

**Electric Boiler-Free System** 

















# innovative ventilation technology

### **Cutting-Edge Humidity Management**

Recotherm Aerum technology applies controlled fresh air management to maintain optimal humidity levels in pool halls, effectively preventing condensation, maximising user comfort and minimising energy consumption. This innovative approach ensures the freshest environment and the lowest running costs available on the market.

### **Unmatched Energy Efficiency**

Aerum's unique design ensures the air temperature remains at an optimum level, keeping running costs low. Heat from the pool hall is recovered and transferred to incoming fresh air which dehumidifies the pool hall air before being passed over a renewable heating coil giving a much fresher and environmentally friendly atmosphere.

To ensure the correct choice of system for your customer's project, our in-house qualified, time-served surveyors, designers and engineers are available to provide support and impartial advice.



## over 40 years of expertise

With more than 40 years of engineering and construction experience, our team has honed its expertise exclusively in pool hall environments. Exceptional design and construction capabilities, paired with extensive on-site experience allow us to deliver bespoke solutions for any application with confidence and precision.

### Advanced Fan Technology

The Aerum range features infinitely variable-speed fans powered by the latest energy-efficient EC motors. While building regulations have required variable-speed fans for the past nine years, Recotherm have been incorporating this technology into its units for over 30 years. Unlike units with only two or three speed settings, Recotherm's fully variable fans can achieve up to 300% greater efficiency, adapting precisely to the speed required.

### **BREATHE THE DIFFERENCE**

Recotherm

Experience enhanced air quality with the Aerum range. By utilising fresh air flow to control humidity, our units create a cleaner, fresher environment and significantly reduce chemical odours, delivering an unmatched atmosphere.

### **Key Features of Recotherm Aerum Units**

- Efficient Fans: Warm, humid air is drawn from the pool hall and fresh air is supplied using Blue Fin backward-curve centrifugal fans for enhanced efficiency.
- Recuperator Technology: A passive heat exchanger (recuperator) captures heat from the return air and transfers it to incoming fresh air, boosting its temperature before reaching the coil for optimal thermal performance.
- Fresh Air Management: The units provide controlled fresh outside air and regulated exhaust of humid air, diluting the pool hall atmosphere to create a cleaner, fresher environment.
- Energy-Efficient Dehumidification: Using fresh air to manage humidity eliminates the need for energy-intensive processes, achieving superior results with minimal energy consumption.
- Precise Energy Usage: Fully modulating heat pumps and dampers adjust dynamically to use only the energy required, maintaining perfect pool hall conditions efficiently.
- Boiler Free, Renewable Heating: Fresh air dehumidification with renewable heating technology.





**Reco**therm



### fully modulating = maximum efficiency

All units are equipped with a fully functioning Building Energy Management System (BEMS) microprocessor. This processor sends signals to fans, dampers and heat pumps all of which are fully modulating. This ensures optimal operation at maximum efficiency, minimising energy usage.





fans, heat pumps & dampers are always operating to maximum efficiency to ensure minimal energy usage

custom control strategies

Our in-house capability to design control strategies, combined with expertise in sophisticated Trend and Distech systems, allows us to offer bespoke programming solutions. As a result, units can be programmed to accommodate individual features such as movable floors and external elements like bi-fold or sliding doors, ensuring intelligent management of environmental changes within the ventilation system.

### **Quality Build**

Designed and manufactured in the UK, Aerum units feature double-skinned, insulated casework panels made from 20-gauge Zintec steel with a durable plastisol coating. This construction prevents heat loss in cold plant rooms and heat soak in warm environments, maintaining optimal air-handling unit performance. The plastisol coating - a blend of PVC and liquid plasticizer - ensures long-lasting durability, even in chlorinated conditions.

### ISO-Class 65% Grade Filtration

All units come equipped with disposable, dry pleated panel supply filters. Differential pressure switches on the filter bank trigger a fault signal on the unit's control panel when filters become dirty, simplifying maintenance. Higher-grade filtration options are also available upon request.

### **Tailored Solutions for Unique Projects**

Our in-house environmental engineers are adept at translating complex concepts into practical solutions. For unconventional or unique projects, we excel at designing and delivering tailored systems to meet specific requirements.

















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# flexible build, delivery and installation

Whether for new installations or replacements, our Aerum units can be delivered fully assembled or in flat-pack sections for on-site assembly, providing flexibility to fit virtually any location. Units can be configured vertically, horizontally or in hybrid orientations and are robust enough for outdoor installations without incurring additional costs.

### **Additional Capabilities**

Aerum units also support features like scented air injection, to further enhance functionality and meet the unique demands of your project.





### Industry Leading 3-Year Manufacturer's Warranty

- All Recotherm units include a 12-month on-site warranty, providing essential cover for your new system.
- For added peace of mind, customers can opt for a comprehensive three-year warranty covering all labour and parts in the event of a breakdown. This warranty is available when paired with our Three-Year Maintenance Plan.



The Carbon Trust estimates that energy bills can rise by up to 60% if units are not properly maintained. Our Three-Year Fixed-Price Maintenance Plan for new units includes regular servicing and maintenance by a Recotherm engineer as well as parts and labour in the event of a breakdown due to mechanical faults.

### **Expert Servicing**

Our in-house team of highly trained ventilation engineers handles all maintenance needs, from annual visits to more frequent maintenance schedules. During each service every component is thoroughly inspected to ensure the unit operates as efficiently as it did when first commissioned.

Regular maintenance prolongs the unit's lifespan and maintains peak energy efficiency.





### Aerum Sizes, Weights and Power Consumption

Model	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Power Consumption Full Speed (kW)	Power Consumption Half Speed (kW)
Aerum 50 V	1000	750	1850	370	0.55	0.07
Aerum 100 V	1150	850	2300	450	1.3	0.16
Aerum 150 V	1190	1150	2200	550	1.87	0.23
Aerum 200 V	1500	1500	2600	750	2.35	0.29

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