



SAVE ENERGY, CUT COSTS, IMPROVE COMFORT, REDUCE CARBON

Save 20-50% on heating & cooling costs in
Aviation Facilities with Airius

The world leaders in Destratification technology



www.airius.co.uk

Destratification is recommended by The Carbon Trust*



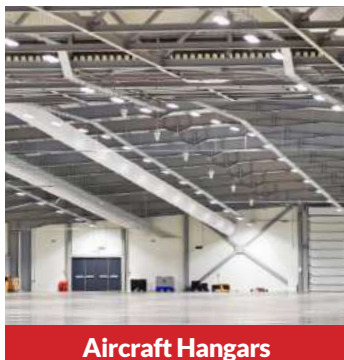
Aviation

Airius are world leaders in destratification fan technology and have the largest range of fan units, suitable for any aviation building application.

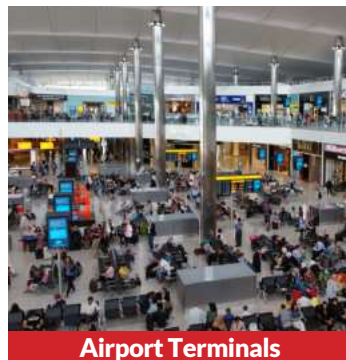
National Museum of Flight

Whether it be a private or commercial aircraft hangar, maintenance hangar or even airport terminal, Airius destratification fans balance internal temperatures to significantly improve occupant comfort and reduce heating and cooling costs by up to 40%.

By equalising temperatures and recirculating rising heat back to the floor, Airius fans reduce turnaround times, speed up daily processes and reduce maintenance downtime. Most importantly, your employees and visitors will be consistently comfortable all year-round.



Aircraft Hangars



Airport Terminals



Maintenance Sheds

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Airius destratification fans work simply and inexpensively alongside all types of HVAC equipment to improve your energy management by balancing temperatures, reducing both heating and cooling costs by between 20% to 50% or more and create gentle air movement throughout the internal space.

Airius are World leaders in destratification fan technology and have the largest range of fan units that can be installed into both open and suspended ceilings and are suitable for any aviation building application such as:

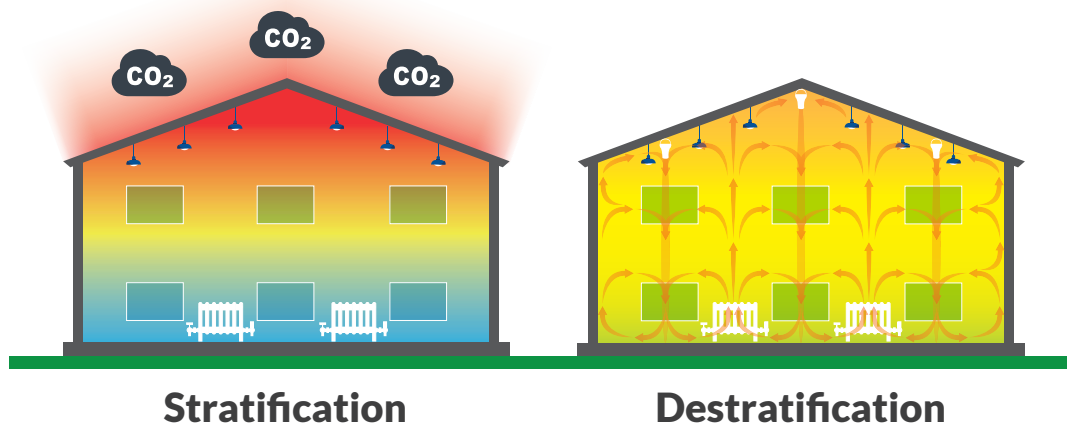
- Aircraft hangars
- Terminals
- Airport operations centres
- Control towers
- Baggage handling areas
- Cargo & storage buildings
- Vehicle maintenance sheds
- Ground support maintenance buildings
- Flight catering facilities
- Administrative buildings

How it works

Thermal stratification affects all buildings and has been labelled as “the single biggest waste of energy in buildings today.” - DTE Energy.

Hot, lighter air rises towards the ceiling. Cool air falls to the floor. This causes a dramatic temperature difference between the floor and ceiling and results in HVAC systems over-delivering on both heating and/or cooling to overcome the effects of thermal stratification.

Consequently, energy bills are much higher and internal environments rarely meet expectations.



Airius destratification fans are installed at ceiling height and send air down to the floor in a tight, slow-moving column.

When this air reaches the floor, it radiates 360° outwards until it meets a vertical surface and/or air coming from neighbouring Airius fans and then it rises back up towards the ceiling.

As this air rises it entrains back into the descending column, which creates millions of tiny vortices, making the air move at the same speed throughout the whole interior space creating a balance of temperature.



Features & Benefits

Airius destratification fans are the only brand to feature our patented multi-vane stator technology.

While most fans use basic motors to churn air through space, Airius fans are equipped with industry-leading EBM Papst motors, which help to deliver incomparable levels of efficiency and longevity.

