Energy Savings and Finance from Eurogas

Rendamax R2000 and R18 boilers are a 19-model range of units suitable for supplying hot water for commercial and industrial central heating applications.

Rendamax boilers have an output range of 83kW to 1066kW from rapid response modulating burners. Large volumes of hot water are available instantaneously from a relatively compact boiler giving rapid response to heating demands.

Rendamax boiler features include:

- ☐ Burner modulation between 20% and 100%;
- ☐ Modulating atmospheric gas burner is linked to secondary cut control;
- ☐ Sequential operation of several boilers is possible for further modulating control;
- ☐ Five-year guarantee is given on the heat exchanges.

Applications include hotels, office blocks, hospitals, and leisure centres, as well as industrial applications.

Rendamax boilers are pre-tested at the factory and delivered assembled and pre-wired, ready to be connected to all services. This leads to significant

savings in installation time and costs. Where access to the boiler house is restricted, however, Rendamax boilers can easily be dismantled prior to installation. In this form the largest component will pass through a standard 760mm doorwidth.

The burner is mounted on a moveable tray which can be withdrawn from the unit for ease of maintenance.

Rendamax boilers are lighter and generally smaller than conventional cast-iron units.

The floor loading is less than 250-400kg/m². As a result, it would not normally be necessary to reinforce floors prior to installation. Rendamax boilers are ideally suited to rooftop installation.

Gas savings from existing Rendamax installations are in excess of 20% compared to conventional boilers using atmospheric gas burners. In practice, far greater savings are often obtained when boiler houses are re-equipped with Rendamax units.

The Rendamax 2000 is a further development of the well-established Rendamax boiler. 2000 models use the same well-proven burner modulation

technology as the R9 and R18, but incorporate further advances. Notable among these is a choice of boiler control systems which offer increased efficiency and also facilitates the control of boilers mounted in parallel.

The special heat exchanger extrusion eliminates any requirement for brazing between fins and tubes, and allows the boiler to be operated at temperatures up to 140°C. This enables higher central heating flow temperatures than are possible using conventional boilers. The heat exchanger is covered by a 5-year guarantee.

The Rendamax Condensamax is a condensing version of the R9 and R18 boilers designed to give enhanced levels of efficiency in suitable applications. It is currently the only condensing boiler on the market with continuously-modulated burner operation. Models in the R9 series do not require a flue fan (obligatory on all other condensing boilers currently available). This reduces the risk of breakdown and simplifies maintenance. Fourteen Condensamax models are available with outputs from 112kW to 1013kW.

Eurogas Financial Packages

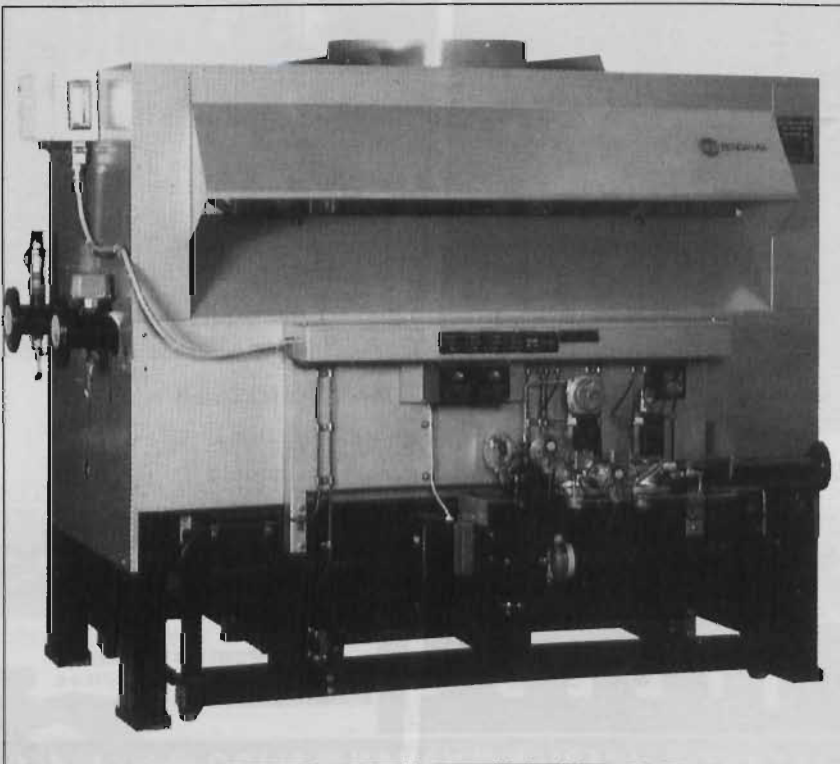
Eurogas offers a range of finance packages. These enable customers to install cost-effective Rendamax equipment without having to commit working capital. Where older equipment is being replaced, improvements in efficiency will often lead to cost savings which are greater than the finance repayments, providing a net gain to cash flow.

