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Passat Opens Dublin Showroom

Passat Heating Ltd of Trim has opened new showrooms and offices at Heatilator House, 110 Cork Street, Dublin 8, as part of their overall expansion policy. The premises include a modern plant workshop and demonstration bays covering some 10,000 square feet.

Michael Vaughan, Managing Director of Passat, told HVN that the move to Dublin was planned to both improve customer service and, with the creation of new UK agencies, especially for the UK market, provide a Dublin base for growth and further expansion. Further details of new market products are expected in the near future.

Passat have already been appointed UK agents for the Grant Hydro-Grate, an ultra-high output fire grate. This said Mr Vaughan, is unique in that it has 1,650 square inches of boiler exposure in the fire and is the only domestic grate with two flues. It gives up to 50,000 Btu/h output burning wood or turf and up to 60,000 Btu/h using coal - enough to run seven or eight radiators and give constant hot water.

Apology

The local postal dispute in Blackrock which began in mid-January is continuing to disrupt deliveries to HVN of material for publication, invitations, etc., with the result that recent issues have regretfully had to be restricted in size and scope while publication dates have been adversely affected.

We wish to thank all our readers and advertisers for their understanding and patience during this time, but to allay any further inconvenience we wish to say that you will continue to do so until normal deliveries are resumed.

Another new range available from Passat is the Vienna DSN from Tirocla. This stove, manufactured in Austria, is available in copper-bronze or white. It uses wood, coal, paper or garbage and carries the Passat 10-year guarantee.

Passat have installed their first PGF-Stoker at Robert McClemont Ltd of Belfast which is burning fibre waste, the disposal of which was costing the firm £40 per week. It is now converting the fibre into 500,000 Btu/h and can also be fitted with a shredding machine for dealing with waste paper, cloth, straw, etc.

Passat will be also marketing the Heatilator Engineering Ltd range of products which include the Fire-Flo Home Heating Unit, the Safe-Guard and Thermo-Tube.

At the installation of the first PGF-Stoker in Belfast recently were Michael Vaughan, Managing Director, Passat; U.D. Pedersen, Export Manager, W. J. Davenport; and L.A. Carlisle, Managing Director, Robert McClemont Ltd., Belfast.

UK/Irish Link-Ups

TI Hartley & Sugden Ltd, of Halifax, manufacturers of gas, oil and solid fuel commercial boilers have appointed McGaig Collim Wheeler Ltd as their sole agents in the Republic of Ireland.

Speaking of the new agency, Marketing Director, Michael Broadhead says, "We feel this appointment will not only benefit our company and McGaig Collim Wheeler, but also the heating industry in Ireland."


In addition, Sauter Automation of Slough have appointed Dwell Controls as their agents here in Ireland.

The Dwell office is in Cookstown Industrial Estate, Belgrade Road, Tallaght, Co Dublin, where the local director, Tom Rourke, is responsible for the full range of Sauter Automatic controls. The full Sauter family covers electric, electronic and pneumatic controls, together with sophisticated computer based building automation systems.

Full services are available from Dwell, backed up by the Sauter Company, based at Slough. They also hold a stock of equipment from the range.

Dwell are also backed up by an associate company in Belfast, that have also been appointed as agents for Sauter Automation. Their address is 16, High Street, Anteim, Belfast, where the local director is John Mahon.

MCB Saved

On 6 March, Pat Cawley finalised negotiations with the liquidator of MCB (Galway) Ltd., Laurence Crowley - for the purchase of the stock and certain fixed assets of the company, reported to be in difficulties in our January issue.

Production at the factory, situated on the Industrial Estate in Galway, started on Monday 20 March. The company employs a production manager, 12 men and two girls. Products being manufactured at the moment are copper cylinders and calorifiers.

Involved with Mr Cawley in this new venture are Michael O'Hea of Henley Forklift Ireland Ltd, Joseph Brennan of H S Wood Associates Ltd, and Christopher Deacy of C J Deacy & Sons Ltd.

HENDRONS

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Hendron Bros (machinery) Ltd. Glen Tolka, Rchmond Road, Dublin 3. Tel: 376061. Telex:5692.
Offshore Oil/Gas Prospects – Outlook Optimistic

With upwards of £100 million to be spent on oil and gas exploration off the coasts of Ireland throughout the coming months, Irish companies hoping to benefit from this spending would do well to prepare themselves for the very stringent requirements that will be demanded of them, particularly if they wish to compete for the many other projects likely to arise in the future. However, with the industry still in the embryo stages in this country, the pool of properly collated information and expertise is rather poor, which is why the Irish offshore Services Association was founded a few years ago. IHVN recently interviewed the Association’s newly-elected Chairman, Colm Brennan, to determine just what progress has been made in this field and to whom interested parties should apply for assistance and literature.

But to begin with, let us first take a closer look at the Association. The IOSA, already a group within the Confederation of Irish Industry consisting of many companies representing a wide range of interests such as shipping, chemicals, shipbuilding, engineering etc. Its main objectives are: (a) To stimulate commercial awareness of the possibilities for Irish industry in the off-shore support services sector, so as to ensure the greatest possible Irish participation; (b) To maintain liaison and to promote discussion with the Government, matters of mutual interest; (c) To maintain contact with the Government on matters of interest; (d) To maintain contact with the media to ensure that the public are informed as to what off-shore participation will be required and accurate information is given about current and ongoing off-shore developments; and (e) To develop and maintain contact with the media to ensure that the public are adequately and accurately informed as to what off-shore development is going on.

The Association’s secretarial services are provided by the CII, while the officers and members of the Council are elected annually by ballot. The Association has about 70 members.

Colm Brennan sees his role as Chairman as one requiring as much energy and enthusiasm as he can provide, while guiding it towards the achievement of its objectives. “I also see the position”, he says, “as a rather public office and one in which I should be seen and heard as often as possible. I try to take advantage of every opportunity to project the Association and to encourage as many companies as possible to become involved.”

