

Artus™ by Airedale

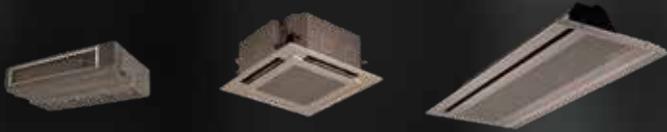
A smarter, more compact approach to air conditioning



“ There’s a way to do it better
- find it.

Thomas A. Edison

”



After many years of working
with existing systems, we
invented a better one.

Artus™

Why do we put up with products that don't work properly?

The problems with existing ceiling based systems

Not the full package

Many don't come as a packaged solution - requiring valves, controls, grilles and secondary ductwork from a range of suppliers, leading to high costs and supply chain challenges

Energy hungry

High-performance systems are energy intensive. Those that are more efficient struggle to meet required cooling capacities

Bulky and inflexible

Many systems are large, necessitating deep service zones and leading to coordination challenges. Most don't fit seamlessly into their surroundings

No integration with the ceiling membrane

Systems are rarely designed with ceiling integration in mind, resulting in installation challenges and unsightly grilles

Problematic to install, commission and maintain

Most systems take significant time to commission and require access panels or a fully accessible ceiling for maintenance

Noise, draughts and poor thermal comfort

Many systems exhibit poor airflow, leading to draughts, dead spots, high noise, and a lack of thermal comfort

Artus™ was born

Reflecting on more than 30 years of designing air conditioning units and the inherent challenges, Arup engineer Roger Olsen realised there was a need for a new type of heating and cooling system.

After refining a theoretical concept, Arup partnered with Airedale to create Artus™, a fully packaged solution combining the flexibility of a fan coil unit with the low energy consumption of a chilled beam, as well as offering a host of further benefits across the building value chain.





Compact

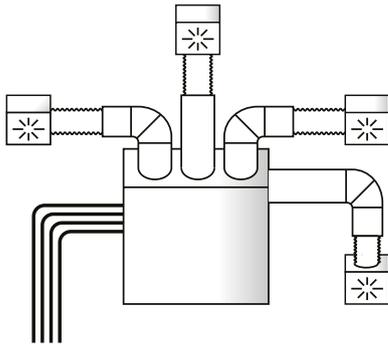
Ideal for new-build and refurbishment

At only 200mm deep, Artus™ is perfect for offices, hotels and apartments where space is at a premium.

Its compact size makes it ideal for retrofitting older buildings with constrained storey heights which struggle to accommodate conventional systems.

In new builds, its much-reduced height compared to conventional systems allows developers to maximise floor-to-ceiling heights or squeeze the building envelope, fitting 13 floors into the equivalent height of a 12-storey building.

