



Destratification is recommended
by The Carbon Trust*

**SAVE ENERGY,
CUT COSTS,
IMPROVE COMFORT,
REDUCE CARBON**

Save 20-50% on heating & cooling
costs with Airius - **The world leaders
in Destratification technology**



Web: www.airius.co.uk

Tel: 00 (+44) 0 1202 554200



TRUST IN AIRIUS

**Formed in 2004, we
have revolutionised
the energy reduction
industry.**



**Airius has helped
thousands of businesses,
from SMEs to major blue chip
companies make real
reductions in their energy
usage and carbon emissions.**

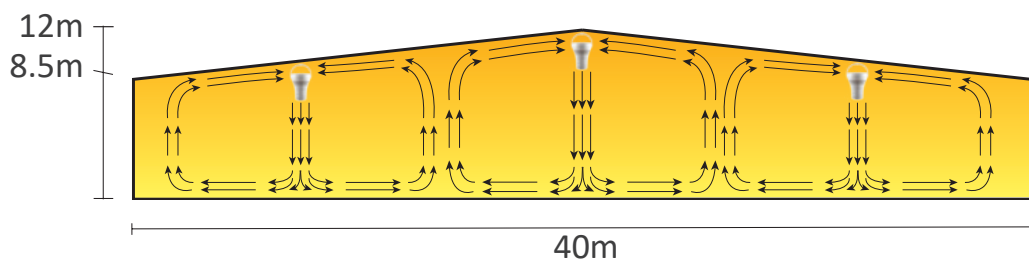
Table of Contents

- 04. How Does It Work?
Airius unique patented system
- 06. How Will I Benefit?
Patented Stator Technology
- 08. The Standard Series
All-inclusive features
- 10. The Designer Series
The discreet solution
- 11. System Speed Controls
Variable on/off speed controls
- 12. The Retail Series
Standard & Narrow aisle configurations
- 14. The Suspended Series
Suspended ceiling integration
- 16. The Q Series
The ultra-quiet range
- 18. Our Full Product Range
Including weights & dimensions
- 20. Technical Data
Fan model, motor and coverage data
- 22. Project Gallery
- 24. Customer Testimonials
- 26. Case Studies
- 30. FAQs
- 32. Installation Service
- 33. Airius Lighting Solutions
- 34. Contact Information

How does it work?

Airius destratification fans are installed at ceiling height, sending air down to the floor in a slow-moving column. When this air reaches the floor it radiates 360° outwards across the floor until it hits a vertical surface and then rises.

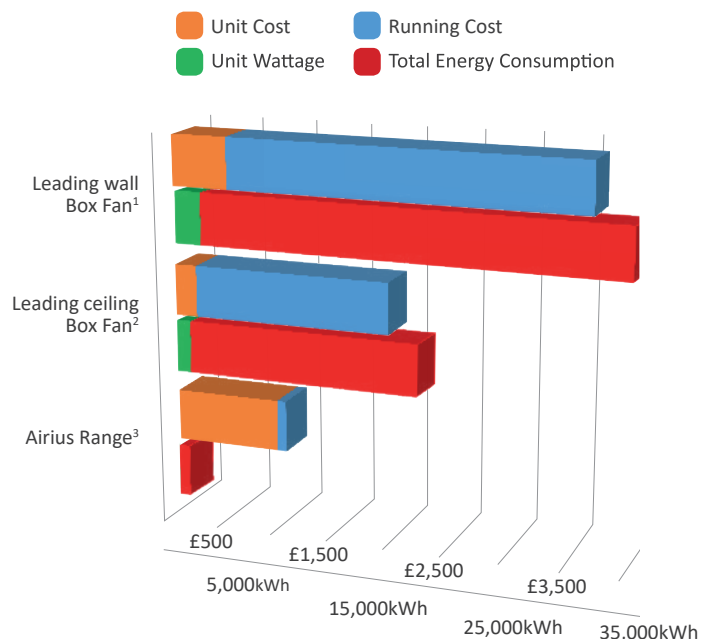
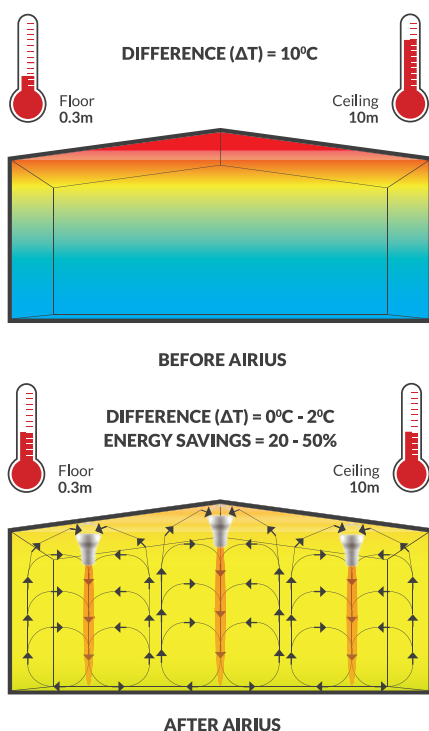
As this air rises it entrains back into the descending column which creates millions of small vortices making the air move at the same speed throughout the whole interior space and a balance of temperature is created. This process is achieved using minimal air movement, near silent operation and nominal power requirements. Savings on average are between 20 - 50%, although higher levels have been recorded (see Lush Cosmetics Case Study, page 25).



4

Pros: 20 - 50% energy savings | 0°C - 2°C temperature variance | Low energy consumption (12W+) | Silent operation | Lightweight, small and unobtrusive | Avoids draught disturbance | Simple installation | BSRIA tested | Full destratification achieved.

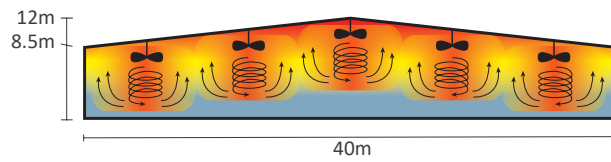
Cons: Roof level installation.



Figures above are based upon equivalent systems: ¹Powmatic CEC 3750, ²Ambirad/Benson DS10 & ³Airius Model 60.

The 'blade' or paddle fan

The cheapest option, works by 'churning' the air. However, it is not organised and the airflow disperses before it can reach the floor (see *smoke test video at www.airius.co.uk*).

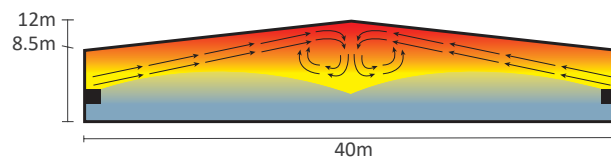


Cons: Unequalised temperature | Roof level installation | Conical airflow spread disperses before reaching floor level.

.....

The wall-mounted box fan

These are fixed to the wall at head height and angled upwards. They send air at high velocity upwards to push warm air gathered at the ceiling to floor level, which requires a high level of energy. This type of fan is limited to industrial buildings where noise and excessive airflow are not a problem.



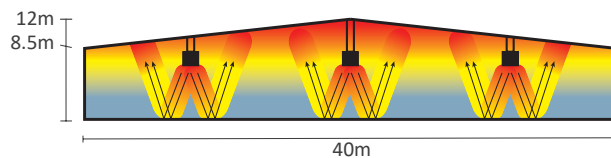
Cons: Unequalised temperature | Noisy | High energy usage | Large, heavy units | Recommended installation at head height, which can cause accident and injury.

.....

5

The ceiling-mounted box fan

These units are fixed to the ceiling and send high velocity air directly to the floor. This creates draught problems and can pick up and circulate dust particles. They are also high energy consumers and not suitable for noise sensitive environments.