“One of our objectives is to provide as much information as possible to our members. One method of doing this is to meet the oil companies and from related fields to address the members from time to time. These meetings are held at frequent intervals and are usually very well attended. The last meeting was held in Cork and on that occasion we had up to 60 businessmen present, including a number of local politicians and dignitaries. Our members are free to bring guests to these meetings. Such gatherings, of course, are most valuable to those business people who want to take about the oil and gas industry and, of course, when you establish a forum such as this, ideas are exchanged and opportunities identified. The Association is well equipped to direct its members on how to seek advice and help on virtually every aspect of the industry. We operate very closely with the IIRS and also with the IDA and Coras Trachtala. The IIRS and the IAD are represented on our Council.

“We also produce a weekly news cutting service, which means that the members can, at a glance, be informed of news developments, with little effort. The Association also publishes a magazine called “Offshore Ireland”. The Association’s annual seminar has become a most important part of its activity and we have been most fortunate in being able to attract speakers of great standing in the oil industry to this function.

“In my opening address to the seminar this year I stated that the most optimistic estimates for the current year indicated that £100m would be spent on drilling 18 wells. The oil companies will spend this money and it should be remembered that they generate this wealth from their profits so it is a very serious business indeed. Of that £100m I would estimate that between £50m and £25m will be spent locally during the current year. The money will be spent on such services as shipping, harbour facilities, catering services, helicopter services, and the purchase of chemicals, cement, etc.”

**Question:** Is it worth Irish manufacturers trying to get in on the construction of rigs etc?**

**Answer:** “I think I should point out to you that we are talking about an industry which is still at the exploration stage and that, apart from Kinsale, we do not have a production phase. If we do get such a production phase and we get a large oil find in, say, the Porcupine Bank area, the cost of bringing ashore a viable oil find would probably be in the region of £2,000m. In my view, if we do find ourselves with a recoverable oil source we should do all in our power to encourage the construction of offshore production platforms or the sub-sea completion structures here in Ireland.”

**Question:** What is the Government’s position in this matter?**

**Answer:** The Government, of course, is favouring, very strongly, the maximum involvement of Irish companies in the offshore exploration programme. One of the provisions of the licences issued to the oil companies states that Irish products and services must be used wherever they are competitive on quality and price.

**Question:** Is that not restrictive to foreign investors?**

**Answer:** There will be many opportunities for foreign companies to tap into Irish back-up employment and therefore contribute to the development of the Irish economy in a very real way.

**Question:** We have been talking about oil, what about gas?**

**Answer:** What we are talking about, of course, is offshore hydrocarbon deposits which covers both oil and gas. Of course, if oil is found it is virtually certain that there will be an abundance of gas associated with it. In the North Sea gas has been found out there because there were no facilities to recover it. The British Government in recent times has, however, announced plans for the laying down of the necessary pipelines so the problem is being attended to. In the Irish situation I would imagine that if oil with associated gas is located both forms of energy will be recovered and used.

**Question:** What effect will the finding of gas off Kinsale have on the country’s fuel bill?**

**Answer:** Starting off – we have a gas field that consists of one million cubic feet of natural gas off Kinsale.

We are such heavy importers of energy that we can certainly justify the bringing ashore of the Kinsale gas, 5% is being allocated to the Cork Gas Company, 55% to the Electricity Supply Board and 40% to NET for the manufacture of ammonia and urea. Both ammonia and urea are very important building blocks in the manufacture of fertilisers and I think there are many water conservation reasons why an agricultural country should have its own supply of nitrogen. The use of natural gas for the generation of electricity is far less attractive, due to the fact that this is a rather inefficient way of using it. However, the argument in support of its use in this manner is that if we do not use it for the generation of electricity we must import oil and gas.

*Continued on page 20*
Glynwed Foundries Ltd have announced details of the major advance in cast iron technology developed by Glynwed, the Timesaver System, for which Tonge & Taggart Ltd have been appointed sole agents in Ireland.

The Timesaver System has now been specified and/or used on over 500 major schemes in the UK and several overseas markets. The Timesaver drainage system, which comprises pipe and connections with no sockets and a patent coupling, can be installed with a minimum of experience and can be fitted in a fraction of the time taken to make traditional joints. Joints can be made at ground level, overhead, or at any angle and in confined spaces. The Timesaver system is simple and uncomplicated and lowers the cost of cast iron drainage work. It is made possible by using a higher grade of cast iron which gives a surface finish to pipes and fittings, suitable for the use of a mechanical joint instead of the traditional caulked lead socket and spigot method.

BS 416 is currently being amended to cover the Timesaver system, and further information is available from Tonge & Taggart Ltd, East Wall Road, Dublin 3, (Tel: 786088).

The Irish Welding Association will this year be hosts to the International Institute of Welding's annual convention which will be held from 3-7 July in Trinity College Dublin.

The opening lecture on Monday 3 July will examine latest techniques in process plant for the food and drink industry.

Full programme details are available from P M O’Reilly, IIRS, Ballymun Road, Dublin 9, (Tel: 370101).

Nick Dalton (above) who has been appointed to the board of Tegral Building Products Ltd, (a company within the Cement-Roadstone Group) with responsibility for marketing at home and overseas. He has been with the company since 1966 and prior to his new appointment held the position of Sales Manager.
Introducing the Argofire

Following consultations with many fire brigades Argo Fenton has launched a new low cost smoke release louvre called the Argofire.

For some time now GLC fire authorities have been looking for an automatic smoke release vent which, after releasing the smoke, can be closed if necessary, to help firefighters by restricting air circulation. This flexibility to choose between smoke release, to enable the fire source to be located and flame flash to be minimised, or air restriction just has not been available. Now the new, low cost, AF unit offers this facility.

Mounted in Penthouse formation and intended for high level mounting, the units incorporate a choice of automatic release mechanisms from fusible links, electro-thermal links to quartzoid bulb links.

As the exterior of the unit includes AF’s Argomec louvres, the company are able to offer their very special architectural finishes which should enable specifiers to choose Argofires which will be an aesthetic match for their building.

Further information is available from Finheat Ltd, 34 Watling Street, Dublin 8, (Tel: 782446).

R & G MiniDee Gauge Switch

The new R & G float-operated and magnetically coupled MiniDee gauge/switch provides differential on-off pump or solenoid control together with high or low alarm contact besides level indication on a 50 mm dial.

