



De-stratification is recommended  
by The Carbon Trust\*

# AIRIUS IN WAREHOUSES

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



Web: [www.airius.co.uk](http://www.airius.co.uk)

Tel: 00 (+44) 0 1202 554200



# Warehouses

Warehouse and Distribution centres often prove costly when it comes to heating, cooling and HVAC costs due to the large volume of space and high ceilings common in these types of buildings. Not only is heating and cooling these spaces expensive, but the effects of thermal stratification result in unbalanced vertical temperatures.

The Airius destratification system gently and quietly recirculates heated or cooled air supplied to equalise temperatures throughout. This improves comfort, allows for greater control over temperature regulated environments and can save up to 50% on your HVAC costs.



## Features & Benefits

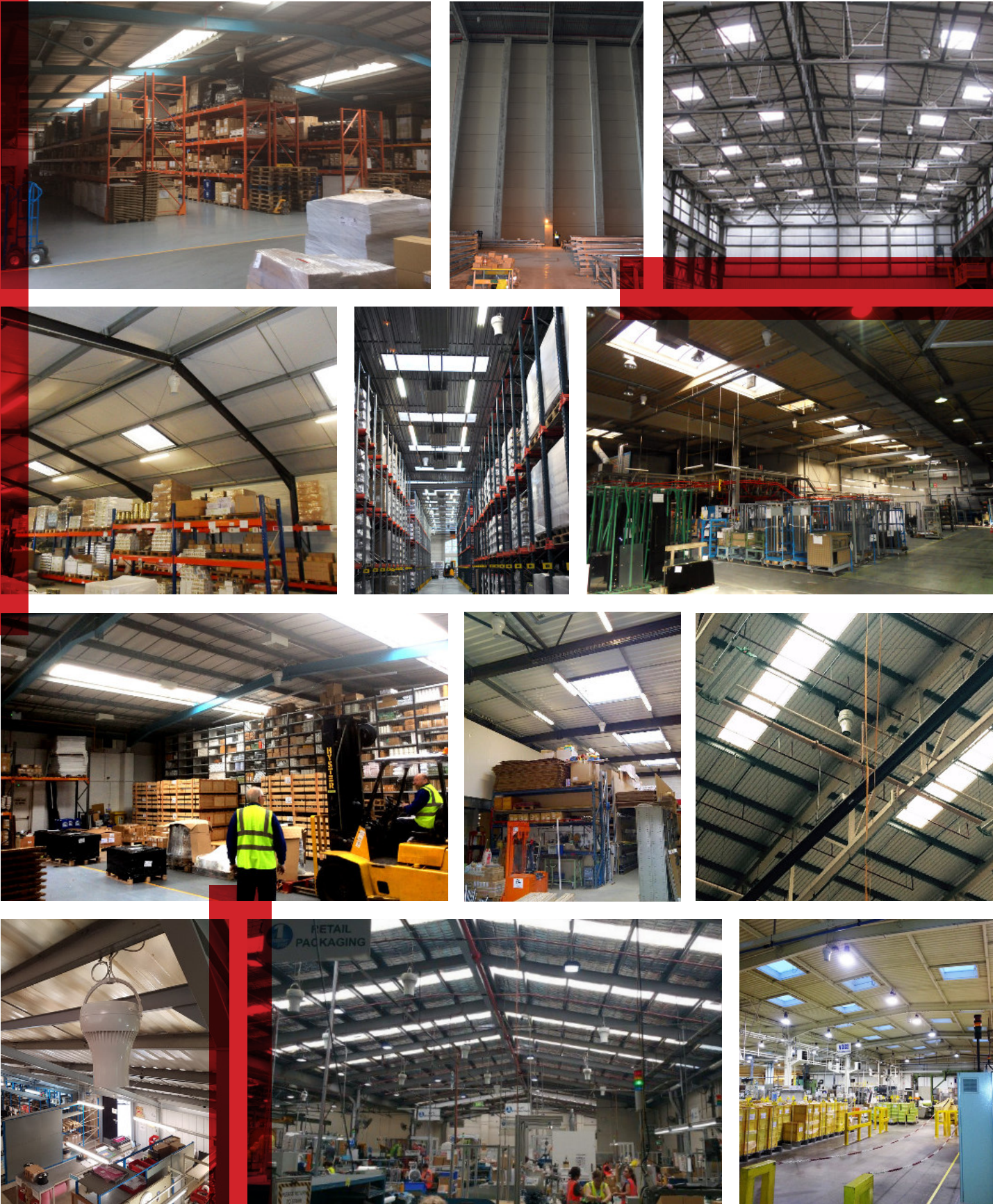
- **Improves control over temperature regulated environments**
- **40%+ reduction in heating costs**
- **30%+ reduction in cooling costs**
- **35%+ reduction in carbon emissions**
- **Rapid ROI - Usually 12 - 24 months**
- **Maintains balanced temps for high racking**
- **Reduced building heat up time**
- **Can be custom painted to match environment**
- **Condensation reduced or eliminated**
- **Significantly reduced HVAC maintenance costs**
- **Works alongside ALL types of HVAC systems**
- **Minimal running costs (from £6/pa)**
- **Eligible for carbon reducing grants/loans**



