


10-1990

Irish Building Services News

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BSN News

OCTOBER 1990

IRISH BUILDING SERVICES NEWS

Registered Heating Contractors Association

The Registered Heating Contractors Association Ltd (RHCA) has now been formally incorporated with a membership of approximately 60 and a duly elected Executive Committee comprising Brendan Pluck; Kieran Lynch; James S Kelly; Dave Harris; Kieran Reynolds; Frank Purcell and Michael Carroll.

Since May of this year, when the initial seeds were sown for the formation of a contractor representative body, there have been three meetings, all of which were well attended, especially by members of the Bord Gais authorised installer list.

However, it's important at the outset to clarify that membership is not restricted to BG panel members. All bona fide registered contractors are eligible — and indeed invited — to apply for membership.

Nor is membership restricted to Dublin-based contractors. The RHCA is envisaged as a truly national representative organisation, the intention being to establish Regional Branches as time goes on.

The circumstances surrounding the formation of the Association were quite simple, there being no ulterior motive on the part of any

individuals or groups. It was more an evolutionary process which arose out of contractors getting together informally to discuss various matters affecting the industry.

Given the volume of work now being enjoyed by heating contractors, especially in Dublin, there are inevitably problems and matters of concern which have arisen. RHCA hopes to address these, and other issues, by representing the contractor point of view in discussions with all other parties such as Fas, Bord Gais, etc.

The Association sees its role as supportive of the interests of domestic heating contractors, especially on contentious issues. However, it has no intention of seeking confrontation on such matters but rather mediation and

ABB Fax Change

The Environmental Control Division of ABB has now got a direct facsimile line. It is 01 - 599939. Fax number 01 - 522985 is still operating but it serves the entire ABB Group.

discussion with a view to solving all problems — whatever their nature — in a constructive and cooperative manner which will benefit the industry at large.

Additionally, working for the good of the industry also involves issues of a more general nature. Education, training, standards, codes of practice, insurance, better business management, etc are all matters which have been raised by the membership for discussion.

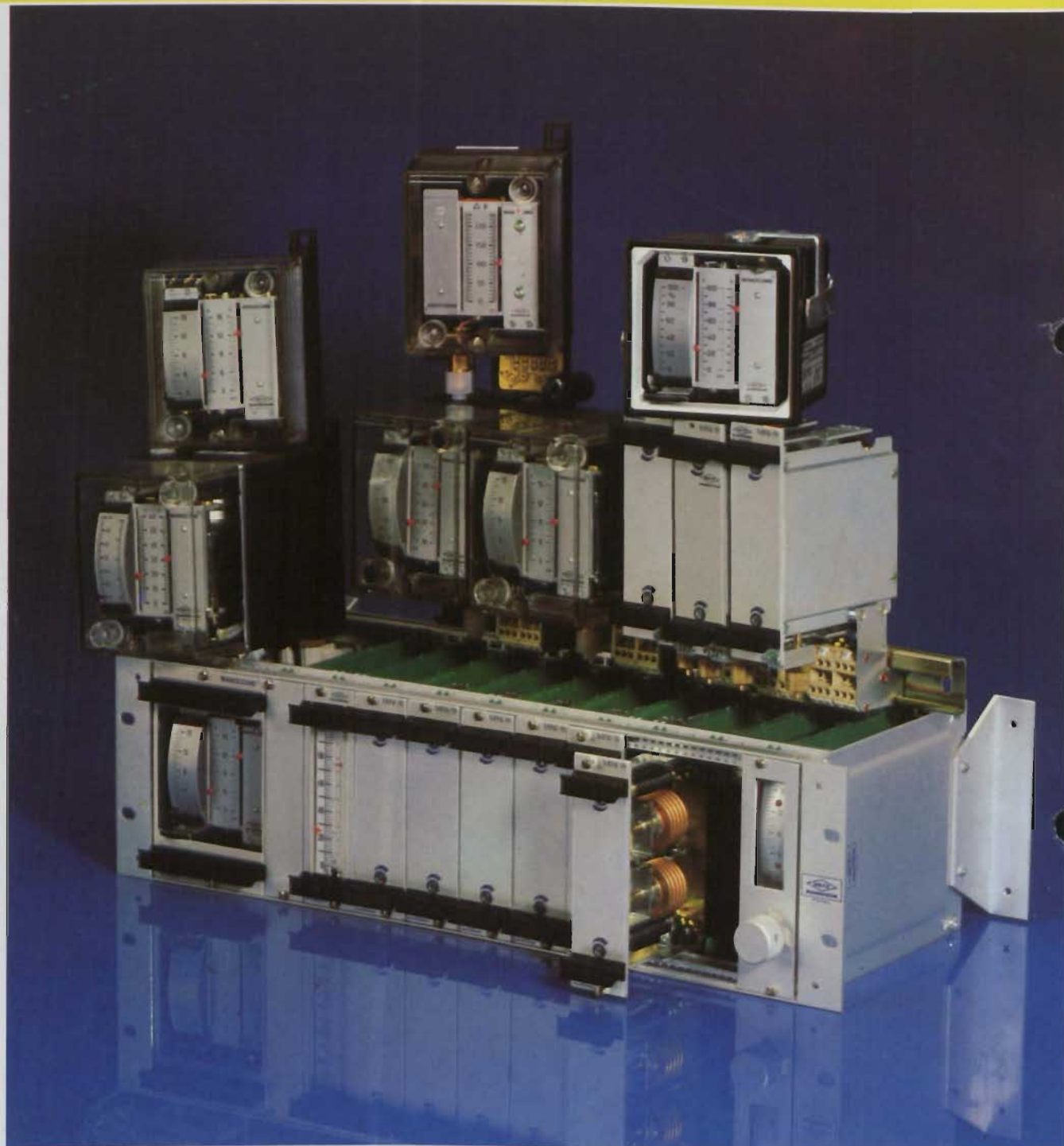
In the coming months these issues will be addressed, the intention being to devise a programme of events and seminars which will result in a more professional — and profitable — business approach by domestic heating contractors.

All enquiries concerning the Registered Heating Contractors Association should be addressed to its registered office at 11 Merrion Square, Dublin 2.



Pictured left are RHCA Executive Committee members Kieran Lynch, James S Kelly, Brendan Pluck, Dave Harris, Kieran Reynolds and Frank Purcell. Missing Committee member is Michael Carroll.

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READERSHIP DATA

Irish Building Services News (formerly Irish H&V News) is Ireland's only Building Services magazine providing coverage of the 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:

The Institute of Consulting Engineers; The Chartered Institution of Building Services Engineers; The Institute of Domestic Heating Engineers; The Energy Managers' Association; The Institute of Plumbing; The Energy Conservation & District Heating Association; The Mechanical Engineering & Building Services Contracting Association; The Irish Builders' Providers Association; The Association of Consulting Engineers of Ireland; Irish Home Builders Association; Maintenance 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.

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FACE TO FACE

BSN talks to Sean Smith, Manager, Environmental Controls Division, ABB - ASEA Brown Boveri and current BTU Golf Society Captain.



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BTU GOLF

Results from recent outings at Forrest Hills and Hermitage.

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ADVANCE SALES LEADS

Advance information on new construction projects nationwide from *CIS Report*.

BUILDING SERVICES BUYER GUIDE

The 1990/1991 edition of *Building Services Buyer Guide* has now been published. It is the most comprehensive version of the *Guide* to date, making it an invaluable reference manual for all involved in the building services sector.

Those on the mailing list of *BSNews* will already have received their free copy of the *Guide*.

However, those who wish to receive additional copies can do so by sending a cheque for £10 to the publishers - Pressline Ltd, Walnut Lodge, Carysfort Avenue, Blackrock.

MOPPING UP CHEMICAL SPILLS

The simplest way of cleaning up spills of dangerous chemicals would be to mop them up with a sponge, but normal sponges take up so little liquid they would be practically useless in an emergency.

The Big O company, based in Redditch, Worcestershire, makes a plastic bead that has an astonishing capacity for soaking up organic liquids but repels water.

The beads are light enough to be carried in the shape of pillows or blankets that can be thrown on spillages to prevent toxic substances from flowing into rivers or sewers and polluting water supplies.

Big O's Expandabeads absorb up to 27 times their original volume. The beads are about the size of a grain of sugar, consisting of molecules in long chains, linked at only a few points.

When liquid is absorbed, it attaches to the molecules and cannot be squeezed out again - an important safety consideration when toxic or unstable liquids are being mopped up.

When the beads are full, they turn into a jelly-like mass that is easily collected and disposed of. Because they repel water, the beads can be spread on oil slicks at sea, soaking up only the oil.

The beads can mop up a wide range of fluids, from oil and solvents to acids and resins. Generally, the lighter the liquid the faster it is absorbed, so the beads work slowly with crude oil, for example.

Fuels such as diesel oil are easily absorbed, as are corrosive liquids such as acids and toxic substances such as carbon tetrachloride and PCBs.

Nature - the Most Effective Odour Eater

Sawdust on the floors of old pubs looked disgusting - it was rarely changed and must have sheltered a rich colony of micro-organisms. But, says Richard Berney, managing director of Biophore, a Dublin manufacturer, those bugs may actually have helped purify the air by feeding on the substances that caused the offensive smells.

Berney's company is exploiting this to make a range of air filters that kill odours from sewage plants, breweries, tanneries, pig farms, fish-oil plants and so on, without deodorants or scents to mask the residual smell.

The raw material of the new filter is natural - peat. Berney has identified one of its components, the root of bog cotton, as the ideal

filter material because it is highly porous, with millions of tiny ducts in which micro-organisms can live.

'The bacterial activity in the filter bed provides a micro-climate where bugs can develop,' says Berney. The material is also partially lignified making it very hard and slow to decay so the filter will last for years without having to be replaced.

The organisms are usually installed in the filter bed naturally, with no intervention. The filter bed is placed in the duct carrying the smell, and simply left. The material creating the odour will already have attracted bugs that feed on it and these begin to colonise the filter as soon as it is put in.

We should be buying back 10-year old filterbeds from the sewers of London, enriched with all the sulphur and so on from the water, and use it as compost

Environmental Bubble Bath

Abattoirs, dairies, fat-rendering plants, tanneries, and many other small industries churn out large quantities of water that comes out at the end of the line carrying an unsavoury cargo of gas, congealed grease, hair and grit.

All this, as well as any dissolved chemicals, must be removed before the water can be discharged into the public sewer.

Getting rid of these materials can be an expensive business, involving large, power-hungry machines.

An inventor, Alan Lovegreen, has developed a machine that is not only half the price of a conventional Dissolved Air Flotation (DAF) machine but also uses a tenth of the energy.

The water is contained in a large tank, with a chimney at one end. Bubbles are generated at the base of the chimney, the air making the water stack lighter than the water outside, so that a current forces the water in the chimney upwards, like a convection current.

The bubbles are generated by a set of tubular ejectors, which are driven round so fast that they cavitate, forming vacuums in their wake.

This draws the air in through the hollow axle from the motor.