Both switches are adjustable to revised pointer settings without tank drainage.

Particularly suitable for mounting on tanks with restricted surround clearance, the unit is designed for fuels, lubricants and water in static or mobile applications. Single switch versions are also available.

Further information is available from Handcock & Co, 133 Dublin Road, Sutton, Co Dublin, (Tel: 322563).

Randall Introduce New Switches

Building on the success of the 102 and 103 models in the GP 100 Series, Randall Electronics have extended this versatile and popular range by re-introducing the 151 model and introducing two new versions, the 105 and 106 designs.

Model 151 is a basic time switch, which is suitable for controlling all electrical loads up to 15 amps (3kw), one of its many applications being for electric immersion heater control.

Of the two new models – the 105 – has been developed as a mini-programmer to provide a control for the new A.C.L. mid-position valve. The control facilities offered are similar to those of the 102 model but the internal wiring has been modified to enable it to control this new valve.

Model 106, the other time switch, has an optional priority feature, enabling it to control already well-established "priority" systems such as the Honeywell W and Satchwell K plans. This model will eventually replace the 3022 unit giving similar control functions at a more competitive price.

Further information is available from EIA Ltd, 107 Cork Street, Dublin 8, (Tel: 682510).
Atlas Copco at IPHEX

Atlas Copco, the compressed air engineers, whose Irish company is at Kylmore Road, Dublin 12, displayed a range of technological developments concerned with both the generation of compressed air power and its transmission on their stand (no. 2350) at IPHEX, international pneumatic and hydraulic exhibition, held at the National Exhibition Centre, Birmingham from 13-17 March.

For designers and technicians, compressed air has become an increasingly more reliable alternative to electricity and hydraulic power. Safety too, is an area where air power scores over its conventional rivals. The growth in its use was illustrated by a recent survey in Britain which showed 10% of all electricity consumed by industry employed to operate compressors which produce air power.

Copco displayed a range of compressors for industrial use including the GA oil injected rotary screw machines which come as complete self-contained units ready for easy installation, and also the ZR two-stage rotary screw compressor. Both machines have the advantages of low installation and operating costs and minimal noise levels.

A new Atlas Copco compressor was also exhibited. This is a small piston machine called Airlet which

Heavy Demand for Copper Piping

An unprecedented demand for tubing, but also to an increase in copper piping has, in recent months, stretched the delivery systems being installed in housing.

The Foras report contains the weeks, according to the latest results of a quarterly survey of the "Building Materials Supply Position" quarterly report from An Foras Forbairt. Merchants are reported to attribute the greater the first three weeks of January use of copper piping, primarily, 1978, 126 manufacturers and suppliers to a change in the price relation-

Torgrip's the Strong One

If you want to know which is the strongest expansion bolt, don't ask us. Ask the National Swedish Board of Urban Planning. The graph shows the results of independent tests carried out by them. You can see at a glance that Torgrip bears tensile loads way above any of the others. Torgrip's unique strength means you can use a smaller size bolt. A smaller bolt means a smaller hole, so you save on installation time. In fact, Torgrip only needs a hole the size of the bolt. Its unequalled grip is produced by the unique twin locking clips which spread the load over a greater area, so bolts can be fitted closer together, and closer to the edge of the job.

But strength is only one good thing about Torgrip. Another is its countless applications.
HEVAC '78 REVIEW

MEDIocre SHOW FAILS TO IMPRESS

The slight increase in numbers attending this year's HEVAC exhibition at the NEC Centre in Birmingham was also very much reflected in the poor attendance from this country. The Irish party was rather small compared to previous years and mainly comprised contractors and mechanical engineers with many of the major merchants and distributors/agents noticeable by their absence.

Reports from exhibitors suggested that the opening day had been very poor though this had been a blessing in disguise for many who only managed to get the service to their stands operational by noon on the same day. The organisers came in for some criticism because of these delays, particularly since no one was allowed to work on their stands the day before, it being a Sunday.

However, the general standard of display was quite good and where new products and gimmicks may have been lacking, those manning the stands more than compensated by their attentiveness.

REFRESHMENTS

Anyone who has ever attended an exhibition of this type knows only too well how difficult it is to get a bite to eat either in the bars or the sandwich counters during the day so the excellent service provided by Robey of Lincoln for those manning the stands of their principals. However, many of the other stands also had snacks and beverages but quite a few had done away with the customary bar altogether and offered tea or coffee in its place.

There were only two Irish exhibitors with stands of their own though others were represented on the stands of their principals.

Despite having one of the smaller stands, H R Hofeld (Hydraulics) Ltd made excellent use of the space available to exhibit the "Holpack" package water booster sets. The units, which incorporate main and standby pumps with automatic switching for complete standby coverage, are designed to overcome pressure problems in hospitals, schools, high-rise buildings, factories etc. A spokesman for the firm told IHVN that they had received a wonderful response and that they were very happy with the result.

Refrigeration Spares Ltd displayed a cross section of the range of refrigeration and air conditioning equipment which they supply throughout the UK and Ireland. Particular emphasis was placed on the Bitzer condensing units which are available in open drive and semi-hermetic types up to 40 hp. Items from the Alco range of valves and controls were also exhibited.

However, the company was concerned about how many were participating in the refrigeration sector which, they felt, did not constitute sufficient numbers to properly reflect the size of this market.

In addition, Pan-Aer Sales, in conjunction with Westinghouse Electric's UK distributors, introduced a completely redesigned roof-top packaged air conditioner on stand 3220.

The only other Irish stand was that of Davidson & Co, Sirocco Engineering Works, Belfast who displayed their general range of fans and associated equipment suitable for heating and ventilating, chemical plant, and marine applications. Details of a new centrifugal fan range up to two metres in diameter was also announced.

Agahaet Appliances introduced the new Rayburn high output boiler which they had installed in the new Rayburn 16" inset fire. Suitable for easy installation into a standard brickwork opening, the new Rayburn incorporates a lift-off door for easy cleaning, a rectangular fire box to provide high operating flexibility for varying demands and a sliding damper, while a "throat restrictor" is available as an optional extra to provide great operating benefits through fuel conservation.

