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Welcome to the February/March issue of Heat Pumps Today

Heat Pumps Today (HPT) Journal will now be published 10 times per year. The investment in innovation, Net Zero and government funding has led to increased supply and demand, which has driven an incredible drive in installations – hence our increased frequency.

A new study analysing real-world performance data for heat pumps across the UK has revealed that both Ground Source Heat Pumps (GSHPs) and Air Source Heat Pumps (ASHPs) deliver substantial efficiency gains over traditional gas and oil boilers. A report funded by the Department of Energy Security and Net Zero (DESNX), Renewable Energy Consumer Code (RECC), and the Ground Source Heat Pump Association (GSHPA) assessed data from over 1700 heat pump installations. Read more on page 05.

I'm now 'walking the walk' and my newly fitted ASHP, Underfloor Heating, Batteries, Solar PV and EV Charger are now up and running, and already making savings. I'll provide a full case study in due course but suffice to say, we now live in a consistently cosy home.

December saw us recognising upwards of 30 well deserved ACR & Heat Pump Trainees at the not for- profit ACR & Heat Pump Trainee of the Year Awards luncheon in Leeds. Read more on page 18

The National ACR & Heat Pump Awards 2025 is being held in Manchester on the 6th of March. This event is always a sell-out and the judges had a very tough time judging in excess of 100 entries. Turn to page 16 for the full list of finalists.

Finally, I'd like to provide a huge thank you to **David Crowson**, **Digital Editor** who has helped enormously with bringing together this month's issue of Heat Pumps Today.

Juliet Loiselle FinstR
Editor/Publisher

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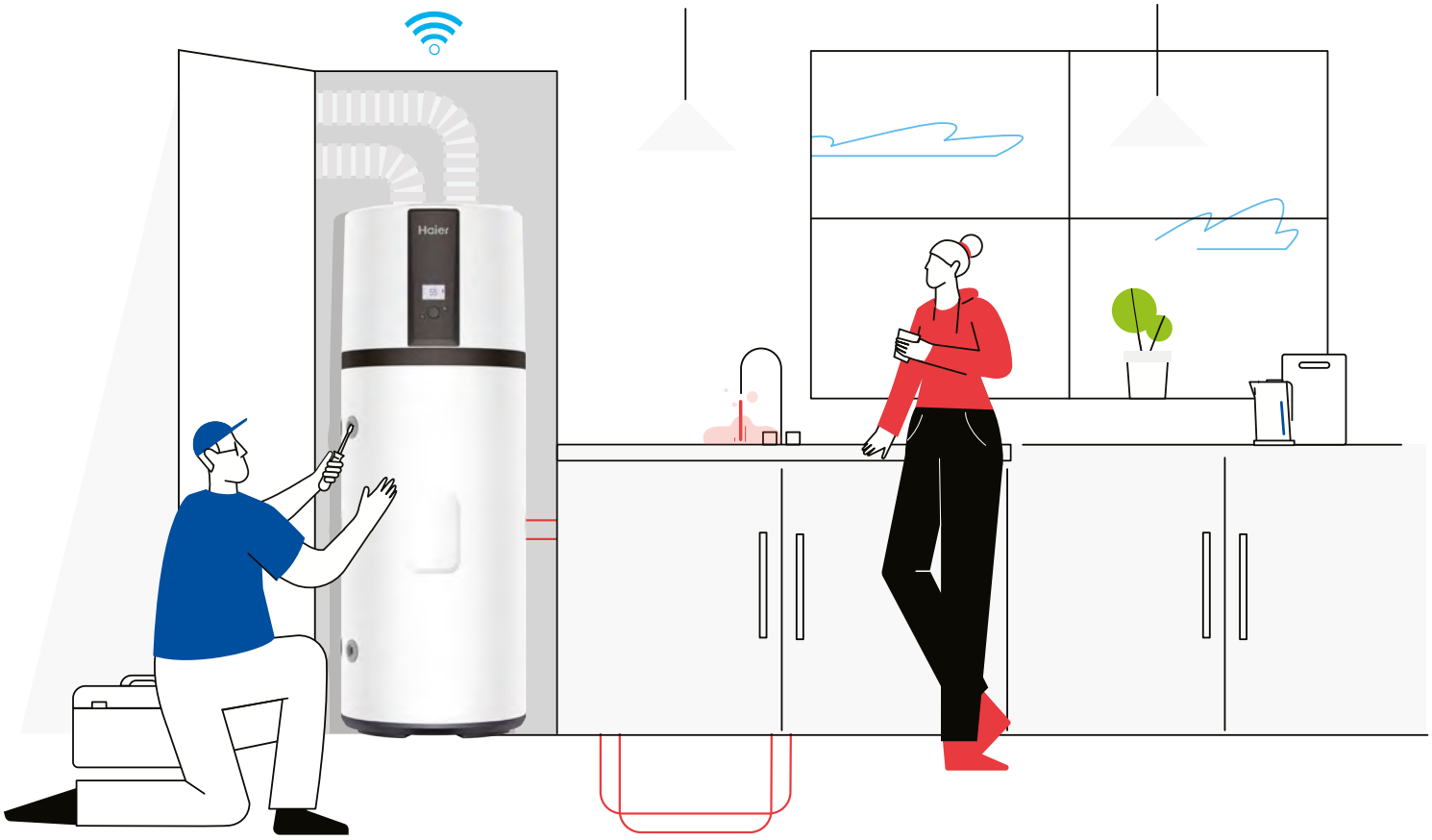


Introducing Haier's New R290 air source Heat Pump Water Heater (HPWH), which adopts advanced full-inverter heat pump technology to provide a solution that delivers high efficiency, stability, and quietness. Compared to traditional electric storage water heaters it can save up to 75% of energy for domestic hot water in households, making it equally suitable for renovation and new constructions.

The HPWH range comes in **80L-250L** wall mount & floor standing options, delivering high energy efficiencies as well as **65°C** high leaving water temperatures. Encompassed by an environmentally friendly refrigerant and full connectivity via the **hOn** application. A range that dedicates itself to providing the right solution for a variety of needs – setting the standard for **the future of sustainable water heating.**

For more information and where to buy, Scan here
haierhvac.eu

Launch of the Happy Heat Pump Podcast

Bean Beanland, Director for Growth & External Affairs, Heat Pump Federation (HPF), said: "The Happy Heat Pump Podcast, which I've been working on with Evan Davis of BBC fame, went live on 28 December 2024.

"The podcast aims to make a positive contribution to improving knowledge and understanding among consumers.

"We are delighted that the podcast is already experiencing success, as of today ranking 12th in the tech section on Apple and 3rd in the UK tech podcast listings."

To subscribe on the platforms, visit:

- **https://podcasts.apple.com/gb/podcast/the-happy-heat-pump-podcast/id1787675196**
- **https://open.spotify.com/show/3xGCOyx90e5XuGFn4kFqO0?si=FFiwAZOsT_iJwSrOUr_oBg**
- **https://youtube.com/@happyheatpumppodcast?si=ywJurLpWu4ahxU7P**

Some platforms are both audio and visual, others are audio only.

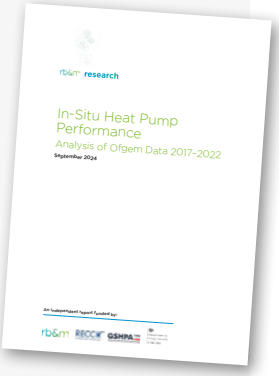
New study confirms Heat Pumps vastly outperform traditional heating systems

A groundbreaking study analysing real-world performance data for heat pumps across the UK has revealed that both Ground Source Heat Pumps (GSHPs) and Air Source Heat Pumps (ASHPs) deliver substantial efficiency gains over traditional gas and oil boilers, with GSHPs offering even greater long-term performance advantages.

The report, "In-Situ Heat Pump Performance - Analysis of Ofgem Data 2017–2022", funded by the Department for Energy Security and Net Zero (DESNZ), Renewable Energy Consumer Code (RECC), and the Ground Source Heat Pump Association (GSHPA), assessed data from over 1,700 heat pump installations monitored between 2017 and 2022.

Key findings

- Heat pumps outperform gas and oil boilers: Both GSHPs and ASHPs achieved Seasonal Performance Factors (SPFs) well above fossil fuel heating systems, which typically operate with an efficiency of around 0.9 to 0.95.
- GSHPs deliver superior long-term efficiency: GSHPs achieved an average SPF of 3.24, rising to 3.31 for the most recent installations in 2022, demonstrating their ability to justify the higher initial investment with greater payback over time.
- Strong performance from ASHPs: ASHPs also delivered significant energy savings, achieving an average SPF of 2.65, with nearly 30% of systems performing at SPF 3.0 or higher.
- Investment in GSHPs pays dividends: One in three GSHPs achieved an SPF of 3.5 or higher, underscoring their reliability and long-term value for consumers.
- A Sustainable Future for Heating



The study highlights that heat pumps, both ground and air source, are essential for achieving the UK's Net Zero ambitions. GSHPs, while requiring higher initial capital investment, deliver superior long-term efficiency, ensuring lower operating costs and faster payback periods for consumers. At the same time, ASHPs remain a widely accessible and effective solution for reducing carbon emissions and energy bills.

To read the report in full visit: **https://tinyurl.com/2s4amv23**

https://gshp.org.uk

Worcester Bosch CEO receives honorary doctorate from Birmingham City University

Carl Arntzen, CEO of Worcester Bosch, has been awarded an Honorary Doctorate from Birmingham City University (BCU). The accolade was presented by BCU's new chancellor, **Ade Adepitan**, during a ceremony at Birmingham Symphony Hall earlier this week.

The Honorary Doctorate recognises Carl's exceptional contributions to fostering diversity and inclusion in engineering. His efforts include initiatives to encourage more young women and ethnic minority groups to pursue careers in the profession. Carl has consistently emphasised the importance of promoting engineering opportunities at an early age- ideally during primary schooling or between the ages of 12 and 13 - when students begin shaping their interests and career aspirations.