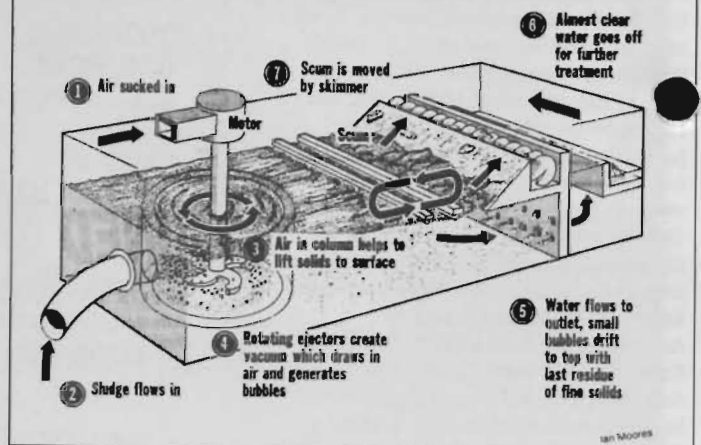
The action of the ejectors generates bubbles of all sizes, from infinitely small to a diameter of 1.5cm. Lovegreen says, which effectively clear out solids of all sizes.

The scum on top of the tank, is then cleared off by the hydraulic sweeps, and the water runs off for further treatment.

'The system can produce almost clear water at the outlet,' Lovegreen says.

The Hydrofloat, as the machine is known, is manufactured and distributed by Hyde (UK) which is based at Andover in Hampshire.

THE HYDROFLOAT SYSTEM



Eventually enough of the bugs will have developed in the filter to extract all of the noxious substance.

The beauty of the system, says Berney, is that it is non-polluting and can be recycled. 'We should be buying back 10-year old filter beds from the sewers of London, enriched with all the sulphur and so on from the water, and use it

as compost,' he adds.

For those who may be concerned about the environmental impact of commercial peat extraction, Berney points out that only a tiny proportion of peat output will ever be needed for cutting out the smells from abattoirs, tanneries, glue factories and all those other creators of industrial smells.

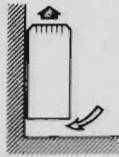


a new concept in fan coil design

MODELS WITH DECORATIVE CABINET

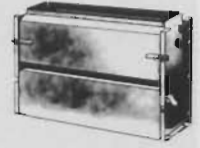
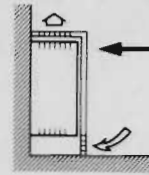
QZRF

Vertical unit with speed controller, electrical terminal block, filter and supply grille.



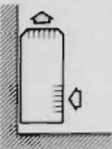
QZRB

Vertical unit with electrical terminal block and horizontal filter, without speed selector.



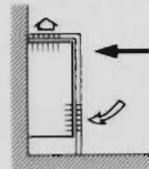
QZRM

Vertical "low boy" unit with speed controller, electrical terminal block and filter. Includes both supply and recirculated air grilles.



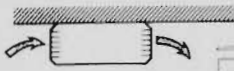
QZRS

Vertical "low boy" unit with electrical terminal block and front filter, without speed selector.



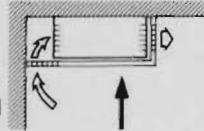
QZRD

Horizontal unit with electrical terminal block and filter. Includes both supply and vertical recirculated air grilles.



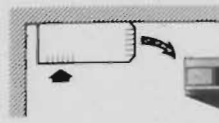
QZRC

Horizontal unit with electrical terminal block and filter.



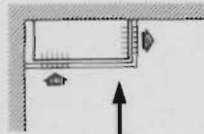
QZRT

Horizontal unit with electrical terminal block and filter. Includes both supply and horizontal recirculated air grilles.



QZRO

Horizontal unit with electrical terminal block and filter.



Environmental Control Division
ASEA Brown Boveri Ltd.
Whitestown Industrial Estate, Tallaght, Dublin 24.
Tel: 522622. Telex: 93681. Telefax: 599939.

PROBLEM?

**Need Product Fast
but don't know
who does it?**

SOLUTION!

See Page 21

POWER FLUIDICS

Bathwater Technology?

Have you ever wondered why it is that bathwater spirals down the plughole? The spiral, technically known as a vortex, is caused by a natural hydrodynamic force that could be a boon to industry, according to a recent report in the *Sunday Times*, upon which this article is based.

Hydrodynamic forces are being applied to a new generation of devices for controlling the flow of liquids - a technology known as power fluidics.

'By using the natural movement of liquids, devices such as valves and pumps can be made inherently more reliable than their mechanical counterparts,' says Lionel Ford, Manager of the UK Atomic Energy Authority's Springfields process-engineering centre, which is pioneering power fluidics.

'Fluidic components are not subject to wear and tear, so they can be fitted on a once-in-a-lifetime basis with huge cost savings to industry,' he said.

The authority began investigating power fluidics 10 years ago as a low-maintenance method for handling radio-active materials.

In 1988 the Springfields laboratory, near Preston, Lancs, part of the newly formed commercial division called AEA Technology, began to seek other applications for the technology.

The result is a series of valves, pumps, mixing tanks and gas scrubbers aimed at a wide range of industries from chemicals and food processing

to oil and gas recovery.

The authority is also using vortices to control the slowing of a liquid flow - for instance oil which leaves the well under extremely high pressure.

The fluidic valve is also suitable for handling chemically aggressive liquids, obnoxious or poisonous products, and those with temperatures near boiling, such as molten metals and glass, because it is totally

fluidic 'non-return' valve - the key to the fluidic pump. This valve avoids the problem of conventional pump valves that can easily become worn or clogged and can damage delicate materials.

The non-return valve is ideal for processing liquids with an important solid component, because it leaves solids undamaged. Applications could be handling substances such as strawberry jam, peas in brine, or even blood in

spinning on the spot by bringing in her arms to her chest. As the liquid accelerates it also becomes thinner, eventually breaking up into droplets of uniform size.

By spinning two thinning jets together the Springfield scientists realised they could create ideal conditions for very fast mixing - a key task in a vast range of chemical industries from paint-making to the growing of crystals.

They have now developed vortex mixers that allow liquids to be injected tangentially into a chamber, spun round and accelerated within the chamber so that they are ejected in a perfectly mixed form.

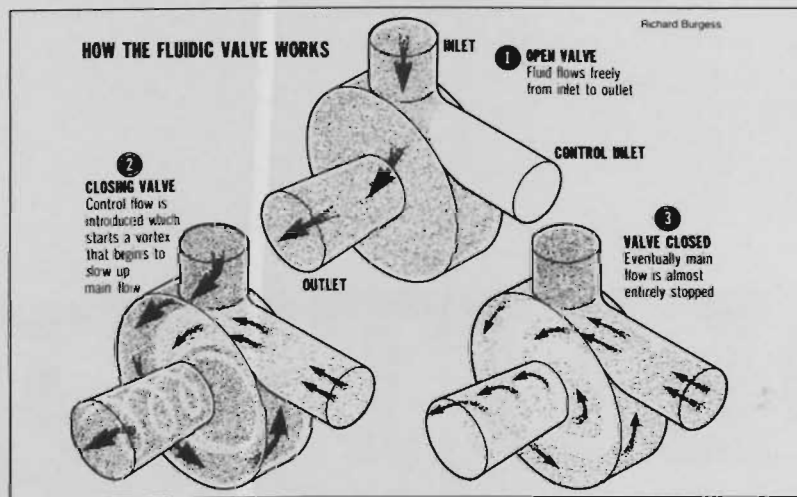
Such highly controlled mixing conditions also maximise yields.

The team is also designing miniature scrubber towers for filtering acid gases and dust particles produced

by industrial plant. Concerns about air pollution and the greenhouse effect are creating a growing market for such products.

The vortex scrubbers work on the same principle as their conventional predecessors - passing the noxious gases through fine droplets of water to 'wash' out the undesirable particles just as rain cleans dusty air.

But AEA Technology's method is to spray the water in fine droplets which pass radially through spinning gas. This ensures all the gas 'sees' all the liquid so it is much more efficient than a conventional scrubber and about one third the size.



contained with no seals, which could leak. Sterile fluids can be pumped without contamination and abrasive slurries cause little wear and pose minimal risk of blockage.

A consortium of companies has awarded the Springfield Laboratory a stg£750,000 grant for a 3-year project to

medical applications.

The liquid enters the valve's flat, cylindrical chamber through an axial port and encounters little resistance. Liquid that attempts to flow backwards will have a very difficult journey because this produces a vortex in the central chamber, causing a

By using the natural movement of liquids, devices such as valves and pumps can be made inherently more reliable than their mechanical counterparts

develop the fluidic valve. Obvious applications are in the oil, gas and mineral processing industries. The braking effect of the vortex is also exploited by the

high resistance. Only about 5% of the liquid will escape backwards.

Liquid in a vortex is accelerating - rather as a skater increases speed while

RENDAMAX - 96% EFFICIENCY

The Rendamax atmospheric natural or LPG gas-fired boilers are designed to cater for central heating and process hot water loads. Each unit comes fully assembled with a large range of outputs from 60 kw to 1100 kw.

The boiler has an operating efficiency of 96% when using the fully modulating condensing type unit, with a turn down of 100% to 20% of the designed load.

Rendamax boiler is manufactured to the latest BS and DIN standard, has Watson House approval, together with approval in 11 other countries. Euro Gas Ltd are the sole agents for Rendamax in Ireland and have been marketing the product for the

past four years.

During that time the company has seen rapid growth in sales of boilers from a cross-section of industry. Some typical examples of satisfied customers who are enjoying the benefits of Rendamax high efficiency gas boilers include the following:

Waterford Crystal - Here was a customer who experienced problems with hot water, or the lack of it. DeLap & Waller, mechanical and electrical consultants, recommended the installation of seven Rendamax fully modulating gas boilers in localised areas to resolve this problem.

Westbury Hotel - When the Westbury Hotel decided to

extend its bedrooms and function facilities, the question of the provision of additional plant for the space heating and domestic hot water requirements had to be examined.

The solution was found by the installation of two Rendamax fully-modulating gas boilers to meet all domestic hot water demands. The existing hot water storage calorifiers were bypassed and this existing boiler plant was made to serve the space-heating requirements only. This installation was carried out by Leo Lynch & Co.

Blanchardstown Hospital and Portrane Hospital - Here were two typical old hospitals serviced by steam boilers with miles of underground pipework, very low efficiency

and high running costs. The Eastern Health Board recommended the installation of 24 Rendamax fully-modulating boilers to service the needs of the patients in both these hospitals for central heating and hot water.

H A O'Neill completed the installation in Blanchardstown Hospital and T E Lynskey & Co in Portrane Hospital.

Other projects where Rendamax boilers are currently being installed are Aer Lingus new hangar (Team Project); two 800 kw units by M F Kent & Co; The Tower Hotel, Waterford; Castletroy Hotel, Limerick; Cork Bowling Alley; Whites Hotel, Wexford; the new Waterworld development in Bundoran and the Braemor Rooms, Churchtown, Dublin.

WHOSE CENTRIFUGAL IN-LINE DUCT FANS ARE THE BEST AROUND?



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Roof Units provide the best fan range with the best powered units in the world and back it up with the best service and delivery through a nationwide network of distributors and overseas agents.

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ISH - More Space for A/C Displays

With seven months to go before the ISH opens its doors between 19 and 23 March, 1991, the organisers have already noted a significant increase in the number of exhibitor registrations.

Under the motto, "Mankind needs water, heat and air", around 1,650 companies will make their presentations at Frankfurt Fair Ground. With over 200 companies, the largest group of foreign exhibitors will be coming from Italy, followed by major contingents from France, Austria, Great Britain, Switzerland and the Netherlands.

