POWRMATIC

*Introducing the **AirRoteX Series** – a high-performance air rotation unit available in electric, gas, and hybrid options, with hydrogen-ready capability. Designed for large-scale warehousing, distribution, and logistics, it supports decarbonisation and net zero goals while ensuring efficient temperature control and airflow management.*

AirRoteX

Air Rotation Heat Pump Series

Electric / Gas / Hybrid / Hydrogen Ready

DECARBONISE · MULTI ENERGY · FUTURE READY

Engineered for **Efficiency**. Designed for the **Future.**

The AirRoteX Series offers flexible, multi-fuel capability, adapting to evolving energy demands. With hydrogen-ready technology, it provides a future-proof solution, ensuring seamless transition towards low-carbon, sustainable heating and cooling.

Applications

- **Warehouses & Distribution Centres**
- **Logistics Hubs & Freight Terminals**
- **Fulfilment & E-Commerce Centres**
- **Manufacturing & Production Facilities**
- **Temperature-Sensitive Warehousing**
- **Food Processing & Storage Facilities**
- **Pharmaceutical & Medical Storage**

The future of large-Scale climate control.

The **AirRoteX Series** is designed for large-scale warehouses, distribution centres, and logistics hubs, offering 50kW to 850kW of heating and cooling power. Manufactured in Britain and fully customisable, it provides precise climate control, reduces energy costs, and supports decarbonisation and net zero goals.

Available in Electric, Gas, and Hybrid options, with hydrogen-ready capability, the **AirRoteX Series** adapts to evolving energy demands, ensuring buildings remain efficient and future-proofed.

The AirRoteX Range

Each model is engineered to meet different energy requirements while maintaining high-performance heating and cooling:

AirRoteX-E (Electric) – Fully electric model featuring heat pump technology for zero-carbon heating and cooling, ensuring zero on-site emissions.

AirRoteX-H (Hybrid) – Combines a hydrogen-ready gas burner with heat pump technology, offering versatile, energy-efficient heating and cooling.

AirRoteX-G (Gas) – Powerful, hydrogen-ready, direct-fired heating solution for applications where gas remains the most practical and cost-effective option.

Steel Frame

The solid steel frame of the AirRoteX delivers exceptional durability and stability, ensuring long-lasting performance. Its robust build reflects the high-quality craftsmanship behind the device, offering users confidence and reliability.

Modular Installation

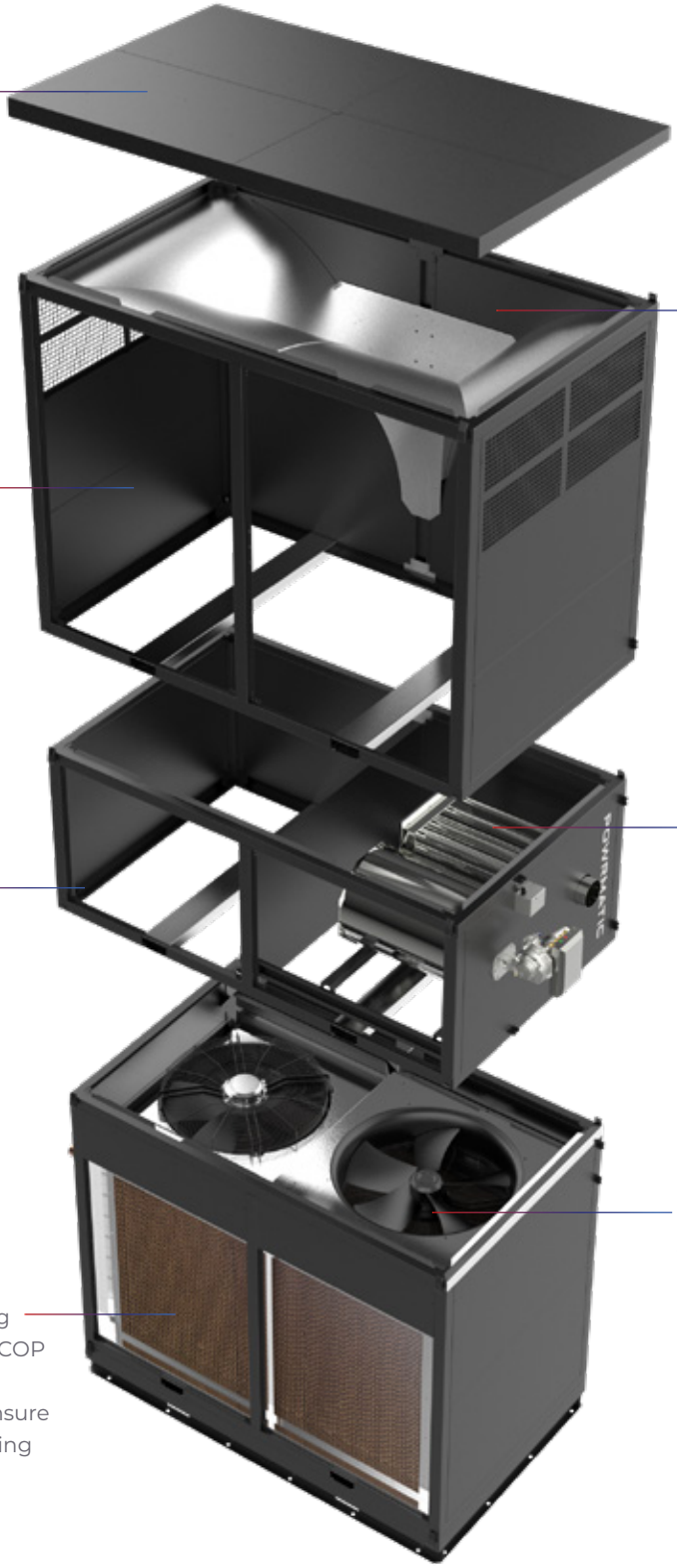
The AirRoteX features a modular construction, designed in sections for easy delivery and quick installation. Standing up to 12 meters tall on some units, its segmented build allows for efficient transport and setup without compromising strength or performance.