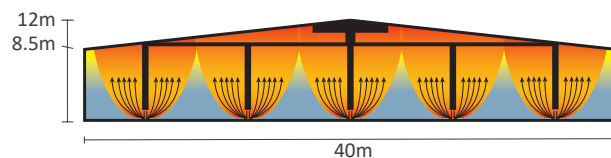


Cons: Unequalised temperature | Noisy | High energy usage | Large, heavy units | Roof level installation.

.....

Overhead ducted fans

Installed at ceiling height sending air to the floor through a series of ducts. High velocity airflow is required to overcome the friction of air against the inside of the ducting. Once airflow is distributed at floor level it results in localised destratification near the dusting exhausts only, since airflow is not organised to circulate and instead immediately rises back to the ceiling. Installation of the ducting is also expensive and time-consuming, causing extended disruption to a building's normal operation.



Cons: Unequalised temperature | Full destratification not achieved | Poor airflow circulation | Floor plans must be adapted placing work stations near duct exhausts | Ducting and its installation is expensive and disruptive | Extensive high and low level ducting installation.

How will I benefit?

Thermal stratification is a natural phenomenon affecting all buildings and results in a dramatic imbalance of temperatures from floor to ceiling. This difference occurs when hot air rises towards the ceiling or roof because it is lighter than the surrounding cool air. In contrast, cool air falls to the floor as it is heavier and denser.

The main negative consequence of thermal stratification is Heating, Ventilation and Air Conditioning (HVAC) systems over-delivering to continually replace the heat which has risen up to the ceiling (0.5°C - 2°C per metre on average) in order to maintain set temperatures at floor level.

Conversely, heavier cooled air which is more difficult to distribute is wasted by sinking to low points in a building or by becoming trapped in difficult to circulate areas.

So, if your company heats and/or cools its buildings these temperature imbalances result in your company wasting significant sums of money in performance and lost energy and having a negative impact on your carbon footprint.

Airius work alongside all types of heating and cooling equipment and are an extremely efficient replacement for duct work.

6



Listed building installs

Airius fans can be installed into almost any type of building and we have worked alongside organisations such as English Heritage and Church of England Dioceses, The National Trust etc. where our fans have been installed in Grade I, II* and II listed buildings.

Patented Stator Technology

Airius internationally patented multi-vane stator technology transfers rotational energy to create a slow moving column of air (columnar laminar flow) which increases the throw distance. This is a standard feature on all Airius fan models as is a totally unique process.

By producing these slow moving air columns which descend to floor level and move air at the same speed throughout the whole interior of a building will balance temperatures to within 0°C - 2°C.

RECOMMENDED BY THE CARBON TRUST

Main benefits

- Reduces heating costs by 25% - 50% or more
- Reduces cooling costs by 20% - 40% or more
- Reduces CO₂ emissions by 20% - 50% or more
- Rapid ROI - usually between 12 -24 months
- Dramatically improves internal environments
- 5 year warranty
- Eligible for carbon reducing grants / loans
- Increases lighting lifespan
- Minimal maintenance required
- Minimal running costs (from £6/pa)
- Recycles heat from machinery, lighting, solar gain etc
- Reduces condensation
- Reduces wear on existing HVAC equipment
- Simple to install with no ducting required
- Simple, inexpensive and efficient ESOS / CRC solution
- Small, versatile, unobtrusive units
- Stand alone or BMS integrated
- Works alongside all types of HVAC systems

7

The Airius Guarantee

We at Airius are so confident with the performance of our products and installations, we offer our customers a full 120-day Money Back Guarantee - no questions asked.

This is an offer un-matched by any other destratification fan manufacturer and provides our customers with the all-important reassurance needed to make important decisions regarding investment.

Terms & Conditions apply.

For further details email airflow@airius.co.uk or call on +44 (0)1202 554200.



Standard Series

Reducing energy costs since 2004, The Airius Standard Series of free hanging destratification fans are our most popular range selling to date over 175,000 units worldwide.

The Airius Standard Series is available in a range of models for any type of building with ceiling heights from 2.5m to 32m; offices to aircraft hangars!

Airius work alongside all types of heating and cooling equipment and are an extremely efficient replacement for duct work.

All Standard Series are supplied in an off-white colour, we can custom paint your destratification fans to match any RAL colour code.



8

Call Airius today to receive
a fully tailored quotation for
your building.

+44 (0)1202 554 200

Or email: airflow@airius.co.uk

All-inclusive features

Airius fans incorporate many standard features which make them very adaptable for all types of installations

Adaptability

Adjustable hanging bail and eyebolt allow for the fan to be hung to blow a column of air in any direction from directly downwards to more than 90° to the floor.



Leash anchor

Every unit comes with a secondary safety leash anchor point and leash cable



Cord length

Each unit comes with a 1.5m power cable which can be wired into a circuit or a basic 3 pins plug (not supplied)



Ultra Quiet

All fan motors are ultra-quiet so are suitable for sensitive environments such as offices, libraries, schools and low ceiling retail stores.



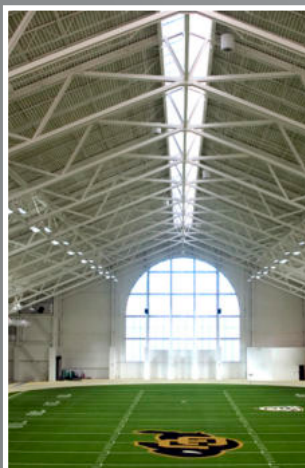
Designer Series

The Airius Designer Series shares many similarities to our Standard Series and provides all of the same benefits and functions which are perfectly suited to architecturally sensitive installations.

We can customise the Designer Series with motor and control options to suit your requirements as well as custom paint the units to match any RAL colour code.

The Designer Series is suitable for installation in applications with ceiling heights ranging from 2.5 metres right up to 35 metres high.

10



System Speed Controls

All Airius systems are designed to operate on a 24/7 basis for maximum efficiency.

Airius supply the following types of speed controllers:

1 Amp Controller

The 1 Amp Controller suitable for:

- 13 x Airius Model 10's
- 10 x Airius Model 15's
- 5 x Airius Model 25's
- 4 x Airius Model 45/PS-4's
- 1 x Airius Model 45/PS-2
- 2 x Airius Model 50/PS-4's
- 1 x Airius Model 60/PS-4
- 1 x Airius Model Sapphire PS-4



11

5 Amp Controller

The 5 Amp Controller suitable for:

- 67 x Airius Model 10's
- 53 x Airius Model 15's
- 25 x Airius Model 25's
- 20 x Airius Model 45/PS-4's
- 6 x Airius Model 45/PS-2's
- 11 x Airius Model 50/PS-4's
- 6 x Airius Model 60/PS-4's
- 2 x Airius Model Sapphire PS-4's



EC Controller

The EC 0 – 10v controller is suitable for Airius EC and EL models only. See unit data sheets for motor information.



Retail Series

Maintaining comfortable environments in retail stores is crucial for sales and productivity leading to increased customer browse times and employee productivity.

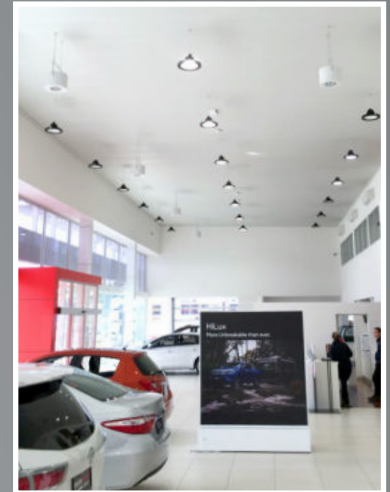
Some of the most uncomfortable retail environments are supermarket chiller and freezer aisles. Airius has an excellent track record with many major supermarket brands for improving temperatures in these areas.

In air conditioned environments hot and cold spots often lead to uncomfortable environments. Installing Airius eliminates these temperature differentials to balance the temperature across the sales floor and maximise the efficiency of AC system reducing costs by up to 30%.