Additionally, registrations have been received for the 1991 ISH from several Asian companies. The majority of foreign companies will be setting up their stands in the core segments - heating and sanitation and heating and air-conditioning/ventilation

COOLING SYSTEM OPERATING COSTS

A research project, aimed at providing information on the real operating costs of wet and dry cooling systems, is to be launched by The Building Services Research and Information Association (BSRIA).

The purpose of the project is to obtain much needed and realistic cost data to enable rational selection and replacement decisions to be made when choosing between alternative heat rejection systems.

The project will involve the examination of three wet and three dry systems. Detailed monitoring of their operation over a 12 month period will be carried out.

technology.

For the first time at the forthcoming ISH, the "tiled stoves and air heating systems" segment will occupy a separate exhibition level. On around 9,000 sq m of exhibition space in Hall 1.2, representatives of this segment will present the latest technological developments.

270 exhibitors of the ventilation and air-conditioning technology product group and the special show on "Home ventilation with heat recycling" will be housed in Hall 6.2.

£3 Million Kent Projects in Cork

Kent Ireland Ltd, the electrical, mechanical and instrumentation contracting subsidiary of the Tipperary-based multinational, The M F Kent Group, have reported a turnover of £22 million during 1990 for work in Ireland. This represents an increase of 18% on 1989 with a further turnover increase of 12% projected for 1991.

So the Group's Annual Conference was told recently

in Cork.

Kent Ireland Ltd, is long-established in Cork with a local office employing 12 full time staff. During 1990 it was involved in more than 10 projects in the city and county, employing over 100 people, with a total value of £3 million. Additionally, up to 15 projects employing over 170 people on works throughout Munster valued at £11.6 million was undertaken.

Announcing the appointment of new apprentices, Managing Director Michael Healy said that 48 school leavers had been appointed to the M F Kent Group and will be shortly taking up a work-study programme with Kent Ireland.

"We have recently taken on, in conjunction with FAS, 48 school leavers as mechanical, electrical and instruments apprentices from Cork city and county, and have more coming on stream from other Munster counties, including Tipperary, Waterford, Limerick and Kerry", he said.

AIM Seeks Irish Distributor

AIM Ltd, one of the UK's leading designers and suppliers of central heating and hot water systems, is now looking to expand its activities in Ireland.

By seeking out innovative, high-quality products in Europe and America, AIM has put together a comprehensive range to meet the needs of the specifier, installer and end-user alike. Additionally, the company provides a complete system design and consultancy service, free of charge and without obligation.



The outlook for the Irish housing industry is better than overseas housing industries, Joe Tiernan, Chairman of the National House Building Guarantee Scheme told 600 world housing experts and builders meeting in Dublin earlier this month. Pictured at the International Housing and Home Warranty Conference in Dublin were (from left) Sean McKeon, Chairman, Irish Home Builders Association; the President Dr. Patrick J. Hillery; Joe Tiernan, Chairman, National Home Building Guarantee Scheme; and the President of the Construction Industry Federation, Oliver Haslette.

AIM believes its 'wet' electric systems will be of particular interest in Ireland. AIM's direct-acting systems are widely used in Scotland and England for both residential and commercial properties. Typically, a single pipe sealed system is utilised, comprising - Thermoflow or Thermopower electric boiler; pre-assembled Thermopanel radiators; unvented State or Ariston electric water heater; small-bore copper or Wirsbo radiPEX plastic pipe and various fittings and accessories.

This type of system is simple to install (AIM's boilers are extremely compact and don't require a flue or vent), competitively-priced, reliable and, due to its low water content and the boilers



ABB HIGHLAND FLING!

ABB Environmental Controls Division recently hosted a 3-day golfing trip to Scotland for a party of eight guests. The venue was Turnberry, Scotsraig, Murrayshal Castle. Winner of the outing was Alan Treacy.

"modulating" ability, inexpensive to operate.

AIM is a firm believer in the merits of unvented systems, which it considers to be more

efficient and suited to a wider variety of property types than traditional open-vented systems. (Nonetheless, open-vented systems can be supplied if desired.)

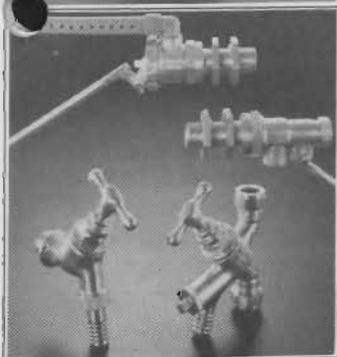
As well as providing complete system "packages", AIM can also supply all of the products in its range individually at special trade prices. This range includes electric boilers from 4-350kw, which are particularly suited to the Irish market as they can be used as prime motivators for a central heating system, or as back-ups to oil or solid fuel systems.

The company's range also includes - multi-fuel boilers; gas and oil boilers; underfloor heating systems; ventilation and heat recovery systems; radiators; vented and unvented electric and gas water heaters; and a wide selection of pipework and system fittings.

AIM is interested in hearing



Radiator valves



Gate & Globe valves.



Sunvic temperature control.



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COMPLETE ENERGY CONTROL FROM SUNVIC

from companies interested in acting as an Irish distributor. Full details can be obtained from AIM Ltd., 18 Crowhill Road, Bishopbriggs, Glasgow G64 1QY. (Tel: 03-041-762-4200).

Savaflush - Easing the Water Crisis

Heating Distributors has introduced a new water-saving device called Savaflush which could contribute significantly to easing the current water supply problem, especially in Dublin.

The Savaflush electronic control system accurately regulates the volume of water used by automatically flushed toilet cisterns. It ensures that urinals are flushed only once during its activated cycle,

regardless of how many persons use the facility, and always after the last person has left the toilet area.

For hygiene reasons the Savaflush will automatically flush after a period of 12 hours non-use of the toilet.

It is totally independent of water pressure and time clocks, positive flushing is guaranteed; it can control more than one toilet facility; it is suitable for operation from water mains or header tanks; it can be interfaced with computer-controlled energy management systems; and is UK WFBS listed.

APPOINTMENT

Liam Connolly has been promoted to Area Sales/Service Supervisor by Apex Fire. Liam has been with Apex for over eight years and will now be responsible for their Commercial Contracts Division.

SEASON CONTROL TAKES LONGFORD VENTILATIONS

Since moving to their new premises in Cork Street (18,000 sq ft) 13 months ago, Season Control has used the space to develop and improve many new projects. The biggest of these has been the take-over of Longford Ventilators and the moving of the production lines to Dublin.

"It was touch and go for a while", a spokesman said, "But we were determined to see it up and running, continuing the success it has enjoyed for the past 15 years."

It has now been running for nine months in Dublin and, with the recent appointment of Mr J Crilly as Production Manager, the company can now offer 24-hour deliveries, competitive prices and a wider range of products, including custom-built grilles, made to measure.

The whole affair was been an experience typical of Season Control's growth to date - seeing the market potential; targeting it; manufacturing the product and carefully selecting key personnel. The company success is very much put down to a personal honest approach.

Another major development which has expanded extensively and is expected to continue to grow is the new Structural Components Division now with Season Control. It deals with the very basic raw material for mounting equipment, eg channel, nuts, drills, pop's etc. Again the credit is down to the selection of Gerry Oman to manage sales in this field.

The company profile and product base has now become so wide ranging that Season

Control boasts of being the largest supplier of heating, ventilation, filtration and hanging equipment in Ireland. An extensive catalogue detailing the quality and large range of equipment now carried in stock has been published to facilitate easy product selection.

The development phase continues with Season Control being the first Irish-owned manufacturer of high-efficiency bags, high-quality pleated panels, a range of high-quality fibreglass roof fans, a slimline volume control damper, silencers to reduce noise problems etc.

M F Kent Invests £2.9 Million in Beech Hill

M F Kent Group has paid £2.9 million for 15,951 sq ft - most of block two - at the £35 million Beech Hill Office Campus in Clonskeagh, Dublin 4. The space will be used for Kent's new Dublin offices.

The Kent purchase means that most of phase one (three of four blocks) at Beech Hill is now committed less than two months since construction began. Phase one, according to the developers Monastra/Bryant, is two months ahead of schedule and will be completed in July 1991 and by this stage phase two (blocks three, four and five) will have started. The entire development includes seven 3-storey units offering flexible office accommodation ranging in size from 60,000 sq ft to under 10,000 sq ft. Remaining units continue to be available on a freehold or leasehold basis.

DCC COMPUTE AIR ADDITIONS

Airwell is celebrating its 40th year in the business this month and marking the occasion is the introduction of three new products.

The first is a compact, water-cooled condensing unit ranging from 2.5 Kilowatts to 10 Kilowatts, for small to medium split systems range. The second comprises new condensing units that can be used with two, three or four air conditioning units, either in reverse cycle operation or cooling only. These condensing units are unusual because they house two compressors, therefore not relying on a single compressor for multi-zone systems.

Thirdly, there is the new SPM530 wall-mounted unit which has a capacity of 18,000 BTUs.

The above are now available from DC Compute Air Ltd, along with the new Hiross products such as the high frame which spans 10-24 Kilowatts; new chilled water computer room units, and chillers for computer rooms.

These products are complemented by HCF roof top packages to 154 Kilowatt, and chillers to 1600 Kilowatts in screw type.

Details from distributors of all three brands, D C Compute Air Ltd, Unit 70 Baldoyle Industrial Estate, Dublin 13. Tel: 01-392366. Fax: 01-392343.

NEW PRODUCTS AND LITERATURE

PIPELINE PROTECTION

The Servi-Wrap cold applied system offers complete anti-corrosion protection and is effective on pipe lengths, joints, bends, fabrications, valves, etc.

Servi-Wrap consists of a thick adhesive layer of bituminous rubber compound married to a tough, flexible outer carrier of pvc or polyethylene. All materials are processed by Serviced, the manufacturer, to a quality that is both high and consistent.

Servi-Wrap can be specially formulated for individual applications.

Most important, Serviced has the knowledge and experience to help clients overcome particular environment problems, whether

off-shore or on-shore.

A strong feature of Servi-Wrap is the overwide release paper in every roll which is removed at the time of application. Wider than the wrap itself, this prevents the transfer of dirt or other contaminants to the pipe surface.

It ensures the product is protected during storage and promotes rapid, trouble-free application.

The system offers exceptional adhesion and resistance to cathodic disbondment; self-bonding overlaps, a total water and moisture vapour-proof seal; compatible with coal tar enamel, asphalt enamel, polyethylene and epoxy factory-applied coatings; ability to withstand mastic asphalt poured at temperatures in excess of 210 degrees C; excellent mechanical strength;

fast, simple application.

Details from Jack O'Byrne & Co Ltd., 21 Carrigcourt, Carrigaline, Co Cork. Tel: 021-371750.

STRAIGHT THROUGH TRAP

DuBois has introduced a new 'straight-through' trap.

Designed for use with pedestal basins, the fitting is available in 1.25" size. It is manufactured in white polypropylene, Unifix adaptors allowing connection with the majority of waste systems in polypropylene, ABS, MuPVC or PVA.