To read the story in full visit: **https://tinyurl.com/5n6e5wrj**

www.bosch.co.uk

(L-R) Carl Arntzen, CEO of Worcester Bosch, with the new chancellor of Birmingham City University, Ade Adepitan.
PC: Jason Sheldon, Junction 10 Photography.

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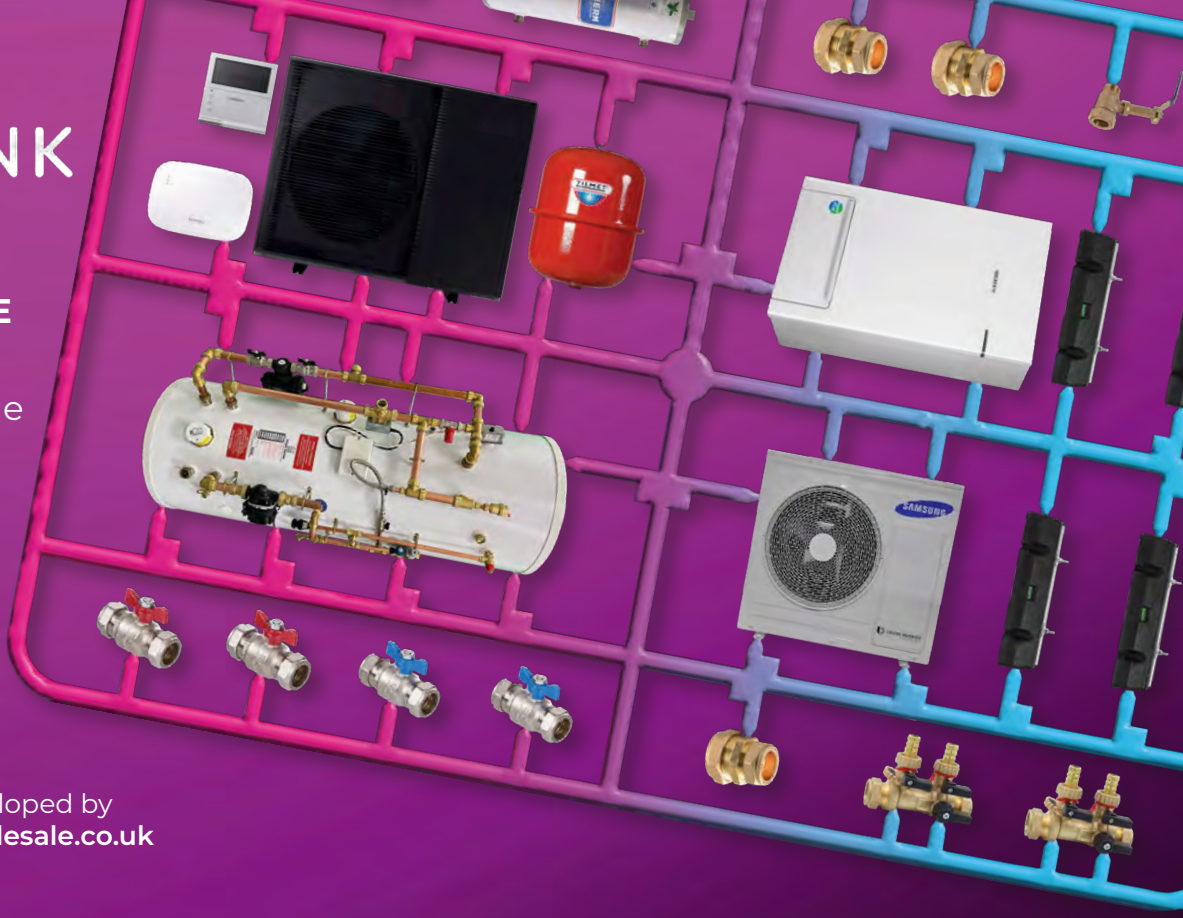
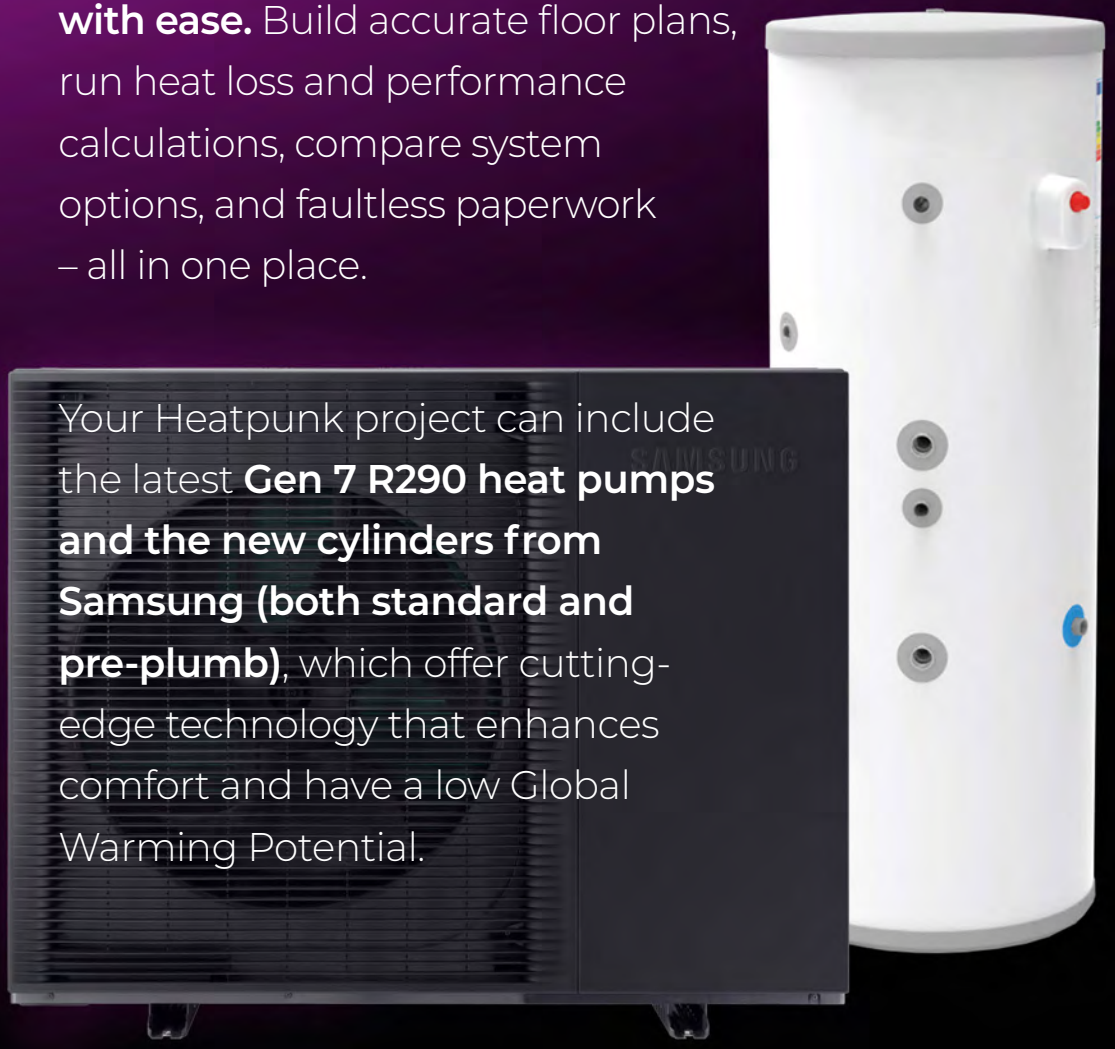


Heatpunk is developed by
midsummerwholesale.co.uk

With Heatpunk you can specify and purchase your complete system with ease. Build accurate floor plans, run heat loss and performance calculations, compare system options, and faultless paperwork – all in one place.

SAMSUNG
Climate Solutions



Your Heatpunk project can include the latest **Gen 7 R290 heat pumps and the new cylinders from Samsung (both standard and pre-plumb)**, which offer cutting-edge technology that enhances comfort and have a low Global Warming Potential.

ABB expands residential energy portfolio in North America

ABB has announced the acquisition of Lumin, a U.S.-based pioneer and leading provider of responsive energy management systems, to expand its home energy management capabilities in the North American residential sector. The acquisition follows a strategic minority investment by ABB into the company in 2023. Financial terms of the transaction were not disclosed.

The acquisition brings Lumin's intelligent solutions for electrification, as well as solar and storage systems, into ABB's portfolio, creating a residential energy management offering in North America. With the addition of Lumin's technology, ABB is well positioned to meet the growing demand for home electrification solutions in the U.S., where approximately 48 million existing homes require electrification upgrades - a number that increases significantly when including new construction and other North American markets.

Electricity plays a significant role in residential energy consumption in North America, accounting for 44% in the U.S. and nearly 46% in Canada. In the coming years this share is expected to grow with residential electricity consumption in the U.S. projected to increase by 14% to 22% between 2022 and 2050. These trends present a strong opportunity for ABB's newly acquired solutions to make all-electric homes more affordable for builders and to help homeowners maximize their energy efficiency.

To read the story in full visit: **https://tinyurl.com/y24fntmc**

www.abb.com
www.luminsmart.com

Maya Ellis MP visits Baxi's Preston production facility

Baxi welcomed Maya Ellis, the newly elected Labour MP for Ribble Valley, to its Preston production facility on 10 January.

As part of the visit, Maya was given a tour of the factory and met with key members of Baxi's leadership team.

Of interest was Baxi's progress in heat networks and the role of Baxi Packaged Solutions based at the Preston factory site. The Government sees heat networks as contributing up to 20% of the UK's heating provision, playing an important role alongside the growth of the heat pump market and hybrid heating solutions. Baxi highlighted its most recent "hybrids" white paper, which explores the relevant policy landscape and outlines strategies to accelerate the adoption of low-carbon heating technologies.