The benefits of destratification are well recognised within the retail sector and Airius have helped many companies to reduce their energy costs and optimise comfort for customers and staff. Giants such as Morrisons, Tesco, Marks & Spencer, Halfords, New Look and Pets at Home to name but a few have benefited from installing Airius.

12

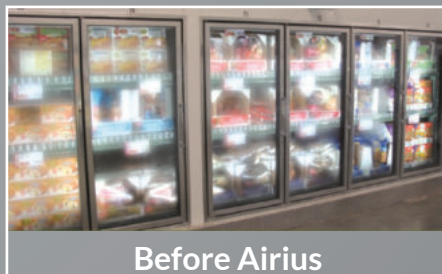




Benefits include

13

- Vastly improved comfort levels throughout the store
- Increases customer browse time and spend
- Recycles heat from equipment, solar gain, lighting etc.
- Condensation reduced or eliminated
- Eliminates cabinet glass fogging
- Dries spills quickly
- Increases lighting lifespan
- Optimises ALL types of HVAC systems
- Significantly reduced HVAC maintenance costs



Before Airius



After Airius

RETAIL
series

Suspended Series

The Airius Suspended Ceiling Series is designed for Airius fan models 10, 15, 25 and 45 and is suitable for suspended ceiling heights from 2.5m to 11m

The Airius Suspended Ceiling Kit seals the fan from the ceiling void ensuring only air from beneath the ceiling is circulated.

Easy to install, light and very adaptable to changing floor plans, the ceiling kits can be used in all configurations of the 600mm x 600mm grid plan.

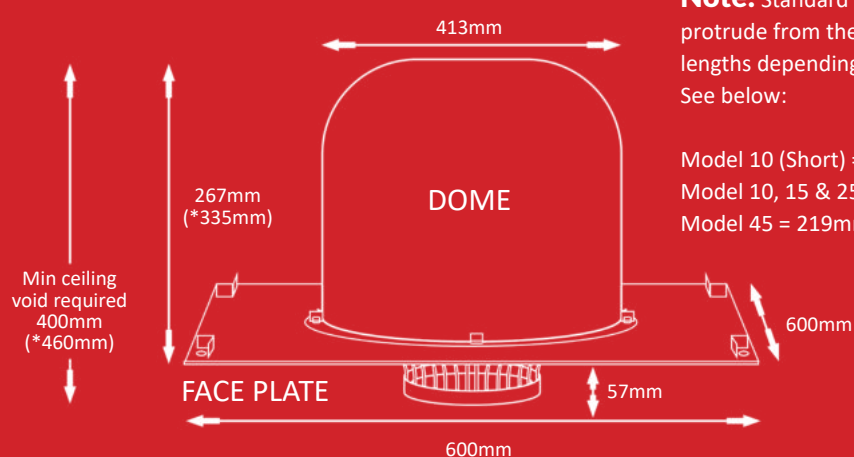
The Suspended Series requires a minimum ceiling void of 400mm (460mm for Model 45 Suspended Series).

14





Weight & dimensions



Note: Standard Series fan nozzles will protrude from the face plate to different lengths depending upon the model. See below:

Model 10 (Short) = 120mm
Model 10, 15 & 25 = 222mm
Model 45 = 219mm

Weight = 3.6kgs (*4kgs) | Ceiling Height = 2.5m - 15m | Housing = Recycled PC/ABS Resin (5VA flame resistance rating) | Colour = Off White (Can be colour match painted to your specifications)

*Applies to Model 45 Suspended Series Kit

Q Series

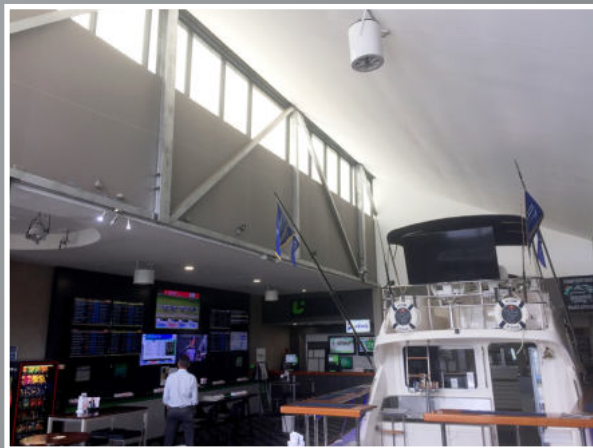
The Airius Q Series takes noise management to a new level. Redesigned applying acoustic research and technology to our patented airflow technology, the Q Series has developed a new standard in acoustic management.

Ideal for theatres, schools, shopping centres, offices and entertainment centres, the Q Series is an exciting edition to the Airius range.

Solve comfort issues, increase productivity, save on HVAC energy costs and reduce your carbon footprint. Working in conjunction, each Q Series fan delivers gentle efficient air circulation to balance overall air temperature from ceiling to floor and wall to wall. Available in two motor types to suit ceiling height requirements up to 18m.

Ratcheted handle allows fan to be angled and locked in position. Eyebolt provided for hanging the fan using beam clamp/bridle ring, chain-link/carabiner or similar method. Refer to installation, operation and maintenance guide for further details.





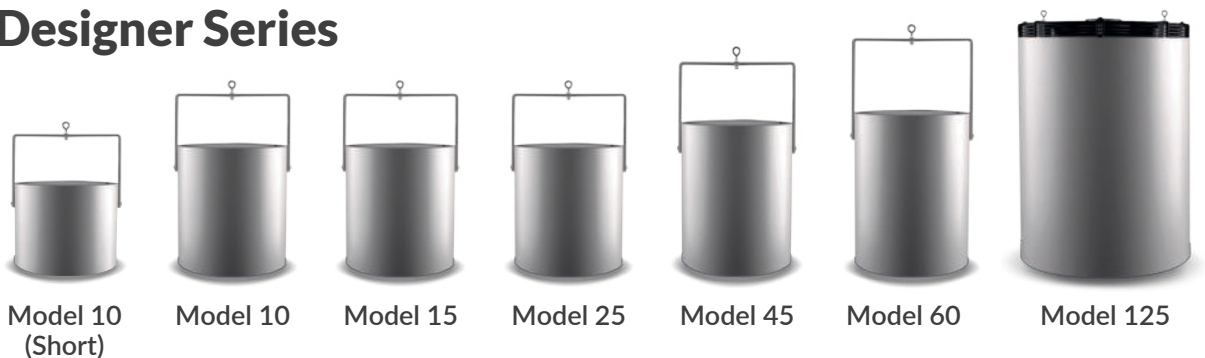
Our product range

Explore the most versatile and efficient range of destratification fans available on the market to ensure all buildings are heated and cooled efficiently and economically.