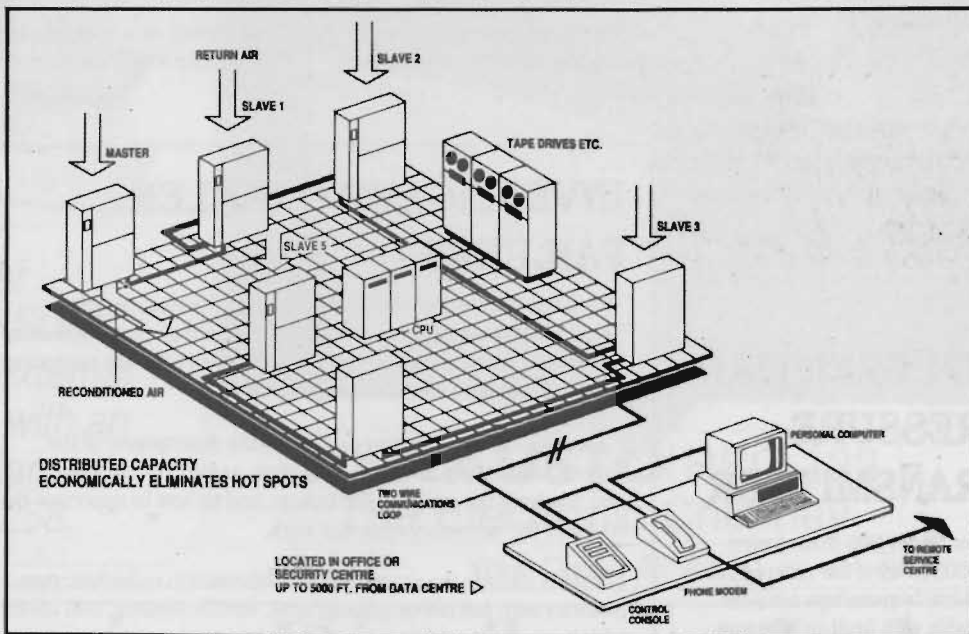
New "straight-through" trap from DuBOIS.

Details from DuBois plc, Princewood Road, Earlstrees Industrial Estate, North Corby, Northants NN17 2AP. Tel: 03-0536-67434. Fax: 03-0536-203537.

CROSSFLOW AIRCONDITIONING EDPAC

MODULAR COMPUTER ROOM SYSTEMS

- The system behaves like one single distributed machine.
- Multiple Modules act in unison. . . no Hot Spots.
- No heating/cooling conflicts possible.
- Precise local control by each module saves energy.
- Any mix of modules on the network. . . add some DX modules to a Chilled Water system for security.



CROSSFLOW AIRCONDITIONING

SANDYFORD INDUSTRIAL ESTATE, TEL: (01) 954521.
DUBLIN 18. FAX: (01) 953978.

HIGH/LOW LEVEL CONTROL

A new model point level control for installations in cylindrical chutes or vessels has been introduced by Drexelbrook Engineering Co and is now available from Manotherm Ltd. This level control includes a curved, flush-mounted sensor available in a variety of radius dimensions. The sensor is designed to mount flush with the curved surface of the vessel or chute wall. There are no obstructions to interfere with the flow of material.

The sensor's construction makes it impervious to abrasive materials like rock or coal. This level control is also suitable and recommended for use on lighter weight granulars and powders. Patented Cote-Shield™ circuitry eliminates false trips due to material in suspension, 'mud', coatings or build-up on the sensor or vessel wall.

Line powered controls provide DPDT relay contacts for low-power control functions. Two-wire versions are available with either a relay-pak receiver or a microcontroller with digital display of up to 32 measurements.

Details from Manotherm Ltd., 4 Walkinstown Road, Dublin 12. Tel: 522355. Fax: 516919.

DIFFERENTIAL PRESSURE TRANSMITTER

Dwyer Series 602 (3 or 4 wire) and 603 (2 wire) low differential pressure transmitters are now available with built-in pressure indication. This feature can be included on any model in these two series and provides a crisp, high-contrast liquid crystal display.

Characters are .5" high and normally read 0-100 (%) of span. Ranges can also be expressed directly in pressure units such as inches of water column, PSI, pascals, etc. Four decimal point locations are possible and plus or minus signs tell if pressure drops below zero.

These transmitters provide a standard 4-20mA output signal for ranges from a very low 0.20" w.c. up to 23 PSID full span. The two wire 603 models are powered directly by a loop supplied with 12-35 VDC and the 602 models operate from a separate AC or DC power supply providing 30 volts or less. Accuracy is plus or minus 2% in normal ambient conditions



New Dwyer Series differential pressure transmitter from Manotherm.

and temperature compensation allows use from 30-120 degrees F.

Thermal error over this range is only plus or minus 1% per 50oF.

Units are compatible with air and other non combustible, non-corrosive gases. Pressure connections are 1/8" NPTF. Span/zero adjustments are externally accessible. Weight 1lb., 10 oz., overall dimensions 5" diameter X 2-11/16" depth.

Details from Manotherm Ltd., 4 Walkinstown Road, Dublin 12. Tel: 522355. Fax: 516919.

WASHDOWN UNITS

Consolidated Pumps have introduced a new packaged-built wash down unit called the Aquawash.

The Aquawash range is based on three well-proven units - the Jet 251 self-priming pump; the K45/50 end-suction twin-stage centrifugal pump; and five of the KV vertical multi-stage units.

The Aquawash gives 30 litres of water up to a 9 bar pressure.

It is supplied as a complete unit with a lance which can be fully



New Interlab Aquawash from Consolidated Pumps.

adjusted from jet to spray. Operation of the Aquawash is automatic and the pump switches itself on and off as and when the lance is turned on or off.

Power ratings are between 1 and 2.5 horsepower single phase.

The flexible hose supplied can be connected directly to the pump for use in small confined areas. Alternatively, the pump can be fed into a fixed pipework system with plug in take off points where required.

Details from Consolidated Pumps Ltd., Knockmeenagh Road, Clondalkin, Dublin. Tel: 593471

INVESTIGATING BOILER FAILURES

This latest Technical Note (2/90) from the Building Services Research and Information Association (BSRIA) gives guidelines to be followed when investigating the likely causes for the premature failure of cast iron and steel boilers.

It provides the investigating engineer with descriptions of the various boiler types and how they work, assists him in identifying and resolving the cause of the failure, and in how to apportion the costs for the necessary remedial work.

Contents include the procedures for information collection, case histories with full colour photographs, further reading, and useful addresses where additional expert advice may be sought.

Priced at stg£30, copies are available from Publication Sales, BSRIA, Old Bracknell Lane West, Bracknell, Berkshire RG12 4AH. Tel: 03-0344-426511. Fax: 03-0344-487575.

TRIANCO COLEWOOD

Finished in stylish satin black and brass, the Trianco colewood is designed to blend into any traditional or modern room setting.

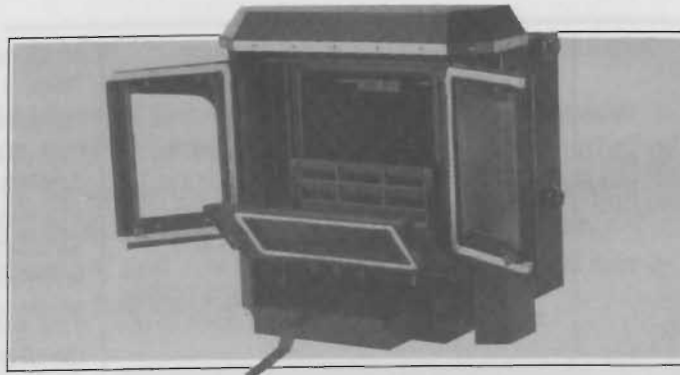
It's a real fire, which will provide a cheerful, comfortable glow, burning seasoned wood or house coal by opening the push/pull air vents. It will also happily burn most smokeless fuels.

Yet there is much more to the Colewood than just a focal point to a living room. It will produce 7,500 Btu/h (2.2kW) directly into the room and 42,300 Btu/h

(12.4kW) heat output for hot water. Enough to heat up to ten radiators, or central heating for an average three bedroomed house, plus, of course, plenty of hot water, for baths, showers and the washing up!

Behind the wide-angled toughened glass doors and the generous grate, is a highly efficient and powerful back-boiler. A thermostatic control maintains an efficient burning rate, which can be seasonally adjusted. The Colewood multi-fuel room heater is constructed to BS 3378 for the efficient burning of smokeless fuels with simple and effective design. It also has individual fire doors made from chrome iron for long life and it easily converts into a woodburning grate by operating the push-pull slides for overfire air.

In addition, the whole appliance is water cooled, so expensive fire bricks are not required. And no



The Trianco Colewood from Heating Distributors

infill is necessary behind the boiler. It will fit into any standard fireplace opening.

The appliance is currently undergoing independent testing in British Coal's laboratories for approval under the Domestic Solid Fuel Appliance Approval Scheme (DSFAAS) for burning smokeless fuels.

Details from Heating Distributors Ltd., 145/147 Richmond Road,

Dublin 3. Tel: 01-375144/5. Fax: 01-370531.

BUILDING SERVICES THESAURUS

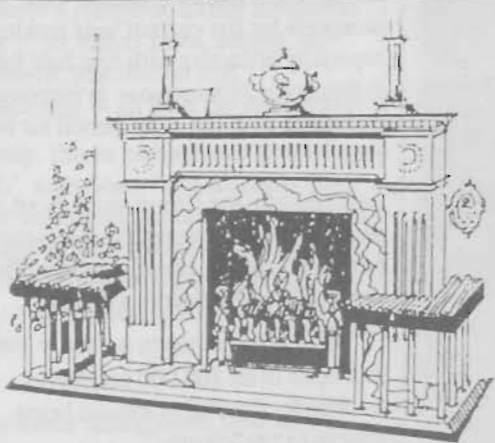
The Building Services Research and Information Association

(BSRIA) has published a thesaurus of building services terms for use in indexing office libraries, drawing collections, trade literature, specifications and other applications requiring a standardised terminology.

Compiled from authoritative sources including British Standards, dictionaries, books and journal articles, the thesaurus contains 4,500 terms with 5,000 cross-references and synonyms.

In two complementary sections, an alphabetical index of terms and a classified display of term relationships, the thesaurus is also available on 5" or 3" discs.

Priced at stg£ 25 for paper copies and stg£25 plus VAT for discs, copies may be purchased from Publication Sales, BSRIA, Old Bracknell Lane West, Bracknell, Berkshire RG12 4AH. Tel: 03-0344-426511.



Don't despair - the Exhausto RSG is mounted on the external wall and is used with an open gas appliance, made to BS5258.

NO CHIMNEY?