The tour also provided an opportunity to showcase prefabricated solutions and plant rooms, the boiler production line, and the cylinder line – including those designed for heat pumps – further underscoring Baxi's leadership in sustainable heating solutions.

www.baxi.co.uk

Maya Ellis with Darren Ingram, Operations Director and Rob Pearse, Residential Business Director at Baxi

Heat Pumps for older properties

One of the most common misconceptions about heat pumps is that they are not suitable for older properties. To separate fact from fiction, **Olivia Downing**, Head of Marketing at NIBE UK, explores the latest research and shares two case studies which demonstrate the effectiveness of heat pumps in historic listed buildings.

Olivia Downing, Head of Marketing at NIBE UK

Heat pumps have been proven to work well in all properties, regardless of type or age. However, many homeowners – and some installers – still have unanswered questions about their effectiveness in older properties. The common misconception that heat pumps are only suitable for new build homes could cause a significant barrier to adoption in the UK, which has the highest proportion of older housing stock in Europe.

When designed and installed correctly by a trained and qualified engineer, heat pumps are a highly efficient, low carbon heating solution for both new build and older properties, in most instances costing less than a gas boiler to run, even with the UK's wide spark gap between electricity and gas. Our heat pumps have been successfully used in a wide variety of existing buildings, from 1950's family homes to Listed buildings built more than 600 years ago.

What does the research say?

Critics claim that heat pumps cannot work in older homes, those built with solid brick or stone walls or where insulation is lacking, however, large-scale feasibility trials and field studies counter this claim.

The Electrification of Heat (EoH) demonstration project[1], which installed 742 heat pumps systems and monitored their performance between October 2020 and September 2023, at an average of 2-minute time intervals. The heat pumps were installed in a wide variety of UK homes, including 58 properties built before 1919 and 105 properties built between 1919 and 1945. Analysis revealed no statistically significant variations in Seasonal Performance Factor (SPF) based on house type or age. Heat pumps in older properties performed consistently well, maintaining an average SPF of above 2.7 in real-world conditions.

Data from the Fraunhofer Society[2], a leading applied research organisation based in Germany, further supports the effectiveness of heat pumps in older homes. Monitoring the performance of 300 heat pumps over 20 years, heat pumps were found to outperform gas boilers even in buildings over a century old.

Heat pump users, including those in older homes, report high satisfaction with their heating systems, according to a survey by Nesta. The survey compared heat pump users to gas boiler users and found similar satisfaction levels. Overall, 81% of heat pump users, and 83% of those living in Victorian or older properties, were satisfied or very satisfied with their heat pumps compared to their previous heating systems.

From historic elegance to sustainable excellence

Lea Hall, a Grade II* listed property in Essex, illustrates the potential of upgrading older properties with heat pumps. Built in the 1400s and set within 49 acres of meadows, woodlands, and watercourses, Lea Hall is a double-moated country home steeped in history.

When developer AJ Wadhams purchased the property in 2017, the goal was to create a futureproof, sustainable living space while respecting its heritage features. Together with energy efficiency upgrades, that included thermal lime render, sheep's wool wall insulation and underfloor heating, the system was given a low carbon upgrade by Delta Mechanical UK Ltd, combining NIBE's Ground Source Heat Pump (GSHP) with seven NIBE Air Source Heat Pumps (ASHPs) and monitored by myUplink, which helps residents to take complete control over the heat pump system while further improving energy efficiency.

The system is now providing efficient low-carbon heating across the property, including all seven bedrooms. **Will Blair** from Delta Mechanical said, "Lea Hall presented a great opportunity to showcase how heat pumps are suitable for both new and existing properties, regardless of their age or energy efficiency rating."

Breaking down barriers in older homes

While heat pumps form the core of domestic decarbonisation strategy, there is no single technology with the capability to do it all. By combining the latest developments in renewable technology, we can remove some of the common barriers to installation and drive energy efficiency to the maximum. This approach was adopted by Holt Plumbing & Heating, when they were contracted to upgrade the heating system at Lackington Mill, an 18th century former water powered corn mill on the River Piddle in Dorset.

A NIBE GSHP was specified for its power, high seasonal performance factor (SPF) and dual compressors, which make it ideal for properties with large heating requirements. However, the property featured several ornamental trees with deep root systems that made digging boreholes or even installing a horizontal ground loop very difficult. The owner was keen to preserve the trees, so Holt suggested the addition of NIBE PhotoVoltaic Thermal units (PV-T), an innovative heat source for NIBE GSHPs which removes the need for extensive groundworks or boreholes.

In combination with a GSHP, underfloor heating and four Mechanical Ventilation and Heat Recovery (MVHR) units, this system reduces energy demand and optimises comfort, transforming a character property steeped in history into a luxury sustainable home fit for the future.

Solutions for all homes

The misconception that heat pumps are unsuitable for older properties has been thoroughly debunked through research and real-world case studies. Projects like Lea Hall and Lackington Mill demonstrate how heat pumps, combined with thoughtful upgrades and modern technologies, can deliver low-carbon, highly efficient heating in properties of any age.

For installers, the key to success lies in understanding the unique challenges of older properties and tailoring solutions accordingly Detailed property assessments should be conducted to address factors such as insulation, heat loss and the feasibility of groundworks. Innovative technologies, such as PV-T, can be utilised to overcome site-specific challenges, such as preserving heritage features or navigating restricted outdoor spaces.

Proper training and certification are also critical, including manufacturer training on specific products and technologies. Additionally, clear communication with homeowners about expected costs, benefits, the best way to run their system – heat pumps are not the same as gas boilers so end users must be educated on their efficient operation - and potential energy savings, can help set realistic expectations and build trust.

Retrofitting existing homes is a significant part of the decarbonisation challenge and represents a substantial opportunity for installers. By adopting advanced solutions and applying professional expertise, installers can confidently expand their scope to include older properties, contributing to the UK's shift toward sustainable, low-carbon heating systems.

Info
www.nibe.co.uk

Source
1. https://es.catapult.org.uk/report/electrification-of-heat-home-surveys-and-install-report/
2. https://www.ise.fraunhofer.de/en/research-projects/wp-effizienz.html

Visit www.installershow.com
for more information

Limited stand space remains for InstallerSHOW 2025!

InstallerSHOW - the UK's largest renewables event - returns to the NEC, Birmingham on 24th - 26th June 2025!

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InstallerSHOW is more than an exhibition, it's an active partner in promoting sustainability and net zero. We're in this together.

installer SHOW 25 | NEC Birmingham 24-26 June 2025

Limited space remains, request the latest floorplan here

What's next for heat pumps in 2025?

Charlotte Lee, Chief Executive of the Heat Pump Association (HPA), shares her expert opinion and reflects on 2024's progress and what to expect from heat pumps in 2025.

Charlotte Lee, Chief Executive of the Heat Pump Association (HPA)

2024 was pivotal for the UK heat pump sector, with sales of hydronic heat pump sales rising by 63% and a 15% increase in individuals completing a recognised heat pump training qualification[1].

Policy progress

A new Labour Government took office in July, with the Warm Homes Plan quickly becoming a focus. Measures such as additional funding for the Boiler Upgrade Scheme and simplified planning[2] rules marked progress. Key policies anticipated for 2025 include the full Warm Homes Plan, details on the Future Homes Standards[3], and Clean Heat Market Mechanism implementation.

Workforce support

Interest in heat pump training is growing, however, HPA modelling[4] showed converting this into an active workforce remains a challenge. In 2025, we're focusing on providing installers with certainty of demand and post-qualification support. A confident, skilled workforce is critical to building consumer trust.

Consumer confidence

Clear communication is essential, and the Government has enlisted the Behavioural Insights Team to this end. But the transition to heat pumps must be financially appealing. Reducing upfront and running costs through finance schemes, continuing BUS and ECO, and consulting on reducing the price of electricity relative to gas, should be prioritised in 2025.

Manufacturing opportunities

2025 offers a turning point for the UK to lead in heat pump manufacturing. Building on existing strengths, this is an opportunity to drive economic growth the Government is laser-focused on[5]. To make this a reality and encourage investment, the sector needs clear direction and consistent demand-side measures.

The road ahead

Last year's progress lays a strong foundation, but the work is far from over. A clear roadmap to increasing heat pump deployment will be essential to deliver the environmental, economic, and social benefits for years to come.

www.heatpumps.org.uk

Source

1. www.heatpumps.org.uk/resources/statistics
2. https://tinyurl.com/4rk4d2yr
3. https://tinyurl.com/5yamv652
4. https://tinyurl.com/5n6hwxjb
5. www.ippr.org/articles/the-heatwave

How to reduce the cost of heat pumps

Heat pumps are the future of domestic heat. However, high installations costs remain a barrier for homeowners while restricting the potential market for installers. **Paul Spence**, Technical Manager at Heatly, explores the factors that are inflating the price of heat pumps and explains why current efforts to reduce costs may not go far enough.

The high cost of heat pump installations is one of the biggest barriers to mass adoption, both for installers and their customers. Currently, the market is tilted in favour of big installation companies, leaving small outfits and sole traders struggling to compete, even those who have access to the Boiler Upgrade Scheme (BUS).

In addition to the BUS, the Government has put forward strategies to make heat pumps more accessible and affordable, including rebalancing the so-called 'spark gap' and policies designed to scale up manufacturing, such as the Clean Heat Market Mechanism, which comes into effect in April 2025. However, what is lacking is consideration for installers.

To make heat pumps more affordable and accessible for end users, the priority must be reducing complexity for installers. The current approach involves excessive micromanagement of the heat pump installation journey, creating unnecessary administrative burdens and extra costs. A fully open market where all installers can compete on an even playing field is essential.

BUS – a good incentive but not accessible for all

The BUS, introduced in 2022 to cover the perceived difference in cost between a gas boiler and a heat pump, has undeniably increased demand. Long term, the aim of BUS was to stimulate the market enough to reduce the cost of heat pump installation by 25 – 50% by 2025 and make installation costs comparable to gas boilers by 2030.

When the grant was increased to £7,500 in October 2023, the Government estimated the price of buying and installing a gas boiler to be between £2,500 and £3,000, stating that with the increased funding, a heat pump could be installed for a similar or lower cost. We have certainly seen installations offered for around this price from large companies operating in the sector. However, for the small businesses and sole traders that make up a high percentage of the installer base, this model is increasingly difficult to compete with.