Conventional solution

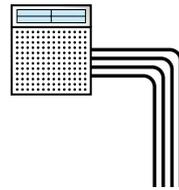


Complex system layout



Ceiling cavity: 500mm

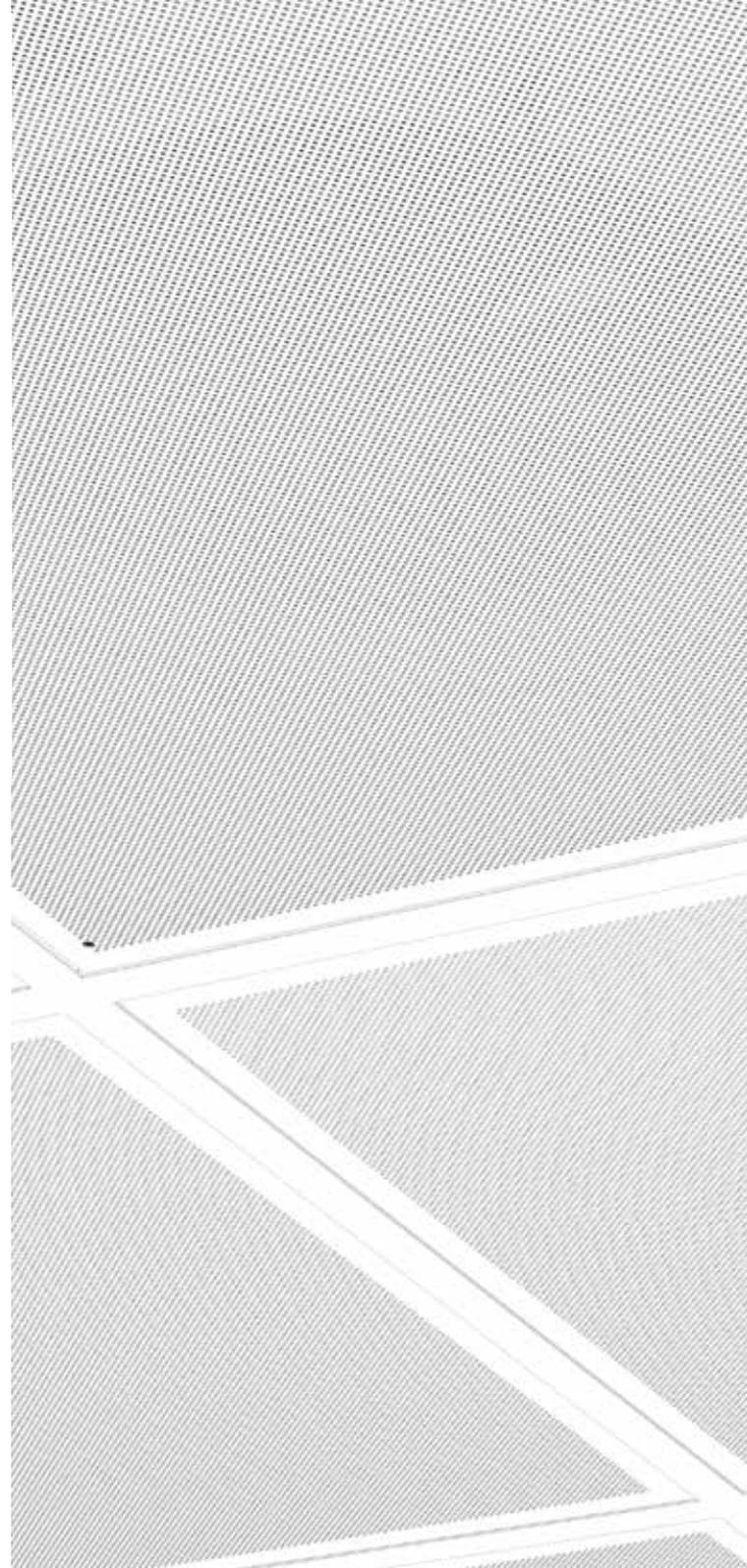
Artus™



Simple layout



Ceiling cavity: 200mm





Seamless

Perfectly fits in a wide range of interior designs

From modern to minimalist, classic to contemporary or rustic to retro, the simple, elegant design of Artus™ will suit the ambience of any environment. The Artus™ fascia plate* enables discreet integration, whatever the ceiling finish.



*Fascia options available on request

Perfect, even heating and cooling

A swirl pattern distributes air in all directions, providing complete coverage and excellent thermal comfort with low noise.



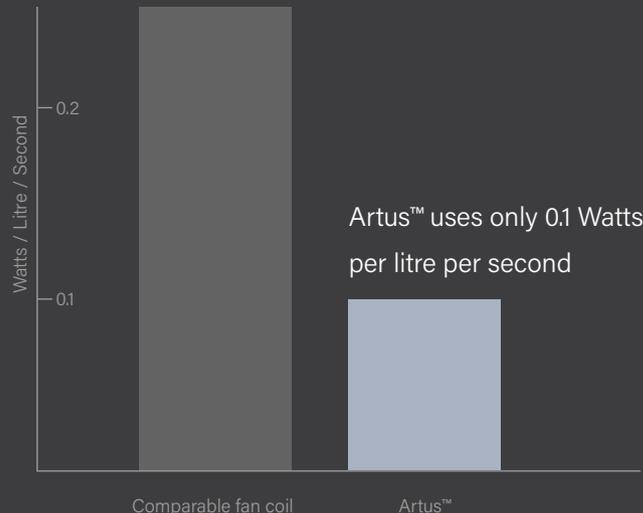
Market-leading energy performance

Artus™ supplies the same cooling load with dramatically lower energy consumption than alternative systems.