EXHAUSTO RSG 133
The Electronic Chimney

Your Clean Air Act



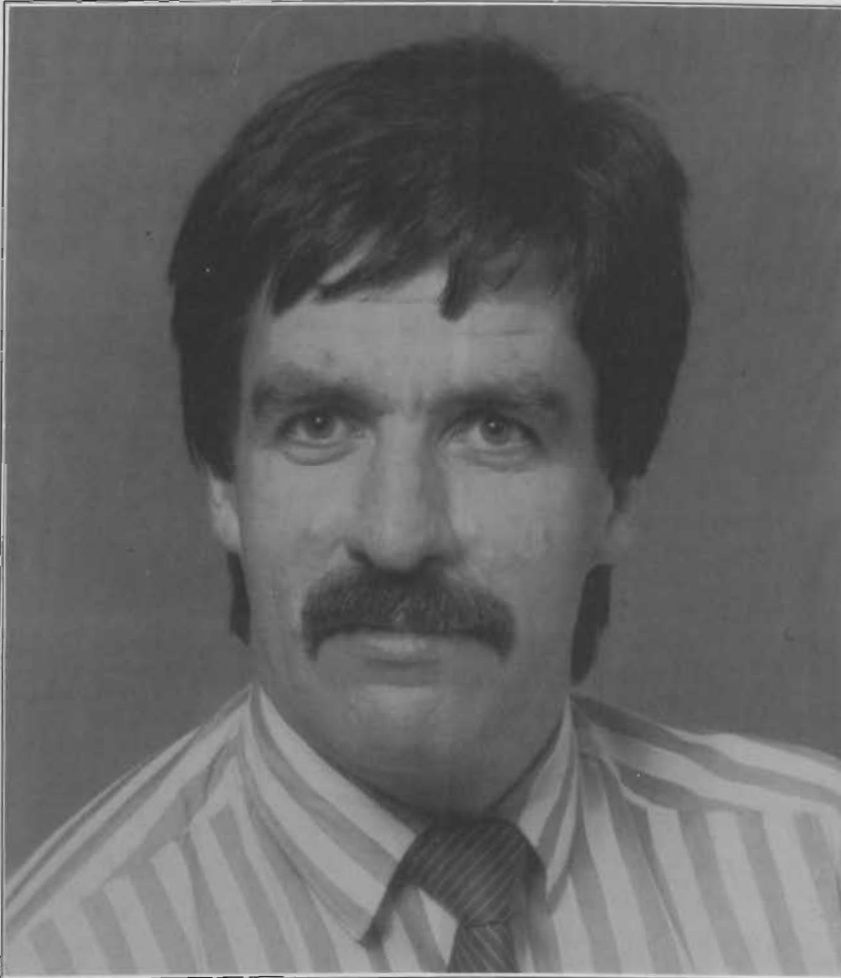
Heating Distributors Ltd.

145-147 Richmond Road, Dublin 3. Tel: 375144. Fax: 370531.

FACE TO FACE

In assuming the role of Manager, Environmental Controls Division, ABB — ASEA Brown Boveri — 18 months ago, Sean Smith completed a gradual process whereby he has worked in every facet of the environmental control sector of the building services industry.

Sean's background is consultancy based, having spent many years with some of the



Sean Smith

**Manager, Environmental Controls Division,
ABB - ASEA Brown Boveri**

principal environmental design consultancy houses in Ireland before moving to London, initially on secondment and then as a full-time employee with MF Kent.

That was approximately four years ago, the opportunity to broaden his experience and branch into the contracting sector of the building services industry being the

prime motivation at the time. Then, having spent approximately two and a half years with MF Kent, the opportunity arose to further broaden his development — and career — when he was offered the position of Manager, Environmental Controls Division, of the newly-formed ABB.

ABB was formed in 1988 by the merger of the electrical engineering interests of Asea AB of Sweden and BBC Brown Boveri of Switzerland. Both companies retained their independence with their individual shares being traded on a number of the world's leading stock markets.

Recognising the significance of the formation of ABB and the vast opportunities the merger presented, Sean Smith foresaw that he would be joining an organisation which was likely to play a very influential role in the building services industry worldwide.

He has not been disappointed.

Even as early as 1980, Group sales amounted to US\$20.6 billion, with prospects for the current year looking especially attractive with first half figures indicating a 24% increase in earnings compared with the same period for last year.

Just recently the Group announced an employee share ownership programme, one of the biggest one-time share offers ever made to employees within a company.

It is open to all 160,000 employees worldwide, the 700 in Ireland being eligible to participate.

They are being invited to purchase options by means of specially-created fixed-price ABB units. Each unit consists of options to buy six Asea shares and one BBC share, giving roughly equal value representation for both companies. There are 400,000 units available. A relatively small option purchase price paid now buys the right to exercise the fixed-price option in two to five years time.

The response from employees in Ireland has been very good with many of those working in ABB Group companies in Dublin, Waterford, Dundalk, Longford and Carrick-on-Shannon availing of the opportunity of this new kind of involvement in the business.

There are also regional offices located in Northern Ireland, Cork and Limerick.

Essentially, there are four principal Divisions within ABB in Ireland — Environmental Controls Division; Industrial Division; Standard Products Division; and the Power/Transmission Division.

Sean Smith's particular area of responsibility is as Manager of the Environmental Controls Division, which in turn comprises a section for Landis & Gyr; Flakt; and general ABB products. Sean coordinates the activities of all three sections with Tom Denvir and Danny McGrory managing the Flakt and Landis & Gyr activity respectively on a day-to-day basis.

In all there are a total of 15 people working in this Division.

The accompanying schematic clearly indicates the product concerned, and the manner in which it is brought together to offer clients a complete, totally integrated package — including sales, supply, site management, installation and commissioning — all from the one source.

"Obviously, this is perhaps our greatest strength", says Sean, "and of course the fact that we can supplement the wealth of knowledge, experience and know-how at our immediate disposal here in Ireland with the vast support systems we enjoy by being part of such a major international force.

"We're at home sitting down with all the parties involved in each particular project and, since we're supplying everything, the transfer and easy flow of information between all concerned — and that includes among ourselves — is that much simpler."

Hence the entire management of the project is not only smoother but also more effective from a cost-management point of view.

"But that is not to suggest that we are the cheapest. The type of service we offer — when you consider the quality of the products involved, the quality of the components employed, the manner in which the package system is put together and then installed and commissioned —

The type of service we offer - when you consider the quality of the products involved, the quality of the components employed, the manner in which the package system is put together and then installed and commissioned - is unique and has a very definite value.

value-for-money are the strengths they identify with us."

It was a happy coincidence for Sean Smith that, on his return to Ireland to take up his current position, the situation on the Irish marketplace was on the point of turning for the better. However, he cautions against complacency for the

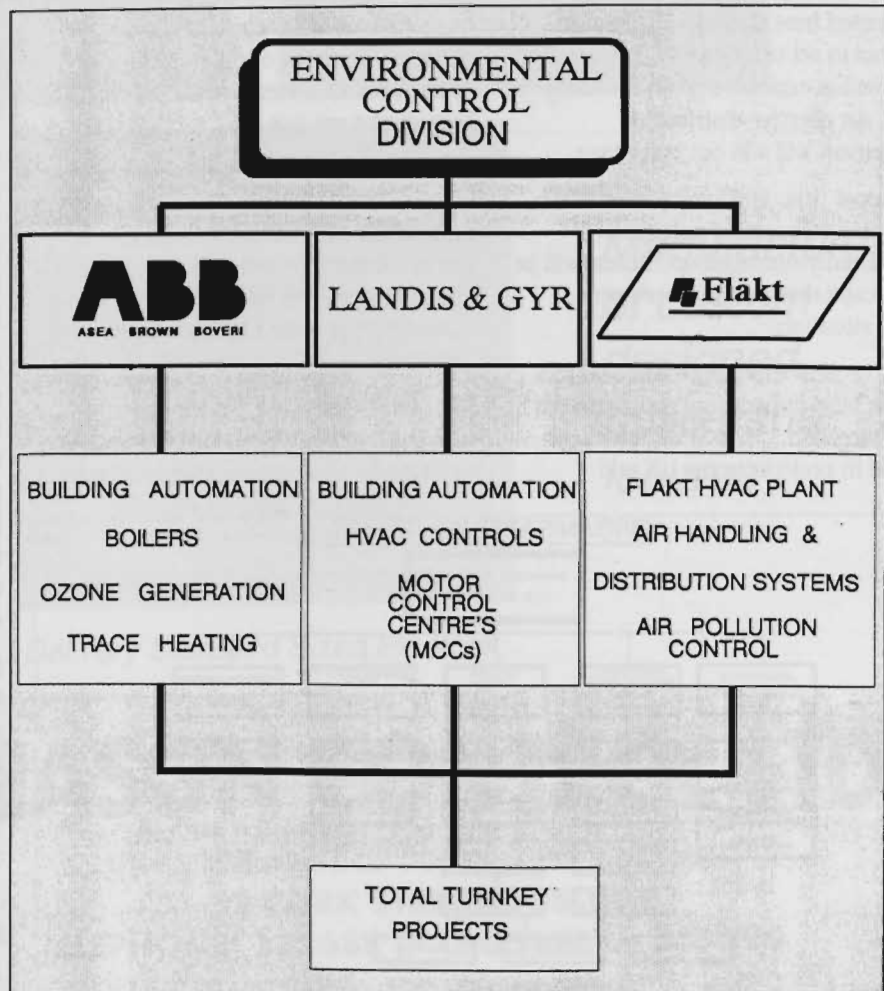
is unique and has a very definite value. We charge a realistic price for that overall service.

"However, the marketplace still suffers to an extent from what I call the price-led syndrome. I have come across instances where the competition's pricing is ridiculous. But more and more people, especially consultants and other specifiers, realise that cheapest is not the way forward. Quality, reliability and

immediate and long-term future.

"We've all benefitted from the buoyancy of the last 18 months or so, and the last six months maybe in particular", says Sean. "However, it's important to remember that the Irish marketplace is still quite small, there is a limit to what we can expect.

"This is especially important with 1992 looming, not so much because of the danger of additional competition



FACE TO FACE



TONY DENVIR

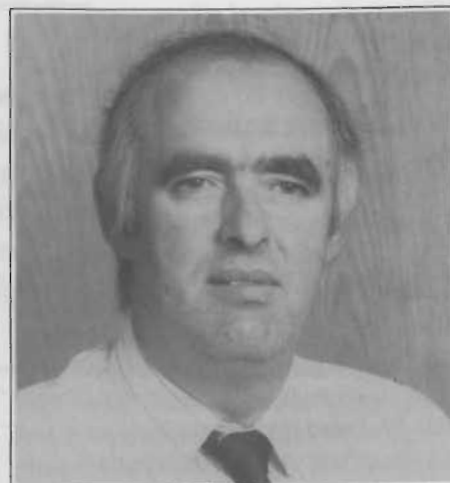
targetting Ireland, but more for the potential the rest of Europe has to offer us here in Ireland.

"If we as an industry get our act together 1992 should hold nothing but opportunity for us. It's unlikely that there will be an influx of new foreign companies given that most brands/manufacturers are already well represented here through distributors. For them to set up their own operations would be too expensive given the likely return. An effective distribution arrangement will win out every time.

"As against that, 1992 will present Irish companies with untold potential. Professionally-managed operations will be able to capitalise on the more open market situation.

"We in the ABB Environmental Controls Division have already had some success in this direction. To date we have been involved in projects in the UK and

More and more people, especially consultants and other specifiers, realise that cheapest is not the way forward. Quality, reliability and value-for-money are the strengths they identify with us.



DANNY McGRORY

Sean himself — while very positive and forceful — is nonetheless very relaxed in his management style. Everyone is given a role to play and the management structure is such that it encourages and rewards involvement. Sean also acknowledges the debt he owes to the team he inherited on taking up his position. There have been no changes save the inclusion of additional employees. He places great store in people and has the ability to illicit total commitment.

Indeed, he sees social interaction as an integral part in the success of all business life in Ireland, not just internally within ABB and the building services industry. Hence his active involvement within the BTU Golfing Society.