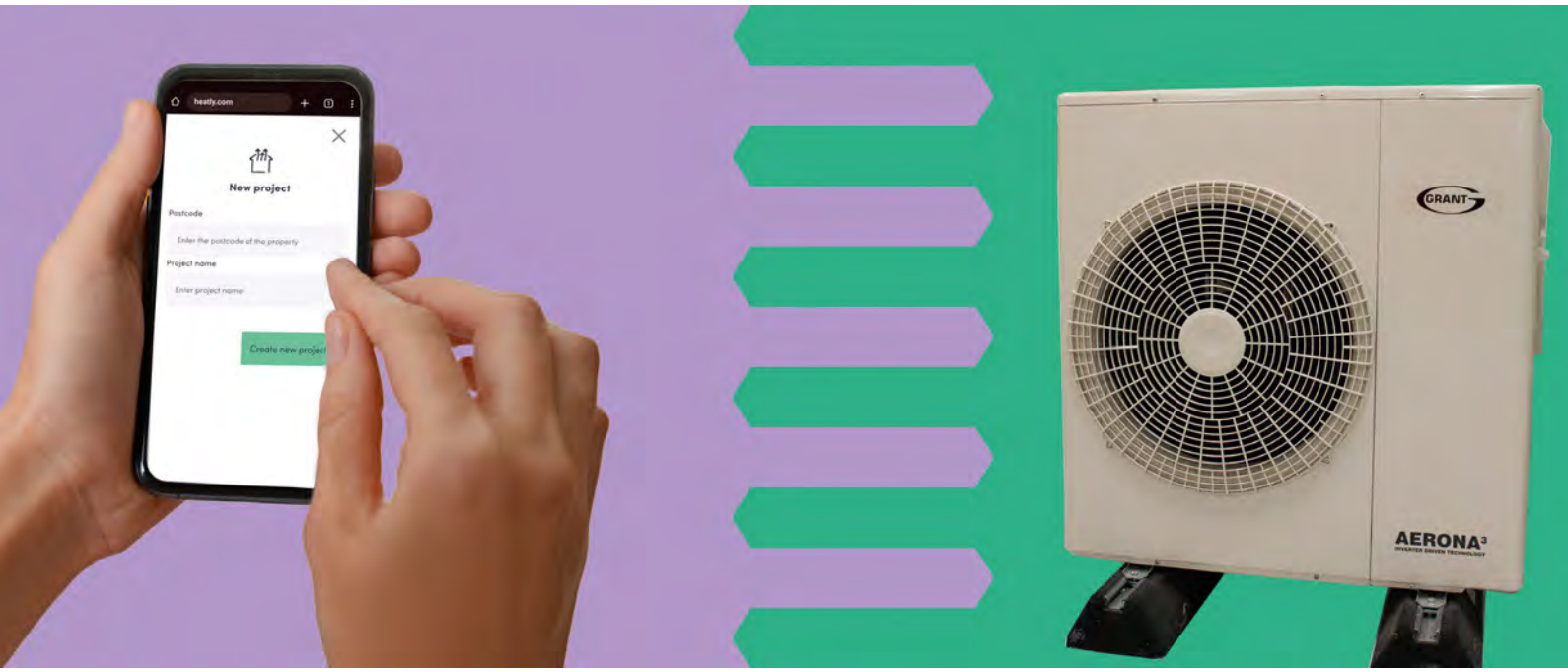
Paul Spence, Technical Manager at Heatly

Statistics show that despite the uptick in installers gaining heat pump qualifications, there is a disconnect between training and joining MCS. With MCS certification a necessary requirement for accessing BUS, it stands to reason that many heat pump installers may be missing out on this market. But what can be done?

Remove administrative barriers

A recent report[1] from the Heat Pump Association suggests that as many as 39% of qualified heat pump engineers do not progress to active heat pump installation under the Microgeneration Certification Scheme (MCS). Of course, some may be working under manufacturers' umbrella schemes, but this also incurs a cost that is passed on to the end user. Either way, the loss of skills and knowledge at this critical point is an unacceptable waste for a sector that requires urgent growth.

We can only guess as to what is putting off so many skilled and knowledgeable installers after qualification, but it is certainly an area that should be explored further so that appropriate action can be taken.



Heatly: A digital tool

The heat pump market needs to be opened up to all installers, with multiple routes to access the BUS. If we don't have enough skilled and qualified installers to fit heat pumps, the market will never reach its potential.

If installers hold the relevant certification to carry out heat pump work, they should be able to register installations through the manufacturer's portal or a Government registration scheme which would bypass the blockage in the system where the only way to gain access to the BUS is through MCS. Simplifying the registration process in line with that of gas boilers would remove unnecessary administration costs for installers, a saving that could then be passed on to the end user.

Closing the 'spark gap' is not the answer right now

The 'spark gap' is the difference in cost between running a heat pump on electricity and a boiler on gas. Alongside upfront costs, it is commonly cited as a barrier to heat pump adoption for homeowners. However, the idea of closing the 'spark gap' as a way to reduce heat pump costs and incentivise uptake is misguided.

Rather than lowering electricity costs, it would likely involve raising gas prices, unfairly penalising the 26 million homes currently reliant on gas. Without affordable heat pumps and enough skilled installers, this approach would hurt those unable to switch, creating significant financial strain.

It is arguable that heat pumps are already cheaper to run than gas boilers, especially those that have been expertly designed, installed, and commissioned by a highly trained installer. The focus should be on reducing upfront costs and ensuring heat pump systems are designed properly, with an emphasis on encouraging homeowners to improve energy efficiency. Hopefully, incentives under Warm Homes will help poorer households minimise heat loss.

Whatever the heating system, where possible a 'fabric first' approach will save money long-term and should be the first step in improving the carbon footprints and running costs of UK homes.

Digital tools are changing the game

To help installers improve the accuracy of all-important heat pump system design, the latest digital tools hold the potential to revolutionise the installation process, making heat pumps a more practical and affordable choice for homeowners.

Digital tools, such as Heatly, will cover the entire design, installation, and commissioning process from start to finish, with insights for both installers and homeowners. Crucially, this technology will break down the complexity barriers to heat pump installation which may put some installers off, standardising and rapidly speeding up processes such as heat loss calculations. Not only does this save time, but it empowers installers to carry out quality installations that achieve higher efficiencies and cost less to run.

Digital tools also offer additional insight to homeowners, for example, by showing how radiators and appliances will look in-situ or by accurately and instantaneously calculating the cost/benefit of fabric improvements. Installers can provide greater transparency, building trust and helping customers to understand design choices and make confident and informed heating decisions.

The missing link

The current approach to reducing heat pump costs overlooks a key pain point – the installer journey. By stripping away unnecessary administrative and financial burdens and allowing free access to schemes and funding for qualified installers, we can maximise the skills base and reduce installation costs. End-to-end digital tools are part of the solution, however, the barriers faced by installers under the current system must be addressed in order to set the sector on a new trajectory, one that stimulates heat pump deployment rather than stifling it.

Info
www.heatly.com

Source
1. https://tinyurl.com/32yd5aef

What we can learn from the US experience in ground source

Tamsin Lishman, CEO of Kensa, shares her thoughts and opinions on how the US ground source industry has advanced so quickly and what the UK might learn from their experiences.

Tasmin explained that in October 2024 she had the pleasure of attending and speaking at the NY-Geo Conference[1], held in New York City, US. She said: "I was struck by the excitement and enthusiasm in the room. It truly felt like an industry on the cusp of something huge, and from my UK point of view, that my US counterparts, might now beat us at our own game.

"While the UK has historically been ahead in adopting these systems, the US market is now experiencing a surge in interest and deployment, driven primarily by legislative support and a growing army of advocates.

"In this article, I will explain why I believe the US industry has advanced so quickly and the lessons the UK can learn from its experience."

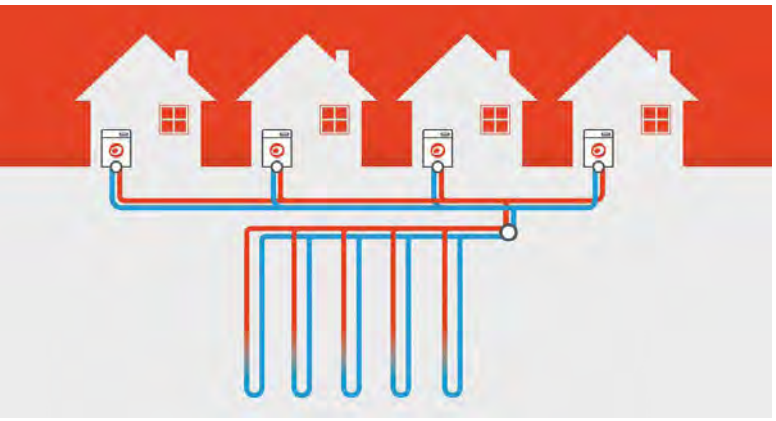
Tamsin Lishman, CEO of Kensa

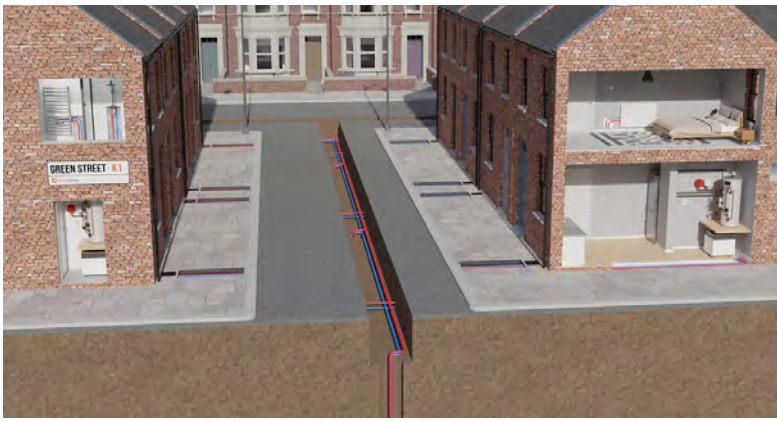
A supportive legislative framework

The turning point for ground source heat pumps (GSHPs) in the US was undoubtedly the 2022 Inflation Reduction Act (IRA). The IRA introduced substantial financial incentives for renewables, including a 30% tax credit for GSHP installations, this is in place until 2035.