Standard Series



Designer Series



Retail Series



Q Series



Suspended Series



Controls



Unit Dimensions & Weights

STANDARD SERIES	Weight	Diameter	Height (To Rim)	Height (Total)	Shipping Weight	Shipping Height	Shipping Width	Shipping Length
Model 10 (Short)	3.2 KG	325 MM	311 MM	444 MM	6 KG	37 CM	38 CM	38 CM
Model 10	4.1 KG	325 MM	413 MM	546 MM	6 KG	45 CM	38 CM	38 CM
Model 15	4.1 KG	325 MM	413 MM	546 MM	6 KG	45 CM	34 CM	34 CM
Model 25	4.1 KG	325 MM	413 MM	546 MM	6 KG	45 CM	34 CM	34 CM
Model 25/EC	4.1 KG	325 MM	413 MM	546 MM	6 KG	45 CM	34 CM	34 CM
Model 45/PS-4	6.3 KG	375 MM	455 MM	605 MM	9 KG	49 CM	37 CM	37 CM
Model 45/PS-2	6.3 KG	375 MM	455 MM	605 MM	9 KG	59 CM	41 CM	41 CM
Model 45/EC	6.3 KG	375 MM	455 MM	605 MM	9 KG	49 CM 59 CM	37 CM 41 CM	37 CM 41 CM
Model 60/PS-4	9.9 KG	498 MM	607 MM	823 MM	15 KG	75 CM	56 CM	56 CM
Model 60/EC	9.9 KG	498 MM	607 MM	823 MM	15 KG	75 CM	56 CM	56 CM
Model 100/EC	20.4 KG	495 MM	N/A	843 MM	25 KG	98 CM	57 CM	57 CM
DESIGNER SERIES								
Model 10 (Short)	5.4 KG	333 MM	299 MM	436 MM	6 KG	36 CM	38 CM	38 CM
Model 10	6.8 KG	333 MM	400 MM	538 MM	8 KG	45 CM	38 CM	38 CM
Model 15	6.8 KG	333 MM	400 MM	538 MM	8 KG	48 CM	37 CM	37 CM
Model 25	6.8 KG	333 MM	400 MM	538 MM	8 KG	48 CM	37 CM	37 CM
Model 25/EC	6.8 KG	333 MM	400 MM	538 MM	8 KG	48 CM	37 CM	37 CM
Model 45/PS-4	8.6 KG	373 MM	452 MM	610 MM	9 KG	59 CM	41 CM	41 CM
Model 60/PS-4	17.2 KG	492 MM	610 MM	838 MM	20 KG	75 CM	56 CM	56 CM
Model 60/EC	17.2 KG	492 MM	610 MM	838 MM	21 KG	75 CM	56 CM	56 CM
Model 125/EL	45.3 KG	690 MM	N/A	938 MM	75 KG	140 CM	95 CM (Round)	95 CM (Round)
RETAIL SERIES								
Model 20/EC (Standard)	5.2 KG	366 MM	254 MM	406 MM	6 KG	45 CM	34 CM	34 CM
Model 20/EC (Narrow Aisle)	5.2 KG	366 MM	331 MM	480 MM	6 KG	45 CM	34 CM	34 CM
Q SERIES								
Model 50/PS-4	9.9 KG	387 MM	435 MM	584 MM	9 KG	60 CM	41 CM	41 CM
Model 50/EC	9.9 KG	387 MM	435 MM	584 MM	9 KG	60 CM	41 CM	41 CM
SUSPENDED SERIES	Weight	Width	Depth	Height				
Model 10, 15, 25 (3 per box)	3.6 KG	600 MM	600 MM	324 MM	13KG	60CM	63CM	63CM
Model 45 (2 per box)	4.0 KG	600 MM	600 MM	392 MM	10KG	30CM	63CM	63CM

Technical Data

At the heart of every Airius destratification fan is a top of the range, highly efficient, German EBM-Papst motor. Independently tested by BSRIA they provide the most efficient destratification available.

What makes Airius fans the most effective method of destratification available is the synergy between motor efficiency, the unique patented method of airflow distribution created by the 'Stator Vanes' and the way the units use the laws of thermodynamics to work in their favour.

There are a wide range of units available to suit almost any application. Refer to the data below for a guide to what unit/s you need in your building.

TECH SPECS	Model 10	Model 15	Model 20/EC-A	Model 20/EC-S	Model 25	Model 25/EC	Model 45/PS-4
Range	Standard & Designer	Standard & Designer	Retail (Narrow Aisle)	Retail (Standard)	Standard & Designer	Standard & Designer	Standard & Designer
Ceiling Heights ¹	2.5m - 4m	4m - 6m	2.5m - 6m	2.5m - 8m	6m - 8m	3m - 9m	8m - 12m
Nozzle Heights ¹	2m - 3.5m	3.5m - 5.5m	2m - 5.5m	2m - 7.5m	6m - 7m	2.5m - 8m	7.5m - 11m
Dia. Coverage ¹	8m - 10m	9m - 11m	CONTACT AIRIUS	11m - 13m	11m - 13m	11m - 13m	11m - 13m
Floor Area ¹	48m ² - 72m ²	60m ² - 90m ²	CONTACT AIRIUS	89m ² - 133m ²	89m ² - 133m ²	89m ² - 133m ²	89m ² - 133m ²
Volts ²	230	230	230	230	230	230	230
Watts ²	12	15	30	30	31	30	42
RPM ²	980	1230	1650	1650	1450	1700	1450
CFM ²	318	406	620	620	459	620	595
m ³ /hr ¹	540	690	1053	1053	780	1053	1010
AMPS ²	0.06	0.06	0.26	0.26	0.14	0.26	0.19
IP Rating	IP55	IP55	IP54	IP54	IP55	IP55	IP44
Operating Temp ²	-20°C - 70°C	-20°C - 70°C	-30°C - 50°C	-30°C - 50°C	-20°C - 70°C	-30°C - 50°C	-25°C - 70°C
Thermal Shut Off ¹	110°C	110°C	110°C	110°C	110°C	110°C	135°C
Reset Temp ¹	90°C	90°C	90°C	90°C	90°C	90°C	125°C
Noise Level ²	0 - 21dB(A)	0 - 21dB(A)	0 - 32dB(A)	0 - 32dB(A)	0 - 31dB(A)	0 - 45dB(A)	0 - 35dB(A)

¹Motor data provided by motor manufacturer and is subject to change at any time. Data above is calculated at 50Hz

Series warranty

All Airius Destratification fans come with a 5 year Replacement Warranty. Simply return defective units to Airius, carriage paid and upon receipt Airius will dispatch a new unit by return carriage fully paid.

To avoid refurbishment and cleaning charges, all units returned must adhere to the returns criteria.

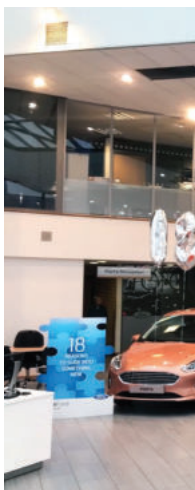
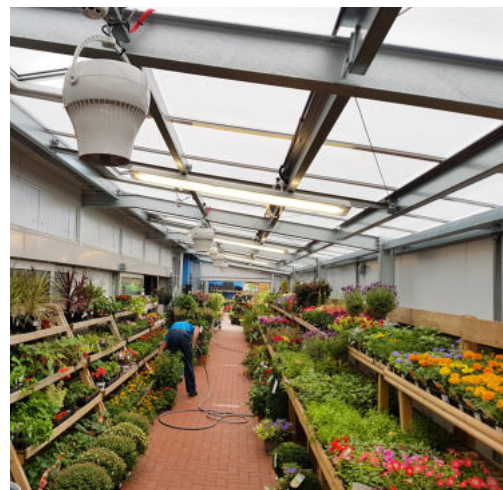
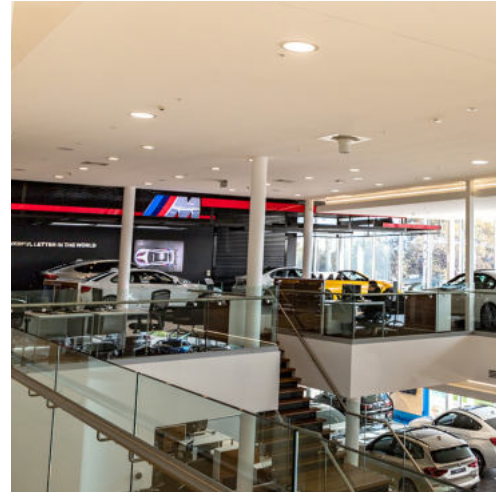
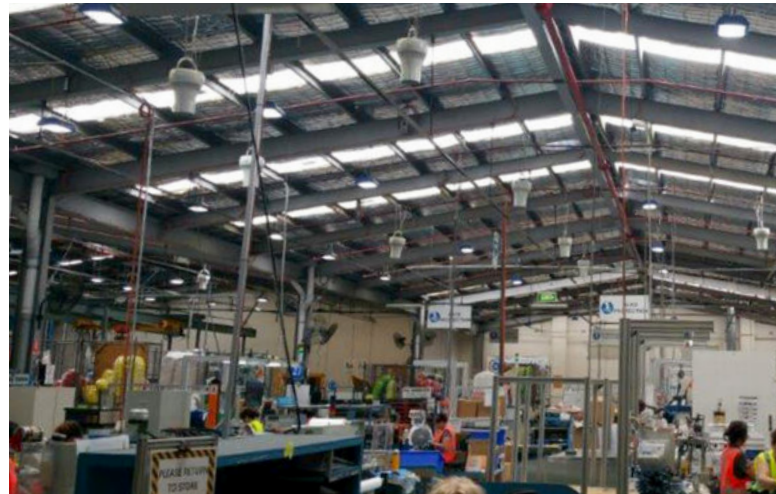
For further details email airflow@airius.co.uk or call on +44 (0)1202 554200.

