VOLUME 12 No2

FEBRUARY/MARCH 2026

THE ACR JOURNAL

ISSN 2058-4407

Essential Information for the Air Conditioning and Refrigeration Industry

TOSHIBA

Carrier

Cool Designs Ltd
Your Platinum Standard Distributor

www.cdlweb.info

FUJITSU | AIRSTAGE

CLIVET

Welcome to the February/March edition of *ACR Journal*.

As we settle into the year, a belated Happy New Year to all our readers. I hope 2026 has started well for you and that the months ahead bring plenty of positive change across the industry.

This edition brings together a mix of people, regulation and practical insight. Our Women in the ACR Industry feature highlights Sarah Turner of Beijer Ref, whose career story reflects the breadth of opportunity now visible across the sector.

Regulation is never far from the conversation, and Neil Roberts of Climalife considers the likely direction of GB F-Gas legislation and what this could mean in practical terms for designers, installers and end users.

We also explore how energy recovery boundaries are extending in the refrigeration sector with the SCM Frigo SEC, while Exi-tite examines HTM regulations and their impact on applying ventilation with integrated climate control in healthcare environments. Elsewhere, F-Gas Register provides a clear overview of flammable refrigerants in the air conditioning and heat pump sectors.

I hope you enjoy this edition.

Andy

REGULARS

04. News
Key industry updates

09. Tools Talk – DiversiTech

26. Women in the ACR Industry
Sarah Turner

29. The Innovation Zone
The latest products and launches

30. Changing Faces

FEATURES

08. Our R32 VRF is designed for engineers

10. New year, new F-Gas legislation (probably). It really is time to change

14. Flammable refrigerants in air conditioning and heat pump systems

16. Shrinking availability and rising costs: a growing risk for the UK industry

16. Turning waste heat into a continuous energy resource

20. Meeting HTM requirements through integrated air handling and energy recovery

23. Unrivalled heat transfer fluid & expert fluid management services

Editor
Andrew Slater BSc Hons
acr.editor@warnersgroup.co.uk

Multimedia Sales Manager & Events
Victoria Liddington
01778 395029
victoria.liddington@warnersgroup.co.uk

Design
Development Design
www.warnerspublishing.co.uk

Production
Julia O'Hara
01778 392405
production@warnersgroup.co.uk

Publisher
Juliet Loiselle CompCIPHE/FInstR
01778 391067
julietl@warnersgroup.co.uk

Published by:
Warners Group Publications Plc
The Maltings, West Street, Bourne, Lincs, PE10 9PH
01778 391000
01778 394748
www.warnersgroup.co.uk

Printed by
STEPHENS & GEORGE PRINT GROUP

TF Solutions adds Hitachi HVAC

Wholesaler TF Solutions has added Hitachi Cooling and Heating to its portfolio, becoming the exclusive nationwide distributor of the brand.

From February, UK customers will have access to the full Hitachi HVAC range in 16 TF Solutions branches, and available for next-day delivery.

Andy Cherrill, Sales & Business Development Director at TF Solutions, said: "We're excited to bring a brand of Hitachi's quality to our customers – it's a huge international brand, with an incredible reputation for quality and innovation, and something of a sleeping giant in the UK."

Tom Hall, Country Manager at Hitachi Cooling and Heating, added: "This is the start of a brilliant partnership. Working with TF Solutions, we're looking forward to supporting more customers in the UK – from aftersales and technical support to making our systems easy to work with, we do everything we can to provide exceptional support."

News of the partnership followed an announcement that General HVAC Solutions UK (formerly Fujitsu) and TF Solutions had mutually agreed to conclude their distribution partnership.

A statement released by General said: "This decision reflects an evolution in General HVAC Solutions UK's route-to-market strategy as the business continues its transition under its new brand identity.

"Both companies remain committed to supporting customers throughout this transition period. The supply of systems for existing projects and complete solutions will be phased out in a structured manner, with further details to be communicated in due course.

"General HVAC Solutions UK would like to thank TF Solutions for their support and collaboration over the course of the partnership and wishes the business well for the future."

Panasonic Jet Air Stream delivers for eblast

Panasonic Jet Air Stream units are providing more sustainable heating and cooling for eblast, a Scottish surface preparation and coating company.

Renewables specialist Clancool Refrigeration turned to Panasonic sales agent DFM Technical Services to develop the design, which uses eight 25kW Jet Air Stream units to heat or cool the area.

Looking to move away from fossil fuels and move towards a more energy efficient business model, eblast sought a sustainable solution that would complement its paint curing business for products and components used in the renewables sector, including wind turbines and wind farms. The new system is said to have already resulted in cost savings and reduced CO2 emissions.

Dugie McKerrow, Director at DFM Technical Services, said: "The Panasonic Jet Air Stream units were the best solution for this project. Clancool did not need to install any ductwork, which helped with installation cost savings.

As part of the project, we calculated that the use of Panasonic Jet Air Stream units would reduce the company's CO2 emissions, and that sourcing their power from a green energy supplier would eliminate the full 302 tonnes of CO2 otherwise generated by burning kerosene from the original units."

The indoor units come in three variations – Smart, Standard, and Ducted – with two capacities (14 and 25kW). The controls can easily be linked together for control and maintenance purposes and links to a BMS system to deliver an energy-saving solution for year-round heating and cooling in large and high spaces.

The Smart range is designed to prevent heat loss, as nozzle movements adapt dynamically to incoming air temperature to prevent stratification and maintain an ideal temperature exclusively in the occupied area. It delivers high air volume up to 5.000m³/h and long maximum air throw distance of 30m.

Name change for Fujitsu

Fujitsu General Air Conditioning (UK) is rebranding as General HVAC Solutions UK Ltd following the acquisition of parent company Fujitsu General by the Paloma Rheem Holdings (PRH) group.

The UK team, product ranges, technical support and service operations will continue as before, including full support for all Fujitsu-branded products already supplied or installed. General will also continue to offer the Fujitsu Airstage range, alongside a wider portfolio of DX systems and related solutions.

UK Deputy Chief Executive Officer Ian Carroll said: "As we align with Paloma Rheem Holdings, we are building on the strengths that have defined us for the past 40 years in the UK. Our customers can expect the same team, the same products and the same support, now backed by even greater global capability and long-term investment."

ACES joins F-Gas Register

The Africa Centre of Excellence for Sustainable Cooling and Cold Chain Systems (ACES) in Rwanda has been added to the UK's F-Gas Register.

ACES is said to have demonstrated that it has appropriately qualified engineers and, although it is in Africa and does not have to abide by the regulations that UK businesses do, it has a need to purchase equipment and supplies which require registration.

Launched with support from Defra and the government of Rwanda, the ACES training centre works with the United Nations Environment Programme (UNEP) and UK academics, led by the University of Birmingham, to establish sustainable and resilient cooling and cold chain systems.

F-Gas Register Director of Schemes Graeme Fox said: "As the only certifying body with in-house expertise in the regulations and the specific RACHP sector, we are perfectly positioned to assist ACES in securing recognition of the work they are doing in Kigali and beyond.

"I have experience of working with UNEP in developing international training standards and appreciate the huge effort that has gone into developing this training centre in Rwanda. We wish the centre the very best for their future delivering up-skilling and certification for technicians and engineers in the RACHP sector in Kigali and other centres across the developing world."

The engineers listed for the centre's registration have all been verified to have UK-approved F-Gas qualifications in line with Defra requirements and the centre will be subject to the same requirements as any other F-Gas Register member. Registration is a legal requirement for business entities operating in the stationary refrigeration, air conditioning and heat pump market employing F-Gas qualified operatives.

ACES Technical Director, Basile Seburikoko, said: "Receiving the Company F-Gas Certificate is a major step forward for ACES. It confirms that our systems, equipment and technical practices meet internationally recognised standards. This certification enables ACES to provide services to companies and institutions in Rwanda at an international level, while supporting the country's transition to climate-friendly cooling technologies."

New Eurovent guidance on commercial refrigeration

Eurovent has released a new recommendation on applying safety and environmental laws to commercial refrigeration.

Designed to provide a comprehensive guide to the application of European safety and environmental regulations in the design, installation, maintenance and decommissioning of commercial refrigeration systems, its serves as a reference for manufacturers, installers, maintenance technicians, designers and operators across the EMEA market.

The document covers a full overview of the regulatory and standardisation framework for refrigeration systems and equipment, and on safety classifications and environmental impact of refrigerants, including those affected by the PFAS issue under REACH.

The Eurovent Product Group 'Commercial Refrigeration Equipment' (formerly 'Refrigerated Display Cabinets') covers refrigerated display cabinets (remote and integral units), walk-in cold rooms, commercial beverage coolers, ice-cream freezers and refrigeration packs. Its main tasks are advocacy on European and national legislation, development of EN, ISO and Eurovent standards, promotion of the industry and its export initiatives.

The document can be downloaded free of charge from the Eurovent website: **https://www.eurovent.eu/publications/eurovent-14-9-commercial-refrigeration-application-of-safety-and-environmental-laws/**

CTI partners with Sustain Recycling

Carter Thermal Industries (CTI) has appointed Sustain Recycling as its official sustainability partner.

Sustain is a specialist in commercial refrigeration recycling and circular economy solutions, with more than 15 years' experience supporting manufacturers, contractors and end users.

Chris Hufflett, CEO at CTI, said: "Our shared commitment to circularity and responsible processes aligns perfectly. We look forward to working closely together, supporting one another and driving meaningful progress on our sustainability journey."

The partnership is expected to manage both manufacturing and client waste streams, enabling reuse, recovery of valuable raw materials and further innovation to deliver additional carbon reductions across the equipment lifecycle.

James Warburton, Managing Director at Sustain Recycling, said: "This partnership marks an exciting step forward for sustainability within the refrigeration industry. By working closely with CTI, we can deepen and enhance circularity in a way that delivers real value, not only through reuse, but by achieving financial and carbon savings across material use and waste streams."


Justin Southwick of CTI with James Warburton of Sustain

Green buildings market 'losing momentum'

Energy-efficiency specialist Exergio says the picture for green buildings is getting weaker, following publication of the Royal Institution of Chartered Surveyors (RICS) 205 Sustainability Report.

Demand for sustainable real estate is said to be cooling in most regions, with many projects stalling over high upfront costs and uncertain payback, and almost half of construction professionals still don't measure carbon on their projects – a share that has grown over the past year.

Exergio, a company developing AI tools for energy efficiency in real estate, says the sector is stuck not for lack of ambition but because three systemic failures – stalled demand, unclear financial value, and weak operational follow-through – remain unresolved.

Donatas Karčiauskas, CEO of Exergio, adds that without scalable, AI-driven optimisation of day-to-day operations, even certified or renovated buildings will keep missing climate and performance targets.

Global demand for sustainable buildings has been sliding for several years now, with the RICS report showing another drop from 41% to 30%. Investors and developers mostly blame unclear returns: 35-46% cite uncertain ROI, payback periods or operational savings as their main barrier to investing.

"Investors aren't against building sustainably – they just need proof it pays back. If a project requires expensive materials, equipment and certifications but the real-world performance doesn't translate into measurable savings, why would anyone scale it? Until buildings can demonstrate clear, verifiable returns, demand will keep sliding," said Donatas Karčiauskas.