Tailor-made finance packages are available, typically extending over three to five years. These could cover both the cost of equipment and installation, and can also include other capital purchases made at the same time.

Installations include An Post, GPO; Knock Shrine; The Tennis Village, Cork; Crofton Airport Regency Hotel; Howmedica International; and Wexford Corporation.

Contact: Des Prendergast, Eurogas.
Tel: 01 - 286 8244.

Left: The Rendamax R2000 and R18 boilers comprise a 19-model range of units suitable for supplying hot water for commercial/industrial central heating applications



boilers

Ecoflam Burners from New Monoflame Company in Co Cork

Mike Stone, Managing Director of Ecoflam (UK) Ltd, (previously Monoflame Ltd), has founded a new company in Co Cork in order to provide customers throughout the Republic of Ireland with a locally-based, more efficient, service. Monoflame (Ireland) Ltd carries stocks of the complete range of Ecoflam high-efficiency, low NOx burners for domestic, commercial and industrial appliances fuelled by oil, natural gas and lpg, as well as a full range of spares.

The Ecoflam range of commercial and industrial burners include the BLU model for gas, the Maior model for oil and Dual and Multicalor models for dual fuel.

For commercial gas boilers, the BLU range offers capacities from 58kW to 4070kW. This range, which has fully closing air dampers as standard, is available in three options — single-

stage with a soft start facility; two-stage operation; or full modulating. For commercial oil-fired applications, the Maior range can be supplied with capacities from 58kW to 4000kW and options available are on/off, high/low, 3-stage and full modulating. Fully closing air dampers are also available. Other ranges suitable for commercial dual fuel applications are the Dual and Multicalor ranges. The Dual range offers seven sizes, with capacities from 23kW to 326kW and for larger boilers, the Multicalor range, with six models, offers capacities from 232kW to 2907kW.

For industrial applications, the T range is available for gas, oil and dual fuel boilers with outputs up to 12,000kW. These are modulating burners which continually self-adjust in relation to system demands, providing highly-efficient mixing of the fuel for complete combustion and minimum emissions.



Ecoflam's Maior range of oil burners (capacity 117kW to 4000kW) from Monoflame (Ireland)

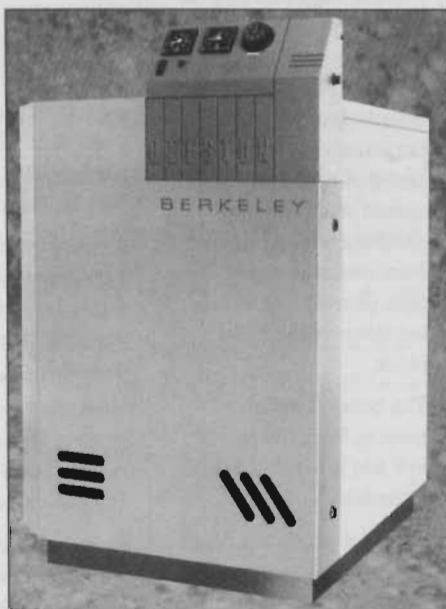
Day to day running of Monoflame (Ireland) Ltd is in the hands of Sales Manager, Noel Harte, who is based in the new Irish office at Beechwood, Carrigaline, Co Cork.

Tel: 021 - 372143; Fax: 021 - 372306.

BERKELEY

A range of commercial cast iron atmospheric gas boilers from 22 to 159kW output which meets both the Gas Appliance and Efficiency Directives of the European Community.

- ◆ Heavy duty casting
- ◆ Medium water content
- ◆ Integral draught diverter
- ◆ Fully instrumented
- ◆ Pump overrun option
- ◆ Low profile



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HEVAC'S FORMIDABLE TRIUMVIRATE

Building Services Engineering, Vol. 36 (1997), Iss. 7, Art. 1

When it comes to commercial boilers, Hevac's portfolio is undoubtedly the most formidable on the market, representing as it does a triumvirate of the leading brands in this particular sector.

The manner in which the various models have been chosen from each of these brands is such that they are perfectly complementary. As such Hevac offers specifiers and installers a formidable armoury of solutions, no matter what the requirement.

Brief details of each of the ranges – and their scope and the extent of their application – are as follows:-

CHAPPEE

Chappee has just introduced their new "NXR3" and "NXR4" range of cast iron sectional boilers for oil, gas and dual fuel applications. Based on the highly-successful "XR" range, the "NXR" boilers offer substantial energy savings and also minimise polluting emissions.