On top of the IRA, many states have their own clean energy tax credits, like the NYS Clean Heat rebates[2], further boosting funding for geothermal. While the long-term trajectory of the IRA remains to be seen under the new administration, its initial impact has been transformative, and it has set a strong foundation for growth. In 2023 alone, around 80,000 GSHP units were installed using IRA tax credits, marking a significant leap from just a few years ago, when the industry was still in its infancy. This growth is particularly striking considering that most installations have been individual projects, meaning the vast potential of networked heat pump solutions is largely yet to come.

The US is starting to deliver innovative large-scale projects, such as the 37-storey development in New York[3], which will be the largest geothermal project in New York State, possibly even the US, when it is completed next year. These types of projects will only grow with legislation in an increasing number of states removing the regulatory barriers to geothermal networks and, in many cases, instructing utilities to develop pilot projects as the first step to decarbonising heat and, critically,





transitioning workers from gas to clean heat industries. New York[4] was the first to pass legislation in 2022, similar legislation is being passed in at least six other states. National Grid has multiple US projects planned[5], and there are many more supported by the US Department of Energy (DoE) being delivered by other utilities across the country, such as those in Michigan, Illinois, Vermont and Oklahoma. These new projects are a sign of the growing momentum for networked heat pumps and follow in the footsteps of the Framingham Eversource project[6] the first operational utility-owned geothermal network in the US.

While the UK has a longer history of supporting GSHPs and other forms of low-carbon heat, this support has been marked by frequent changes and hiatus in funding, particularly for GSHPs. This has created somewhat of a challenging environment in which to invest and scale up. The industry confidence this policy certainty has provided so far is worth noting, but it will be critical to see whether this continues under the new political landscape.

Government understanding of the importance of GSHP

What particularly stands out in the US is the clear understanding from the Government at both a state and federal level of the importance of GSHPs. At this conference, and others attended recently by colleagues, it was inspiring to see representatives from the US Department of Energy (DoE) advocate passionately for GSHP technologies – recognising its major benefits for low-carbon heating and cooling.

This point is underscored by the existence of a dedicated DoE team on GSHPs who provide extensive support to the sector, including the publication of a major study[7] on the benefits to the electricity grid of decarbonising through the use of GSHPs compared to other heating and cooling technologies.

Again, to contrast this position in the UK, there is little specific thought given to GSHPs which are largely treated as an extension of ASHP. Given the different use cases for GSHPs and ASHP, the different barriers they face to deployment, and critically, the different policy interventions that may unlock their mass deployment, it is important that Department for Energy Security and Net Zero (DESNZ) provides a more specific focus on GSHP. The Climate Change Committee and National Grid's Future Energy Scenarios have both set out major roles for networked GSHPs (approximately 20% of homes being connected to them by 205), and studies exist on the major system benefits that GSHPs can provide to the UK as well.

Supply chain considerations

The US has also put in specific measures to support the deployment of US-made GSHPs (and other renewable technologies). The IRA provides a 10% tax credit for the installation of US-made heat pumps to ensure that the transition to clean heat also supports economic growth and jobs in the US. As noted above, legislation in various states aims to move utilities towards deployment of clean heat infrastructure to ensure that jobs currently tied to fossil fuels are increasingly moving to clean energy technologies. Unsurprisingly, the unions are strongly in support of these moves.

Conclusion

Tasmin said: "As I wrote in a previous article titled "The future of heating in the country is a question not just of climate policy, but of industrial strategy[8]" I believe it's critical for the UK to start viewing climate policy through an industrial lens. While I would not propose that the UK directly replicate the IRA's approach to supporting domestic manufacturing, it is absolutely essential for the heat transition, and decarbonisation more broadly, that the public sees the benefits. Moreover, it is crucial that the transition is not perceived as undermining well-paid jobs here. The Government's Industrial Strategy must deliver on this, and I am confident it will.

"In conclusion, the landscape for networked heat pumps is evolving rapidly in both the UK and the US. While the UK has established itself as a leader with a wealth of experience and a solid business model, the US is catching up, fuelled by legislative support, advocacy, and a growing recognition of the benefits of GSHP technology. By learning from each other's experiences and embracing innovative strategies, both countries can accelerate the adoption of this crucial technology in the fight against climate change."

Info
https://kensa.co.uk

Source

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NATIONAL ACR & HEAT PUMP AWARDS 2025 6th MARCH

FINALISTS 2025

The much-anticipated National Air Conditioning, Refrigeration & Heat Pump Awards 2025 will be held at The Midland, Manchester on March 6th, giving the industry a welcome opportunity to recognise outstanding people, projects and products.

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- **UniPACK-P and UniPACK-P EXP**
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- **Rhoss POKER290 Heat Pump**
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- **BBF500**
  Bitzer/David Thirtle Air Conditioning & Refrigeration Services
- **A2L Industrial Monobloc Range**
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- **ECOV Series Condensing Units**
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- **Daikin LMS & LMC R290**
  Inverter Monobloc; Hubbard Products

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- **Radisson RED, Liverpool**
  CIAT
- **Garsington Studios**
  CIAT
- **Tingdene Caldecott Hall**
  Carrier Solutions UK/SpeedyFit
- **York House, British Land HQ**
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- **NIMBUS NET R32**
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- **Multi+**
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- **S735 Exhaust Air Heat Pump**
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  Johnson Controls Building Efficiency UK
- **Toshiba Universal Smart X (USX) Series Edge Modular Heat Pump**
  Carrier Solutions UK
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  Clivet Group UK
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- **UniPACK-P and UniPACK-P EXP**
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- **Rhoss POKER290 Heat Pump**
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GROUND SOURCE PROJECT

- **Suffolk Red Brick Barn Conversion**
  R A Brown Heating Services
- **Kingston Lacy**
  with Viessmann Climate Solutions UK
- **Waters View**
  by Futureserv, with Viessmann Climate Solutions UK
- **Lackington Mill**
  NIBE
- **Queen's University Belfast**
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DOMESTIC AIR SOURCE PROJECT

- **Harron Homes, Nevison's Fold Project**
  Secon Renewables, Panasonic Heating & Cooling Solutions, UK Cylinders, Honeywell Home, D&R Plumbing & Heating Contractors, Steve Wade Electrical
- **Heat Pump Report - The Financial Tipping Point**
  Mitsubishi Electric
- **Townhouse Retrofit, Norwich**
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- **J T Stead Heating & Energy**
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- **Lea Hall Grade II Listed Property**
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NON - DOMESTIC AIR SOURCE PROJECT

- **Hoar Cross Hall Spa Hotel**
  Clivet Group UK/B3 Building Services
- **Decarbonising Chester Zoo Rhino Habitat**
  Mitsubishi Electric
- **Mobile Energy Plantroom (MEP) at Wembley Park**
  Solaris Energy
- **Greenpeace make the Natural move**
  Pure Thermal

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- **Inta Klean HP Magnetic Filter**
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The ACR & HEAT PUMP Trainee Of The Year Awards

5th December 2024

WorldSkills silver medallist and former ACR Trainee of the Year Award winner Luke Haile addressed a 170-strong audience at the ACR & Heat Pump Trainee of the Year Awards 2024, held at The Leeds Marriot Hotel, providing insights into his career so far and his journey since winning the event in 2021.

Haile, of Lightfoot Defence, said: "Events like this don't just celebrate individual achievements; they highlight the collective effort it takes to nurture and grow talent in our field. Opportunities like this aren't just about recognition; they create a sense of belonging and pride in what we do."

Established in 2009, the ACR & Heat Pump Trainee of the Year Awards is a non-profit luncheon that recognises the young people who represent the future of the air conditioning, refrigeration, and heat pump sectors. This year, 28 candidates competed for recognition in four categories: Air Conditioning Trainee Engineer, Refrigeration Trainee Engineer, Heat Pump Trainee Engineer, and Trainee Sales and Support Service.

Hayley Comey, Events Manager at ACR Journal and Heat Pumps Today, said: "The number of entries we received this year is unprecedented. Forty-eight different organisations attended on the day, so thank you so much to everyone who supported this fantastic event. Huge congratulations to all of the finalists; you should be so proud of your achievements so far."

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Brandan Rushton - Building & Maintenance Services Ltd

Adam Normington - Mattair Maintenance Ltd

REFRIGERATION TRAINEE ENGINEER

Alex Forkings - Climarite Refrigeration

James Bridgewater - GalxC Cooling Services Ltd

Tom Overend - Forest Group

ACR Trainee of the Year 2025

will take place on 4 December at the Leeds Marriot Hotel.

For enquiries, please get in touch with Hayley Comey at **hayleyc@warnersgroup.co.uk**

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Elizabeth Holmes - Mitsubishi Heavy Industries

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HEAT PUMP TRAINEE ENGINEER

Ben Wyatt - IMS Heat Pumps

Charlie Wyatt - IMS Heat Pumps

Hybrid heating systems: Bridging the gap in the public sector

Chris Caton, Product Director – Commercial, at Ideal Heating, discusses the benefits of a hybrid heating system as they make considerable strides toward decarbonised heating, all while offering a more affordable price tag.

The Government estimates that direct emissions from public sector buildings account for around 2% of the UK's total emissions. The main source of emissions in these buildings is natural gas for heating purposes. Transitioning to decarbonised heating systems is therefore fundamentally important in reducing overall emissions in the public sector. Decarbonising heating has been primarily focussed on the replacement of natural gas boilers with heat pumps which are up to a third more efficient than gas boilers, so require less energy to run.