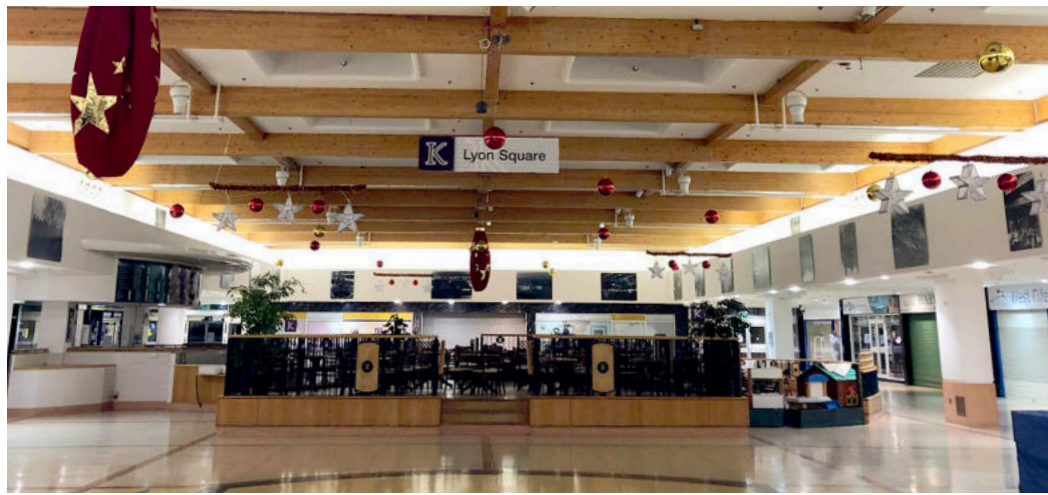
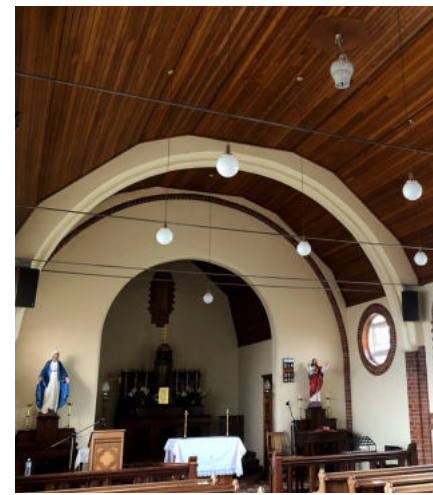


Unit Coverages, Motor Data & Noise Levels

Model 45/PS-2	Model 45/EC	Model 50/PS-4	Model 50/EC	Model 60/PS-4	Model 60/EC	Model 100/EC	Model 125/EL
Standard	Standard	Quiet	Quiet	Standard & Designer	Standard & Designer	Standard	Designer
12m - 14m	13m - 15m	12m - 16m	12m - 18m	12m - 18m	17m - 20m	20m - 32m	20m - 35m
11m - 13m	12m - 14m	11m - 15m	11m - 17m	11m - 16m	16m - 18m	18m - 33m	18m - 33m
11m - 14m	12m - 15m	14m - 17m	14m - 17m	14m - 17m	14m - 17m	15m - 19m	17m - 21m
100m ² - 150m ²	111m ² - 167m ²	155m ² - 232m ²	155m ² - 232m ²	148m ² - 222m ²	155m ² - 232m ²	186m ² - 279m ²	223m ² - 334m ²
230	230	230	230	230	230	230	200-277
125	175	70	98	120	170	390	400
2450	3050	1310	1660	1390	1630	1690	1000
1072	1290	721	1406	1667	1770	3358	5200
1821	2192	1224	2389	2832	3007	5705	8835
0.54	1.40	0.65	0.80	0.57	1.30	2.50	1.80
IP44	IP44	IP44	IP54	IP44	IP44	IP54	IP54
-25°C - 50°C	-25°C - 60°C	-25°C - 70°C	-25°C - 60°C	-25°C - 75°C	-25°C - 60°C	-25°C - 60°C	-25°C - 60°C
135°C	135°C	135°C	135°C	135°C	135°C	135°C	135°C
125°C	125°C	125°C	125°C	125°C	125°C	125°C	125°C
0 - 44dB(A)	0 - 49dB(A)	0 - 35dB(A)	0 - 37dB(A)	0 - 38dB(A)	0 - 38dB(A)	0 - 34dB(A)	0 - 31dB(A)

²Noise Levels recorded at floor level from units installed at maximum ceiling height. Accurate as of September 2017. Each facility has unique fluid dynamics, please contact supplier to specify your system.





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

“First winter savings of £62,251 Measured against a total system spend of £21,268!

Paul Mattin - Engineering Manager - Impress Manufacturing Ltd

“We installed 34 Airius units into the assembly plant at our manufacturing site and I am very pleased with the results. The heating system now comes on far less and employees who work in this building are much warmer. Overall savings equaled 45.07%.

The full cost of the Airius units is recouped within a matter of months -

first winter savings of £62,251 measured against a total system spend of £21,268!

I will be looking at other buildings on our site and recommending Airius to companies within the group who operate from many buildings throughout Europe.”

“The Airius units have allowed us to increase our thermostats from 19°C to 23.5°C, resulting in a saving of over 70% on our cooling costs.

Ben Carne - Energy Manager - Bowlplex Plc Ltd

“We are very impressed with the results Airius fans have achieved in our ten pin bowling centre at Nantgarw in South Wales. The atmosphere inside has been greatly improved reducing staff & customer comfort complaints by 90%.

They have also allowed us to increase our thermostats from 19°C to 23.5°C resulting in a saving of over 70% on our cooling costs.

The Airius system has far exceeded our expectations & will be standard equipment for all our 18 bowling centres in the UK.”

.....

“The Airius Destratification Fans play a key role in recycling warmer air at high level in the building back down to lower levels.

Andrew Suter - Director - All Souls Bolton

“All Souls Bolton is a fabulous restoration of an 18th century gothic revival, grade II* listed church in Bolton. As with any old building keeping heating and maintenance costs low is critically important to our long term sustainability. **The Airius Destratification Fans play a key role in recycling warmer air at high level in the building back down to lower levels, keeping people warmer and at the same time keeping our heating costs down.**”



“The Airius fans made an immediate ... improvement even before the heating/cooling system upgrades had been completed.

Joe Forgie – Project Manager – Gratte Brothers Group

“Following severe temperature problems in a British Airways maintenance hangar at Heathrow, we (Gratte Brothers) were awarded the contract to upgrade the heating and ventilation system.

The temperature problems were severe with staff threatening to walk out. After exhaustive research it was decided to install 12 x Airius Model 100 units and 15 x Airius Model 60 units 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.**

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.”