Storing stock at optimum conditions and temperatures is vital to any business. Not only can undesired high or low temperatures have a negative effect, but other conditions such as condensation can also impair or damage stock. In those facilities with roller and shutter doors valuable heated air escapes every time a door is opened, making it near impossible to reach and maintain even conditions. In temperature regulated facilities such as cooled pharmaceutical storage, unbalanced temperatures can mean high level racking does not meet temperature requirements, leaving highly valuable storage space redundant.

Airius has worked with thousands of warehouse and distribution customers all over the world in order to help them save money, energy and maintain desired temperatures to within 1 - 2°C. The Airius system equalises temperatures from floor to ceiling, which means when shutter doors are used thermal loss is reduced significantly. It also means that in temperature regulated storage, temperature is evenly maintained up to the full height of the space. Condensation is also eliminated as a result of efficient airflow circulation. If you would like to arrange a survey of your Warehouse or distribution facility contact Airius now on [airflow@airius.co.uk](mailto:airflow@airius.co.uk) or call on +44 (0)1202 554200.

# Installation Images



# Client Testimonials



“ I would highly recommend Airius fans. ”

"We purchased 6 Airius fans for our self storage company as we were having problems with condensation when there was a large fluctuation in temperatures. **After we installed them it completely solved our problem and we haven't had any condensation in over 4 years since we have had them.** We keep them on 24 hours a day and they are very cheap to run.

Customer service is excellent, especially after one stopped working after 2 1/2 years and they sent a new one out to replace it almost immediately. **I would highly recommend Airius fans.**"

Leon Antone – Director

“ A fantastic saving on our gas utility bill. ”



"We now have Airius destratification fans in all of our main production facilities totalling 80,000 sq ft. **Each installation was carried out professionally and to an excellent standard, with the minimum of interruption** to our very busy manufacturing facilities.

The main benefits for us are vastly improved air circulation, balance of temperature throughout the buildings, low running costs, silent and stress free operation and of course a fantastic saving on our gas utility bill per annum. **I would highly recommend Airius systems for all factory and warehouse environments.**"

Mark Northy - Director



“ We have [postAirius] been able to keep a constant temperature. ”

"Since fitting the Airius units in our storage warehouse **we have been able to keep a constant temperature** and are also **able to switch one of our heaters off thus giving us a saving in heating costs.**"

Paul Stewart - Safety Health & Environmental Manager

“ The units were simple and fast to install. ”



"The units were simple and fast to install. Were delighted to find that **the temperature difference between ground and roof had improved from around 5°C to just 0.5°C** proving their effectiveness."