Main Benefits

- Optimises both heating and cooling
- 40%+ reduction in heating costs
- 40%+ reduction in CO₂ emissions
- Applicable for hangars up to 35m
- Works with & reduces maintenance costs for ALL HVAC systems
- Recycles process heat from lighting and solar gain
- Significantly reduces heat loss through roof
- Reduces hangar heat up time
- Increases lighting lifespan
- Near silent operation
- Vastly improves comfort levels
- 20%+ reduction in cooling costs
- Rapid ROI - Usually 8 - 18 months
- Minimal running costs (from £24/pa)
- Simple to install with no ducting required
- Reduces or eliminates condensation, corrosion & wet floors
- Easy retro installation or designed into new build specification
- Airflow deters birds and insects
- Minimal maintenance required
- Eligible for grants/loans

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"We have installed Airius destratification fans into hangars at our **Blackbushe Airport, Surrey and Oxford Airport sites with great success.**

At both facilities Airius fans units have made the working area much warmer for our aircraft technicians **and the heaters are switching off a lot more often**, which has never happened before."

Paul Morrison
Facilities Manager - *PremiAir*





Assured quality

Airius Destratification fans have been installed into many commercial, private, public and government buildings. Discover who we work with and what they have to say.

Customer testimonials

“ The Airius fans made an immediate and significant improvement even before the heating/cooling system upgrades had been completed, so much so that all complaints from staff ceased immediately and they were now comfortable enough to work in their t-shirts.

J Forge – Contract Manager – Gratte Brothers Group Ltd

"Following temperature problems being experienced in a **British Airways maintenance hangar at Heathrow**, we (Gratte Brothers) were awarded the contract to upgrade the heating and ventilation system along with other M & E works.

The temperatures problems were severe with staff threatening to walk out. After exhaustive research, it was decided to install Airius to improve internal air circulation and reduce the extremely high heating and cooling costs.

The Airius fans made an immediate and significant improvement even before the heating/cooling system upgrades had been completed, so much so that all complaints from staff ceased immediately and they were now comfortable enough to work in their t-shirts.

The team at Airius were really helpful and a pleasure to work with. We will be tendering for further British Airways projects of this type and fully expect to purchase more Airius units."

“ We have installed Airius destratification fans into hangers at our Blackbushe Airport, Surrey and Oxford Airport sites with great success.

Paul Morrison – Facilities Manager - PremiAir

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“ **The end product is amazing!**

Adam Watson – Asset Manager - Heathrow Terminal 5

"One of the things I enjoy most about my role is the occasional interaction with engaging suppliers and those with a vision that aligns to our own.

I am grateful we've been able to deliver one of the projects prior to the festive break, it reflects back in good for all the challenges we've faced; and **the end product is amazing!**

And more than that, **I have thoroughly enjoyed the personal interactions we have had with the Airius team!**"

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“ **The Airius system has been an effective solution towards helping Gama Aviation achieve [our] goals.**

Sean Hull – Engineering Operations Manager - Gama Aviation

"Gama Aviation are always looking for new initiatives and technologies to help **reduce their energy consumption and contribute towards creating a sustainable future** for all, and **the Airius system has been an effective solution towards helping Gama Aviation achieve those goals.**"



“ **We were amazed at the difference and reduction in condensation.**

Mark Thomson - Manager Facilities - Qantas Catering

"When we switched the fan on, we thought that the volume and area covered by the flow of air was going to be insufficient.

The next day when we inspected the area, **we were amazed at the difference and reduction in condensation.**"

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“ **The increase in temperature was noticed immediately.**

Chris Glancy – General Manager - Avalon Aero

"Having recently installed Airius fans into our aircraft maintenance hangar facility at Biggin Hill Airport, **the increase in temperature was noticed immediately.**

The units were simple to install and the team at Airius were supportive throughout.

I would have no hesitation in recommending their systems."

Discover more

See our full list of 65+ customer testimonials on our website at www.airius.co.uk/testimonials

Gama Aviation

Engineering Hangar

Gama Aviation approached Airius to help reduce the energy consumption in their main engineering hangar at Farnborough Airport.

Following installation of the Airius system only one of the two existing heating units was required to achieve desired temperatures, resulting in a saving of over 48% on their heating costs.

Key Points:

- **48.22% saving on heating costs**
- 1,136m³ natural gas reduction
- Halved heating system demand
- Significantly improved comfort
- Simple turnkey supply & installation
- Helped achieve site sustainability goals



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Farnborough Airport

Exhibition Hangar & Conference Centre

Farnborough Airport installed the Airius system throughout their 20,000m² exhibition hangar to reduce heat loss through the roof and save on heating costs.

This balanced temperatures to within 2°C throughout the hangar and reduced heating costs so much that they benefitted from an ROI of under 12 months.

Key Points:

- **ROI under 12 months**
- Improved heating system efficiency
- Marked reduction in CO₂ emissions
- Significantly improved comfort
- Heat loss reduced
- Hangar heat-up time improved



British Airways

Heathrow Maintenance Hangar



HEATING

To address severe temperature problems due to extreme stratification and heat loss resulting in staff proposing to walk out, British Airways contractors contacted Airius for a destratification solution.

The improvement after installation was immediate, even before HVAC upgrades were completed, satisfying staff and reducing costs significantly.

Key Points:

- **Significant heating savings**
- Immediate comfort improvement
- Reduced load on HVAC system
- Reduced hangar heat-up time
- Desired conditions achieved even before completion of HVAC system upgrades

Qantas Catering

In-Flight Food Production & Preparation



COOLING

Q Catering, the catering arm of Qantas Airways, installed the Airius system to address serious condensation issues, which was resulting in water dripping on to equipment causing corrosion and slipping hazards in their food production area.

Within 24 hours of installation all condensation problems had been resolved.

Key Points:

- **All condensation problems resolved**
- Vastly improved airflow circulation
- Halted equipment corrosion from dripping water
- Gentle airflow with no excessive draughts
- Fully speed controllable

V3.0



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