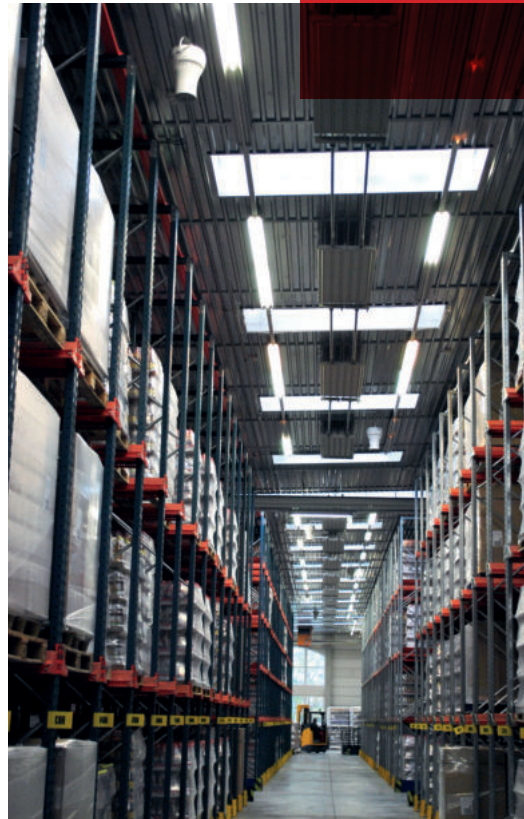
.....

“We were happy to find the environment comfortable without the AC running.

Iain Calder – Property Director – Tiso Ltd

“Our Edinburgh Outdoor Experience store has a single floor store layout opening out into high roofed area with a ground floor café and gallery sales area. We originally controlled the temperature with large AC units but the result was never satisfactory at either level.

The Airius system was installed during the summer whilst the AC system was closed down for servicing and we were happy to find the environment comfortable without the AC running. This has now led to the entire AC system being decommissioned with a considerable reduction in electricity consumption.”



“The Airius units have reduced our heating costs by an impressive 25% in our sports hall.

James Dunn – Facilities Manager – Sixmile Leisure Centre

“We installed the Airius system into 2 sports halls and the swimming pool area at Sixmile Leisure Centre, Newtownabbey. These have made a vast improvement to the internal atmosphere within the buildings and the public who use the facilities find the air quality greatly improved for sporting activities.

We have found the Airius units have reduced our heating costs by an impressive 25% in our sports halls and swimming pool area; the thermostat in the swimming pool building has also been turned down 2°C!

The heating systems come on much less often and the complaints from swimmers about the warmth in the swimming pool area has reduced by 90%.”

Discover more

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

Impress

Factory Facility, Norfolk

Impress installed 34 Airius fan units into their factory to save on heating costs and their investment was repaid 3 times over in the first winter they were installed.

Oil prices dropped by an average of 9.5% in 08/09 compared to the previous winter period 07/08.

The mean temperature for East Anglia during winter 07/08 was 5.7°C. The mean temperature for East Anglia during winter 08/09 was much cooler at 3.4°C.

The heating system thermostats are set to 16°C, resulting in an increase in the requirement for heating in East Anglia of 22%.

This analysis excludes the purchase and installation costs of £21,268 in the first year.

Key points:

- **45.07% - overall savings 08/09**
- £62,351 - first winter savings
- £21,268 - full system & installation cost
- 3,000m² - floor area
- 5.7°C - mean temp. 07/08
- 3.4°C - mean temp. 08/09
- £793 - Airius running costs per winter season
- Installed into can assembly area
- System - 34 units
- Part of the Ardagh Group

26



Winter Saving Calculations

Winter 07/08 (pre-fans) total
oil usage **£138,337**

Winter 08/09 (post-fans)
total oil usage **£83,837**

Oil use reduction & savings,
winter 08/09 **£54,500**

Restated savings, inc lower
Oil price 08/09 **£49,322**

Restated Oil use & savings (inc
lower temp) 08/09 **£63,144**

Airius System running costs **£793.00**

First Winter Savings £62,351

**THE FULL COST OF
THE AIRIUS UNITS IS
RECOUPED WITHIN A
MATTER OF MONTHS -
FIRST WINTER SAVINGS
OF £62,351 MEASURED
AGAINST A TOTAL SYSTEM
SPEND OF £21,268**

Paul Matten (Plant Engineer)

Lush Cosmetics

Manufacturing Facility, Dorset

Lush Retail Ltd needed to improve internal conditions at their Hatch Pond Road manufacturing facility in Poole, Dorset. Temperatures at floor level were uncomfortably cold as their heating system was unable to reach acceptable conditions.

This also incurred high energy costs as the heating system was running constantly in an attempt to reach set parameters.

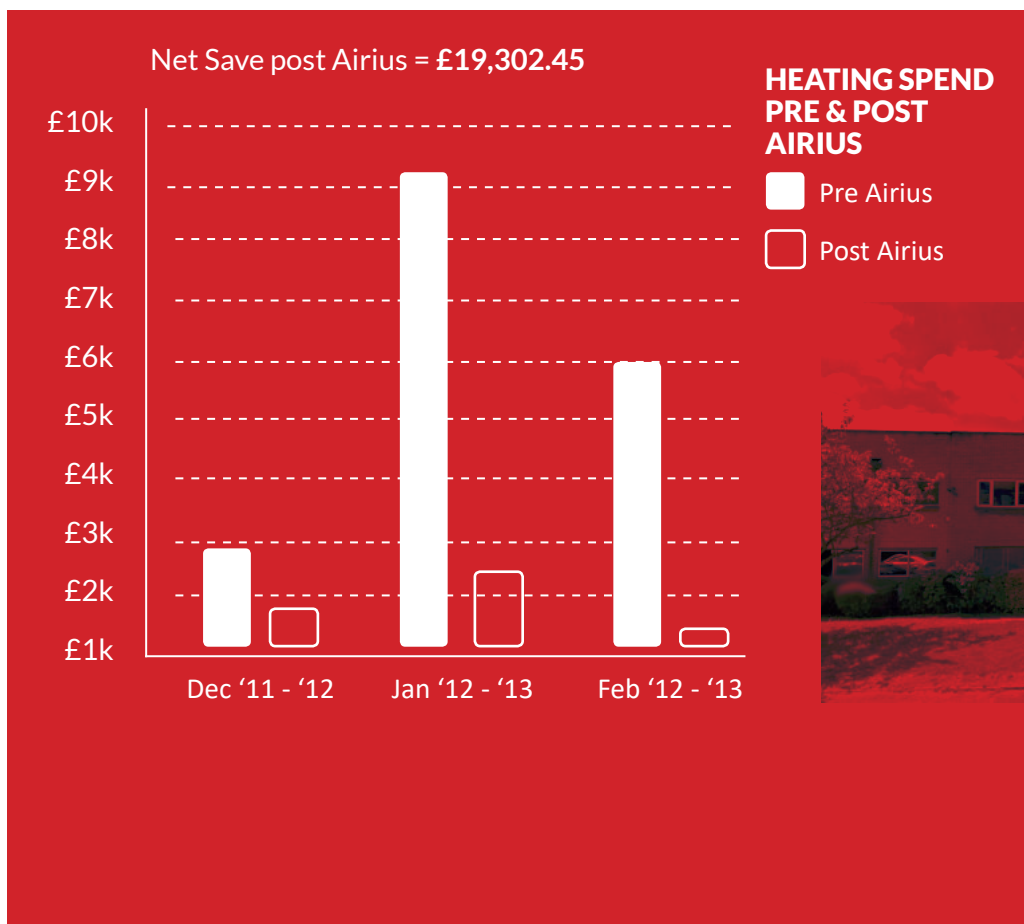
Lush Retail Ltd contacted Airius in 2012 in order to address the uncomfortable low temperatures and expensive costs for heating at each of their manufacturing facilities.