Using AI to optimise existing systems, Exergio says it typically cuts energy use in large commercial buildings by up to 30% and that translates to more than €1 million in annual savings – the kind of proof investors are looking for. But money isn't the only problem, the report shows.

The RICS data reveals a growing split between what occupiers value and what investors prioritise. Occupiers favour performance

– 94% cite indoor environmental quality and 88% name energy efficiency as top priorities – while investors still focus on certification (86%) and resilience features (78%).

The market talks about sustainability as if it were one thing, but in practice, different players are chasing different goals, according to Karčiauskas.

He said: "Occupiers care about how a building works; investors care about how it's labelled. Until performance and certification point in the same direction, we'll keep building assets that look sustainable on paper but don't deliver it in practice. The real solution is to measure what happens inside the building, every day – that's when both groups finally get what they're paying for."

The RICS report shows that this kind of measurement is still the exception, not the rule. Across regions, roughly half of respondents don't measure embodied carbon at all, and only about 16% say their assessments change design choices. Just 17% believe the industry has enough sustainability knowledge, and only 10% are very familiar with whole-life carbon methods.

Karčiauskas believes this is because the respondents do not know how to measure the emissions: "You can't improve what you don't measure, and you can't measure what you don't have the skills to assess. Right now, most carbon decisions are built on assumptions instead of real evidence."

Daikin makes SAP breakthrough for multi-splits

Daikin says it has successfully pioneered the process for securing SAP database recognition for multi-split air conditioning systems.

The first system to be approved, Daikin's 2MXM50A9 paired with FTXM25A/FTXM25A indoor units, is now fully listed on the SAP Product Characteristics Database (PCDB Index: 110617). This enables developers to specify Daikin multi-split solutions for new-build projects with full compliance under both Part L and Part O of the Building Regulations.

Dakin believes the listing also serves as a strong validation of multi split technology. By using a single outdoor unit to serve multiple indoor units, multi splits provide flexible, energy-efficient room-by-room comfort while helping to reduce the outdoor space required on modern developments.

Hamid Salimi, Residential Product Manager, at Daikin, said: "This is another first for Daikin and underlines our commitment to increase the uptake of A2A systems. With multi split solutions now recognised in the SAP database (PCDB), Daikin offers developers a practical, compliant option for new build projects, supporting both Part L and Part O requirements of the building regulations. It should also give confidence to installers in the retrofit market to specify Daikin's multi-split systems.

Emergency solution safeguards hospital cooling

An emergency chiller solution from ICS Cool Energy safeguarded cooling for a large hospital in central England during major infrastructure upgrades.

As part of the programme, the hospital wanted to further strengthen the resilience of its cooling system. Ordinarily, one chiller would operate while the second remained on standby. During the upgrade works, the facility management team needed to run both chillers simultaneously even under moderate conditions. This temporarily removed built-in redundancy and increased strain on the system.

With summer approaching and temperatures rising, the hospital required a reliable, efficient cooling system to ensure continuity across critical clinical spaces, operating theatres, wards, and communal areas. To support uninterrupted services and mitigate operational risk during the upgrade and high-demand season, administrators engaged ICS Cool Energy to provide temporary hire chillers as part of an integrated solution.

This centred on the installation of four 500kW chillers. To overcome limitations in the site's existing power supply, ICS Cool Energy also provided two high-capacity 800kVA generators, ensuring uninterrupted operation throughout the duration of the works.

Engineers navigated logistical complexities, including the safe routing of hundreds of metres of flexible hose from ground level up to the rooftop plant room and the placement of equipment in a confined access route, all while keeping essential hospital access clear for emergency vehicles and staff.

The team also completed calculations to account for pressure drops throughout the pipework. While the hospital's main circulating pumps remained incorporated within the setup, additional measures were taken to sustain optimal flow and pressure across the temporary installation. Four 4-inch pumps were fitted on the suction line, complemented by an inverter-driven 4-inch pump on the delivery side.

BESA sets sights on Army leavers

The Building Engineering Services Association (BESA) is urging military engineers transitioning to civilian life to consider becoming trainers, assessors and building safety auditors.

With engineering and construction-related businesses reporting shortages of suitably trained people able to fill their widening skills gaps, BESA is reaching out to Army leavers in a bid to address the critical shortage of apprenticeship trainers and assessors that continues to undermine the delivery of building services courses.

It is urging them to consider signing up to BESA's fully funded Skills Legacy programme which was launched this year with the aim of recruiting 100 trainers and assessors to help further education (FE) providers deliver more building services apprenticeships.

BESA's nationwide scheme is bringing together employers and training providers to create a pathway for anyone with the right skills, experience and qualifications to become a trainer or assessor qualified to a Level 3 Certificate in Assessing Vocational Achievement (CAVA).

Two members of the Royal Corps of Engineers reached the final of this year's WorldSkills UK refrigeration, air conditioning and heat pump section, which is organised by BESA, with one of those, 18-year-old Isaac Jervis, going on to take the gold medal.

The six finalists were challenged to demonstrate their skills and knowledge in testing 'real world' situations, including pipework installation, electrical testing, pressure checks and controlled refrigerant handling. They also commissioned systems for optimal efficiency and performed environmentally responsible refrigerant recovery, demonstrating their ability to manage the entire lifecycle of a working system.

Jervis was the youngest finalist and scored well over 90% in all the combined elements of the competition. Samuel Jones, representing the Practical Refrigeration Training Centre and Industrial Cooling Equipment, took the silver medal with bronze going to Craig Gow, Glasgow Kelvin College / Cool Cair Refrigeration.

Evan Jones, City of Portsmouth College and Lightfoot International, was highly commended and the other two finalists Taylor Mclaughin of Cubic Works and Daniel Hunt of the Royal Engineers also received high praise from the panel of expert judges.

Finalists under 21 years of age who scored above average will also be considered for the UK's international squad preparing to compete at the 2028 Skills Olympics in Aichi, Japan.

WorldSkills UK winner Isaac Jervis, third left, with fellow finalists, from left, Taylor Mclaughlin, Sam Jones, Daniel Hunt, Craig Gow and Evan Jones

ABB invests in UK's OctaiPipe technology

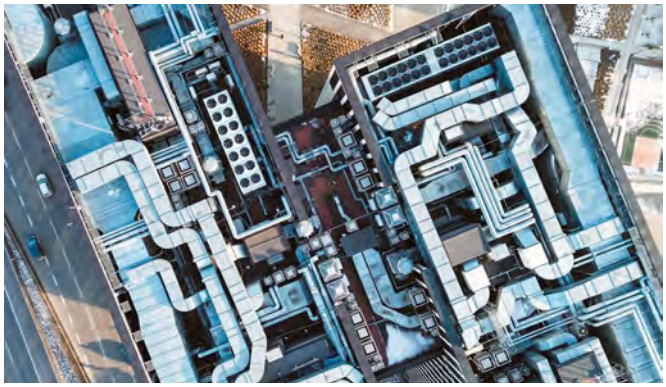


ABB has announced a strategic investment through ABB Motion Ventures in OctaiPipe, a UK-based innovator in AI-driven software for optimising data centre cooling systems.

The partners say the move will seek to equip data centre operators with intelligent tools to achieve substantial energy savings, strengthen operational resilience, and meet the growing demands for sustainability and transparency. The transaction consists of ABB taking a minority stake in OctaiPipe, with closing subject to its customary conditions. Financial details of the investment were not disclosed.

With global demand for data centre capacity expected to rise at an annual rate of between 19-22% from 2023 to 2030, energy use is surging and cooling alone accounts for up to 40% of a typical facility's electricity consumption. ABB's investment in OctaiPipe brings a major advancement: an on-site AI solution that enables up to 30% energy savings in cooling, with very short payback periods and rapid deployment, without the need for new hardware.

Data centres represented approximately 1.5% of the world's electricity consumption in 2024, with the US accounting for the largest share of this at 45%. US data centre power consumption is projected to drive nearly half of the growth in electricity demand through 2030.

"Data centres are the engines of the digital economy, but their energy footprint is unsustainable without radical innovation," said Eric Topham, CEO and co-founder of OctaiPipe. "Think of our federated learning platform as an orchestra conductor, smartly adjusting the performance of the cooling system based on what's actually needed. In this way, our AI-driven software solution delivers secure, compliant, and actionable optimisation. By joining forces with ABB, we're not just scaling technology. We're enabling data centre operators to future-proof their infrastructure and thrive in a rapidly evolving market."

"Energy efficiency is key to ensuring industries can outrun, leaner and cleaner. It's a must, not a plus," concluded Dr Ankush Gulati, Energy Efficiency Program Lead, ABB Motion Services. "By integrating OctaiPipe's cutting-edge AI we are broadening our proven offering with advanced software capabilities, enabling data centres to optimise energy use in their cooling infrastructure. With the US economy predicted to consume more electricity in 2030 for processing data than for manufacturing all energy-intensive goods combined, the opportunity for impact is significant."

Mansfield Pollard delivers hospital AHU solution

Mansfield Pollard has completed the design, manufacture and delivery of six fully electric air handling units (AHUs) for the new £80million Ambulatory Diagnostic Centre (ADC) at West Middlesex University Hospital.

Each AHU was designed and manufactured to meet the specific environmental and clinical requirements of its destination department, including imaging, oncology, dialysis and education spaces.

All systems are fully compliant with Health Technical Memorandum (HTM) 03-01 and deliver precise control over temperature, filtration, air quality and pressure across each critical zone. Airflow design and filtration configurations were tailored to protect immunocompromised patients and support clinical performance in highly sensitive treatment environments.

Each unit connects directly to the hospital's building management system through a factory-fitted controls package, allowing real-time monitoring and automatic adjustments to maintain the right conditions across different departments.

To boost energy efficiency, the AHUs use advanced components such as EC fan arrays, DX heat pump coils, and counterflow heat exchangers that recover warmth from outgoing air. The units are built to high standards for air tightness and insulation, with critical components carefully positioned for long-term reliability in demanding healthcare settings.

Lou Ellis-Frankland, Chief Executive Officer of Mansfield Pollard, said: "This project demonstrates how healthcare ventilation can support real decarbonisation. By transitioning to fully electric systems, and tailoring each unit to specific clinical needs, we've helped future-proof the hospital's infrastructure while supporting national Net Zero goals. Our team worked closely with delivery partners to ensure performance, safety and sustainability were delivered without compromise."

The new centre will increase diagnostic capacity by 43%, supporting an additional 67,000 imaging procedures annually and doubling chemotherapy and dialysis capacity. The ADC is one of several NHS projects supported by Mansfield Pollard, whose decarbonisation-focused air handling systems are now in use across healthcare, retail and manufacturing estates nationwide.

Get in. Get out. Get on to the next job!

TOOLS TALK

hilmor

TOOLS+

A dual readout thermometer and a compact vacuum gauge with the promise of durability, precision and comfort – designed with the HVAC professional in mind.