R454B Refrigerant

Our systems utilise low Global Warming Potential (GWP) refrigerant R454B, making them environmentally friendly and compliant with the latest regulations. This eco-friendly refrigerant reduces your building's carbon footprint and aligns with sustainability goals.

Water Fan Coils

Advanced water coils deliver precise climate control at 30/35°C for heating and 7/12°C for cooling, maximising SCOP and SEER of reversible heat pumps. Refrigerant control and large fans ensure even airflow and comfort, while cooling adjusts to prevent condensation by monitoring dewpoints.



Aerodynamic Design

The aerodynamic form on the outlet ensures a smooth transition from vertical to horizontal air flow. This minimises the noise and maximises the throw.

Heat Exchanger

An optional gas fired heat exchanger built into the unit for hybrid or gas options to provide the top up the heat demand if the electrical supply for the heat pump is an issue The kW output is dependant of performance requirements.

Reversible EC Fan Technology

EC fans automatically modulate their speed based on the building's internal temperature, further reducing the unit's electrical consumption. This adaptive approach enhances energy efficiency, cutting operational costs while maintaining optimal indoor comfort levels.

Advanced Controls & system moniotring

Our systems continuously monitor temperatures and external conditions, ensuring optimal performance and energy efficiency. With BMS and MODBUS compatibility, precise control is at the heart of our technology, allowing seamless integration and smarter climate management.se and responsive climate control with our intelligent technology.

Climate control your way.

- **50-850kW Power**
- **R454B Low GwP Refrriderant**
- **Net Zero & BREEAM Solution**
- **No Duct Work**
- **tCO2e Reduction**
- **Full Frost Protection**
- **Smart Controls**
- **Stratification Elmination**
- **Hydrogen Ready Burners**

Technical Features (Electric)

- **Fully Electric System –** Uses renewable energy with a heat pump for efficient heating and cooling.
- **Water-Based Coil System –** Transfers heat effectively for consistent temperature control.
- **Low Carbon Footprint –** Reduces reliance on fossil fuels, supporting sustainability goals.
- **Minimal Electricity Usage –** Operates efficiently with Electronically Commutated (EC) fans for optimal airflow.

Technical Features (Hybrid)

- **Hybrid Efficiency –** Combines electric heat pumps with gas burners for rapid heating for utility bill reduction.
- **Smart Temperature Control –** Runs on electric heat pump down to 5°C, switching to gas only when needed.
- **Cost-Effective Heating –** Reduces operational costs by optimising energy use.
- **Reliable in Cold Climates –** Gas-fired section ensures consistent performance in low temperatures.

Powerful, efficient, and built for scale.

A single unit has the capacity to heat or cool over

100,000sq.ft

providing powerful, efficient climate control for large-scale warehouses and distribution centres

Air Rotation Vs Rooftop HVAC

1

No Rooftop Units or Structural Supports

Eliminates multiple rooftop units, heavy steel supports, and ductwork, simplifying design and reducing building load.