F H Biddle, products on display, showed, as far as possible, the wide range of heating and air conditioning equipment manufactured by the company. These included the new Forceflo 200 series of fan convectors. A variety of configurations was exhibited from a large range of noise tested heating units.

AIR CONDITIONING

The wide range of air conditioning products displayed also brought a representative sample of F H Biddle's products to the attention of visitors, whether their interest lay in a split unit suitable for cooling one room, or in handling air quantities up to 28 m³/s.

Visitors to the Halma stand were the first people to see the new range of Standard & Pochin convectors and unit heaters on display. FBM fan convectors, ceiling void heaters and Cirrus commercial and domestic units were also prominently displayed alongside the new industrial horizontal and vertical unit heaters.

Of particular interest to engineers was the coil display because, although Standard and Pochin are one of the principal European manufacturers of coils, their products invariably form part of larger units and are often not seen by the end user.

On the action packed stand of Selkirk Metalbests, the largest manufacturer of factory-made chimneys in the world, displayed examples of a range of chimney and gas silencers. As less than a decade Selkirk's chimneys have made a formidable impact on the British market setting very high standards.

USING WASTE OIL

Several interesting product developments have taken place at Powrmatic Limited since the last HEVAC Exhibition and some of these were prominently displayed on the company's stand.

One of the most interesting heaters on display was the recently introduced Powrmatic waste engine oil air heater. Specifically designed to burn untreated or recycled waste engine oil, or alternatively 35 sec. oil, it has aroused considerable interest among those responsible for garage operations and other similar areas where there is an excess of waste engine oil.

Another attractive exhibit is the Powrmatic Cal-econ thermal economist, which, it is claimed, has proved itself a ready-made answer to the problem of saving energy.

NO DIFFERENCES

"We now manufacture air conditioning equipment which can be shipped ex-works to any country in Western Europe without modification or re-working," claims Mr Marsh, Managing Director of Lennox Industries, announcing the latest product from his company. Previously, the various codes of practice in different countries have meant that for customers in some areas changes have had to be made either during production or to stock units.

"We have now completed an analysis programme to reconcile these differences and have introduced wiring and component specifications which make the equipment acceptable throughout the Continent," Mr Marsh claimed.

An example on display was the new CHAS-1353 unit, claimed to be unbeatable in terms of versatility, economy and efficiency.

Double-walled and pre-insulated, the chimneys are manufactured under factory-controlled conditions in Selkirk's Barnstaple, North Devon works, and over 50% of total production is exported. In less than a decade Selkirk's chimneys have made a formidable impact on the British market setting very high standards.

Continued on page 8
**Problem:** What air handling unit to complement your Carlyle refrigeration plant for air conditioning requirements?
**Solution:** The new Carlyle 39M air handling units. The perfectly balanced partner for your Carlyle chillers. Modular, efficient and competitive. (Yes, competitive.)

**Problem:** What air handling plant for your heating and ventilating projects?
**Solution:** The new Carlyle 39M. Ideal for h & v applications.

**Problem:** Air handling units in general?
**Solution:** No problem at all. The new Carlyle 39M. It is the one way solution to your 3 way problem.

Get the full facts about the new Carlyle 39M from Walker. Modular, efficient, competitive, available in a wide range of standard sections to meet all your requirements up to 15,000 cfm per unit.

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**Walker Air Conditioning Limited**

Dublin: Dublin Industrial Estate, Finglas Road, Dublin 11 Tel: Dublin 500 844 Telex: 4882
Glasgow: 136 Strathmore Road, Balmore Industrial Estate, Glasgow G22 7JA Tel: Glasgow (041) 336 4327 Telex: 779406
Belfast: 9a Cherryhill Road, Dundonald, Belfast BT16 0JH Tel: Dundonald 5255

A member of the Jefferson Smurfit Group

The air conditioning leader
HEVAC '78 REVIEW

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and Windsor ranges were displayed by B & E Boilers of Bracknell.

A large European steam boiler, complete with automatic firing and associate controls, was the main feature. This was backed up by steam and hot water boilers from the Windsor range, displaying a similar range of equipment and controls.

The company emphasised the high quality of design and workmanship, and demonstrated their ability to meet specific customer requirements.

SPACE HEATERS

Bahco took the opportunity of this year's show to exhibit for the first time in the UK their BKB space heaters. Designed and manufactured in Sweden, these mobile units have application throughout the construction industry.

The BKB Heaters are claimed to be unsurpassed as a low cost means of providing more comfortable working conditions; they offer an efficient method of protecting concrete and cement from frost, also safeguarding stored materials from excessive cold and damp. The Bahco space heaters are ideally suited, and widely used for the drying out of building fabric.

Market leaders in unit ventilation, Vent-Axia Ltd, showed their comprehensive range of equipment at the show. The company's Universal and Standard ranges of ventilation units were exhibited, together with a complete range of approved and additional ventilation accessories (AVA).

AVA increases the versatility of the Vent-Axia fan units, explained the company, providing a complete ventilation package deal. Application techniques are simple, thus filling the gap between complicated over-engineered ventilation systems and the basic fan in the office or kitchen window.

Vent-Axia's Universal and Standard ranges of units – in the four available sizes and fixings for wall, roof, panel and window – were all wired up for working demonstrations. Also on show were the company's new range of controllers. Named Vent-Axia Range master, they are designed for use with both Universal and Standard units.

Robey, the Newell Dunford company exhibited a 30,000 lbs/hr F & A 100OC packaged boiler from their highly successful Lincoln range. These three pass wet back boilers can not only be supplied with rotary cup burners for dual fuel firing from oil or gas, but even the standard single fuel units are arranged for easy conversion to dual fuel should this be needed later. The largest Lincolns are twin furnace, twin combustion chamber design, in which the two gas passes are entirely separate.

In addition to the Lincoln range of packaged boilers, Robey unveiled their Mark II Lintherm range. This very interesting new boiler from Robey is a three pass wet back design fitted with high quality ancillary equipment including matched oil burning apparatus.