In the ever-evolving fields of HVAC/R/ASHP and plumbing, the tools used by professionals play a pivotal role in ensuring the efficient and reliable operation of systems. Hilmor, a renowned brand in the industry, has been manufacturing high-quality tools that simplify any daily routine, and deliver exceptional results.

HILMOR DUAL READOUT THERMOMETER

Measuring system temperature requires multiple tools, and sometimes multiple trips to the installer's van. The Hilmor Dual Readout Thermometer was designed to change all that. This new tool to the Hilmor portfolio is a compact thermometer with dual readings to make calculations simple. This thermometer is handy at maximising efficiency and comes as standard with two K-style thermocouple clamps.

- **Makes calculations easier**
  A compact thermometer with two readings to help simplify the calculation of superheat and subcool.
- **Reads temperatures quickly**
  Two easy-to-use k-style tube clamps thermocouples get you to the temperature reading quickly.

HILMOR VACUUM GAUGE
CVG1200

HILMOR COMPACT VACUUM GAUGE

The Hilmor Compact Vacuum Gauge is an all-in-one wireless micron gauge that is durably constructed for everyday use and abuse. It has an easy-to-read backlit display that provides the readings with a two-button operation that simplifies on-the-job use.

- **Easy to read**
  The backlit LCD makes reading in the dark easy.
- **Convenient storage**
  A protective case keeps the gauge safe and quick to access.
- **Added versatility**
  Full range readings enable you see the progress instantly.
- **Superior protection**
  This gauge handles 800 PSI momentarily if a mistake is made.

These tools feature a Limited 2-year warranty and are sold by all leading wholesalers.

HILMOR DUAL READOUT THERMOMETER
1839106

SEE ENTIRE HILMOR RANGE
https://diversitech.global/ or contact our sales team on sales@diversitech.com

Our R32 VRF is designed for engineers

As a trainer, I get really excited when we are launching a new product and immediately look at what might be needed in our training courses to help engineers understand the technology and how to install it.

Sometimes a new product or range is an upgrade, which brings new features and benefits but it's a continuation rather than anything really game changing.

The same cannot be said about the new City Multi R32 YXM VRF air conditioning. This isn't simply just another upgrade!

Our R&D teams have taken their time to look carefully at what the market needs from larger VRF units and examine the special opportunities that R32 offers.

Yes, it promises a 20% reduction in operational carbon and running costs with a 10% increase in energy efficiency over the previous model, but it's the changes that affect engineers that excite me as a trainer.

With the familiar 2-pipe system unique to City Multi, you still get a quicker installation, with substantially less brazing points than other VRF systems.

But we've also listened to customer feedback, and have moved the electrics and DIP switches to chest height to make them easier to work on.

Using R32 delivers much lower global warming potential (GWP) than previous models but the innovation doesn't stop there.

Our designers have developed a completely new chassis design, engineered with advanced technology, which significantly enhances the range, providing even greater flexibility and performance across various applications.

So, for installers, designers and maintenance teams, the new R32 YXM comes with all the familiarity that has rightly made City Multi market leading, allowing unparalleled flexibility in design, installation, commissioning and operation.

This advanced technology will bring substantial cost savings in terms of running expenses, and the best part is that it still maintains the plug-and-play convenience that VRF systems are known for, ensuring easy installation and seamless integration into your projects.

Ben Bartle-Ross is a technical trainer at Mitsubishi Electric

I believe that this combination of innovation and practicality makes our new VRF solution truly exceptional.

The ultra-compact, modular system has a footprint 6% smaller than the market average, saving important space on the roof or in the plant room.

We've also extended the height extension between the outdoor and indoor units to 113m, which helps as high-rise buildings are becoming more popular.

The new Branch Controller (BC) box now comes with up to 12 ports and has built-in shut-off valves. It also has a compact height of just 252mm, meaning it can be installed into tight ceiling spaces to increase design flexibility.

There's also been around 20% improvement in the cooling efficiency and about 30% improvement in the SCOP over previous models making YXM suitable for both for new projects and upgrades, especially where performance and sustainability are key.

And, against an industry average of 10-years for leak detectors, the City Multi R32 YXM offers a 30-year lifespan on the low-level leak detectors.

We've reduced overall system charge – helping to lower embodied carbon, and improved seasonal efficiency - reducing operational carbon.

The outdoor unit is equipped with a newly designed heat exchanger with aluminium flat tubes but the flow of refrigerant from the main distributor is now done vertically.

This means that, when the system is in full heating or majority heating, the liquid / gas mixture fills the coil evenly, using every section of that heat exchanger and improving the phase change.

Thinner more closely packed tubes increase the heat exchanger surface area, improving cooling efficiency through a higher density arrangement.

So, the new City Multi R32 YXM range builds on the VRF system the market already knows and trusts, but takes it to the next level with smarter, more sustainable features.

I can't wait to get the first engineers in for training!

You can find out more for yourself here: https://citymultiyxm.com/

Bronz-Glow®

AQUA AERO HVAC&R COATINGS

Bronz-Glow (incorporating Aqua Aero) are pleased to announce the successful installation of a state-of-the-art coil coating plant at the premises of leading UK coil manufacturer, 3T.

This new facility enables 3T to carry out in-house coating of heat exchanger coils, improving production efficiency, quality control, and turnaround times for their customers. The installation strengthens the long-standing partnership between Bronz-Glow and 3T, combining Bronz-Glow's industry-leading protective coatings with 3T's manufacturing expertise.

Bronz-Glow UK Ltd
Bracewell Avenue, Poulton Industrial Estate,
Poulton-Le-Fylde FY6 8JF
01253 890666
info@bronz-glow.co.uk bronz-glow.co.uk

Managing Director Frank Frayling of Bronz-Glow and Kevin Tumilty, Operations Director at 3T, meet on site to formally mark the completion of the project—signifying what both companies consider a winning combination for the UK HVAC industry.

REAL-TIME, ACCURATE MEAUREMENTS TOGETHER WITH JOB LINK®

JOB LINK® SYSTEM
CHARGE AND AIR KIT
JL3KH6INT

www.fieldpiece-europe.com

Fieldpiece

New year, new F-Gas legislation (probably). It really is time to change

Neil Roberts, Technical Sales Director at Climalife, considers the likely direction of GB F-Gas legislation and what it means for refrigerant selection and system specification moving forward.

Neil Roberts, Climalife UK

In December 2022 the Department for Environment, Food and Rural Affairs (Defra) published its review of the F-Gas regulation (EU 517/2014) and the RACHP industry waited with bated breath for the expected F-Gas revision proposals.

The EU published its proposals in 2023 and adopted a new F-Gas regulation in March 2024 (EU 2024/573), but in Great Britain (Northern Ireland must still follow the EU F-Gas Legislation) the wait went on until, perhaps rather aptly, on 5th November 2025 a consultation for a new GB HFC phasedown was launched and industry were given just six weeks to assess the impact and respond to the proposal.

The consultation closed before Christmas and (at the time of writing) we are now back to waiting for Defra to announce the outcome of the consultation and the proposal for the final regulation.

What are the proposals and how are they likely to affect refrigerant choice?

The first point to emphasise is that this is not a copy-paste of the EU F-Gas regulation; Great Britain is following a different route to reduce emissions of high-GWP F-gases. The Defra proposal only concerned the HFC phasedown schedule. All other aspects, e.g. training, certification, leak checking, placing on the market prohibitions etc. are still subject to compliance with the EU 517/2014 retained legislation which is still valid in GB.

Defra published three new HFC phasedown scenarios (**Figure 1**) it referred to as “High Ambition”, “Medium Ambition” and “Most Challenging” of which the “High Ambition” was Defra’s preferred option with the “Most Challenging” being seen as potentially too difficult for industry to achieve.

Whatever the outcome of the consultation, it is very clear that the HFC phasedown will go far beyond the 79% reduction (compared to 2015) mandated in the 2014 legislation, with all the Defra scenarios introducing increased reductions as early as next year. This should have a significant impact on refrigerant choice for new installations as the availability of refrigerants with a GWP of >1000 is likely to be affected during the lifetime of the equipment and there are very few retrofit

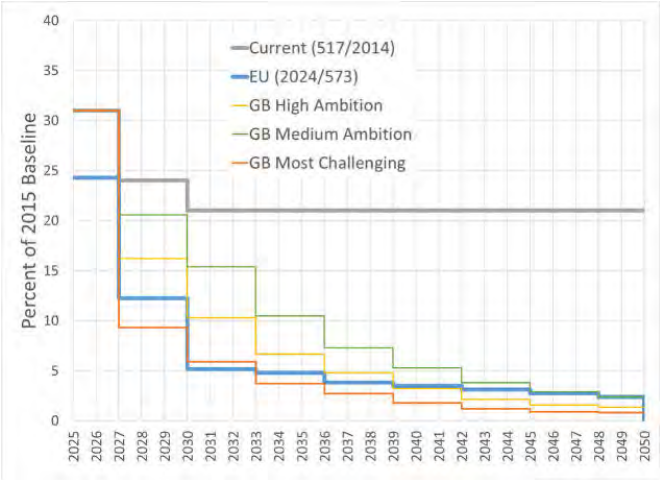


Figure 1 - Defra HFC Phasedown High and Medium ambition scenarios

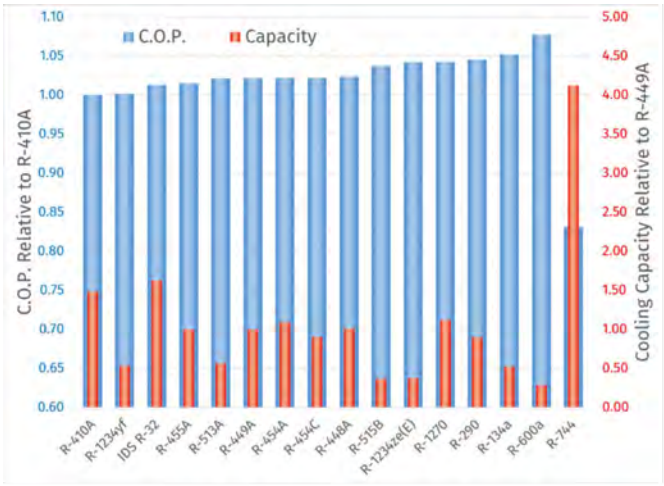


Figure 2 - Thermodynamic performance calculations at mean evaporating temperature=-35°C, Mean condensing temperature=25°C, evaporator superheat=8K (5K R-744), compressor isentropic efficiency 65%, Liquid subcooling=2K, Suction temperature=-15°C (R-744 -22°C). R-744 system is a basic booster system.

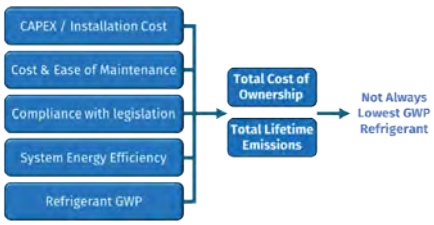
options available that are compliant with current legislation.

What refrigerants should be used for new installations?