Sean is Captain of the Society for the current term, an honour which further reflects his standing given that he was not on the BTU Executive from which that position would normally be filled. He likes his golf and, while he acknowledges the business role it plays in strengthening relationships, he golfs first and foremost simply for the social enjoyment.

However, his great sporting love is the GAA. He lives in Batterstown, Co Meath, where he plays an active role in local GAA affairs. He turns out regularly for his local club side in both hurling and football and just this year won a senior county medal.

On top of all this he still has time to be a family man with a wife and four children.

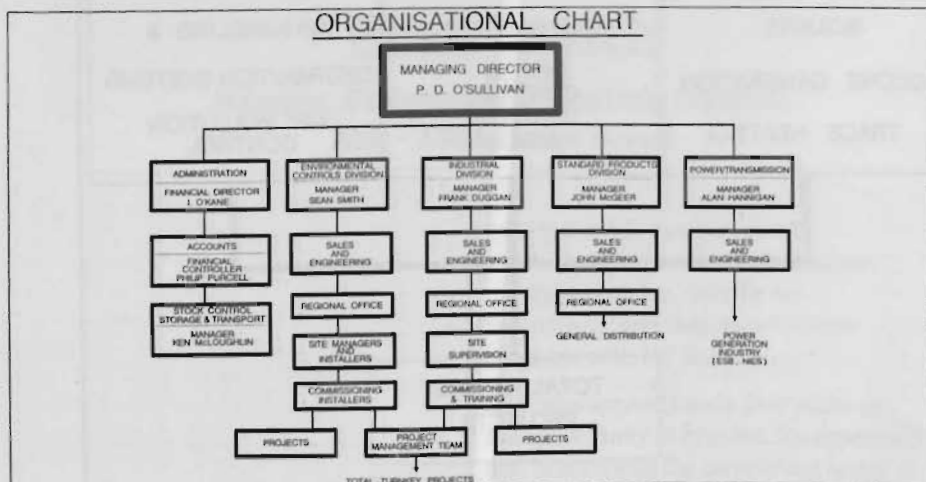
A man of many parts is Sean Smith!

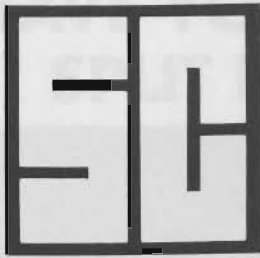
Germany. Some have been done in conjunction with other Irish companies, some simply on our own, and others still by way of linkage with ABB operations in those countries.

In fact, worldwide, the Irish ABB Environmental Controls Division is something of a role model for the total package capability we can provide. ABB companies in other countries are currently studying our methods of operation with a view to establishing their own similar set-ups."

Against such a background, one would be forgiven for thinking that the atmosphere within ABB Environmental Controls is one of constant pressure and tension. The pressure is certainly there but the atmosphere is more highly-charged than tense.

Sean Smith has about him a dynamic, closely-knit team who appear to work very well together, especially under pressure.



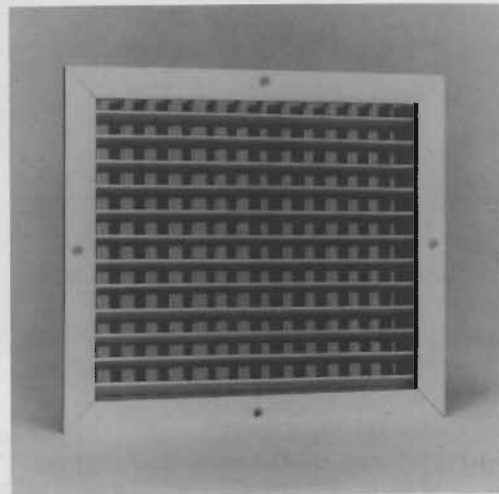
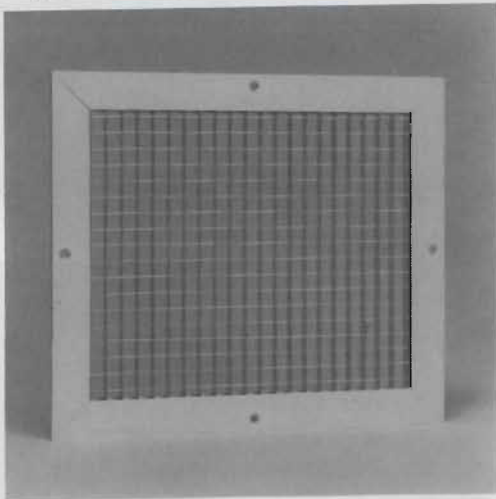


LONGFORD VENTILATORS

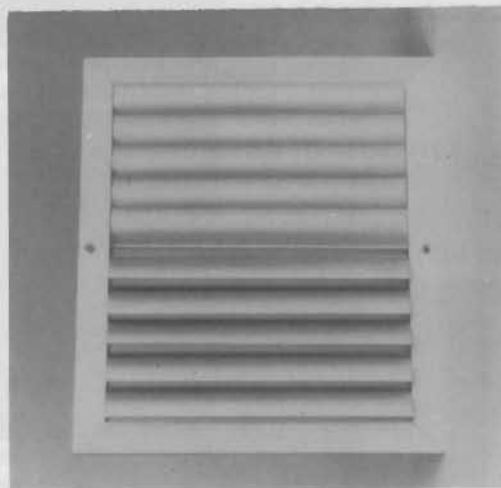
MANUFACTURERS OF:-

External weather louvre
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SUPPLIERS OF HEATING - VENTILATING AIR CONDITIONING - FILTRATION PRODUCTS

BTU GOLF

RESULTS

Forrest Little

Sponsor: Finheat Ltd

Winner: Des Prendergast H/C 12 41 pts

Class 1:	1st	Michael Morrissy H/C 6	38 pts
	2nd	Aubrey Moriarty H/C 7	38 pts
	3rd	Mick Matthews H/C 7	37 pts

Class 2:	1st	Tom Noone H/C 13	40 pts
	2nd	Gerry Tobin H/C 16	39 pts
	3rd	Pat Dunphy H/C 12	37 pts

Class 3:	1st	Gerry Phelan H/C 18	41 pts
	2nd	Kevin Shanahan H/C 20	36 pts
	3rd	Paddy Delaney H/C 17	36 pts

Front Nine:	1st	Peter Reynolds	22 pts
	2nd	Bernard Sweeney	20pts

Back Nine:	1st	Frank Cahill	18 pts
	2nd	Gerry Baker	18 pts

Visitors:	1st	Matt McKeown	37 pts
	2nd	Fran Hurley	37 pts
	3rd	Jim Kavanagh	34 pts

Hermitage

Sponsor: Lister Tubes

Winner: Frank Cahill H/C 4 38 pts

Class 1:	1st	Frank Mullins H/C 10	36 pts
	2nd	Des Prendergast H/C 12	34 pts
	3rd	Neville Thompson H/C 9	34 pts

Class 2:	1st	Shay Kearney H/C 13	35 pts
	2nd	John Loughlin H/C 13	35 pts
	3rd	Peter Reynolds H/C 15	33 pts

Class 3:	1st	Des O'Gorman H/C 19	37 pts
	2nd	John Darcy H/C 18	36 pts
	3rd	Gerry Phelan H/C 17	33 pts

Front Nine:	1st	Tom Noone H/C 12	19 pts
	2nd	Aubrey Moriarty H/C 7	19 pts

Back Nine:	1st	Sean Farrell H/C 17	23 pts
	2nd	Sean Smith H/C 15	22 pts

Visitors:	1st	Paddy Horgan H/C 18	37 pts
	2nd	Colm Wilson H/C 20	36 pts
	3rd	B Murphy H/C 13	36 pts



Forrest Little/Finheat: Overall winner Des Prendergast with BTU Captain, Sean Smith.



Forrest Little/Finheat: Gerry Phelan, winner Class 3, with BTU Captain Sean Smith and Jim King of Finheat.



Hermitage/Lister Tubes: Overall winner Frank Cahill with Eddie Kellet of Lister Tubes and Sean Smith, BTU Captain.



Hermitage/Lister Tubes: Frank Mullins, winner Class 1 with Eddie Kellet, Lister Tubes and BTU Captain, Sean Smith.



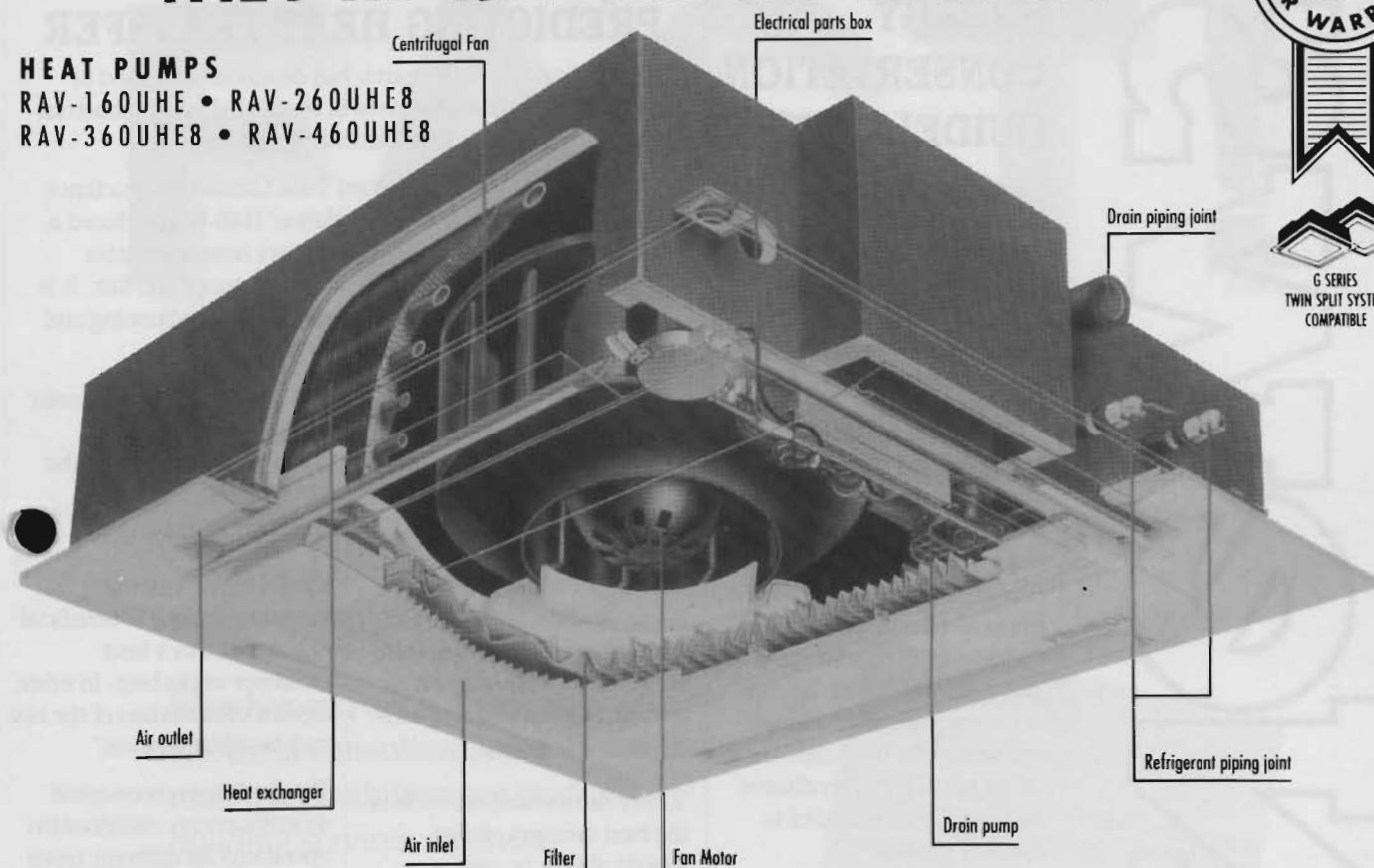
Hermitage/Lister Tubes: Shay Kearney, Class 2 winner with Eddie Kellet of Lister Tubes and Sean Smith, BTU Captain.