The large chamber capacity provides a more environmentally-sound combustion and, coupled with the cast iron economisers which dramatically improve the heat transfer surface, provide enhanced efficiencies up to 85.5%.

Access to the combustion chamber can be easily gained through hinged burner doors and the chamber has been designed to enable horizontal cleaning for more simple, faster and better maintenance.

The "NXR" still maintains the stylish casing with its high level of insulation (100mm) to reduce standing losses considerably.

The "NXR3" range is available fully assembled with an output range of 70-290 kW combined with smaller flue diameters, while the "NXR4" range is available in outputs from 260-800 kW.

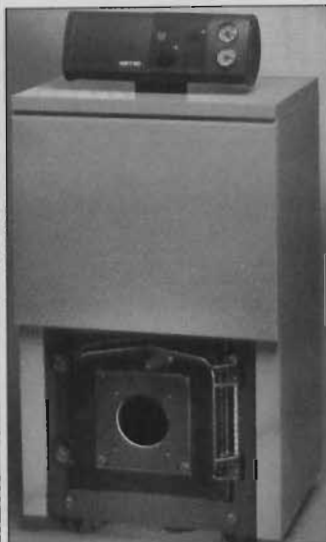
In addition Chappee continues to offer the Arizona steel boiler range with outputs from 80 kW to 2500 kW. The Arizona range was designed to meet the requirements of public and institutional sectors. With their compact dimensions, Arizona boilers can be installed easily in restored boiler houses, as well as new ones, with the contractor having complete confidence that he is installing a high-efficient (90% on normal output), reliable and easily maintained boiler which can be equipped with blown gas, pressure jet or dual fuel burners.



The new NXR3 cast iron sectional boiler from Hevac

SIME

The new Sime 2R Series of cast iron medium commercial size sectional boilers, for operation on either oil or gas, represent the ideal choice for customers who demand quality, efficiency and reliability. The 2R boilers comply with the latest EC Standards dealing with the energy saving and protection of the environment.



Sime high-efficiency, cast iron boilers from Hevac

Multiple staggered pins on the section absorb maximum heat transfer while providing minimum draught loss. The attractively styled red casing of epoxy powder-coated steel panels complete with a matching front mounted control fascia, provide thermal insulation of the boiler block.

The boiler is available in outputs from 100 to 180 kW and is supplied fully assembled.

Sime also produce a range of cast iron atmospheric gas-fired boilers in two ranges – the RMG with outputs from 77 to 100 kW; and the RG fully automatic range with outputs from 111 to 287 kW.

HAMWORTHY

Hamworthy Heating's "Purewell" range of cast iron atmospheric gas-fired modular boilers is fully eurocertified, bearing the "CE" mark and has many "state-of-the-art" features including gas-flow share valves which reduce fuel consumption and the radiant baffle which reduces heat loss.

The "Purewell" range comprises eight basic models with outputs from 40 to 120 kW. The modular configuration allows infinitely-variable outputs.

Options available are the permanent pilot and the automatic option electronic gas valve technology, permitting a low-flame start and eliminating boiler "hunting". The fully automatic is also available with high/low operation.

With the forthcoming European directives on gas heating appliances in mind, Hamworthy have produced a high-efficiency, low NOx reliable boiler that assures the customer of conformity with European standards and the requirements of the marketplace.

Hamworthy also manufacture the "Wessex" high-efficiency pre-mix gas-fired modular boilers in 50kW and 200kW modules. With its fully-automatic efficient pre-mix combustion, the "Wessex" provides a rapid-response, compact, high-efficient boiler with NOx levels less than 50ppm at 3% O₂.



Hamworthy Heatings' Purewell gas-fired boilers from Hevac

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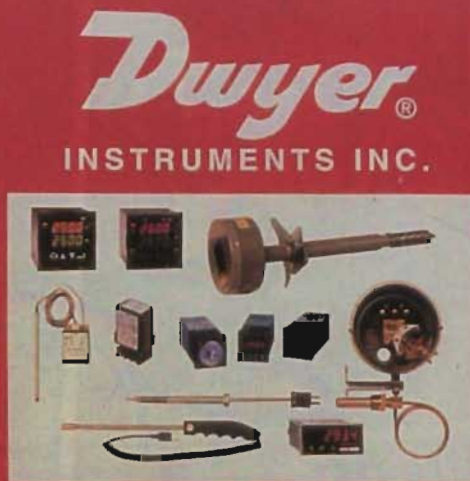
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