Let's be very clear, specifying a refrigerant with a GWP >1000 for a new installation should only happen if there are genuinely no other practical options. Although the >1000 GWP products are available today and there are no further GWP based bans, the phasedown schedules proposed will limit availability of virgin product over the coming years, which can be offset to some degree by using reclaimed product for service requirements, but why take this route when there are good low-GWP options available for the majority of applications.

When choosing a low-GWP option there needs to be a change in the mindset used. Too many end users make the choice based on the installation cost alone, ignoring the ongoing cost of operation and the potential future availability of the refrigerant.

Key Decision Criteria



Within the EU and GB there are government programmes to encourage the use of energy efficient technologies, initially to help achieve Net Zero emissions targets but also to try to ensure the demand for electricity does not exceed the supply. Within the RACHP industry system choice should not just be made on the GWP of the refrigerant or the initial cost of installation. Over the lifetime of the system, energy efficiency is likely to have a much bigger financial impact than the installation cost, a large effect on the total emissions from the system and failure to choose a low-GWP refrigerant could have a very significant impact on the system longevity.

How many of us can honestly say when specifying a project that the most important factor considered is the energy efficiency? There are, of course, many different factors that define the energy efficiency of a system, but when it comes to refrigerant choice each refrigerant has a fundamental thermodynamic energy efficiency at a given set of conditions (an example is given in **Figure 2**).

If so many low-GWP options are available, why aren't they used more widely?

For an industry that has been in constant flux over the last 35 years it seems strange to say there is a very conservative approach to new products and technologies. The fastest rate of change has always happened at the point where there is no longer a choice, for example CFCs and HCFCs were used right up to the point where they were banned and then the largescale switch to retrofit options took place. This time it is different, for a system that is designed for a non-flammable refrigerant there are very limited retrofit options with a GWP <1000 and virtually no retrofit options with a GWP <500.

Although the lower GWP options do tend to have a higher installation cost than the high GWP options, the main barrier to change appears to be the lack of knowledge on use of standards and legislation that already apply to current high GWP installations but are often overlooked. When using many low GWP options it is especially important that standards and legislation are applied correctly to ensure the safety of the technicians and the end users.

For example, compliance with the refrigerant charge restrictions and other safety requirements in EN378 applies to all refrigerants, the Pressure Equipment Safety Regulation (PE(S)R) applies to all systems above 0.5 bar pressure and the Dangerous Substances and Flammable Atmospheres Regulation (DSEAR) applies to all refrigeration systems using a refrigerant with the H280 hazard phrase (contains gas under pressure) on the Safety Data Sheet.

The use of lower-GWP refrigerants is becoming commonplace in AC with R-32 and R-1234ze widely used but in the refrigeration industry many commercial (non-retail) and light industrial systems are still being specified with high GWP refrigerants. Those trailblazing companies that have embraced the low-GWP A2L opportunity have found that after an initial learning curve, using products such as R-454A, R-454C and R-455A have become routine and relatively straightforward. With system sizes up to 440kg of A2L refrigerant in a single circuit, there are no real excuses for not using a low-GWP option today and the team at Climalife are always available for advice on product selection and compliance with standards and legislation.

Flammable refrigerants in air conditioning and heat pump systems

This technical bulletin from certification body F-Gas Register looks at working safely as global warming potential figures are reduced.

1 Overview

While the GB F-Gas Regulations are currently under review, the EU updated its regulations in March 2024 and this brought in some important placing-on-the-market bans which will influence the UK market, regardless of whether the UK follows suit with similar restrictions to sales.

The EU has dictated that split system air conditioning and heat pump systems with a duty of less than a 12kW must utilise refrigerants with a GWP (global warming potential) of less than 150 from 1 January 2027, and larger systems with a duty of 12kW or more must utilise refrigerants with a GWP of less than 750 from 1 January 2029. As a general rule of thumb, lowering the GWP levels tends to introduce safety aspects to the refrigerant in use. One or more of the following issues are common:

- Flammability,
- Toxicity,
- Very high pressure

UK Government, in its F-Gas assessment report issued December 2022, acknowledged that the phase down or de facto phase out of certain refrigerants based on their GWP levels would be challenging for the UK market to meet, but it is anticipated that the GB Regulations will largely follow a similar path to that of the new EU regulations. So, it can be expected that we will see similar restrictions to sales of systems with medium or low GWP refrigerants in many types of system from 2026 onwards. Regardless of our own GB Regulations, manufacturers will not be manufacturing and supplying as many systems with medium or low-GWP refrigerants going forward because they tend to build systems suitable for the whole European market.

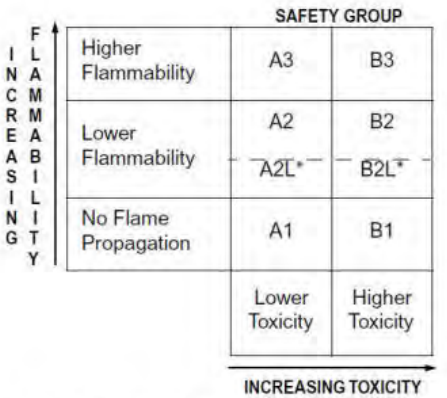
2 Safety Categories Classification

ASHRAE classifications

The internationally accepted designation of safety categories for all refrigerants is based on **A** or **B** for toxicity level and **1**, **2L**, **2** or **3** for flammability levels from ASHRAE Standard 34.

Those refrigerants categorised “A” are non-toxic, or of lower toxicity; whereas refrigerants categorised “B” are considered to be toxic.

Flammability levels increase in line with the designated number.



* A2L and B2L are lower flammability refrigerants with a maximum burning velocity of ≤3.9 in./s (10 cm/s).

Different refrigerants will have benefits and drawbacks when compared with others. For example, R290 when compared with R410A in smaller duty split system air conditioning and heat pump systems has a very low GWP of 3[3], it has high heat transfer performance, and operates with lower pressure ratios which tends to lead to lower leakage rates, but the highly flammable refrigerant does have safety considerations that were not relevant with R410A.

3 Safe Working Practices

Technicians and engineers working with flammable refrigerants should have training in the specific handling requirements of them. Courses can range from a basic overview of working with flammable refrigerants, to the more in-depth City & Guilds Hydrocarbons qualification C&G6187-21.

When handling highly flammable refrigerants there is a generally accepted principle of having no ignition source within 3m of the refrigerant cylinder. To determine allowable proximity of potential ignition sources to installed systems you must risk assess the system to account for:

Total refrigerant charge volume, likelihood of leakage, rate of leakage, other mitigating factors such as exposure to

Some examples of common refrigerants:

R410A and R744 (CO_2) are classified as A1 refrigerants as they are non-toxic and non-flammable[1].

R32 is classified as an A2L refrigerant as it is non-toxic but of lower flammability[2].

R717 (ammonia) is classified as a B2L refrigerant as it is very toxic but of lower flammability.

R290 (propane) is classified as an A3 refrigerant as it is non-toxic but highly flammable.

wind which may dissipate any refrigerant leak before the leak reaches the lower flammability level (LFL).

For example, if an R290 system is leaking then the leaked refrigerant will not become potentially flammable until the concentration reaches the LFL of 0.038kg/m3 or approximately 2.1% by volume. A tiny leak of a few grams a day in a split system outdoor unit, for example, would likely never reach the LFL and therefore not be a fire hazard. A larger leak of the entire refrigerant charge by catastrophic pipe or component failure, however, may present the risk of rapidly reaching the LFL and stay below the upper flammability level (UFL) of approximately 9.5% by volume rendering the risk of ignition to be high.

4 System Location

Attention should be given to the location of hydrocarbon systems in particular, that units are not installed adjacent to opening doors or windows which could result in leaking refrigerant migrating directly into the building.

They should also not be located adjacent to drain gulleys or air vent bricks in building foundations due to the heavier than air nature of the refrigerants which, in the event of leakage, could see the refrigerant drawn into the foundations or drainage system and become very dangerous.

Manufacturers' installation guidelines should always be strictly adhered to.

5 Safety Standard BS EN 378

Applying the safety standard BS EN 378 to determine maximum refrigerant charge allowable can be complicated – there really isn't an easy answer – but with care and planning it is possible to ensure the installations you design or work on are safe for you, your clients, and the public.

The maximum allowable charge for any refrigerant, set out in BS EN 378[4], is dependent on:

- The size of the room the system is in, or where the pipework may pass through where there are joins in the pipework;
- Location classification of the room under consideration;
- Access category for personnel to the area under consideration;
- What the room itself is used for.

The maximum allowable charge based on flammability is calculated as being the greater of[5]:

1) The charge limit determined by Table C.2 in Annex C of BS EN 378-1-2016;

(Note that the charge limits in table C are capped based on the LFL of the refrigerant which can be found in Annex E of BS EN 378-1-2016.)

2) m_1 x 1.5 for systems using refrigerants with flammability class 2L;
3) m_1 for systems using refrigerants with flammability class 2 or 3;
4) 150g for sealed refrigerating systems.

Calculation for determining maximum allowable charge of an A2L refrigerant in an air conditioning or heat pump system used for human comfort:

Where the refrigerant charge when using an A2L refrigerant in an air conditioning or heat pump system used for human comfort is greater than m1 x 1.5, the maximum charge shall be in accordance with the following equation:

$$m_{max} - 2.5 \times LFL^{5/4} \times ho \times A^{1/2}$$

where:

- m_{max} is the maximum allowable charge in kg
- m is the refrigerant charge in the system in kg
- A_{min} is the required minimum room area in m_2
- A is the room area in m^2
- LFL is the lower flammable limit in kg/m^3, taken from Annex E
- h_o is the height factor of the appliance:
  - o 0.6 for floor mounted;
  - o 1.8 for wall mounted;
  - o 1 for window mounted;
  - o 2.2 for ceiling mounted

NOTE: For air conditioning and heat pump systems where the above calculations do not provide a solution for required refrigerant charge it may be possible to use IEC 60335-2-40 to increase the maximum allowable charge and still comply with industry safety standards. Always refer to manufacturers' instructions.

A dedicated EN378 refrigerant charge compliance checker is available for via the F-Gas Register

https://fgasregister.com/

1 Although these refrigerants are classed as non-toxic, they are heavier than air and will readily displace air in a room where leaking refrigerant is present. Asphyxia by air being displaced is a very real hazard which must be accounted for in any risk assessment you carry out.

2 Lower flammability refrigerants have a burning velocity (flame propagation rate) less than or equal to 10cm per second if ignited.

3 IPCC 4th Assessment Report used by the F-Gas Regulations as the benchmark for comparing GWP levels.

4 BS EN 378-1-2016

5 M_1 = 4 m^3 x LFL. This multiplier is based on a charge of 150g of R290.

Shrinking availability and rising costs: a growing risk for the UK industry

UK businesses operating refrigeration, air conditioning, and heat pump systems are being called upon to accelerate the shift to lower Global Warming Potential (GWP) refrigerants. As UK F-Gas quotas continue to tighten, supply constraints and price volatility are no longer future concerns, they are already affecting day to day operations across the HVAC-R sector, with high GWP hydrofluorocarbons (HFCs) becoming significantly more expensive and harder to obtain.