Crane Ltd's presentation showed mainly the capability of two of its divisions – Valves, Heating & Fittings, and Pumps – to serve the heating, ventilating and air conditioning industry with wide ranges of valves, pumps and pipe fittings.

The products on view were but token samples of the total product ranges which are serving world industry's needs for high quality but competitively priced fluid handling equipment.

AVAILABILITY

All this equipment plus other for the oil, petroleum, petrochemical, chemical and other process industries is available world-wide through the transnational facilities of CRANE, its sister companies, and representatives. These facilities embrace forty-six plant locations, employ some 25,000 people and, in 1977 achieved sales of £1,333,822,000.

A new central air handling unit available in 12 sizes and emphasizing values of heat recovery with a selection of five different methods was introduced on Stand 3300 by Flakt Ltd, Staines.

Thompson Cochran's unrivalled position as Europe's biggest fire-tube steam boiler manufacturer is simple to explain. With manufacturing facilities on an unequalled scale, developed from decades of experience as master boilermakers to world industry, and a research commitment designed to maintain total leadership of the field, Thompson Cochran has built up a reputation for quality, service and reliability which has grown in step with its size.

That's why we look forward to staying where we are!

Steam packaged boilers from 71 to 19910 kW (250 to 70,000 lb/h).
Hot water packaged boilers from 146 to 20510 kW (500,000 to 70,000,000 Btu/h).

Thompson Cochran Division, Clarke Chapman Limited, Camtyne Works, 300 Myreside Street, Glasgow G32 6BS. Tel 041-556 5252. Telex 77332.

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HEVAC '78 REVIEW

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saves energy by extracting useful heat from exhaust air or gases from ventilation or process plant and returning this heat to incoming make up air or to other process air requirements. Recovery in the order of 70% of the total heat of waste gases is typical and capital costs are particularly attractive enabling realistic payback periods to be achieved.

The Joule ceiling fan has been introduced to satisfy a need for environmental comfort in buildings in warm weather whilst avoiding the expense of air conditioning. Appropriate applications include offices, shops, restaurants and industrial locations such as potteries, heat treatment works, bakeries and foundries where there may be a high ambient temperature from adjacent process plant.

NEW RANGE

Allen Ygnis announced the introduction of their AYK range of low pressure steam boilers to the market. This boiler, originally designed for export, is available in three basic sizes, 500 lbs/hr, 1000 lbs/hr and 2000 lbs/hr with a maximum working pressure of 100 p.s.i.

Built to BSS 2790, the range incorporates many of the features associated with the Ygnis design; the proven reversed flame principle of combustion, efficiencies in excess of 80% and the familiar swing door arrangement to facilitate cleaning and maintenance.

The Satchwell Type ESS Economy Start System is an inexpensive, yet highly efficient programme which not only controls boiler firing according to occupancy periods, but also adjusts the actual heat-up period taking into account day-to-day climatic temperature changes.

Here’s the news for the owner of the smaller intermittently occupied building for whom sophisticated fuel saving controls have hitherto been ruled out on grounds of cost.

The Satchwell Type ESS Economy Start System includes an inexpensive, yet highly efficient programme which not only controls boiler firing according to occupancy periods, but also adjusts the actual heat-up period taking into account day-to-day climatic temperature changes.

It thus ensures that heating is switched on at the last possible moment that will ensure comfort temperature at the time of next occupancy.

If you’ve taken all the usual fuel saving steps, such as insulating your building and fitting reliable thermostats, you can still save up to 25% of your present fuel bills with the ESS System, for an extremely low investment.

The new Joule ceiling fan copter.
Continued from previous page

FUEL SAVING

An important feature was the fuel saving RAVL thermostatic radiator valves which, when fitted to central heating radiators, can give up to 20% saving in fuel costs. This is a highly sensitive unit designed to control room temperatures on all types of one and two pipe pumped domestic and commercial central heating systems. Shown for the first time in the UK was the new remote sensor/adjuster element for use with RAVL and RAVL individual radiator thermostats in applications where the valve may be concealed by furniture, curtains etc.

On stand 3330, Hall Thermo-tanks Products exhibited a cross section of their complete range of compressors from the smallest to the largest of their Veebloc and commercial series. They also launched their latest development in compressor technology – the HallScrew. Other items shown included a complete range of matched products for the refrigeration industry from line fittings and air terminal devices to complete the package units, air coolers, evaporators, condensers, cooling towers and an ice making machine.

Climate Equipment UK and (with Atmos) Eire distributors for Hitachi air conditioning and refrigeration products, displayed new room air conditioners with high energy efficiency ratios, heat pumps, and multi split package units together with every type of conventional packaged air conditioner. Shown for the first time were some of the most advanced water chilling machines in the world which incorporate the revolutionary Thermostoed heat transfer surface — saving space, weight, energy and cost on all reciprocating and centrifugal machines.

Specially featured was a working model of the Climapack heat recovery air handler for industrial or commercial use in swimming pools, hospitals, industrial drying and heating. Energy conservation was the keynote of the Fibreglass stand with displays of the company's H & V products prominently to the fore, including the Fibreglass rigid sections FRS 950. Other features were the Fibreglass Factoryliner—a new lightweight, non-combustible, thermal, acoustical and decorative lining board — and also a new Class 0 finish for flexible duct insulation.

The focal point of Walker Air Conditioning's stand was the Condair ES800 steam humidifier which has a nominal capacity of 10 IVHN, April 1978
Sculptured in chrome with glistening acrylic heads the Deltaflow Silver Spa and Morado ranges offer a comprehensive selection of taps and mixers for sinks, baths and basins. Take the Silver Spa range, for instance. Stylishly attractive and most efficient. Or gold plated Golden Morado, the absolute ultimate in elegance and sheer luxury. We'll gladly send you details.

Sanbra Fyffe
Conex Works, Santry Avenue, Dublin 9.
Telephone 370291, Telex 5325.
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Two New Fulton Gas-Fired Boilers

Following the recent addition of two new larger oil-fired models to the Fulton Series E range of packaged steam boilers, two new gas-fired boilers of similar capacities have just been announced by Twin Industrial Agencies Ltd.