2

Lower Installation Costs

Reduced electrical, gas, and piping connections simplifies installation, lowers costs, and minimises building penetrations.

3

Simple & Easy Maintenance

Fewer components and ground-level servicing reduce maintenance time and costs compared to rooftop units.

4

Portable & Future-Proof

Easily relocatable—ideal for businesses planning to move without losing their HVAC investment.

5

Zero Ductwork

Eliminating complex ductwork reduces building height requirements, maximises usable space, and simplifies installation.

6

Low Power Motors

Uses less power than multiple AHU/VRF rooftop units, significantly cutting energy costs.

Technical Specification

AirRoteX (E) Electric Heat Pump

Frame Size		1	2	3
Air Flow Rate	**m^3/s**	**6-14**	**15-25**	**27-47**
Total Heat Output	kW	100-200	225-400	450-850
Total Cooling Output	kW	100-200	225-400	450-850
Electrical Requirement	kW	45-90	55-170	190-350
Refridgerant	R	R-454B		

AirRoteX (H) Hybrid Electric & Gas

Frame Size		1	2	3
Air Flow Rate	**m^3/s**	**6-14**	**15-25**	**27-47**
Total Heat Output	kW	100-200	225-400	450-850
Output Heat Pump	kW	50-100	110-200	225-425
Total Cooling Output	kW	50-100	110-200	225-425
Electrical Requirement	kW	22-45	28-85	95-175
Output Gas Fired Section	kW	50-100	110-200	225-425
Total Gas Requirement	m^3/h	5-11	12-21	24-45
Refridgerant	R	R-454B		

AirRoteX (G) Gas (hydrogen ready)

Frame Size		1	2	3
Air Flow Rate	**m^3/s**	**6-14**	**15-25**	**27-47**
Total Heat Output	kW	100-200	225-400	450-850
Electrical Requirement	kW	22-45	28-85	95-175
Total Gas Requirement	m^3/h	11-21	24-42	47-90

Air RoteX Dimensions (all models)

Overall Dimensions		1	2	3
Height	mm	5200-12000	6125-12000	8045-12000
Depth	mm	1250	1518	2026
Width	mm	2350	2991	4007

British Built.

The AirRoteX series is proudly designed and manufactured in the UK at our advanced production facility in Somerset. By keeping manufacturing local, we ensure high-quality craftsmanship, rigorous quality control, and faster supply chain efficiency, allowing us to deliver reliable, high-performance systems with reduced lead times.

Reducing Embodied Carbon & Environmental Impact

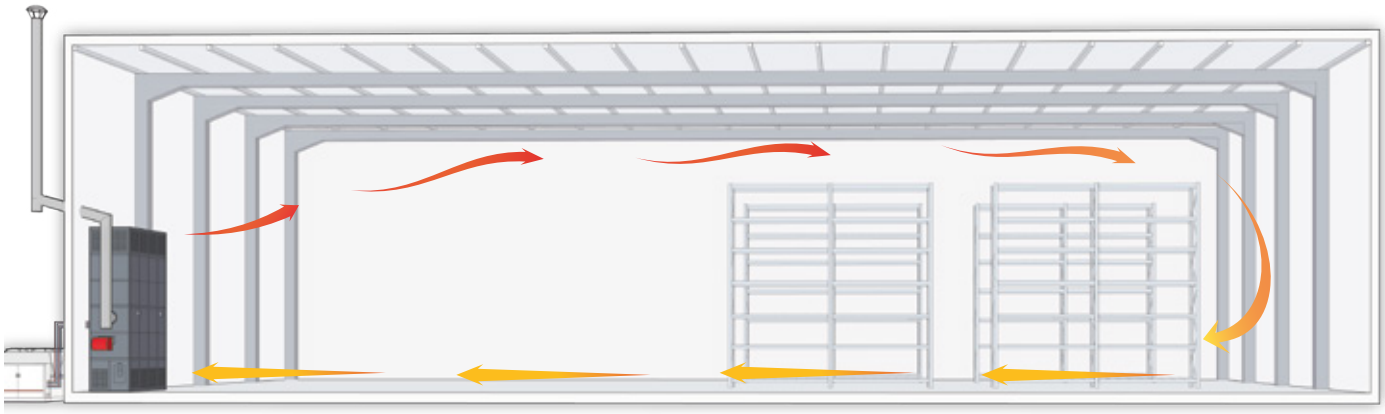
Manufacturing the AirRoteX series in the UK cuts carbon emissions by eliminating long-distance transportation and reducing reliance on global shipping. Our energy-efficient facility minimises waste and optimises resource use, further lowering environmental impact.