HAVE YOU HEARD TOSHIBA'S NEW SPLIT HEAT PUMP CASSETTES - THEY'RE QUIETER THAN EVER.



HEAT PUMPS

RAV-160UHE • RAV-260UHE8
RAV-360UHE8 • RAV-460UHE8



Toshiba continue to lead the field in advanced cassette technology with the launch of their new range of split-system heat pump units. By incorporating a powerful new centrifugal fan, that is practically vibration-free, they have produced a unit which is quieter than ever.

Toshiba have also built in some additional new features to these remarkably compact units: **Auto-Turn Louvres** enable the direction of air flow to be adjusted with ease via remote control. A **Long-Life Filter** has substantially increased absorption capacity, prolonging the frequency of filter cleaning. **Increased Separation** has been achieved between indoor and outdoor units of up to 30 metres on models RAV-160UHE/RAV-260UHE8, and up to 50 metres on models RAV-360UHE8/RAV-460UHE8. And when linked to our G Series twin split system, not only can the separation be further increased to 100 metres (equivalent length), but you can also power 2 indoor units from one outdoor, saving space and money.

Add these new features to those of our already unbeatable range of cassettes and you have an air conditioning system of unrivalled quality and performance.

PROGRAMMABLE MULTI-FUNCTION REMOTE CONTROLLER



A multi-function programmable controller is supplied with each air conditioning unit - capable of managing up to 16 units. The straight-forward Liquid Crystal Display indicates the selected on and off times, the set temperatures, as well as indicating selected system faults within the controlled group. Selection and indication of either cooling or heating is automatic - and that means superb comfort and control.

FEATURES INDOOR

- Temperature re-set
- High and low temperature safety limit
- Fully automatic defrost
- Three fan speeds
- Condensate lift pump
- Fresh-air make up
- Two branch duct access points available
- Choice of 2, 3 or 4 way discharge
- Remote controlled fully adjustable louvres
- Compact units - require 300/350 mm ceiling void
- Slimline grill - only 28 mm deep
- Long-life filter
- Integral restart function, allows 3 minute compressor protection
- G Series twin-split system compatible

INTEGRAL MICROCOMPUTER CONTROL

- Controller - may be wired up to 500 m distant
- Group control - maximum 16 indoor units per group
- Sequential start
- Fully automatic mode, heating or cooling as required
- Malfunction check
- 6 time functions, including continuous operation
- Battery back-up
- LCD read-out
- Compressor start counter

G.T. Phelan Ltd.

59 Rock Road,
Blackrock,
Co. Dublin.
Tel: 832622
833347.
Fax: 883821.



NEWS



ENERGY CONSERVATION GUIDELINES

ASHRAE-sponsored research has developed guidelines for designers to determine the most cost-efficient way to conserve energy in air conditioners with systems that use outdoor air and/or recycle heat.

The 27-month study on the 'Development of Design Guidelines for the Proper Use of An Economiser Cycle with Heat Recovery Systems' (471-RP) focused on economiser systems, heat reclaim systems and combinations of the two in commercial, institutional and industrial buildings. Data tables of energy expenditures and costs were compiled to compare possible combinations of heat reclaimers and air economisers.

Heat recovery systems recycle heat generated during a

PREDICTING HEAT TRANSFER

ASHREA-sponsored research has developed a method of predicting heat transfer rates in residential and commercial air-conditioning and refrigeration equipment.

The 24-month study of 'Finned Tube Contact Conductance Studies for a Generalised Correlation' (446-RP) produced a model for determining thermal contact resistance rates between the surfaces of heat exchanger tubes and fins. It is in this area that most heat transfer in air-conditioning and refrigeration systems takes place.

Researchers combined fundamental theories of heat transfer with actual measurements to formulate the method of prediction, said Harry Sauer, a principal investigator of the study conducted at the University of Missouri-Rolla.

building's cooling process before the heat is discharged. Economiser systems mix cool air from the outdoors with air returned from a building's air-conditioning system.

'Either the economiser cycle or the heat recovery chiller should always be used, depending on the needs of an individual building', said Harry Sauer, a principal investigator.

The question is whether both

should be. At times an economiser alone is beneficial and sometimes a heat reclaim works best. In other cases a combination of the two may be advantageous.'

The guidelines recommend different energy conservation operations for different types of buildings and specify that when used with an air economiser, a heat reclaim system should have priority in the control of an air-conditioning system.

HVAC ACOUSTICS CALCULATIONS

A comprehensive list of HVAC acoustic algorithms has been compiled as part of recent research sponsored by ASHRAE.

ASHRAE's 15-month study of 'Algorithms for HVAC Acoustics' (556-RP) gathered calculations for measuring sound pressure levels near rooms containing mechanical HVAC equipment.

'For the last 10 years there's been a real need for easily understandable information in the field of HVAC acoustics,' said Douglas Reynolds, principal investigator. 'This research was intended to provide designers with good, clear documentation of the technical principles behind the calculating procedures.'

ASHRAE will publish the research project, Algorithms for HVAC Acoustics later this year. ASHRAE will also publish an accompanying design manual called Engineering Guide on Understanding HVAC Acoustics.

WOOL WEARERS FEEL MORE

Research has determined that people are more affected by air humidity that previously assumed, and that individuals wearing wool clothing feel the most warmth when entering a humid space.

Researchers at the Technical University of Denmark measured the thermal sensations of 12 young adult males and a thermal manikin in different climate chambers - one with 20% relative humidity (RH) and the other

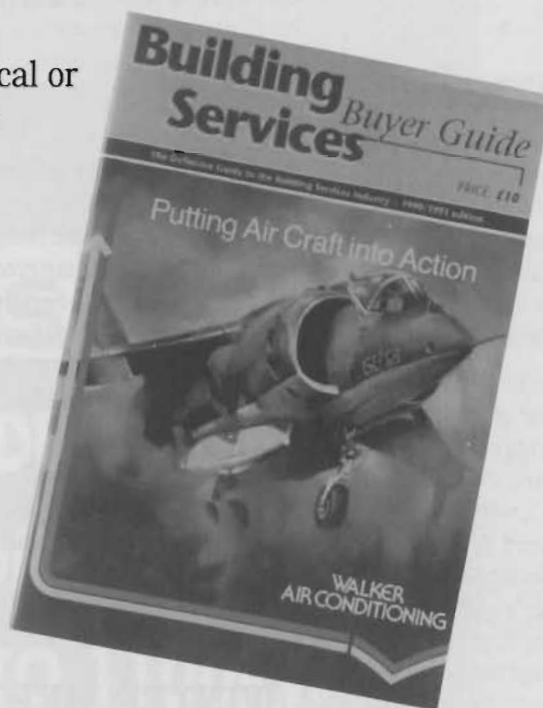
FURTHER DETAILS

For further information on the subjects highlighted in this month's ASHRAE News . . . including complete copies of the reports in question . . . readers should contact ASHRAE Inc., 1791 Tullie Circle, NE, Atlanta, Georgia 30329. Tel: (404) 636 8400.

FIND THAT PRODUCT FAST!

The *Building Services Buyer Guide* 1990/1991 edition has just been published and distributed free of charge to all readers of *BSNews*. It is the most comprehensive directory ever compiled on the industry, including as it does data on both the mechanical and electrical aspects of the building services sector.

Whether you are a specifying mechanical or electrical consultant; architect; energy manager; maintenance manager; building services engineer; builders merchant; industrial, commercial or domestic contractor; manufacturer; distributor; or agent supplier, the *Buyer Guide* is an invaluable reference manual which should be kept at your fingertips at all times throughout the working day.



Orders for additional copies — to be accompanied by a cheque for £10 per copy — should be addressed to :

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ASHRAE NEWS

with 80% RH. Subjects were measured nude or clothed in either wool or polyester.

'The thermal sensation depends on the material of the clothing', said principal investigator P O Fangar. 'If polyester is worn or people are nude, the effect of changing humidity is of short duration, whereas the thermal effect lasts longer when wool is worn. This increased thermal effect is caused by absorption or desorption in the wool clothing, while polyester is nearly unaffected by the humidity.'

FAN VIBRATIONS

A method used to measure vibration in operating propeller fans that blow air through heat exchangers in residential air-conditioning systems has been improved to determine design limitations.

A 28-month study of the 'Development of a Method to Predict Vibration Response of Propeller Fans Under Actual Operating Conditions' (447-RP), sponsored by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE), applied actual fan vibration measurements to modify a fan model.

'The primary objective of the research was to develop a technical basis to supplement ANSI/ASHRAE Standard 87.1-1983 'Methods of Testing Dynamic Characteristics of Propeller Fans - Aerodynamically Excited Fan Vibrations and Critical Speeds,' said Douglas Reynolds, principal investigator of the research conducted at the University of Nevada-Las Vegas.

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October 1990

DEFROST CYCLES EFFICIENCY

Starting an outdoor fan prior to the end of the defrost cycle increases efficiency of residential air-source heat pumps, according to recent research findings from ASHRAE.

The purpose of a 24-month study to 'Determine the Transient Response Characteristics of the Air Source Heat Pump During Reverse Cycle Defrost' (479-RP), conducted at Texas A&M University, was to describe the defrosting process in residential heat pumps and to determine the most efficient strategy to defrost an air conditioner's outdoor coil.

Researchers constructed an experimental facility to measure refrigerant temperature, pressure, flow rate, air-side capacity, level in the accumulator and compressor/outdoor fan power.

The system operated most efficiently when a fan, started 20 seconds before the end of the defrost cycle, began cooling the outdoor coil.

'Our data should help manufacturers design residential heat pumps with reverse cycles that are energy efficient,' said principal investigators Nagamalgala Anand and D L O'Neal.

ASHRAE FAR EAST CONFERENCE

ASHRAE is organising a 1991 Far East Conference on Environmental Quality, November 5-8 1991, in Hong Kong.

The conference will be held in affiliation with ASHRAE's Hong Kong Chapter, the Hong Kong branch of the Chartered Institution of Building Services Engineers and the Hong Kong Institution of Engineers at the Hong Kong Convention and Exhibition Centre.

Organisers estimate 30-40 papers will be presented on three topics: indoor air quality - gaseous contaminants

removal, smoke and fire control and ventilation strategies; CFCs - phaseout, recovery, reclamation and alternative refrigerants; and, environmental futures - global warming and renewable energy opportunities.