The Hatch Pond Road manufacturing facility was chosen as a trial site due to its high heating costs and major comfort issues. Originally it was estimated that this site would benefit from a minimum energy saving of 35%. However a far greater saving was achieved of over 60% following installation of the Airius system.

Key points:

- **ROI = 26 DAYS!!**
- 61% saving on heating cost
- Heating spend pre Airius = £26,638.83
- Heating spend post Airius = £7,333.38
- £2,967.50 - full system & installation cost
- £68.75 - Airius system annual running cost
- Now recirculates process heat for free heating

27



Gama Aviation

Aircraft Hangar, Farnborough



Gama Aviation Ltd have two large heating units in their main engineering hangar at Farnborough Airport, which would run continuously throughout the day and never reach the thermostat set point of 14°C. Following installation of the Airius system their HVAC system would achieve the thermostat set point with only one of the two heating units running.

Once at the temperature set point, the Airius system would then continue to maintain the desired conditions with only the one remaining heating unit running intermittently.

In September and October of 2012 (PRE AIRIUS) the heating gas consumption was 2,356m³. In September and October of 2013 (POST AIRIUS) the heating gas consumption was 1,042.3m³.

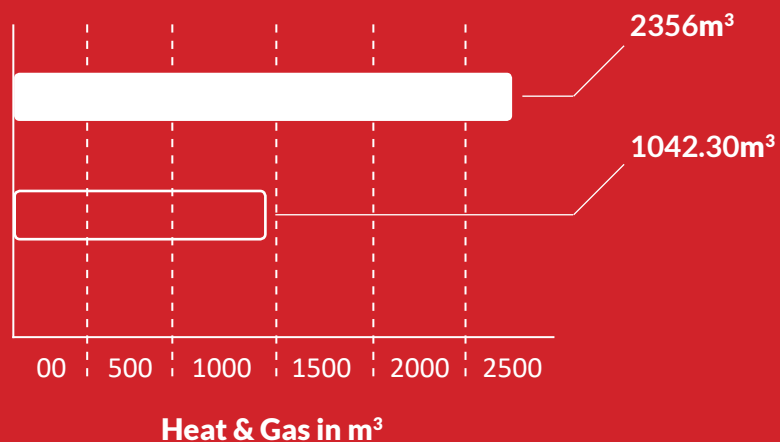
Key Points:

- **48.22% saving on heating costs**
- 1,136m³ natural gas reduction
- Savings account for worst case scenario and weather inconsistencies
- Now only one of the two heating units required to achieve desired conditions

In 2012 the temperature was lower by 0.5°C in September and 2.6°C in October. A temperature change of 1°C can affect a buildings heating requirement by between 6-11%, depending upon the efficiency of the building. In a worst case scenario with heating gas consumption increased in 2013 by 5.5% for September and 28.6% for October, this takes

2013 heating gas consumption from 1,042m³ up to 1,220m³. Final consumption data with degree dates taken into account of 2,356m³ of heating gas in September/October 2012 and 1,220m³ in September/October 2013.

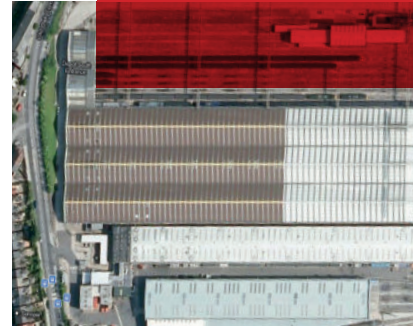
HEAT & GAS CONSUMPTION BEFORE & AFTER SYSTEMS



CASE STUDY SIEMENS

Siemens

Engineering Facility, Acton



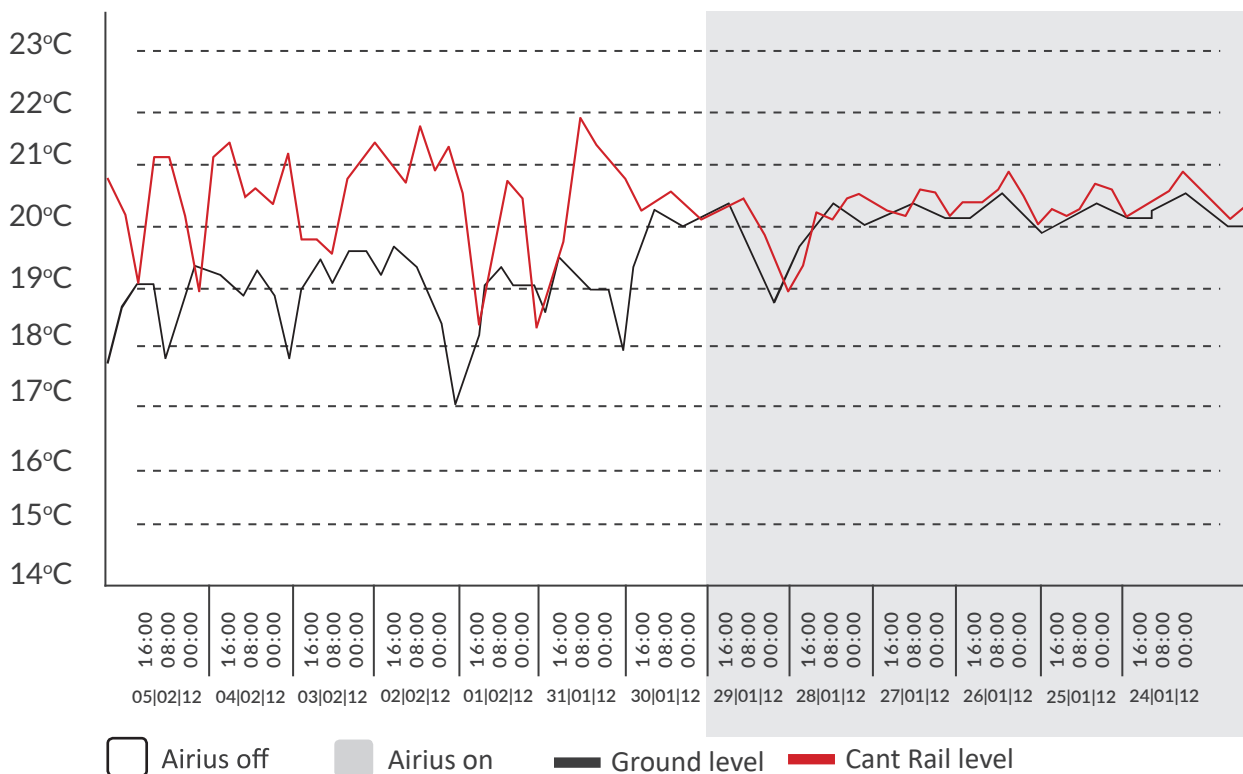
Siemens installed 26 Airius model 45 fan units into their Acton rail maintenance shed facility to improve comfort and save on energy costs resulting in an ROI of less than 18 months.

The graph below shows the temperature differentials in the Acton rail maintenance shed at both Ground Level and Cant Rail Level with the Airius system off during the week 30/01/12 - 05/02/12, and running during the week 24/01/12 - 29/01/12.

Key points:

- ROI = Under 18 months
- £12,106 - first year saving
- £19,799 - full system and installation cost
- 1,141, 113 - kWh usage before Airius
- 709,956 - kWh usage after Airius
- Installed into Acton rail maintenance shed
- System - 26 Airius Model 45 units
- 75 tonnes - Approx. annual CO₂ reduction

TEMPERATURE READINGS JAN - FEB '12



FAQs

Discover the true potential and value of Destratification, as we answer some of the key and frequently asked questions set by our clients.

What is the typical rate of stratification from the floor to the ceiling?

Stratification typically occurs at a rate of 0.5 - 2°C per metre and temperature differentials of up to 10°C are common over a height of 10 metres. In extreme cases, temperature differentials of 10°C have been found over a height of 3 metres.