These are the Models 50E and 60E, rated at approximately 1.7 million and 2.0 million Btu/hr and with steam outputs of 1750-2000-lb per hour respectively (800 and 960-kg. per hour). Until the introduction of these larger oil-fired and gas-fired models, the Series E had comprised seven models producing from 140-lb. to 1050-lb. steam per hour at pressures of up to 125 p.s.i.g. Like other models in the range, the new gas-fired Fultons are fully automatic in operation and require little service or maintenance. They feature a highly-efficient secondary flue pass design which ensures maximum heat transfer and very fast steaming. The boilers have no tubes or coils, the steam-raising vessel consisting of an annular steel ring which contains water and provides steam space above. Water level is controlled automatically to ensure that water is in contact with all furnace surfaces heated by the hot combustion gases.

In operation, the burner sends a slow spiralling flame down the entire length of the furnace, allowing maximum heat absorption. When the hot combustion gases reach the bottom of the furnace, they turn upwards to make a second complete pass around the outside of the shell. Heat remaining in these gases is transmitted by convection and conduction into the pressure vessel, giving such high efficiency that a full head of steam is achieved in 7 to 15 minutes.

In addition to oil-fired and gas-fired steam boilers, the Fulton range also includes dual-fuel models with separate oil and gas burners serving a common combustion chamber; and high-efficiency electric models. Further information is available from APV Desco Ireland Ltd, Gal­vine Industrial Estate, Limerick, (Tel: 061/45211).

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The new range of air conditioning units from Creda come in three types - Whitestar split system (pictured) and air cooled models fitted through the wall; and Keeprite through the window system.

The new larger Fulton gas-fired boiler.
New Measurer from Trumeter

Trumeter, manufacturers of counting and measuring devices, have introduced a new hand held measurer for measuring cable, wire, flex, tubing, cord etc., up to 7 mm diameter.

Units to record metres and decimetres of yards and tenths of yards are available with a maximum reading of 999.9. Reset is by a knob.

Although the unit has been designed for hand operation, it is a simple matter to remove the handle for mounting in a permanent position. A lift off lever situated at the rear of the counter parts the bottom spring loaded pressure pool from the measuring wheel to allow the cable to be inserted. The measuring wheel has a metal sprayed surface to ensure non slip contact with the material being measured.

The weight of the measure is very low and this, combined with the simplicity of operation, enables it to be used for long periods without discomfort to the operator.

Further details are available from Luke, Martyn & Co Ltd, 1 Sandyhill Park, Drumbeg, Dunmurry, Belfast, (Tel: Belfast 612141).

Walter S Mercer & Son Ltd of Esther Street, Belfast have been appointed sole Northern Ireland distributors for AMF Venner time switches. A comprehensive stock will be carried and a full technical sales service will be available to customers.

Peter Stalker was the speaker at a recent meeting of the Northern Ireland Branch of the District Heating Association. Mr Stalker chose as his subject "Water we waste" at the same he also gave details of the steps being taken to reduce the waste in the distribution mains.
Fyrexo Flame Retardant Paint

Fyrexo, a new product introduced by Blundell-Perrnoglaze, is a flame retardant (intumescent) paint which can be used as a self finish, or in conjunction with Blundell's decorative finishes, on bare or previously painted combustible substrates, to give a Class 1 fire rating.

It is a white vinyl emulsion, decorative and protective in itself. When fire attacks Fyrexo, intumescence takes place, the paint film swelling up to form a carbonaceous layer of rigid foam with good heat insulation.

Certificates from the Warrington Research Centre, an independent UK fire testing body, show that previously painted combustible or in conjunction with Blundell's retardent (intumescent) paint by Blundell-Perrnoglaze, is a flame retardant (intumescent) paint.

Fyrexo is quick-drying and can be used without risk or discomfort. It is water-based and non-flammable in the can, avoiding risk in use. It has no noxious odour and equipment is easily cleaned. For the stockist it has the advantage of being a one colour single type for all situations avoiding complicated stock problems. Fyrexo is storage stable with no settlement or solidification – though it still needs protection from frost – and is available ex-stock.

Details are available from Blundell-Perrnoglaze (Ireland) Ltd, Chapelizod Industrial Garden Estate, Dublin 20, (Tel: 364107).

Guide to Agents

Barbour Index Ltd of Dublin has published a comprehensive catalogue of major UK building materials manufacturers' agents in the Republic and the North.

The 142-page A4 spiral-bound publication contains over 700 names, addresses and telephone numbers of UK manufacturers' representatives. For ease of reference each representative is identified by the product name of the product manufacturer.

Copies of the new catalogue are available at £1 per copy excluding postage from Barbour Index Ltd, 2 Mayfield Road, Terenure, Dublin 6. In addition to the main publication, subscribers may also receive regular amendment sheets as an additional part of the service.

Dexion Booklet

The latest literature from Dexion Ltd, the storage and materials handling engineers, is "The Book of 100 Answers". Broken down into colour-coded sections according to the nature of the goods being handled, the book features 100 case history solutions. Saving in all terms are specifically quoted as well as payback periods.

"The Book of 100 Answers" is freely available on request from Dexion Enquiry Service, Dexion House, PO Box 7, Empire Way, Wembley, Middlesex HA9 0JW, England (Tel: 031-902-1281).

Ducting Systems for Floors

A prefabricated modular floor system incorporating Phenexpan phenolic foam is available which it is claimed eliminates the need for screening and ducting and can save up to 75% of conventional floor application time, reflected by substantial savings in material and labour costs. The Ductafloor system is produced by Hevenstall Ltd of 37a New Chester Road, New Ferry, Merseyside.

It is suitable for both new and existing buildings as it adapts to any sub-floor and absorbs local irregularities within its foam base, which is made from Phenexpan produced by Cape Insulation Ltd of Stirling. This material does not support flaming combustion in normal air and has low toxic and smoke obscuration levels in a fire, so contributing substantially to the safety of Ductafloor.

Honeywell 30-Year Anniversary Tour

Honeywell is marking its 30th year of continuous UK production with a major product capabilities display to be staged in nine locations around the country from May to October.

The two-day exhibitions will feature a series of presentations and discussions by Honeywell specialists in addition to extensive displays of products from the company's industrial, commercial and micro switch divisions.