NATURAL METHOD BEST

Research has determined that utilising density differences to separate cooler and warmer water used to chill air is the

most economically efficient method of conserving 'coolness' in air-conditioning systems. Using water to store 'coolness' is a way of reducing electrical demands in commercial buildings during utility peak periods.

'Field Measurements of Chilled Water Charge and Discharge Temperatures' (482-RP) examined the performance of three types of water storage systems located in six commercial buildings in the United States and Canada. The 17-month project was conducted at the University of Colorado.

The three evaluated in this study were:

- * natural stratification, which relies on the density differences between warmer and cooler water to separate the two;
- * diaphragm, which uses a physical barrier between water of different temperatures; and,
- * empty tank, which physically separates warmer and cooler water in different tanks.

Water temperature and volumetric flow were measured during the tank's regular charging and discharging cycles to calculate cooling capacities.

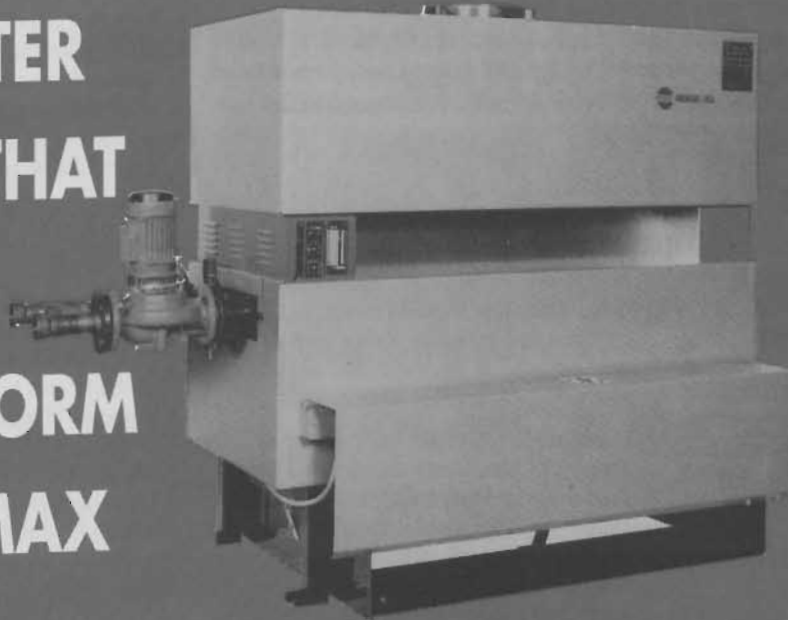
WINTER MEETING

ASHRAE says that 117 papers will be presented at its 1991 Winter Meeting in New York City, January 19-23 1991. Critical issues to be covered include energy efficiency, indoor air quality (IAQ) and chlorofluorocarbons (CFCs). Specific areas to be addressed are:

- * Energy-efficient commercial building design;
- * Refrigerant recovery and reclamation;
- * Thermal comfort in cars and different climates;
- * Global warming, energy and environmental issues;
- * Solar energy utilisation;
- * Radon in large buildings;
- * Non-CFCs in transport and refrigerator insulation;
- * Flow and heat transfer in heat exchangers;
- * Solution to cold climate design problems; and
- * Legionella.

Held in conjunction with the ASHRAE meeting is the International Air-Conditioning, Heating, Refrigerating Exposition, co-sponsored by ASHRAE and the Air-conditioning and Refrigeration Institute (ARI). The exposition, January 21-23, 1991, will be held at the Jacob K Javits Convention Centre.

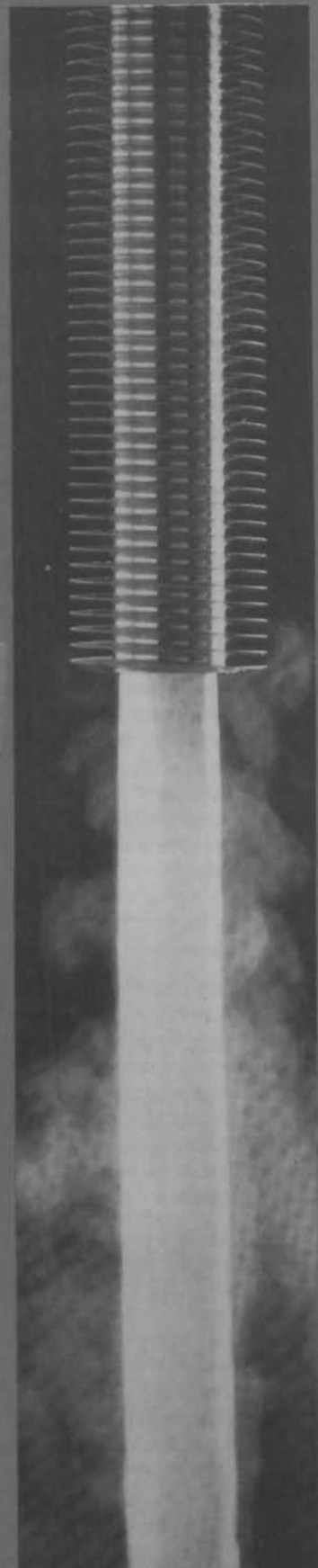
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ADVANCE SALES LEADS

Newmarket Information, the Dun Laoire based construction information company, provides advance information on new construction projects nationwide - all potential leads for contractors, sub-contractors and suppliers. The company publishes information in the weekly CIS Report which provides full project details, contact names, addresses and telephone numbers, design team details and tendering and construction schedules. The following listing is provided by CIS Report and gives a brief description of the types of projects covered. To obtain information on the service phone 01-809476/809557.

DUBLIN

The Teradyne computer company of Boston is to set up a major new manufacturing operation in a 4,300 sq m unit on the Snugboro Industrial Estate in Blanchardstown. According to *Construction Information Services*, the plant will be built by private developers, Allman Equities, who are currently seeking the necessary planning permission for the project. The company, which will employ 105 within three years, will manufacture backplane connection systems which are used in a wide range of sophisticated electronic products. Teradyne is to occupy a temporary facility at Snugboro as it awaits the completion of its new plant which should be ready for occupation in mid-1991.

CIS Report also reveals that a major Californian computer company, Seagate Technology, is considering setting up a new manufacturing operation in the Clonsaugh area. While negotiations are believed to be at an early stage with the IDA, the *Report* indicates that the company has already selected a design team for the construction of the new facility.

Aer Lingus is proceeding with its plans to invest a further £15 million in expanding Dublin Airport. Builders John Sisk and Son are currently developing a new £25 million hangar at the airport but the latest proposals allow for the construction of a new workshop block. The hangar will be completed in April 1991 with work on the workshop starting in mid '91. Tenders for the workshop will be sought over the next few months. The project will be carried out by Aer Lingus' overhaul subsidiary TEAM Aer Lingus.

Czar Construction of Dublin 2 have been given the planning go-ahead for 12 new industrial units at Heather Road, Sandyford Industrial Estate. Czar will carry out the construction work but are likely to sub-let the sub-contract work on the 6,000 sq m project.

Also in Sandyford, East River Developments plan to build an industrial unit and carry out site development works at sites 79-80 Furze Road, Sandyford Industrial Estate. Work on

the project is to begin early next year.

Sheelin Homes, the well-known Dublin house building company, is planning to demolish an existing building at 88-92 Pembroke Road, Dublin 4 and to build a 59-bed guesthouse measuring 1,921 sq m with 327 sq m of mews space.

Developer Tom Gilmartin is expected to submit plans to Dublin County Council shortly to develop what is considered will be Europe's largest shopping, leisure and business park development on the Western Parkway and Galway Road in Clondalkin. Mr Gilmartin has assembled a 500-acre site and as much as £600 million could be spent on the project. Talks have been continuing between the planners and the developers in advance of an official planning application being submitted for approval.

Clondalkin's run down paper mill could soon be transformed into a £25 million shopping and leisure complex. Full planning approval was given recently to Jim Mansfield of Truck and Machinery Sales Ltd to proceed with the development which includes dozens of new shops, two cinemas, a bowling alley, a snooker complex, a health centre and restaurants.

Irish Life Assurance company has been granted planning permission to develop its new multi-million pound office and residential complex at Georges Quay, Dublin 2. The development will consist of 66,000 sq m of office and residential space. Architects Keane Murphy and Duff are heading the design team on the project.

WICKLOW

The Maxtor Computer Corporation of California looks set to take over the Nixdorf Computer plant at Boghall Road, Bray. While there has been no official announcement on the new investment, Maxtor is in the process of appointing a Project Management Team to handle the design work involved in the modification of the plant. Among the alterations to be carried out will be the installation of new clean room facilities.

LIMERICK

The Dell Computer Corporation of Austin, Texas is setting up a major new manufacturing facility in the former Atari video computer plant at Ennis Road, Limerick, possibly employing as many as 300 people. Dell computers manufacture, market and service computers. According to *CIS* the plant will be purchased by Dell for around £3 million.

Builders James Stewart of Galway are constructing an advance factory unit at Plassey Technological Park, Castletro. The single-storey unit will measure 2,719 sq m and will eventually be occupied by a major electronics company, possibly from the US.

KERRY

The Japanese Pharmaceutical company Fujisawa is to set up a £16 million pharmaceutical plant at Bunsagh, Killorglin Co Kerry next to the Klinge Pharma plant. Fujisawa of Osaka operates nearly 30 companies in Japan, Taiwan and the US and has a 70% stake in Klinge Pharma of Germany. Planning permission has yet to be sought for this development but in the meantime Klinge are planning a separate expansion to their facilities.

DONEGAL

Greencastle Foods of Donegal are planning to spend over £100,000 in expanding their factory. The 317 sq m extension will be used for fish processing and tenders for construction work will be sought in January next. There should be opportunities for electrical and refrigeration contractors.

LOUTH

Wogans of Dunleer are investing £500,000 in the expansion of their agri-business over 1990 and 1991. The company was recently granted planning permission for the construction of a workshop grain store, dust house food mill, loading and storage bins. Work is to start immediately on the scheme.

LAOIS

Meadow Meats Ltd, the beef processing company based at Rathdowney, Co Laois plans to develop a new boning hall at the plant. The unit will measure 1,798 sq m.

KILKENNY

Tube manufacturers, Tube Rollers Ltd of Kilkenny are expanding their plant at Bolton, Callan. Builders Mahon and McPhillips are constructing the new 1,169 sq m extension and H A O'Neill have been appointed to carry out the mechanical services contract.

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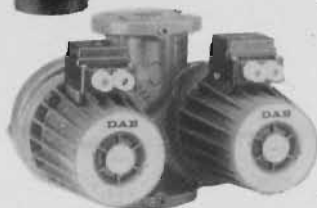
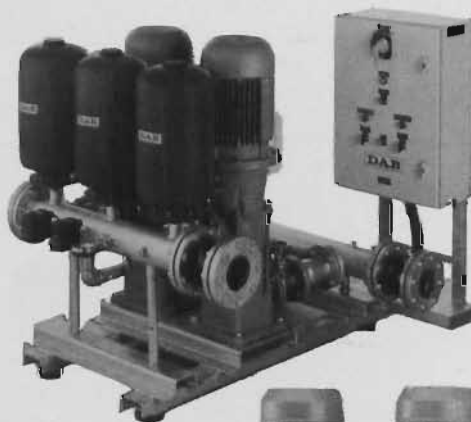
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