Andy Pryer – Quality Manager



“ A reduction of approximately 25% in our gas consumption. ”

"We installed Airius destratification fans in our distribution department. Prior to this, in winter the difference between temperatures at floor and roof level was approximately 5-6 degrees C. **The difference now is approximately 1-2 degrees C and has resulted in a reduction of approximately 25% in our gas consumption.**"

Martin Kelly - Facilities Manager

# Selected Client List

**RICOH**



**SIEMENS**



**Honeywell**

**rotork<sup>®</sup>**



**ABP** ASSOCIATED BRITISH  
PORTS HOLDINGS PLC

**MORGAN  
SINDALL**



ArdaghGroup

**Gulfstream**  
A GENERAL DYNAMICS COMPANY



**pladis**



Unilever

**SCREWFIX<sup>®</sup>**

**Harrods**

**COFELY**  
COFFEE SYSTEMS

**CATERPILLAR**



**SAMSUNG**

**QinetiQ**

**Argos**



**UB**  
United Biscuits



**Lubrizol**

**ASDA**

**Webasto**  
Feel the drive

Johnson  
Controls



**REHAU<sup>®</sup>**

**INTEGRAL**

**TARARA**  
WINERY

**NG Bailey**

**Wates**

**Abbey**

# Genentech Inc. - Warehouse

**Genentech**  
IN BUSINESS FOR LIFE

Genentech Inc. contacted Airius to address temperature regulation problems in their new pharmaceutical warehouse, where the existing HVAC system was not able to reach FDA regulations.

Following installation of the Airius system the warehouse passed all FDA validation testing floor to ceiling, wall to wall. It also opened up Billions of Dollars worth of additional inventory space.



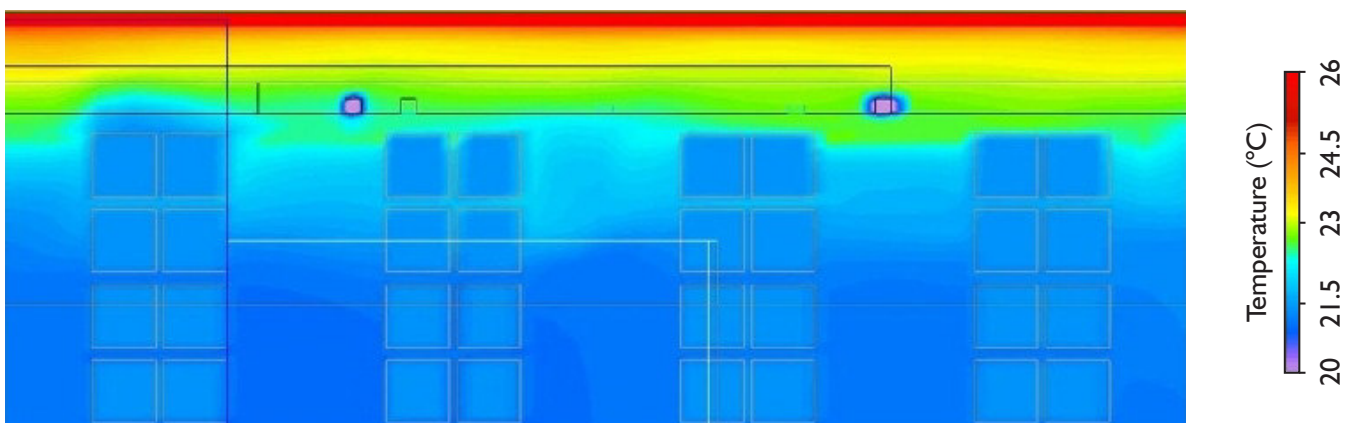
### Key Points:

- **Stratification reduced from 5°C to 1.5°C.**
- **Billions of Dollars of inventory space reclaimed.**
- **Used to destratify temperature regulated cooled air facilities.**
- **Facility passed FDA regulations with Airius.**
- **System = 50 x Airius Model 25's.**
- **Floor Area = 4,600m<sup>2</sup>.**

The accompanying thermal images were developed from the temperature controlled warehouse of a major pharmaceutical company. The company's new 50,000 sq ft. warehouse facility in Louisville, KY did not pass the Food and Drug Administration's required Temperature Validation Tests with the originally designed HVAC system.