Public Sector Decarbonisation Scheme (PSDS)

The Public Sector Decarbonisation Scheme (PSDS) supports the aim of reducing emissions from public sector buildings by 75% by 2037, compared to a 2017 baseline. It is open to public sector bodies in England as well as those with reserved functions operating in the devolved administrations across the UK.

£2.5 billion in grant funding was allocated for Phases 1-3, covering 2020 to 2026, with Phase 2 seeing a stronger focus on heat decarbonisation than Phase 1. In September 2024, the new Government confirmed the continuation of the PSDS, and Phase 4 of the scheme opened for applications in October 2024 with a £1.17 billion budget to run from 2025 to 2028.

Similar schemes operate in Wales and Scotland. The Wales Funding Programme provides loan funding for energy efficiency and decarbonisation projects for public sector bodies registered in Wales. Scotland's Public Sector Heat Decarbonisation Fund is closed at the time of writing, but it is hoped that the application process will open shortly for projects starting in 2025/26.

Chris Caton, Product Director – Commercial, at Ideal Heating

Unsuccessful applicants: The end of the decarbonised road?

The PSDS is a much-needed fund for decarbonising the public sector, but even with the seemingly large sums available, many PSDS applicants will fail in their bid to get funding. Does this represent the end of the road for their decarbonised heating plans? Without funding, these public bodies are unlikely to be able to afford to implement a truly decarbonised heating solution based on renewables and heat pumps. Even if their existing gas-powered heating systems are past their working lives and must be replaced, if budgets are limited, they are likely to be forced into replacing one fossil burning fuel system with another, albeit a modern more energy efficient one.

Why? Because the capital cost of heat pumps is more than comparable gas boilers and, despite their efficiency, running costs are not low due to the price of electricity compared to gas in this country. On the plus side, heat pumps have a long lifespan and have minimal moving parts that need to be replaced or maintained. However, these costs remain a real stumbling block for many.

In such a scenario, a compromise can be achieved that makes considerable steps towards decarbonised heating, but with a more affordable price tag: the hybrid heating system.

Hybrid heating systems explained

A hybrid system essentially has heat pumps as the primary heating system, with gas boilers as the 'top up' at times when there is high demand or external temperatures are particularly low.

Cascading wall-hung or floor-standing commercial condensing boilers are ideal for a hybrid system as a higher modulation ratio is achieved, so gas usage is far more efficient. With a large single boiler, it would cycle on and off, using considerably more fuel than is strictly necessary. This hybrid approach is receiving a lot of interest from customers. It is one of the reasons we designed the ECOMOD heat pumps with the capability to be installed alongside other solutions.

When it comes to system design and installation, the same principles are followed as with a standard commercial heating system and the boilers and heat pumps have all the connectivity required to interface with the building management system on site that will need

to be programmed to allow for the switch between the systems. That switch from one system to the other could even be based upon energy pricing, so when electricity is too expensive the system switches over to the gas boilers.

The benefits of hybrid heating systems

Hybrid heating systems help bridge the gap between reliance on fossil fuel burning boilers and low carbon heat pumps. It enables public sector bodies who have not been successful with their PSDS funding bid to move towards decarbonisation without the high capital cost. Of course, this also makes hybrid systems suitable for privately owned buildings where cost is a big factor too.

On top of this, meeting the heat load of an older, poorly insulated property can be expensive from a heat pump alone, typically due to the size and fabric of the building. Even in these properties where retrofitting insulation and improving the air tightness of a building is possible, the cost of doing so may be prohibitive. A hybrid heating system provides more affordable running costs and ensures the properties are heated adequately, where a heat pump, with its lower operating temperatures, may struggle.

Case study: Hybrid heating in action

As part of its sustainability strategy that embraces responsible energy management, Tinsley Meadows Primary School in Sheffield has taken this hybrid approach. They have installed two Commercial air source heat pumps running in a hydraulic cascade. These have been installed alongside two wall hung commercial condensing boilers, for a low carbon hybrid heating system, offering lower running costs and comfort all year round.

Chris Snowden, Technical Operations Manager at Service 2 that installed the system, explains the hybrid approach taken at Tinsley Meadows: “The Ideal Heating ECOMOD heat pumps have been designed to be the main heating source, backed up by the new gas boilers at times of heavy demand. It means the school always has sufficient heating without relying solely on gas.”

Conclusion

The PSDS is an excellent scheme but as with seemingly everything in the public sector, there’s simply not enough money to go around and many organisations will be left disappointed when the results of Phase 4 are announced. But decarbonisation aspirations don’t have to end there. By adopting a hybrid heating system approach, public sector bodies can bridge the gap between fossil fuel and decarbonised heating systems without the hefty price tag of the latter.

Above: Wall hung commercial condensing boilers at Tinsley Meadows Primary School in Sheffield

Left: Commercial air source heat pumps at Tinsley Meadows Primary School in Sheffield

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The use of this particular energy source has been a lot slower in the UK than the rest of Europe. This is due to the fact that the government only recently introduced new schemes to make switching to green energy both easier and a lot more affordable. These moves have helped to increase the popularity of all renewable energy technology among the British public, and so it is starting to take off.

Heat pumps are actually the most efficient alternative to fuel, oil, and electrical systems when it comes to the process of heating and cooling. They supply a larger capacity of heating and cooling than the amount of electrical energy that is used to run it. In fact, the efficiency rate is able to go up to as high as 300%.

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From football to heat pumps

From football player to heat pump pioneer **Tom Smith,** Managing Director and Co Owner at Greenwave Renewables SW, shares how passion, training, and determination helped him tackle a career-changing move into the heat pump industry.

Changing careers is never easy, but for Tom Smith, swapping the football pitch for the world of renewable heating was a challenge he tackled with the same determination he once showed chasing down opponents. His journey into the trade wasn't exactly planned – after eight years as a professional footballer, an injury brought his playing days to an abrupt end, leaving him searching for a new direction.

A chance catch-up with a childhood friend who worked in the trade and whose spotless white trainers hinted at a successful career, sparked an idea and set Tom on a new path, training as a plumber and eventually finding his passion in renewable heating. Now at the helm of Greenwave Renewables SW, Tom has carved out a successful career installing air source heat pumps and renewable heating solutions across the South West.

Tom's journey

Tom's early years in the heating industry saw him working on traditional gas and oil-fired systems. But even then, he was drawn to renewables. Tom said: "I've always been fascinated by how we can harness the earth's energy to heat homes. I've been driving forward renewables for over 10 years now, even before I started my company. I think I've always known, especially in Cornwall, that renewables were going to be big."

Over the past decade, the demand for sustainable heating solutions has grown significantly. With rising energy costs, tighter building regulations and an increasing emphasis on decarbonisation, more homeowners are turning to heat pumps as a viable alternative to fossil fuel-based systems. Tom's business has evolved to meet this demand, with air source heat pumps now accounting for approximately 70% of the projects he undertakes.

He said: "Over the last 10 years, I've seen a massive shift. It was very much gas and oil at the start, with the occasional bit of renewables thrown in there, probably a solar thermal job or something like that," he says. "But at this moment in time, we are probably doing between 60 and 70% renewables compared to gas and oil."

Tom Smith, Managing Director and Co Owner at Greenwave Renewables SW

The importance of being properly trained and compliant

One of Tom's core beliefs is that ongoing training is essential in an industry that is constantly changing. "You must invest in yourself and invest in your company, not just financially but in the knowledge that you hold. It's an evolving market so you can never sit on your laurels – you've always got to keep one step ahead of everyone else," said Tom.

Tom credits manufacturers like Grant UK for their training and support, which has helped his team refine their expertise in air source heat pumps. “The knowledge that you have is vitally important for doing heat loss calculations for buildings, sizing properties correctly, all of that. “I’ve completed both the Grant Aerona³ and the new Aerona 290 heat pump training. The training sessions, held in Devizes and Swindon, covered everything from setup to using the smart controller in various scenarios. This hands-on experience has been invaluable for understanding how to get the best out of these products,” he says.

Educating customers and installing the correct solution

Tom is also passionate about educating customers. With many homeowners assuming they can just swap their gas boiler for a heat pump and carry on as normal, it is important that installers know their stuff and can explain how it is not that simple. Heat pumps run at lower flow temperatures, so heat loss calculations, radiator sizing and proper system balancing become even more important. If these aren’t considered, homeowners won’t get the efficiency or the savings they are expecting.

While the heat pump market is growing, Tom acknowledges that there are still barriers to widespread adoption. One of the biggest challenges is the upfront cost. Even with government incentives like the Boiler Upgrade Scheme, heat pumps are still a big investment. But Tom is keen to encourage people to consider the idea that they are future-proofing their heating system and with energy prices still on the rise, switching to a heat pump can provide long-term savings.

Another challenge is simplifying the idea of renewables and how they work, so clients can quickly become familiar with a new technology. To avoid the headache of repeated call backs, Tom and his company have put together a handover package which includes a data sheet – a bit like an FAQ on what to do if things go wrong. “It’s something that I find does help clients, because a lot of people aren’t used to using a heat pump and its controls and the bits and pieces that go with it,” he explains. “Otherwise, you end up having to go back and back and back again when customers say my heat pump is not working or I’ve got no hot water. It’s important to educate people.”

While Tom is a strong advocate for heat pumps, he recognises that they are not a one-size-fits-all solution. In some cases, hybrid systems, where a heat pump is combined with another heat source, such as a gas boiler, can be a good option. Not every home after all, is ready for a full heat pump installation. If a property has poor insulation or a particularly high heat demand, a hybrid system might be a more practical solution.

For those considering a heat pump, Tom’s biggest piece of advice is to do their research and work with a trusted installer. He said: “There are companies out there that are pop ups, companies that are installing heat pumps that don’t understand how to how to use a heat pump, how to install them properly. But if it’s done correctly, if it’s sized correctly and it’s set up correctly, you’ve got a long future with heat pumps.” As a Grant G1 installer for example, Tom is able to offer a 7-year warranty for Grant’s heat pumps giving his clients complete peace of mind. As the renewable heating sector continues to grow, Tom is excited about what the future holds.