Reduced availability, unpredictable supply and frequent price increases are trends we are expecting to see accelerate as future quota cuts come into force. For many businesses, the cost of maintaining existing systems is rising sharply, while the risk of being unable to source refrigerant at critical times is becoming very real.

As availability and pricing pressures on high GWP HFCs, such as R410A and R134a intensify, lower GWP refrigerants offer a practical solution. A broad range of alternatives are already established across the market, including HFO based blends and lower GWP A2L refrigerants. Manufacturers now offer extensive equipment ranges designed for these refrigerants, supported by growing installer competence, updated standards, and targeted training programmes.

Maximising existing supply through recovery and reclamation

As high GWP refrigerants become scarcer, ensuring that every kilogram of refrigerant is recovered, reclaimed, and returned to the market for reuse is imperative.

It is important to distinguish between recycled and reclaimed refrigerant. Recycled refrigerant has been recovered from a system and put through a basic cleaning process, allowing it to be reused. As a general principle, recycled refrigerant may only be reused within the same owner's systems and cannot legally be transferred for use in equipment owned by another party.

To be placed back on the market or used beyond the original owner's systems, refrigerant must be reclaimed by an appropriately certified facility. Reclaimed refrigerant is processed, tested, and certified to meet recognised industry standards, making it equivalent to virgin product and legally suitable for reintroduction into supply.

Recovering refrigerant at end of life, during retrofits, or when decommissioning equipment supports circular economy principles; it keeps valuable refrigerant in circulation and reduces dependence on increasingly constrained virgin supply.

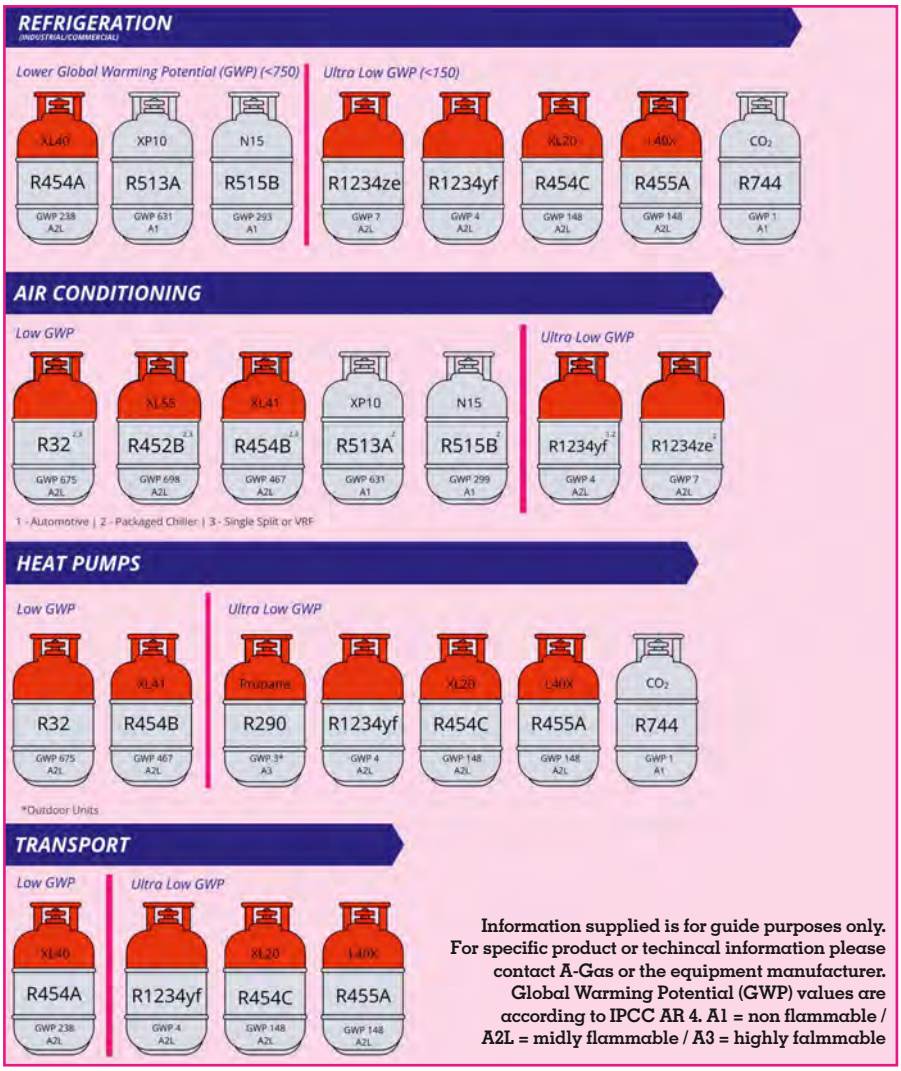
Through our dedication to the recovery and subsequent reclamation of used refrigerants, A-Gas is leading the way towards improved circularity of refrigerants and enabling Lifecycle Refrigerant Management (LRM) across our industry.

A strategic decision, not just compliance

Transitioning to lower GWP refrigerants is no longer just a compliance exercise driven by environmental targets, it is a long-term strategic decision that will shape the future of our industry. Organisations are encouraged to:

- Review current dependence on high GWP refrigerants
- Assess cost and availability risks for existing equipment
- Explore retrofit, replacement, or phased transition strategies
- Collaborate with suppliers and service partners to develop a structured transition plan aligned with UK F-Gas requirements

The path forward is clear: our industry must embrace lower GWP alternatives today. For more information on the lower GWP refrigerants available today, please visit **agas.com** or speak to a member of our team on 01275 376600.



Tables of current refrigerant replacement options available

A-GAS®
RAPID RECOVERY

Your On-site Refrigerant Recovery Service.

Any Project, Any Size, Anywhere!

Streamline your refrigerant recovery processes with A-Gas Rapid Recovery!

- Save valuable time
- Reduce costs
- Fulfil regulatory requirements
- Available 24/7
- F-Gas compliant

Get in touch today to find out how A-Gas Rapid Recovery can save you time and money!

SCAN HERE

CONTACT US:

info@agas.com

www.agas.com

Turning waste heat into a continuous energy resource

Heat recovery from refrigeration has long been limited by operating hours and system design. Lee Downham, Group Support & Design Director at Beijer Ref UK & Ire, discusses how newer approaches are extending recovery beyond active cooling, allowing rejected heat to contribute more consistently to hot water demand.

Solutions such as the Sustainable Energy Controller (SEC) make heat recovery part of the wider system through active thermal management

Recovering waste heat from refrigeration and air conditioning systems has been discussed within the HVACR sector for decades. In practice, however, it has remained marginal. In most commercial applications, heat recovery is tied directly to the operating profile of the refrigeration plant. When compressors are running to satisfy a cooling demand, rejected heat is available. When they stop, it is not. Hot water production then falls back on gas or electric systems. This mismatch between cooling demand and heat demand is one of the main reasons heat recovery has struggled to move beyond limited or specialist use.

That limitation matters more now than it did in the past. Energy costs have risen sharply, and decarbonisation targets are becoming harder to ignore. The International Energy Agency estimates that heating and hot water account for around 40% of final energy consumption in commercial buildings across Europe. Refrigeration, meanwhile, can represent between 30% and 50% of electricity use in food retail and hospitality settings. These demands often exist in the same buildings, at the same time. Yet they are still typically served by separate systems. From an engineering point of view, that is inefficient, particularly when large volumes of low-grade heat are being rejected to atmosphere while water is being heated elsewhere on site.

Rethinking the relationship between cooling and hot water

Traditional heat recovery solutions are usually straightforward in concept. Most rely on desuperheaters or coil-in-tank arrangements connected to the discharge line of the refrigeration system. Under steady conditions they can work well enough. The problem is that they are passive. Heat is only recovered when the refrigeration plant is operating, and there is limited control over how much heat is transferred or when. As soon as cooling demand drops, recovery stops. In buildings with variable loads or intermittent operation, this can significantly reduce the overall contribution heat recovery makes to hot water demand.

More recent developments are trying to address that weakness. The shift is away from passive recovery and towards active thermal management. Rather than being treated as a bolt-on, heat recovery becomes part of the wider system. These solutions sit between the refrigeration plant and the hot water system and manage energy flows based on demand on both sides. One example is the Sustainable Energy Controller, developed by SCM Frigo and deployed in the UK by Beijer Ref. The aim is not to generate more heat, but to make better use of the heat that is already there.

Extending recovery beyond active cooling

The main technical difference with this approach is the use of multiple operating modes. During normal refrigeration operation, heat is recovered in the traditional manner, using dedicated plate

heat exchangers rather than coils inside storage tanks. This improves heat transfer and gives better control over water temperatures. That becomes important where higher or more stable hot water temperatures are needed.

The real change comes when cooling demand reduces or stops. In a secondary mode, residual heat stored within the refrigeration system is actively harvested. Compressors, pipework and heat exchangers retain thermal energy after a system cycles off. In most installations, that heat is simply lost over time. By transferring that residual energy to the water circuit, additional heat can be recovered without increasing electrical input. On systems that cycle frequently, the effect is noticeable when viewed over weeks or months rather than hours.

A further step is taken when there is no cooling demand at all, but hot water is still required. In this situation, the refrigeration system can be operated as an air-to-water heat pump. Low-grade heat is drawn from the ambient environment through the existing outdoor heat exchanger and upgraded to useful temperatures. Hot water production is no longer dependent on cooling demand. For applications such as hospitality and food production, where hot water demand often extends well beyond refrigeration run hours, this represents a clear departure from traditional heat recovery.

Control, refrigerants and real-world performance

This type of operation relies heavily on control. PLC-based platforms manage valves, pumps and compressors across the different modes, keeping the system within safe operating limits and ensuring refrigeration performance is not compromised. In most standard installations, control parameters are pre-configured to suit typical system layouts. There is still scope for adjustment where site conditions require it. From an installer's point of view, that matters. It reduces commissioning time and limits the risk of errors during setup.

Refrigerant choice is another factor. As the industry responds to F-Gas regulation and the Kigali Amendment, heat recovery systems need to operate across a range of refrigerants. That includes HFCs, HFOs and natural options such as CO_2. European Commission data shows that F-Gas emissions fell by around 25% between 2014 and 2022, largely due to refrigerant transition. At the same time, there is growing recognition that improving system efficiency and reducing indirect emissions through energy recovery must run alongside refrigerant change, particularly as availability tightens.

Performance needs to be judged on measured results rather than claims. Independent studies suggest that effective heat recovery can offset between 60% and 100% of a site's hot water energy demand, depending on how the system is used. In the UK, each kilowatt-hour of electricity displaced by recovered heat avoids roughly 0.18kg of CO_2e, based on current grid carbon intensity. Over a year, even small systems can deliver carbon savings measured in tonnes.

Where this approach fits in the wider decarbonisation picture

Operational data from food production and hospitality sites shows annual energy savings typically in the range of 8,000-25,000kWh for small to medium refrigeration systems. When installation costs are considered, payback periods of two to three years are common, although this varies with usage patterns and existing plant. For many operators, that places advanced heat recovery within acceptable investment limits, particularly where projects also support wider sustainability targets.