The degree of stratification depends on a number of factors such as the building materials, level of insulation, activity in the building, heating/cooling set points and the outside temperature.

It is wrong to assume that if the level of stratification is at the lower end of the scale there is not much to be gained. This can be down to a number of reasons, such as:

- Insulation levels are so low, heat escapes before it can build up. Our best case studies have been from buildings like this
- Outside temperature is at or above room temperature
- The heating is off

When do you start saving?

Immediately! The moment the units are switched on, the efficiency of the building and HVAC system will start to improve, reaching their full potential once equalisation is achieved (within 48 hours depending on the size of the building).

How much can I expect to save on heating?

Savings range hugely from building to building with average savings of 30 – 50%. With over 210,000 units sold, we have had reported savings ranging from 20% to 76%. This is down to a number of factors, such as:

- Ceiling Height
- Insulation
- Achieving Temperature
- Levels of Process / Ambient heat

How does the Airius system work with cooling?

The way Airius units work to reduce cooling costs is slightly different to heating. Typically in cooled spaces, people near the cooling outlet are too cold and those no more than a few metres away are too hot. People by windows can also get too hot due to solar gain and so on.

The Airius units help by equalising the temperature making sure that everyone benefits from the cooling as quickly as possible. It also helps the cool air reach thermostat set points quicker.

The Airius system also ensures that every cubic metre of air in the building is moving very slowly. This gentle air movement across the skin creates a lower perceived temperature (evaporative cooling), allowing you to turn your thermostat up by between 2°C and 4°C, yet maintain the same conditions or better for occupants.

>>>>>

FREE SITE SURVEY OFFER

After discussing your relevant project information and reviewing plans, Airius will happily carry out a full site survey free of charge based upon this information

Call: **+44 (0)1202 554 200**
Email: **airflow@airius.co.uk**



This along with the equalised temperature has proven to reduce cooling costs from 20% up to 100%. This is due to the low cooling requirement in the UK. You only need to reduce the cooling load slightly to make huge savings.

“WE ARE VERY IMPRESSED WITH THE AIRIUS FANS IN OUR BOWLING CENTRE AT NANTGARW. WE’VE NOW INCREASED OUR THERMOSTATS FROM 19°C TO 23.5°C RESULTING IN A SAVING OF OVER 70% ON OUR COOLING COSTS!

Bowlplex PLC

“THE AIRIUS SYSTEM WAS INSTALLED DURING THE SUMMER WHILST THE AC SYSTEM WAS CLOSED DOWN FOR SERVICING AND WE WERE HAPPY TO FIND THE ENVIRONMENT NOW COMFORTABLE WITHOUT THE AC RUNNING.

Tiso Ltd

How much do Airius units cost to run?

Airius units are extremely efficient and draw a tiny electrical load, using less than 5% of the power of some of the competing box type destratification fans. The figures below are examples of annual running costs, based on the units running 24 hours a day, 365 days a year, at an electrical cost of 11 pence per kWh.

MODEL NUMBER	POWER CONSUMPTION	ANNUAL RUNNING COST
Model 10	12 Watts	£11.56
Model 15	15 Watts	£14.45
Model 20/EC	30 Watts	£28.90
Model 25	31 Watts	£29.87
Model 25/EC	30 Watts	£28.90
Model 45/PS-4	42 Watts	£40.47
Model 45/PS-2	125 Watts	£120.45
Model 45/EC	175 Watts	£168.63
Model 50/PS-4	70 Watts	£67.43
Model 50/EC	98 Watts	£94.41
Model 60/PS-4	120 Watts	£115.63
Model 60/EC	170 Watts	£163.81
Model 100/EC	390 Watts	£375.80
Model 125/EL	400 Watts	£385.44

Installation

From design to installation with our full turn-key service. Our experienced team of designers, engineers and NIC EIC qualified installers are happy to help from concept to completion.

A The Airius installation division (Airius Electrical) was launched in 2015. This division offers a full turn-key solution, ensuring our customers get the best results, highest level of service and aftercare at a competitive price.

Our Installations team have over 20 years' experience in commercial, industrial & residential installations. Airius Electrical has its own range of high level access equipment including MEPS and scaffold towers, as well as a team of skilled technicians experienced at working at rope access heights, giving our customers peace of mind, whilst saving them time and money.

We are dedicated to working to the highest possible standards and all installations are carried out in accordance to BS 7671 (18th Edition 2018).

Using our in-house team, ensures that your Destratification, Lighting or Electrical projects work to their full potential.



32

Airius Electrical Contractors

In addition to installing destratification fans and LED lighting systems we are also fully qualified General Electrical Contractors. Managed through our team at Airius Electrical, we are fully NICEIC accredited under the Approved contractor scheme.



Airius Lighting

[Save up to 90% on your lighting costs with Airius Lighting and benefit from our exclusive market leading 8 year warranty.

Airius LED Lighting was founded on the back of a team of dynamic, creative & experienced engineers with the goal of developing cutting edge LED lighting technologies that can light the way forward towards more exciting and productive environments.

We have a sophisticated range of professional commercial, exterior, industrial and sports LED luminaires. Our team brings more than 10 years of professional experience in lighting design, production and quality control and we are continuously devoted to improving every aspect of our business in order to reach new heights in the LED lighting industry.

We pride ourselves on delivering unparalleled customer support and understand that when purchasing from us you need to have the confidence that your supplier can deliver the necessary specialist expertise and experience. The professionalism of the team and the standards we set for product quality play very important roles in creating our many successful experiences from around the world.



CONTACT US

Get in touch!

Airius Europe, Africa, Middle-East & Asia

Holwell Farm
Cranborne, Dorset
BH21 5QP - UK

Tel: (00) 44 1202 554200
Fax: (00) 44 1202 554396
Email: airflow@airius.co.uk
Web: www.airius.co.uk

Airius Americas

811 South Sherman Street
Longmont, Colorado
80501 - USA

Tel: (00) 1 888 247 7327
Fax: (00) 1 303 772 8276
Email: info@airiusfans.com
Web: www.airiusfans.com

Airius Oceania

2/14 Brandon St.
Suffolk Park
NSW 2481
Australia

Tel: (00) 61 0 401 848 888
Email: info@airius.com.au
Web: www.airius.com.au



Honeywell

AIRFRANCE 

DHL

National Theatre



Wates  

QANTAS



pets at home

hollywood bowl 



THE CHURCH OF ENGLAND

NSC
National Star College

ABP ASSOCIATED BRITISH PORTS HOLDINGS PLC



LFB
LONDON FIRE BRIGADE

PINNACLE
climbing centre



BAE SYSTEMS

 **Marwell Zoo**

ROYAL AIR FORCE



hobbycraft

halfords



INTEGRAL



NG Bailey

KIA

Sutton and East Surrey Water



THE CHURCHES CONSERVATION TRUST



Fitness First

NARVIK



Farnborough Airport

tyco



RENAULT

COBHAM



Nisa
making a difference locally

HOMEBASE

Waterstones

THE SSE ARENA WEMBLEY

HONDA

COFELY
GDF SUEZ

Dublin Airport



CATERPILLAR

the beacon museum

THE ORIGINAL BOWLING CO.
SINCE 2010

SAMSUNG

DRAPER Tools



Pizza Hut

senior Aerospace

Johnson Controls



PRIFYSGOL ABERYSTWYTH UNIVERSITY



carillion

look

Argos

ANTILLION



REHAU

Foot Locker

hager

rotork



AIRBUS

Gama Aviation

Kmart

UB
United Biscuits



USA and foreign Patents granted to AIRIUS LLC, USA, further patents pending. AIRIUS & AIRIUS SYSTEMS is the copyright property of AIRIUS LLC, USA. All material issued by, or emanating from, Airius Europe Ltd is the Copyright property of Airius Europe Ltd, UK.