Tom installing a Grant heat pump

The future

“I think over the next 10 years there’s going to be a huge shift with many more renewable products being installed,” he says. “New installers and any younger generation installers need to take it on board and drive it forward because I think it’ll look after you in the long in the long run.”

Tom’s passion for renewables, drive to learn, and commitment to quality have helped him carve out a successful business and put him at the forefront of an industry poised for growth. As the demand for sustainable heating solutions continues to rise, Tom’s journey is a reminder of the opportunities that come from embracing change. Whether it’s guiding homeowners, he is proving that with the right mindset, expertise, and manufacturer support, the renewable heating sector offers a world of potential.

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WOMEN IN THE HEAT PUMP INDUSTRY

Toni Oakley-Tulk, Technical Trainer at Viessmann, told **Juliet Loiselle**, Editor, how with hard work and determination, she became a Technical Trainer, and her thoughts on education as being pivotal for, amongst other things, tackling some of the challenges facing the industry and encouraging women to join.

In 2002, I joined MG Rover in Longbridge, Birmingham, as an Advanced Modern Apprentice in Manufacturing Engineering. I worked in various engineering departments, gaining experience across the car industry, while studying for an HNC in engineering.

Unfortunately, MG Rover collapsed. I worked for them for three years; however, due to the collapse, I completed my apprenticeship at a different manufacturing company.

Due to job instability in the car industry, in 2006, I transitioned to the domestic heating industry in the same way as many others — as an apprentice with a large company.

Once qualified, I spent eight years working for several companies as a Technical Service and Repair Engineer on all types of gas appliances. I was then seconded to the training team at HomeServe, this started my journey into teaching within the plumbing and heating industry. As I was conducting a programme of upskilling for Home Serve's qualified engineers, renewing existing qualifications, and assisting with the management of the plumbing and gas apprentices: I realised that I really enjoyed training and wanted to pursue this.

Wanting to explore a career in education, I continued my journey at a local college, starting just before the country went into its first lockdown in 2020. During this time, I gained my Level Five teaching qualification, helping me to understand how people learn and the best ways to deliver training to diverse groups.

Toni Oakley-Tulk, Technical Trainer at Viessmann

I started work as a Technical Trainer within the Academy at Viessmann in August 2023, initially training installers in the installation of domestic gas boilers.

When an opportunity presented itself to learn about heat pumps, this sparked my interest in the renewables sector and made me want to help installers on their journey from fossil fuels to low-carbon heating systems filling the skills gap that currently exists within the industry.

To help achieve this I completed my Level 3 Air Source Heat Pump Installer qualification with Shrewsbury Colleges Group; to gain practical experience, I have installed several heat pumps in the Academy, which has since gained BPEC accreditation for a variety of industry courses.

I now teach the BPEC Level 3 Air Source Heat Pump course to installers; gaining this qualification meets one of the requirements to use an MCS umbrella scheme such as ViAccess or forms part of the pathway to gain their own MCS registration.

What does your current role involve?

I currently design and deliver a range of products and accredited courses to professionals within the heating industry. I am a qualified teacher and an engineer, so education is important. I strive to deliver high-quality training to everyone attending Academy courses, whether it be product training for the Vitocal 150-A, a BPEC accredited Heat Pump course, or a bespoke training session for customers or members of staff.

What do you see as the challenges facing the industry?

I think the biggest challenge facing the industry is facilitating change; people in general resist change and the transition to heat pumps is a big one for installers and end users alike. I believe one of the best ways to tackle this is through education. Educating installers and end users on the changes to the way homes are heated and why it has so many benefits is the best way to help navigate the energy transition.

Another factor is the price of electricity, currently standing at around three times that of gas, it is a significant barrier to the transition. Energy tariffs such as

(L-R) Emma-Louise Bennett, Active Transition Support Lead, and Vicki Savage, Senior HR Business Partner, both at Viessmann; Rachel Riley; and Toni at Installer Live.

OVO's Heat Pump Plus work with the Viessmann Vitocal 150-A and are helping with this issue, however, until an overall price drop happens the transition is likely to be slow.

Did you have any mentor's or anyone in particular who inspired you?

My father was my initial inspiration for a career in engineering, the heating industry happened by chance and teaching has become my vocation. I have met so many inspiring people throughout my career who have supported me and helped me progress to where I am now, however, nothing happens without hard work and determination.

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

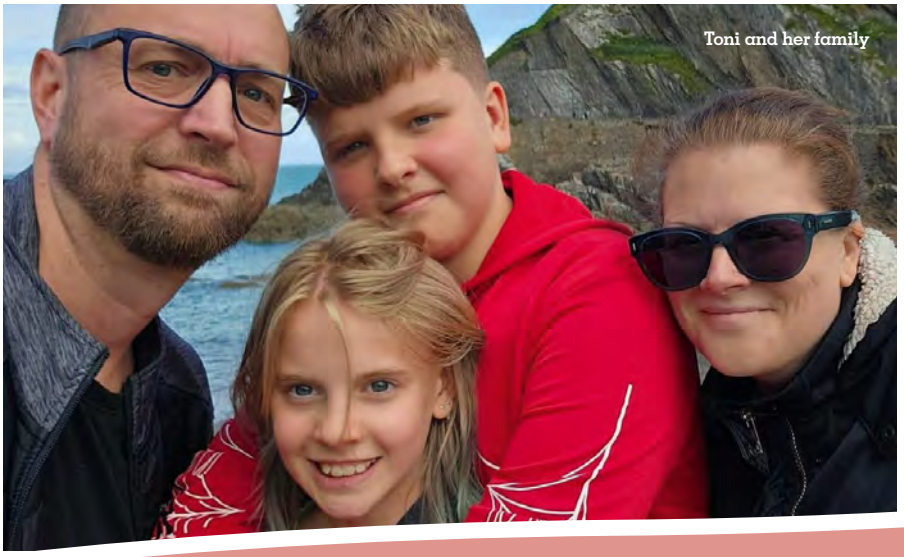
Get educated; go on the courses, get the qualifications, do all the things you need to get the knowledge and skills to be able to succeed. Design the best installations and win those jobs because you can explain the benefits of a good installation to the customer and enable them to understand the most effective way to heat their home. Be the expert!

What do you like to do outside of work?

I love spending time with family and friends, especially going camping with my husband Chris, son Leo, and daughter Alice in the warmer months.

Cars are a passion of mine; I like to go to the drag racing at Santa Pod and I will take any opportunity to drive different vehicles. I would love to go to the Goodwood Festival of Speed or Revival this year.

I own a classic Mini that I am in the process of restoring, when finished, I will be taking it to the mini shows and fairs around the country.



Toni and her family

The Innovation Zone

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

Aspen launches the new quietly brilliant Silent+ Mini Lime Condensate Removal pump

The Silent+ Mini Lime in trunking elbow

Aspen Pumps, a global market leader in condensate removal pumps, has launched the next generation of its popular Silent+ Mini Lime pump – an evolution in pump technology. Perfect for air conditioning applications where silence is important, such as offices and meeting rooms, the new and improved 5th generation Silent+ Mini Lime operates at only 16dB(A) making it the quietest and most versatile elbow pump available. Simple and flexible to install, this proven technology delivers an impressive flow rate and lower power consumption than previous models. Boasting a raft of design innovations, this new mini condensate removal pump offers unrivalled performance, on-demand power, near-silent operation, optimum reliability, and increased energy efficiency.

With sound levels a critical comfort and health and wellbeing issue for end-users, the new Silent+ Mini Lime offers even quieter noise levels than previous models, with whisper-quiet operation. Since the Silent+ Mini Lime only pumps when needed, motor noise is reduced, as well as offering cost and energy-saving benefits, in addition to a longer motor life. Utilising the same technology as Aspen's best-selling Silent+ Mini White, the new Silent+ Mini Lime features intelligent variable speed demand control with the pump dynamically adapting to its environment, reducing the flow to the minimum required, and using 10 times less energy than its predecessor. This is enabled by an innovative electronic float switch that provides more precise control and improved reliability than mechanical alternatives and is ideal for integrating with digital control systems.

Designed to be simpler and faster to install, the new Silent+ Mini Lime pump has fewer parts to connect since there is no longer a need for a damper, anti-siphon, buttons or lights. Perfect for replacement installations, the Silent+ Mini Lime also provides backwards compatible Plug & Play. Delivering a powerful flow rate of 40L/h, around four times the performance of a piston-based mini pump, as well as boasting a larger tank and head capability, makes it suitable for a wider range of applications, including high wall split systems. Engineered to fit discreetly in trunking elbows the Silent+ Mini Lime offers installation versatility thanks to its compatibility with a raft of trunking systems for both left or right install options.

"An evolution in pump technology, our 5th generation of Silent+ Mini Lime pump incorporates the same electronics and software used in the Silent+ Mini White. As a result of this proven technology Aspen has developed an intelligent pump that is effective, reliable, energy efficient and is the quietest commercial elbow pump available. Not only that but it is quick and easy install with a three-year warranty giving engineers confidence they can fit and forget it," said **Marisa May**, Senior Product Manager at Aspen Pumps Group.

Providing improved reliability and increased performance all backed up by a new 3-year warranty, the Silent+ Mini Lime offers engineers and wholesalers complete peace of mind from a trusted brand. For wholesalers Silent+ Mini Lime simplifies stock management and increases warehouse space, with fewer product lines required, since its increased flow rate eliminates the need to stock the Maxi Lime pump. Plus, the pump's univolt compatibility with both 110v and 230v means there is no need for separate pumps. There has also been a 20% reduction in replacement pack size, saving warehouse space, reducing waste, and reducing environmental impact.

Aspen is the global brand leader in condensate removal pumps, a position it has achieved through constant innovation. The introduction of the new and improved Silent+ Mini Lime, is another example of market-leading innovation.

For more information on the Silent+ Mini Lime and its stockists, please visit: **www.aspenpumps.com**

Panasonic provides sustainable solutions for Renewable Energy Training Hub at UHI Inverness

Seeking to upskill the next generation of heating and plumbing installers in renewable-based technologies, Panasonic worked in partnership to provide a range of its Aquarea L Series air source heat pumps to UHI Inverness new training hub. Joined by representatives from local heating and plumbing firms, the launch event celebrated this important progression to deliver education to new and existing practitioners and apprentices. The event offered information about the advanced heat pump technology and how the new hub can upskill practitioners and benefit businesses.