Using 60% less specific fan power than a typical fan coil unit (0.10 Watts/litre/sec), it can reduce a building's overall energy consumption by the equivalent of 4 BREEAM points, resulting in lower operational costs.

Using much less energy than alternative solutions, Artus™ consequently has a dramatically lower environmental impact.

A typical fan coil unit uses
0.25 Watts per litre per
second



Artus™ uses 60% less energy than a comparable fan coil unit

Intelligent control & monitoring

Artus™ provides fully integrated and easy to configure controls. This results in faster, more straightforward installation, in turn saving cost.

The system is BACnet compliant (IP and MSTP options available) providing intuitive control via wall controller or web interface. Master/slave controls options are easily set up and deliver total flexibility, as well as future proofing for any design beyond occupation.



Temperature measurement
in °C



Cooling/Heating/Inactive
State



Green Leaf function*

*automatically detects unnecessary
energy consumption and resets to more
efficient mode



Display of the present fan
speed in both auto and
manual



Display of room operating
mode

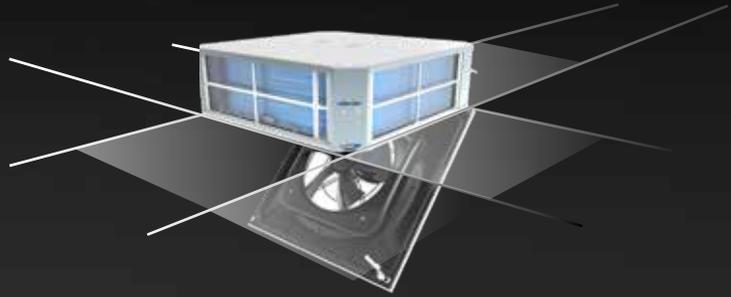


Easy to install, commission and maintain

Artus™ is delivered to site as a packaged easy to configure unit.

Its design means it can seamlessly integrate into most standard ceiling systems, and even match the perforation of an acoustic metal ceiling.

Artus™ is “self-access” meaning that all components can be maintained without the need for access panels.





Artus™ unlocks benefits for all

A building developer's perspective

- High-quality, low-energy
- Saves up to 300mm in height per floor versus FCUs
- BREEAM credit contribution
- Part L Building Regulation compliant
- Designed for end of life re-use/recycling

An architect's perspective

- Simple ceiling integration
- Shallow depth simplifies coordination and reduces service zones
- "Self-access" with no requirement for access panels or a removable ceiling

An M&E consultant's perspective

- Straightforward, flexible unit from a single supplier
- Designed to meet the needs of modern buildings
- Dramatically lower energy usage than alternatives
- Allows cleaner, shallower ceiling voids and simplified service coordination

A contractor's perspective

- An easy to configure unit from a single supplier
- Quick and easy installation with seamless integration with the ceiling
- Units can be installed and commissioned before the ceiling is installed, saving valuable time