Although supermarkets and bars are often cited first, the principles apply more widely. Food processing facilities are a good fit, as refrigeration and wash-down hot water demands overlap. Agricultural sites with chilled storage can reduce dependence on fossil-fuelled water heating. Pharmaceutical and medical storage environments can improve energy performance without affecting temperature control. There is also increasing interest in mixed-use commercial buildings, where refrigeration, air conditioning and hot water loads interact in less predictable ways.

What stands out is that the benefit lies less in any single component and more in how these systems encourage a broader view of energy use. CIBSE and the International Energy Agency have both pointed to the need for better integration of existing technologies if meaningful carbon reductions are to be achieved in the built environment. Heat recovery on its own will not deliver Net Zero buildings. That said, moving from intermittent, passive recovery to continuous, actively managed use of rejected heat is a practical step. For an industry that has long accepted heat rejection as unavoidable, it represents a shift in thinking as much as a change in technology.

Meeting HTM requirements through integrated air handling and energy recovery

Energy recovery now sits at the centre of HTM compliant air handling units. **Andrew Robinson**, Managing Director of Exi-tite Group, outlines how a strong understanding of HTM requirements enables heating, cooling and energy recovery to be integrated within the AHU, drawing on Exi-tite's experience in delivering compliant, energy-efficient systems without compromising hygiene or control.

Health Technical Memorandum (HTM) 03-01 sets clear expectations for how ventilation systems should be designed, built and maintained in clinical environments. In practice, compliance is driven by headline airflow rates and construction quality, access for maintenance and predictable long-term performance. Air handling units (AHUs) sit at the centre of this, acting as the primary interface between hygiene, environmental control and energy use.

Part A of HTM 03-01 applies to new build and major refurbishment projects and defines the standard to be achieved. While natural and mixed-mode ventilation are encouraged where appropriate, many areas inevitably require full mechanical ventilation. Once that point is reached, the guidance shifts the focus away from air volume alone and towards system integrity and control.

HTM-compliant AHUs must be designed to minimise contamination risk and support routine inspection and cleaning. Requirements around smooth internal finishes, stainless steel or coated panels, low leakage dampers and fully drainable sections are fundamental. These details are not cosmetic. They directly influence whether systems remain compliant and efficient over their operating life.

Plant space is often limited, particularly in existing buildings, and poor access quickly undermines even the best specification. AHUs that cannot be serviced safely or thoroughly become a long-term liability. For this reason, maintainability needs to be addressed at design stage, not left to operation and maintenance teams to resolve later.

Andrew Robinson, Managing Director of Exi-tite Group

Energy recovery as a core design principle

Once these fundamentals are established, energy performance and climate control come into play. HTM 03-01 promotes solutions with the lowest lifecycle environmental cost without compromising hygiene or air quality. Given the long operating hours of mechanically ventilated spaces, energy recovery at AHU level becomes central, with heating and cooling integrated into the air handling system to provide stable temperature and humidity control while reducing overall energy demand.

HTM requires that heat recovery is achieved without any risk of cross contamination. This places airside energy recovery firmly within the air handling system itself, ensuring supply and extract air paths remain fully segregated. When designed correctly, this approach allows energy to be recovered and reused efficiently, improving seasonal performance and reducing overall plant loading while maintaining strict control of air quality.

The effectiveness of energy recovery is closely linked to AHU build quality. Drainage, leakage control and access for cleaning all affect long-term performance. Poorly detailed units not only compromise hygiene but also see recovery efficiency degrade over time. In this context, energy recovery cannot be treated as a bolt-on feature; it must be designed into the AHU from the outset.

Integrating run-around coils, heat pumps and DX

Within HTM-compliant air handling systems, energy recovery is typically achieved using indirect methods that maintain full separation between supply and extract air paths. This can be delivered through run-around coils, DX-based recovery, or a combination of both within the same air handling unit. Each approach allows energy to be transferred without mixing air streams, supporting HTM requirements around segregation and infection control.

Run-around coil systems remain a well-established solution and have increasingly transitioned towards air-to-water heat pump integration, allowing recovered energy to be upgraded and reused more effectively while maintaining full separation between air paths. DX-based energy recovery can also be applied at airside level, using refrigerant circuits to recover and redistribute energy between supply and extract sections, either within a single unit or across multiple units serving different areas.

In practice, these technologies are not mutually exclusive. In more complex schemes, run-around coils and DX recovery can be applied together within an AHU to maximise recovery potential while maintaining control and resilience. The choice is driven by operating profiles, space constraints and how heating and cooling demands vary across the building, rather than by compliance considerations alone.

This integrated approach is particularly effective in buildings with long operating hours and mixed-use profiles, where simultaneous heating and cooling demands are common. Energy recovered from any airstream can be reused within the same air handling system or redistributed to other units, improving overall efficiency without compromising segregation.

Design, detail and long-term performance

Construction detail remains critical throughout. Where water-based heating coils are used, copper tubes with copper fins are essential to meet hygiene and durability requirements. DX coils must be epoxy coated to resist corrosion and withstand repeated cleaning. These requirements are fundamental where recovery, heating and cooling functions are combined within the same air handling unit and expected to operate continuously.

Controls strategy underpins the success of this approach. Energy recovery, heating, cooling and ventilation control must operate as a coordinated whole. Setpoints, interlocks and failure modes need to be clearly defined and tested, ensuring ventilation is maintained even if individual recovery or conditioning elements are unavailable.

The result is an AHU-led strategy where ventilation, energy recovery and climate control are delivered as a single, integrated system. By designing recovery, heating and cooling into the air handling unit from the outset, systems become easier to operate, simpler to maintain and more predictable in performance over their lifecycle.

From Exi-tite's perspective, successful projects are those where design intent, equipment selection and integration are aligned from the outset. HTM 03-01 does not restrict innovation, but it does demand discipline. When that discipline is applied at air handling level, energy recovery and climate control technologies can be deployed with confidence, delivering compliant, efficient and resilient systems without compromise.

Photograph 1: WOLF HTM 03-1 compliant AHU at Antrim Hospital serving the endoscopy department

Photograph 2: A copper heat exchanger for the run-around coil

Photograph 3: WOLF HTM 03-1 compliant AHU with stainless steel dampers

Photograph 4: HTM 03-02 AHUs require stainless steel condensate trays

Photograph 5: WOLF factory installed cable glands maintain the integrity of the system and discourage contractors from drilling through the chassis

RS-53 (R470A)

THE ONLY NON-FLAMMABLE DROP-IN REPLACEMENT FOR R410A ON THE MARKET

- R410A split air-conditioning unit converted to RS-53 & operating satisfactorily without any problems
- Low direct GWP (less than half) Drop-in replacement for R410A in existing equipment
- Non-flammable & low toxicity
- Similar energy efficiency to R410A
- Minimal changes to hardware during retrofitting
- Close match for R410A in cooling capacity
- Similar discharge pressure & temperature to R410A
- Compatible with lubricants commonly used with R410A

R410A split air-conditioning unit converted to RS-53 (R470A) & operating satisfactorily without any problems

RS-51 (R470B)

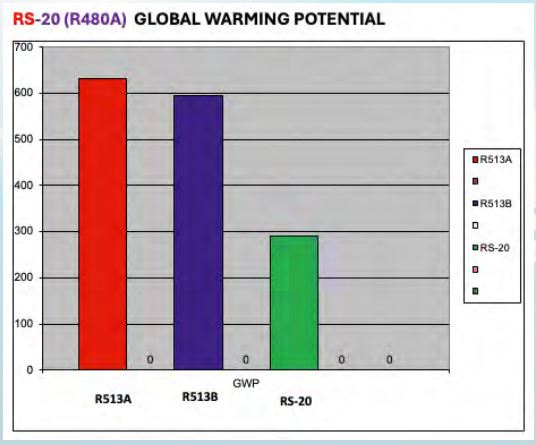
NEW LOW GWP DROP-IN REPLACEMENT FOR R404A & R507

- GWP more than 80% below R404A & ca half R448A & R449A
- Similar performance to R404A
- Lowest GWP replacement for R404a & R507 on the market
- Non-flammable & low toxicity

RS-20 (R480A)

LOW GWP REPLACEMENT FOR R134a

- No changes to equipment required
- GWP below 300 & 80% less than R134a
- Non-flammable & low toxicity
- Similar performance to R134a
- An almost perfect performance match to replace R134a in vehicle air conditioning
- Similar discharge pressure & temperature
- Equivalent cooling capacity



REFRIGERANT SOLUTIONS LIMITED

8 MURIESTON ROAD, HALE, ALTRINCHAM, CHESHIRE WA159ST

Tel: (+44) (0)161 926 9876 | Fax: (+44) (0)161 926 9875 | Email: rs@refsols.com | Web: www.refsols.com

Unrivalled Heat Transfer Fluids & Expert Fluid Management Services

Since 1998, **Hydratech's** key objective has been the establishment of technical partnerships with those responsible for cooling system design, installation and operation. By understanding their exact application requirements, **Hydratech's** team of chemical, mechanical and sales engineers can specify the optimum fluid solution, and provide a full suite of maintenance services to ensure partners such as Arla, Muller, Ocado and Lidl benefit from improved system efficiency, extended system life and considerable energy savings.

Hydratech Products

Hydratech's market leading heat transfer fluids, glycol formulations, antifreeze solutions, corrosion inhibitors and water treatment chemicals are proven to provide precise, stable temperature control and comprehensive system protection. **Hydratech's** specialist fluid solutions are trusted by the likes of Waitrose and Sainsbury's to help improve the performance, efficiency and energy consumption of their chiller systems.

Hydratech Services

The **Hydratech Services** division provides specialist engineering and maintenance services to customers installing, commissioning, operating or optimising closed cooling and heating systems. By combining expertise in water treatment chemistry, fluid thermodynamics and mechanical engineering, **Hydratech Services** delivers a fully integrated, holistic approach to process and hydronic systems management. This in-turn maximises the potential for optimised performance, reduced operational costs and significant return on investment gains.

Coolflow DTX

High efficiency non-toxic glycol, suitable for replacing propylene glycol. DTX represents a major step forward in heat transfer and pumping efficiency, providing >10% reduction in operating costs when compared with propylene glycol based fluids.