Professor **Chris O'Neil**, Principal and Chief Executive of UHI Inverness, expressed his gratitude to the companies involved, including Panasonic, for sponsoring the thermal store. He welcomed everyone to the launch by saying, "With nearly half of Scotland's registered air source heat pump installers based in this area, our region is embracing new and critical technologies. As an institution we are more than delighted to be involved in moving that forward, and very grateful for the support we have received from our colleagues in the industry."

The hub will offer installers an opportunity to gain hands-on experience with the latest heat pump technology, developing their skills using the latest sustainable products with the aim of helping to decarbonise heating, future-proof Scottish homes and address the skills shortage in the industry.

John Kellett, UK Country Manager for Panasonic UK and Ireland, expressed his enthusiasm, saying, "It's fantastic that we are a part of this partnership alongside UHI Inverness. Futureproofing homes begins with upskilling the workforce, and it is vital that we offer guidance and experience to the next generation of talent, so that we can increase employment, sustainable practices, and highly efficient heated homes across Scotland."

The Highland Council invited applications for funding from the UK Shared Prosperity Fund to support the costs of renewable skills training for the workforce. Alongside the local support from businesses, UHI Inverness received funding and collaborated with its partners to create the new training hub with the latest technology.

www.aircon.panasonic.eu/GB_en

JAVAC expands tool range to complete the set

JAVAC Edge Hydra-XP9 Hydraulic Expander

JAVAC, part of the Aspen Pumps Group, has launched the largest number of tools in the company's history. With almost 40 new products added to the range JAVAC now provides a comprehensive one-stop-shop for HVACR engineers providing access to every tool they need to do their job, while offering exceptional reliability and value. The new lines include exciting launches such as:

The JAVAC Edge Hydra-XP9 Hydraulic Expander offers single-handed operation and comes complete with nine interchangeable imperial expander heads. Laser-engraved expander heads are easy and quick to identify and attach and for the first time include 1 3/8" and 1 5/8" sizes to cover an ever-wider range of applications. No other manufacturer provides the breadth of pipe size heads that Edge offers from domestic to large industrial projects. The Hydra-XP9 Hydraulic Expander comes complete in a robust hard carry case with a deburring tool and spare heads available.

The innovative JAVAC Edge Turboflow Vacuum and Charging Kit is a complete charging and evacuation kit designed for speed and efficiency, saving engineers valuable time on site. Significantly reducing evacuation times compared to a setup with a manifold and 1/4" hoses, the kit is designed to handle all high-pressure refrigerants without collapsing or permeating under vacuum pressure. Housed in a specially designed Veto Pro Pac Hose Hauler bag the kit includes: two new 3/8" by 1/4" Turboflow Vacuum and Charging Hoses; two JAVAC 1/4" by 5/16" core removal tools; and a new Veloci-Tee which creates two outlets on any vacuum pump with a 3/8" connection offering a significantly deeper vacuum in less time.

The JAVAC Edge Digital Torque wrench. The torque wrench has adjustable jaws to suit all applications up to 1 1/2". The Digital Torque easily tightens connections to manufacturers' specifications to avoid costly leaks and bursts. By inputting the required setting on the tool lights and an audible warning are activated when the correct torque is achieved.

In addition, JAVAC now offers a broad selection of standard products under the trusted branding including Standard Hoses, Ball Valve Hoses, and Ball Valve Set Back Hoses lines, as well as HVACR speciality tools such as the Edge Piercing & Pinch Off Pliers; Edge Safe Access Valves; and the Hydrocarbon Scale and Can Valve.

JAVAC Hose Hauler Kit

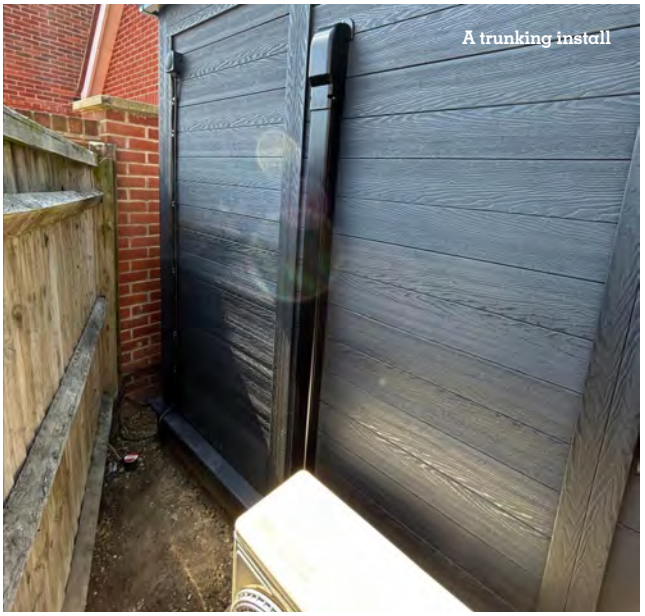
www.javac.co.uk

StrutFoot: A history of quality and innovation

Steve Richards, Managing Director of StrutFoot, tells us about the business, including its growth over the past 25 years and the launch of new products such as the StrutFast trunking system, which was introduced in 2024.

Products

StrutFast trunking system



A trunking install

The new StrutFast trunking system was launched in 2024 with great success, we are the only manufacturer of air conditioning trunking in the UK, we currently offer of 80x60, 100x60 and 140x90 heat pump trunking in black, white, grey and brown, we also offer a custom colour if required along with a full range of accessories.

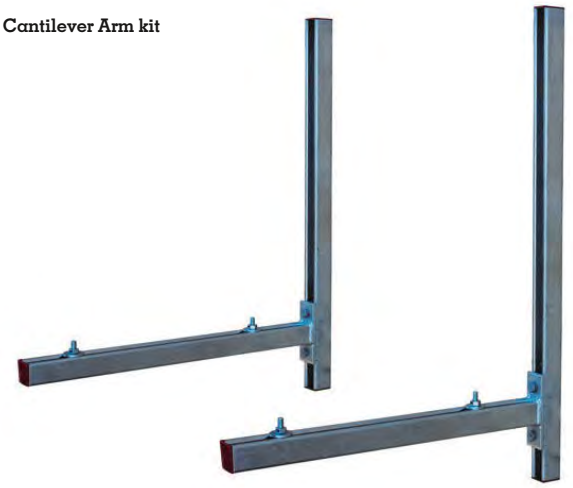
The trunking system has enabled customers to drastically reduce their carbon footprint on products as we are manufacturing products in the UK, not in the far east or Asia.

The availability issue for all products was also greatly reduced as we are running the machines 24/7, this enabled our partners to drastically reduce their stock holding and be more confident in the process of dealing with a UK manufacturer who deliverers on stock.

SF1566 high block foot for a heat pump

Rubber feet for heat pumps

We are manufacturing a full range of rubber feet for all types of heat pumps from recycled SBR rubber, we are holding in excess of 300 tons of products in stock at all times, all sizes from 250, 400, 600 and 1000mm in 100mm high and also the 600mm x150mm high foot.



Cantilever Arm kit

About StrutFoot

StrutFoot are a UK manufacturer of flat roof support systems, we have been in business 25 years this year with three generations of the family working within the business, we have provided support systems to some of the largest projects in the world over the course and continue to innovate the market and offer fast service to our clients and partners.

As a business, we remain at the forefront of manufacturing flat roof non penetrating supports in the UK, we are able to engineer your project in house, full design, survey your project, offer in house manufacturing for our frames in house and on-site steel fabrication enables us to react quickly to all enquiries.

We invested heavily in 2023 and 2024 in additional factory space to enable the growth we are achieving to be seamless, we also had additional lines installed to enhance our flat roof supports with new trunking systems.

We are unique as a business in so much as we manufacture in house, we have a very large inventory of machines and tools to enable very fast turnaround on component parts, unrivalled in the world markets, our factory runs on a 24-hour cycle making deliveries quickly and enabling partners to ensure us with large orders on call off basis or ad hoc deliveries. Our manufacturing team are also able to offer OEM home branding on all products if required, all rubber feet can be logo'd or imprinted, plastic feet can have moulds adjusted with names embossed onto them, we can even home brand the trunking and accessories!

StrutFoot

www.strutfoot.co.uk

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OUR 5TH GENERATION HEAT PUMP

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R290 refrigerant

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noise levels

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& colourway

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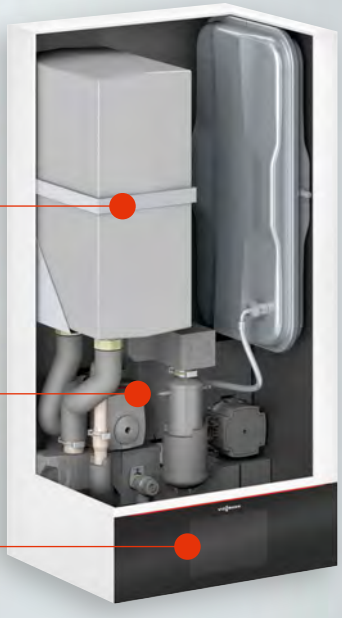
HYDRO AUTOCONTROL
Save space and simplify installation with the unique 4/3 way valve design.

ONE BASE CONTROL
Extremely easy and **intuitive commissioning** process.



- \+ Rated heating output 2.1 to 14.9 kW
- \+ CoP (coefficient of performance) to EN 14511: up to 5.0 (A7/W35)
- \+ MCS SCoP up to 3.14 at 65°C
- \+ Up to 70°C flow temperature for high hot water comfort
- \+ Environmentally responsible, natural refrigerant R290 (propane) with a particularly low GWP100 (global warming potential) of 0.02

ViGuide installer app for commissioning, monitoring and remote support

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GLOBAL WARMING POTENTIAL **R290** GWP 0,02 GWP100 gem. IPPC AR6

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