Supporting Sustainability Goals

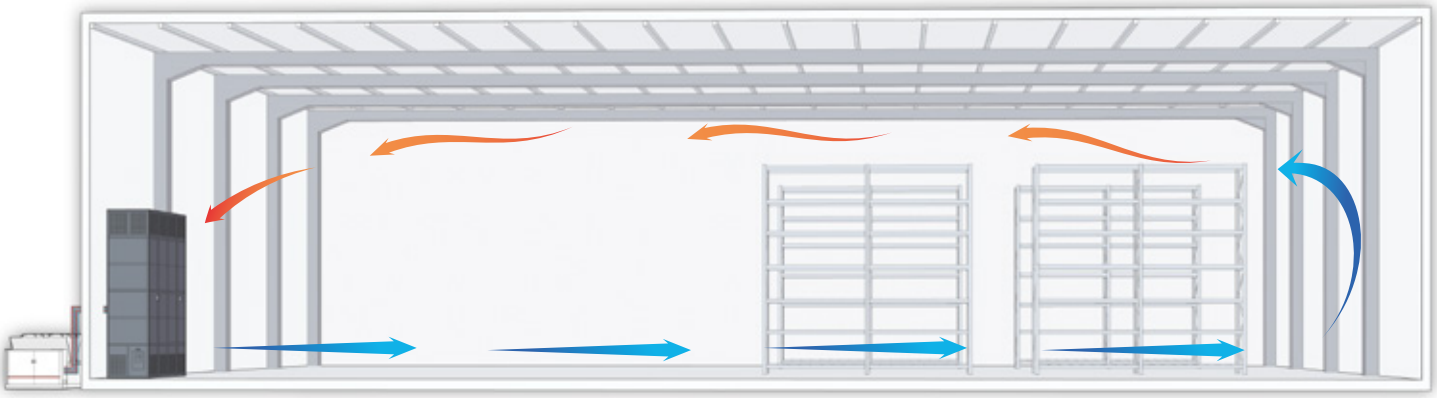
Choosing UK-made AirRoteX systems helps businesses reduce their carbon footprint while benefiting from energy-efficient, sustainable solutions. Our eco-conscious manufacturing supports long-term environmental responsibility and compliance with sustainability targets.

How does Air Rotation work?

Air Rotation HVAC systems offer an efficient and cost-effective solution for maintaining a consistent climate in large open spaces. By using high-volume, low-velocity air circulation, they provide even heating and cooling, prevent temperature stratification, and reduce energy consumption. This makes them ideal for warehouses, distribution centres, and industrial facilities.



Heating



Cooling

How Air Rotation Works

Air Rotation technology continuously recirculates air throughout a building. The system draws air from floor level, conditions it (heating, cooling, humidifying, or introducing fresh air), and redistributes it near the ceiling. This ensures a uniform temperature throughout the space, eliminating hot and cold spots.