Entitled Tridex, the travelling show is intended to mark the anniversary of the 1948 start-up of Honeywell's first UK factory in Blantyre, Scotland. Honeywell's manufacturing home has remained in Lanarkshire ever since, but is now centred at Newhouse and Uddington, only a few miles from its Blantyre birthplace. From Scotland, products are exported to Europe and around the world in addition to meeting UK demand.

Tridex will open on 3 May at the Golden Circle Hotel, Bathgate, West Lothian, with an opening address by Sir William Gray, Kt, JP, Chairman of the Scottish Development Agency. From there, the exhibition will travel to Middlebrough, Manchester and London by the end of May, with five more venues planned for September and October.
Dearborn Consultancy Service

Dearborn Chemicals Ltd has enlarged and restructured its 'Projects Group' to deal with increased demand for their engineering consultancy service. This service provides liaison between the client, specifying authorities, equipment manufacturers and contractors for the supply of industrial water treatment plant, control systems and chemicals.

Increasingly, Dearborn is being asked to provide water treatment and monitoring systems as a package deal. The reorganisation of the Dearborn 'Projects Group' will now put the responsibility for this important area within the control of specialist teams.

The 'Projects Group' will be headed by the Group Manager, Mr. R. Taylor, and will be organised on a geographic basis into four Regional areas - North West, North East, South West and South East. Each region will be handled by a regional consultant and the following have been appointed to fill three of the Regional posts: North West Region - Mr. G. Bunton; South West Region - Mr. T. H. Rawling; South East Region - Mr. T. G. Thompson.

Information concerning the situation in Ireland is available from Michael Cooke, Dearborn Chemicals Ltd, 97 Lower Baggot Street, Dublin 2, (Tel: 761613).

German Consulting Engineers in Tralee

A West German management consultancy and consulting engineering practice has been established in Tralee, Co Kerry, under the IDA's service industries programme. The company, Reinicke Consult GmbH of Leinfelden - Oberaich, will employ 15 persons, mainly university graduates and technicians who will be trained in Germany.

The Irish company, Reinicke Consult (Ireland) Ltd, will engage in export work and will concentrate mainly on the Middle and Far East, Europe and North Africa. Services will include administration, planning, electronic data processing, factory design and warehouse planning. The company is occupying offices in Ashe Street, Tralee, and plan to have their full staff operating by next year.

Pullen 'Hydropak' Unit

The Pullen 'Hydropak' pressurised water supply unit, now available in a redesigned form. Details from McCaig Collim Ltd, 6-8 Greenwood Avenue, Belfast BT4 3JJ, Tel: 0232 646212.

Marley makes your pipe dreams come true!

Marley Plumbing
Plastics – the Potential to Revolutionise the Building Industry

The growth rate in the use of plastics in Ireland over the past 20 years has been quite phenomenal and we now rank among the leaders in the consumption of plastics materials per head of population in relation to our EEC partners. The change in use and application has been similarly spectacular, with the industry now contributing over 2% to the nation’s GNP. This article traces the history of plastics in Ireland and the many uses to which it is now being put in this country.

The change in use and application has been due to the intensive use of plastics materials per head of population in the building sector. At that time a substantial labour intensive agricultural industry existed with relatively poor housing stock. The initial development of the agricultural industry and the housing market created a demand for piped water, followed then by a demand for plumbing and sewerage pipes and fittings, followed in turn by a demand for domestic plumbing fittings.

As can be seen from the table, pipes and fittings account for the major usage of plastics materials in the building industry and this application alone is one of the great strengths of the Irish plastics industry, accounting for 21% of total plastics raw materials used in manufacturing.

<table>
<thead>
<tr>
<th>Product Sector</th>
<th>000 tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathroom &amp; Toilet Fittings</td>
<td>3.62</td>
</tr>
<tr>
<td>Flooring</td>
<td>2.00</td>
</tr>
<tr>
<td>Insulation</td>
<td>2.05</td>
</tr>
<tr>
<td>Pipes &amp; Fittings</td>
<td>19.85</td>
</tr>
<tr>
<td>Others</td>
<td>2.43</td>
</tr>
</tbody>
</table>

The status of the Irish economy in the early ‘60’s and its subsequent development presented major opportunities for plastics products in the building sector. At that time a substantial labour intensive agricultural industry existed with relatively poor housing stock. The initial development of the agricultural industry and of the housing market created a demand for piped water, followed then by a demand for plumbing and sewerage pipes and fittings, followed in turn by a demand for domestic plumbing fittings.

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In relation to our fellow partners in the EEC, Ireland ranks among the leaders in consumption of plastics materials per head of population, trailing only to West Germany and, marginally, France.

Continued on next page
Continued from previous page

this country in 1976. Apart from the domestic market, it is estimated that some 30% of pipe production is exported, making this sector a major contributor to export earnings.

Approximately 75% of pipes and fittings produced are manufactured from unplasticised polyvinyl chloride (uPVC), being used for pressure pipes and fittings, sewerage, land drainage, ducting, rainwater and soil goods. Plastics compete with traditional materials in several applications — with asbestos cement for fresh water pressure piping, with fire clay for sewerage and with galvanised steel for rainwater goods.

Plastics compete with traditional materials in several applications — with asbestos cement for fresh water pressure piping, with fire clay for sewerage and with galvanised steel for rainwater goods.

While ease of handling, lower jointing costs and fewer breakages all favour the use of plastics materials, the final decision frequently rests with the institutional purchasers (mainly local authority engineers and architects) who sometimes are reluctant to abandon traditional, well proven, materials. However, production of plastics pipes to meet the specifications of Irish and other national standards (as supervised and administered by IIRS) has led to increasing acceptance of these materials and a steady market growth is foreseen.

PVC also experiences competition from other plastics materials such as high density polyethylene in pressure piping for fresh water, particularly in the smaller diameters where the coilability of HDPE makes it easier to handle and lay. Low density polyethylene has its principle application in agricultural piping, the other major use being in domestic cold water supply.