Manufactured in U.K

Hydratech
hydratech.co.uk

Tel: 01792 586800
Email: info@hydratech.co.uk

BOOK A PLACE TODAY

NATIONAL ACR & HEAT PUMP AWARDS 2026

Entry Deadline 2nd March

11th JUNE 2026

THE MIDLAND

16 PETER STREET, MANCHESTER, M60 2DS

THANK YOU TO OUR SPONSORS AND SUPPORTERS

Visit www.acrjournal.uk/information/national-acr-heat-pump-awards or email Victoria Liddington on victoria.liddington@warnersgroup.co.uk to find out more

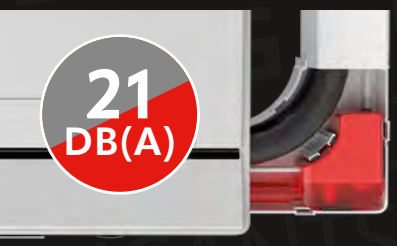
INTRODUCING THE

REDBOX MINI PUMPS

CONDENSATE SOLUTIONS

REDBOX-TRUNK

MINI CONDENSATE PUMP IN TRUNKING



- **MAX FLOW RATE**: 20 LPH
- **MAX DISCHARGE HEAD**: 15M
- **PUMP SIZE (LXWXH)**: 95.4 X 44 X 109.7MM
- **RESERVOIR SIZE (LXWXH)**: 81 X 44 X 24.9MM
- **TRUNKING SIZE (WXH)**: 80 X 60MM
- FEATURES A **PHYSICAL FLOAT SWITCH** WITHIN THE RESERVOIR

REDBOX-MINI-UNIVERSAL

MINI CONDENSATE PUMP

- **MAX FLOW RATE**: 20 LPH
- **MAX DISCHARGE HEAD**: 15M
- **PUMP SIZE (LXWXH)**: 95.4 X 44 X 109.7MM
- **RESERVOIR SIZE (LXWXH)**: 81 X 44 X 24.9MM

21 DB(A)

EASILY SWOPS OUT WITH OTHER TRUNKING PUMPS ON THE MARKET

REDBOX-SLIM

UNDERMOUNT PUMP FOR SYSTEMS

- **MAX FLOW RATE**: 29 LPH
- **MAX DISCHARGE HEAD**: 20M
- **PUMP SIZE (LXWXH)**: 282 X 62 X 59MM
- **WEIGHT**: 0.5KG

REDBOX-MINI-COMPACT

MINI CONDENSATE PUMP

21 DB(A)

- **MAX FLOW RATE**: 20 LPH
- **MAX DISCHARGE HEAD**: 15M
- **PUMP SIZE (LXWXH)**: 119 X 31.5 X 50MM
- **RESERVOIR SIZE (LXWXH)**: 75 X 43.2 X 40.3MM

REDBOX-MINI-TUBE

MINI CONDENSATE PUMP

21 DB(A)

- **MAX FLOW RATE**: 20 LPH
- **MAX DISCHARGE HEAD**: 15M
- **PUMP SIZE (LXWXH)**: 159.8 X 36.8 X 31MM
- **RESERVOIR SIZE (LXWXH)**: 75 X 43.2 X 40.3MM

PUMP HOUSE

DIVERSITECH® INTERNATIONAL

pump-house-ltd | pumphousepumps | @pumphouseltd | @PumpHouseLtd | diversitechuk

REDBOX MINI

sales@diversitech.com
www.diversitech.global

WOMEN IN THE ACR INDUSTRY

Sarah Turner is Learning & Development Director at Beijer Ref UK & Ireland, with a career shaped by building strong teams, developing talent and creating cultures where people can thrive.

What was your first job?

It was a food factory, which was dull, repetitive work, and it was my introduction to how toxic a working environment could be - thankfully, not something I have experienced too much of in my career. My first job in this industry was as a spares assistant for the distributor SWM, and the role was essentially selecting spare parts for customers. I was curious and wanted to know how everything fitted together and how it worked. We had a technical department and workshop on site, and the technical team were always happy to share their time and knowledge, explaining how everything worked.

What does your current role involve?

At its core, my role is about helping people do their best work and creating the right environment for that to happen.

I've been in the role since October, and my immediate focus has been on getting the foundations right and really understanding what the business needs. A lot of my time goes into making sure learning supports the skills, behaviours and leadership we need, not just now, but as we grow as a business.

Culture is a big part of that. The leadership team work to build an environment of trust where people feel supported, confident to develop, and able to be themselves at work. I work very closely with our MD and HR Director, so learning, people and culture all move in the same direction.

Ultimately, my job is to help people grow in a way that genuinely makes a difference to the business. I'm not interested in delivering training for training's sake; it needs to have an impact on both the people and the business.

What attracted you to the industry?

I'd just completed my BSc in Psychology and, frankly, needed the money. When I read the job advert for SWM, it sounded more interesting than normal entry-level jobs. I had worked in hospitality and retail, but this seemed like a role that could be the start of a career. How right I was!

What excites/interests you about the industry?

The people. When I joined SWM, it was like no other work environment I had been in before. The people were supportive and listened to my ideas for improvement; when people listen, it makes you feel that you and your ideas are valued. This seemed to be a theme that continued in my successive roles.

It wasn't just colleagues - customers and suppliers were also happy to share their knowledge and support me. Having worked in retail, it was refreshing to build relationships with customers and suppliers, and to support each other.

How would you like to see your career developing?

This was the role I wanted. In 2016, I came back to Beijer Ref UK & Ireland after previously working at United Refrigeration when Beijer bought it. I knew it was a business of opportunity and that it recognised talent. I knew it was a business of opportunity and that it recognised talent. John Billson invested in me and, when he promoted me to General Manager of RW and later Business Director, he empowered me to shape the role into what I felt it needed to be to best support the business and have the greatest impact. Through that role, I found my passion for training and shaping the culture of the team.

For the past few years, I have known that this is where I wanted my career to go, so last year I started to put together a business case to change my role and be

fully focused on people. I kept it under my hat, waiting for the right time, so you can imagine how elated I was when Hayley Cattell offered me the role of Learning and Development Director. Both John and Hayley have a unique understanding of people's strengths and passions, and Hayley was leaning into that.

I have a lot to learn and am focusing on being the best I can be to deliver the best. I feel like every person in this business is my responsibility, and I take that very seriously.

What is the best piece of advice you were ever given?

What other people think of you is none of your business. I was overly concerned with how others perceived me, but that takes time, energy and peace of mind. If I act with honesty and integrity and set boundaries, their feelings are their own. My husband, who knows me better than anyone, gave me this advice, and it has been incredibly liberating.

What do you see as the challenges facing the industry?

Sustainability has moved from being a talking point to a base expectation.

As a wholesaler, this is not just about stocking low-GWP products or publishing intentions. We need to know where our products come from, how they are made, and whether supply chains are ethical. We also need to report on waste, packaging, transport emissions, and the way we run our operations.

Sustainability is also about capability. We need people who understand new systems, new refrigerants, evolving regulations, and changing customer expectations. That requires continuous learning, strong leadership, and a commitment to developing skills at every level of the organisation.

The real challenge is turning intentions into action whilst also trying to run a successful and competitive business.

Sarah, far right, at a variety show preparing to dance to Mr BoJangles

What would you say to other women who are considering coming into the ACR industry?

What we do supports the infrastructure of this country, and that really hit home during Covid. Hospitals, supermarkets, data centres, the list goes on. Roles are varied, and I don't think people fully understand just how many opportunities there are within the industry.

I have a photograph that serves as a powerful reminder of this. It was taken in 2008 on my first trip to Philadelphia with United Refrigeration. Three of us in that photograph are still with Beijer Ref, and each of us is now part of the Senior Leadership Team. It's also important to note that when you do land a role, you make it your own, not just what is written in the job description.

Is there a little-known fact about yourself that would surprise other people

When I was three, my mother signed me up for dance lessons, and I turned out to be particularly good at tap dancing, winning medals and being picked for solo performances. I left when I was 19, but ten years later my dance teacher reached out to ask if I would come back, so I joined the adult tap group and, until recently, found myself back on stage. The shows are a huge commitment, and I would love to return to it one day. I clearly still enjoy performing, as anyone who has witnessed my karaoke will confirm!

MITSUBISHI ELECTRIC

CITY MULTI YXM R32

Trusted quality
Enhanced performance

YXM is the NEW, versatile commercial air conditioning range from Mitsubishi Electric.

Part of the trusted City Multi VRF range, YXM is suitable for a wide range of applications across new-build and retrofit projects.

- Heat Pump and Heat Recovery options from 22 to 112kW
- R32 refrigerant – reduced carbon impact and future-ready legislation compliance
- New ultra-compact, modular chassis design
- BS EN 378 Part 3 compliant safety measures with extended leak detector life of 30 years
- In stock from May 2026

SCAN HERE

The Innovation Zone

The guide to what's new for ACR Journal readers, offering vital industry news.
To advertise your product in 'The Innovation Zone' section please contact **victoria.liddington@warnersgroup.co.uk**

CLIVET ADDS EDGE PRO L

Clivet has expanded its EDGE PRO family with the addition of the EDGE PRO L monobloc air-to-water R290 heat pump designed for centralised residential and light commercial applications.

Available in 25-30kW sizes, up to six units can be connected in cascade, reaching a total power of up to 180kW while maintaining a small footprint and simple management.

The scroll compressor with EVI technology guarantees consistent performance, even with outdoor temperatures as low as –10°C. EDGE PRO L can produce hot water up to 85°C and is said to be capable of adapting to all needs, even systems with radiators.

Federico Messina, Product Manager at Clivet, said: "EDGE PRO L is a solution designed to accompany the energy transition. The use of natural refrigerant R290 and the high levels of efficiency guaranteed by full-inverter technology eliminate direct emissions and reduce indirect emissions, while ensuring maximum comfort and great application flexibility."

https://www.clivet.com/en-GB/

CAREL HIGHLIGHTS DISTRIBUTED INTELLIGENCE AND AI AT EUROSHOP 2026

At EuroShop 2026, CAREL showcases its vision of distributed intelligence, bringing decision-making capabilities from field devices to the cloud to improve reliability, efficiency and performance in retail HVAC/R systems. At the core is boss, the supervision platform that connects refrigeration, HVAC, lighting and energy into one coordinated ecosystem. Intelligence begins at controller level, where edge processing enables real-time decisions, asset protection and operational continuity. Integrated with cloud services such as RED optimise, artificial intelligence analyses large data sets, detects anomalies and supports multi-site optimisation, empowering human expertise and driving measurable energy and operational improvements.

https://euroshop.carel.com/

MHIAE'S HYDROLUTION PRO ACHIEVES EUROVENT CERTIFICATION UNDER LCP HP PROGRAMME

Mitsubishi Heavy Industries Air Conditioning Europe (MHIAE) is proud to announce that its Hydrolution PRO range has achieved Eurovent Certification under the globally recognised LCP HP programme, following an intensive and rigorous testing process.

Launched in 2024, the Hydrolution PRO is an advanced range of air-cooled heat pump chillers, featuring the newly developed e-3D scroll compressor. Hydrolution PRO delivers outstanding energy efficiency, achieving a seasonal coefficient of performance (SCOP) rating of 4.59.

The models which have received the Eurovent accreditation are as follows:

- MCUS5001VHE-W
- MCUS5001VHE-W1
- MCUS5001VHE-W2

The Eurovent Certified Performance (ECP) programme under the Heat Pumps (Eurovent-HP) scope verifies performance for selected models across heat pump categories, ensuring that customers can trust in the reliability and efficiency of certified products.

"This Eurovent certification is a significant achievement for MHIAE and a testament to our commitment to innovation, quality, and environmental responsibility," said Takanori Nakamura, General Manager Technical Division, MHIAE.

For more information about the Hydrolution PRO range, visit:

https://mhiae.com/hydrolution-pro/

JAMES GRAHAM, MANAGING DIRECTOR, BITZER UK

BITZER UK has appointed **James Graham** as its new Managing Director, following the retirement of Kevin Glass at the end of 2025.