Consistent Temperature Control

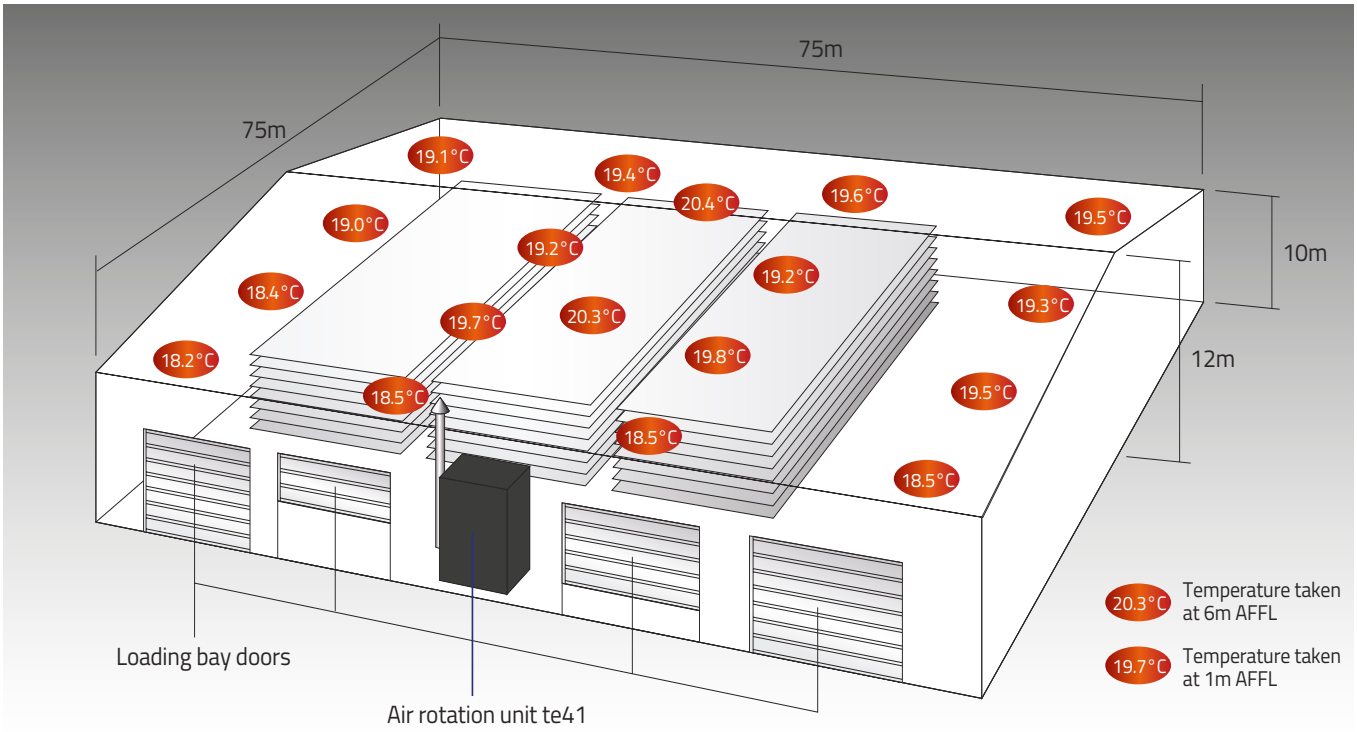
Air Rotation technology ensures a stable indoor climate, maintaining temperatures within ±2°C. Unlike traditional systems prone to temperature variations, it delivers uniform comfort for staff while protecting temperature-sensitive goods from fluctuations.

How Does a 100% Electric System Work?

A 100% electric air rotation system uses a heat pump to heat or cool water, which then circulates through water coils in the air rotation unit. EC fans distribute the conditioned air evenly, while continuous air recirculation ensures consistent temperatures and energy efficiency, making it an eco-friendly solution for large spaces.

How Does a Hybrid System Work?

A hybrid air rotation system combines a heat pump with a gas burner for greater flexibility. The heat pump provides heating or cooling down to 5°C, but when temperatures drop further, the gas burner activates for additional heating. Once the set temperature is reached, the heat pump takes over, maintaining efficiency while reducing gas usage.



Advanced Airflow Distribution

Air Rotation technology ensures continuous air movement, directing airflow above racking systems while drawing cooler air from floor level back into the unit. This process maintains uniform temperatures and enhances energy efficiency in large spaces.

Frost Protection Capabilities

Air Rotation technology helps maintain required temperatures, supporting frozen sprinkler systems for insurance compliance while also protecting stored products from temperature fluctuations that could cause deterioration.


Net Zero starts with smarter climate control.
Up to
50%

Decarbonising warehousing and distribution means adopting energy-efficient HVAC solutions that reduce emissions, cut costs, and integrate low-carbon technology. Smarter climate control ensures sustainability without compromise, keeping operations efficient and future-ready.

Up to 50% of a warehouse or distribution centre's total energy consumption can be attributed to HVAC systems, making efficient climate control essential for reducing costs and achieving Net Zero goals.

Working together to decarbonise your building through efficient HVAC technologies.

Reach out to Powrmatic to arrange a consultation or site visit for expert project assistance. Our tailored solutions will help you cut carbon emissions and work towards your net zero goals. Let us support your sustainable climate control initiatives.

UK Office

Hort Bridge
Iminster
Somerset
TA19 9PS

+44 (0) 1460 53535

info@powrmatic.co.uk
www.powrmatic.co.uk

Ireland Office

Powrmatic Ireland
45 Broomhill Close
Tallaght
Dublin 24

tel: +353 (0) 1452 1533

info@powrmatic.ie
www.powrmatic.ie

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