The ease of handling and joining of LDPE (apart from cost advantages) gives it a predominance in this market. It is likely over the next few years that the Irish market will see increasing manufacturer of pipes from ABS and polypropylene. Most of these products are imported at present to serve a growing market. They have properties suitable for waste disposal systems and will strongly complement the range of products available to domestic and industrial customers.

Apart from pipes and fittings, plastic materials are used in sectors of the building industry such as insulation, flooring and bathroom and toilet fittings, in addition to further minor applications. The phenomenal increase in energy costs since 1973 has multiplied the export. Similarly some 70% of bathroom fittings produced in this country are for export. Materials used are polyethylene (thermo-formed vanity units etc), acrylic for baths and urea and phenol formaldehyde for toilet seats.

Other applications of plastic materials or derivatives in the building industry include, for example, damp-proof coursing, fibreglass for toilet seats. Flooring products, manufactured from PVC, have already replaced traditional materials such as linoleum. Being a mature accepted product, little growth is forecast for this area. Furthermore, with increases in living standards, there is a consumer tendency towards carpeting in preference to tiles or sheeting. A large new multinational PVC flooring plant has opened in Ireland this year, but production is mainly for export. Similarly some 70% of bathroom fittings produced in this country are for export. Materials used are polyethylene (thermo-formed vanity units etc), acrylic for baths and urea and phenol formaldehyde for toilet seats.

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Although the escalating cost of wood was initially thought to be the reason for the growth in demand for cellulars PS and PVC profiles, far more relevant is the fact that completely finished, complex or simple, sections can now be produced in one automated factory process. Such sections can be easily nailed, screwed and sawn and require no surface coating or further maintenance. Principle applications include "unprofiled" hard and soft timber replacement such as rectangular section and planking, profile replacement such as skirting board architrave, cladding and coving and indeed competition with unfoamed plastics pipe and conduit.

The technology required for the production of cellular and profiled plastics materials has been developed over the past decade, and with the growing scarcity of natural materials, economics tend to favour the use of synthetics - not withstanding their technical and other advantages. Development of plastics materials and processes continues opening new applications to the design engineer. Apart from replacement of traditional materials in the building industry, plastics present the scope to meet the demands of today's changing environment and to carry this most basic of man's requirements into the twenty-first century.

References

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COSTS COMPARED

Conventional two-tap h&c system

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Installation costs

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that, of course, is a drain on the balance of payments. However, I believe that if further gas is found then it will probably be used to fuel industries and the major cities, as this is a highly attractive and economical way to use it.

"The Association's prime interest in such developments would be to ensure that in the development of further gas fields that Irish companies, and in particular IOSA members, would get as much business as possible. Industry in Ireland did very well out of the Marathon operation and I must praise the Institute for Industrial Research & Standards for the very fine work they did in this connection. It is estimated that of the amount of work Irish firms could conceivably carry out on the Kinsale operation that 95% of that business, in fact, stayed at home. It is worth pointing out that Marathon Petroleum did not have to conform to Article 62 of the licensing terms on the Kinsale operation but, despite this, they were more than anxious to see that as much business as possible was allocated locally. Any future finds, of course, will be subject to Article 62 which could mean even greater opportunities.

"The Association is very anxious to expand and broaden its membership. We feel that the larger the Association is the more effective it can be. We also believe that a large powerful organisation will be able to provide the right kind of pressure and the right kind of advice to people in government. We are anxious to develop our membership and are, in fact, actively going about that at the present time.

**Question:** Are you ever consulted by Government agencies?

**Answer:** We have very close contact with the HRS and the IDA. On matters of mutual interest meetings between the Department for Industry, Commerce & Energy and the Association take place.

**Question:** Where does the IOSA stand on such issues as conservation, etc.?

**Answer:** My answer would be, very simply, we stand where all other reasonable people stand - that the environment must be protected but I would think that every sector of the community is acutely aware of this need nowadays.

**Question:** What are the particular dangers for us?

**Answer:** I think everybody will remember the very serious oil spillage in Bantry Bay when the Universe Ireland tanker discharged large quantities of crude oil. It should be remembered that that was a major spillage and the Authorities here handled that crisis very well. The coast-line was quickly cleaned and I don't think that there was any serious or permanent damage to wild life. Of course, large stocks of oil slick dispersant are available and we also have access to the very best advice from overseas and the Continent.

**Question:** Do foreign companies coming to Ireland have to adhere to Irish standards with reference to environmental protection?

**Answer:** Industry here in Ireland, particularly that engaged in the oil business, is very conscious of the need to follow the highest standards in matters concerning pollution. From my own experience I can tell you that chemical and oil companies apply the most stringent standards and do all possible to prevent oil spillages. It is in everybody's interest to see that spillages do not occur and the Authorities here see to it that every possible precaution is taken to prevent such occurrences.

**Question:** Apart from the major finds to date, what are the prospects for future discoveries?

**Answer:** I would say the prospects are good. The only commercial find there has been to date is in the gas field off Kinsale. However, exploration is under way in a number of areas off the coast, particularly in the Porcupine Bank area off Galway. Last year two wells were drilled in this area, one by Dennison and the other by Shell, and there will be a big expansion in activity this year. It will take two or three years, and a number of exploration wells, before the oil companies can get an accurate assessment of the area.

The geological structures offshore Ireland have long been recognised as being potentially oil-bearing. The potential is there and the oil companies are prepared to spend very large sums of money looking for the rewards. After all, a decision to invest £100m with no definite return at all is not something that you do lightly and I am convinced that the oil companies will get their rewards.

**Question:** Was there not some controversy over the ownership of the areas off the Irish coast?

**Answer:** There is a dispute about the ownership of the area around Rockall where a large sedimentary basin has been found which could have accumulated hydrocarbons. The technology does not exist at the moment to recover from that area so therefore the issue is unlikely to come to a head in the near future.

**Question:** Finally, what would the benefits of a major find in the Porcupine area be?

**Answer:** There is no doubt that they would be enormous. If you take our current oil import bill at £300m per annum, which is the cost of importing 110,000 barrels a day of oil, and compare it with a discovery of the size of the Forties Field the comparison is indeed staggering. We would have a surplus on our oil trading alone of £2,700m per annum.

**Continued from page 2**