As can be seen in the 'Before Airius' image without Airius fans, the top levels of the pallet racking were exposed to 22.5°C air, too high a temperature for the inventory.

### BEFORE AIRIUS

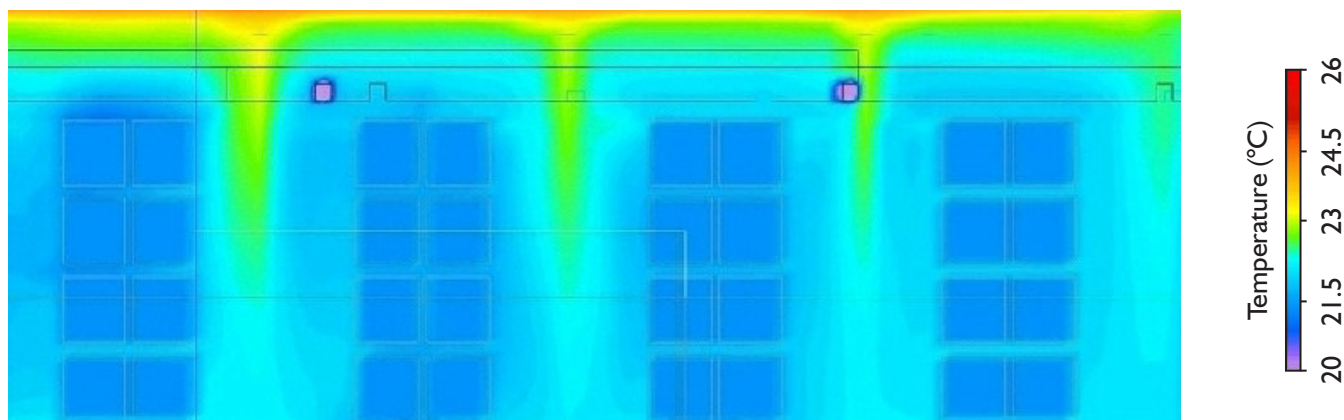


This was a major problem; the facility was due to open and the space was badly needed. The HVAC contractor had tried everything they could think of and had no answers for the problem, short of starting over with a re-designed system. A senior facility engineer suggested the use of Airius for this application. The HVAC Contractor was very sceptical the devices could raise the cold air levels and maintain them. Airius personnel were called in to review the situation and it was determined for this large application that 50 Airius model 25 destratification fans would be required and were air freighted at the customer's request within 2 days.

The facility quickly agreed and the installation was a success. In spite of the fact that the destratification fans were originally developed to de-stratify heated air, and the fact that cold air naturally sinks, it can be seen by comparing the 'Before Airius' image to the 'After Airius' image that the use of the Airius fans has balanced the level of cooler air in the room to the point where the upper rack levels are no longer in jeopardy – Thermal Equalisation!

The elevation graphic shows a complete equalisation of temperature around the pallet racks supporting literally billions of dollars of inventory from floor to ceiling meeting FDA regulations and approval.

### AFTER AIRIUS



This Airius installation allowed the warehouse to pass FDA Validation Testing and helps ensure the safety of the products for the manufacturer and the consumer. It has been reported to Airius that the temperature variance from the bottom of the 18' racks to the top with the fans running over the last year is only 1 to 2°C.

This case is a graphic example of how the Airius destratification systems can work in air conditioned environments as well as heated environments and testifies as to how well they truly do equalise nearly 100% of the air temperature in a given space.

The results of this original installation; Airius is now specified in the next two warehouse projects, one in 2007 and another in 2008, for this same pharmaceutical company.

## CONTACT US

# Get in touch!

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