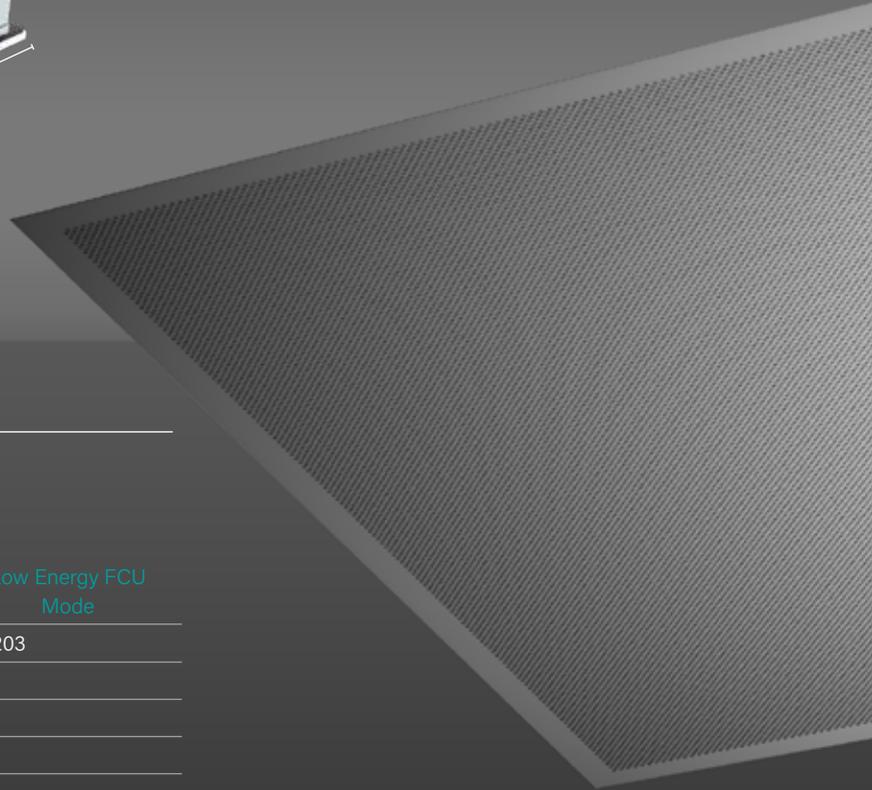
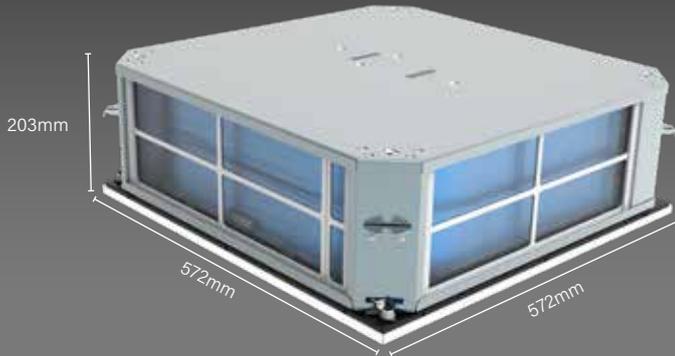
A commissioning/FM engineer's perspective

- Simple commissioning and troubleshooting
- Ease of maintenance without the need for additional ceiling access panels
- All replacement parts available from a single source

An occupant's perspective

- High thermal comfort with no draughts
- Low energy consumption, low operational costs
- Quiet operation

Product details



Technical Specifications

Nominal Data	Fan Assisted Chilled Beam Mode	Low Energy FCU Mode
Dimensions W x L x D (mm)	572 x 572 x 203	
Dry Weight (kg)	21.5	
Airflow (l/s)	140	
Absorbed Fan Power (W)	13.3	
SFP (W/l/s)	0.10	
Overall Sound Power (dBA)*	52	
Noise Rating (NR)**	42	
Total Cooling Capacity (kW)***	1.43	2.77
Sensible Cooling Capacity (kW)***	1.43	2.39

* Overall sound power (return + supply)

** Based on typical office finishes (in-ceiling installation)

*** Based on 27°C / 49% RH return air:

- Fan assisted chilled beam mode - 14/17°C water temperatures

- Low energy FCU mode - 6/12°C water temperatures





Artus™ by **Airedale**

Taming a complex world with innovative design.

Where form meets function, in perfect synergy.



Ecobuild and M&S Big Innovation Pitch Winner 2017

RAC Cooling Awards 2017 – Product of the Year

CIBSE Yorkshire Region Manufacturers Award Winner – Airedale Artus™

The Institution of Engineering and Technology Awards – Emerging Technology Design of the Year – Highly Acclaimed

The Institution of Engineering and Technology Awards – Energy Product of the Year – Highly Acclaimed



Discover more

To experience Artus™ or for more
information, please call:
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