Graham has 32 years' experience in the refrigeration industry and held senior roles with refrigeration and compressor manufacturers prior to joining BITZER UK. He joined the company five and a half years ago as Sales Director and has been part of the senior management team since that time, working alongside Kevin Glass as part of a planned leadership transition.

Commenting on his appointment, Graham said: "I am honoured to take on the role of Managing Director at BITZER UK and look forward to leading the company into its next chapter.

"The industry continues to grow due to population growth, the challenges of climate change, and the rapid adoption of advanced technologies. BITZER UK is perfectly positioned to support these changes through our technology and innovation."

Bitzer says it will remain focused on the core pillars that have defined the brand's reputation: quality, support, and innovation, including specific plans for Green Point UK.

www.bitzer.de/gb/en/

SCOTT JOHNSTON, LG PRODUCT MANAGER, EXI-TITE SCOTLAND

Leading HVAC supplier Exi-tite has promoted **Scott Johnston** to Product Manager for LG in Scotland, following a highly successful first year with the business.

Alan Gordon, Director at Exi-tite Scotland, said: "Over the past 12 months Scott has consistently demonstrated strong product knowledge, a clear understanding of the market and a real commitment to supporting our partners across Scotland. In his new role, he will be the key point of contact for consultants and contractors throughout the region, supporting all LG product requirements and continuing to strengthen our relationships in the market."

Johnston began his career in the HVAC industry in 2017 with Glasgow-based installer Fisher Group, building experience across operations, sales and air conditioning estimating. Following Fisher Group's acquisition by Johnson Controls, he progressed to a national estimating role, conducting site surveys and developing designs and costings for projects across the UK.

He joined Exi-tite in October 2024, bringing a strong blend of contractor-led experience and technical estimating expertise into his role.

Johnston said: "Exi-tite is a company that genuinely looks after its people, and I've felt supported from day one. I'm really pleased to be able to progress within the organisation, and I'm looking forward to continuing to support our partners across Scotland in this new role."

www.exi-tite.com

MICHAEL BROWN, BOARD CHAIRMAN, LAWTON TUBES

Midlands-based copper tube and fittings specialist Lawton Tubes has appointed **Michael Brown** as its new Board Chairman.

Brown also joins the business as a Non-Executive Director after spending more than 15 years at Dormole Group, which operates a range of wholesale companies serving the fasteners and fixings, hand-tools and power-tools accessories.

He takes over from Rolf Herold who held the role for over a decade as Lawton Tubes expanded its sales to 42 countries and grew its annual turnover to £230 million with a 140-strong workforce at its bases in Coventry, Redditch and Poole.

In that time, the company has also collected two prestigious prizes for growth in international trade – with export sales now standing at £26 million. The firm won The Queen's Award for Enterprise in 2019, before collecting The King's Award in 2024

Rich Thomas, Head of People and Culture at Lawton Tubes, said: "Michael's appointment is a real coup for us as he brings extensive industrial leadership experience, which will stand us in good stead as we gear up for an exciting period of further growth – with our new £20 million headquarters set to open in late 2026, alongside diversifying our product ranges.

"He also shares Lawton Tubes' passion of creating employment opportunities for the next generation in the construction industry, as he personally launched the Institute of Brilliant Ideas to provide employment opportunities across a range of sectors to disadvantaged communities.

"We'd also like to thank Rolf for his outstanding service over the years as we look forward to an exciting future."

Brown added: "Lawton Tubes is thriving on multiple fronts – from growing its domestic and overseas markets, innovating new products with its investment in its engineering division, whilst championing careers in the industry.

"This is a fantastic opportunity to use my decades of commercial leadership experience to help maximise growth opportunities over the coming years in key markets including heating and plumbing, air conditioning, medical and industrial."

www.lawtontubes.co.uk

MATT HARVEY, EDUCATION OUTREACH MANAGER, INSTITUTE OF REFRIGERATION

Matt Harvey with IOR CEO Miriam Rodway

The Institute of Refrigeration (IOR) has appointed **Matt Harvey** as its new Education Outreach Manager to lead initiatives with schools, vocational colleges and employers.

Harvey has over 20 years' experience in employer engagement, education outreach and national skills development. He said: "I'm excited to be working in the RACHP industry, getting to understand the skills challenges and supporting the development of the sector's future workforce."

Miriam Rodway, CEO of the IOR, added: "The IOR is delighted to introduce Matt Harvey as our new Education Outreach Manager. This will be a high profile, high visibility role, developing relationships, collecting information and attending events, as well as getting out and meeting members to discuss how the IOR can support them to address skills issues."

To set up a meeting to discuss skills needs and opportunities, email **ior@ior.org.uk.**

ANTONY PIERONI, REGIONAL TECHNICAL SALES MANAGER, CONEX BÄNNINGER

Conex Bänninger has appointed **Antony Pieroni** as Regional Technical Sales Manager (North). He joins the business from Grohe, where he served as Area Sales Manager for the North East.

Pieroni brings extensive sales expertise to the position and, having previously been a branch manager for a plumbers' merchants, has a valuable insight into both sides of the trade counter.

He said: "I'm delighted to have joined Conex Bänninger - a recognised global leader and a brand held in high regard throughout the industry. You can genuinely feel the quality in Conex Bänninger products: they're built to last, backed by a strong warranty, and supported by exceptional technical expertise.

"Building strong relationships with merchants and customers is essential. From my own experience, I know just how much merchants appreciate honesty and the importance of meeting deadlines you commit to."

https://conexbanninger.com/

SCOTT ELMER, SALES MANAGER, BITZER UK

Bitzer UK has appointed **Scott Elmer** as Sales Manager, with a primary focus on growing its condensing unit business.

His role involves working with contractors, distributors and end users, helping them navigate product selection, system requirements and application needs.

Although new to the refrigeration sector, Elmer has 20 years of commercial experience with responsibilities for regional sales, business development and general management. His background includes the diesel generator sector, where he developed his sales and technical capabilities.

Elmer said: "It's been a steep learning curve but a great one. The team has been brilliant in helping me understand the refrigeration side of things, and I'm excited to continue developing my product knowledge across the wider Bitzer range. I am looking forward to building relationships, supporting customers and helping them find the right solution for their projects."

www.bitzer.de/gb/en/

STEVE WINSLET, MANAGING DIRECTOR, CONDAIR

Humidity control specialist Condair has appointed **Steve Winslet** as Managing Director.

He joins Condair with over 20 years' experience in leading companies across the manufacturing and building products sectors, including EcoTherm, SiG, Armarii and Victorian Sliders.

Winslett said: "I am delighted to have joined such a well-established company in the HVAC sector and am proud to take on the leadership of such an experienced team. It's remarkable that over half the company's employees have been with the organisation for more than 10 years. For me, this really shows the organisation's commitment to creating a positive environment for its employees, which shines through in its first-class customer service.

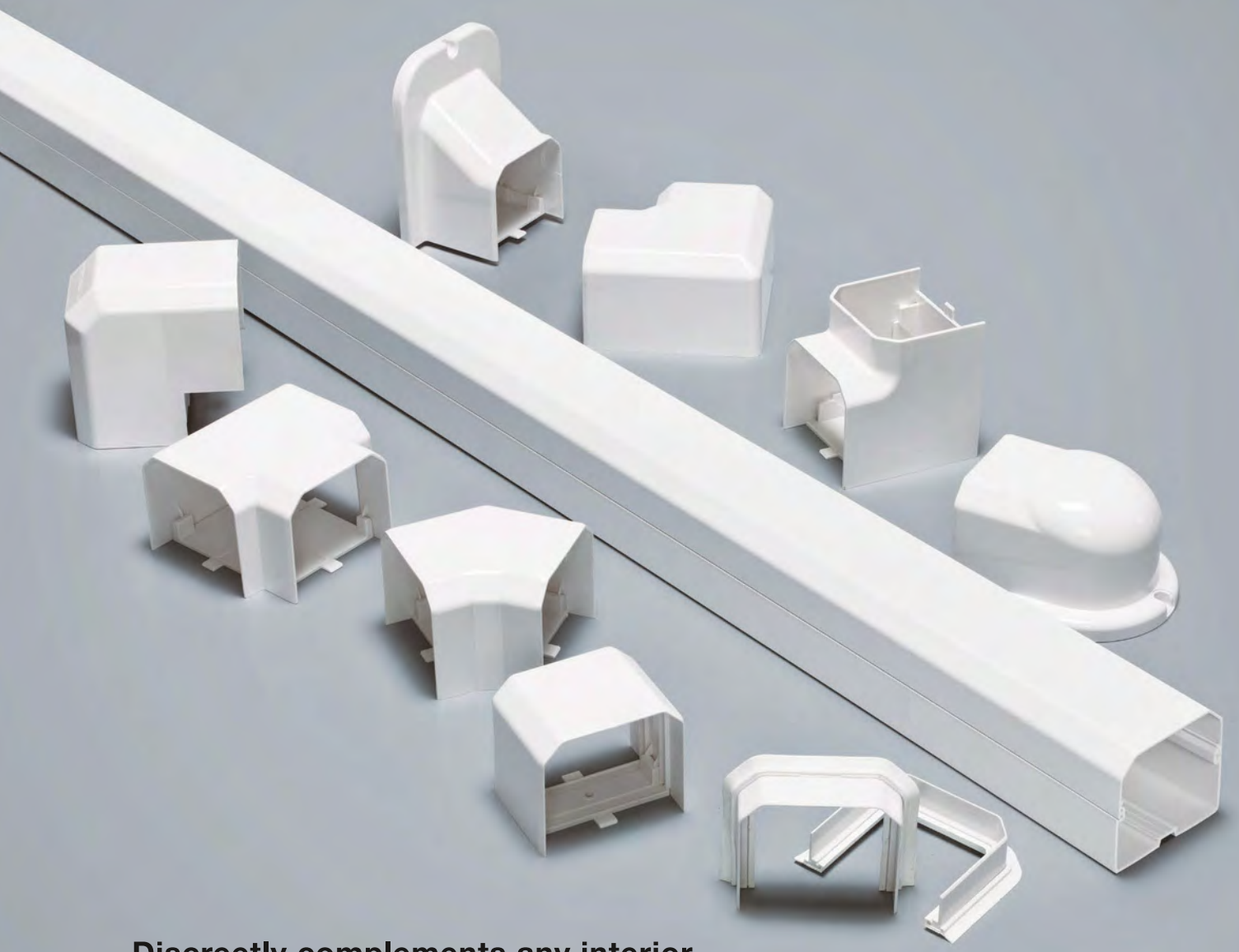
"I'm greatly looking forward to getting to know the business and its customers. It is a particularly interesting time to join with the company's global expansion into manufacturing of evaporative cooling media and a focus on developing the dehumidification market alongside its core humidification portfolio."

https://www.condair.co.uk/

Style that blends indoors

SLIMDUCT MD

Indoor AC Trunking



Discreetly complements any interior.

- Sleek rectangular profile
- No visible screws

FIND OUT MORE ▶

INABA DENKO

DISTRIBUTED IN THE UK BY DIVERSITECH® INTERNATIONAL