© RIUS

SAVE ENERGY, CUT COSTS, IMPROVE COMFORT, REDUCE CARBON

Save up to 50% on heating & cooling costs with Airius - **The world leaders in destratification technology**

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TRUST IN AIRIUS

Formed in 2004, we have revolutionized

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.

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What is Stratification?

hermal stratification is a natural phenomenon that affects all buildings, resulting in a dramatic imbalance of temperatures from the floor to the ceiling. This occurs because hot air, being lighter, rises towards the ceiling or roof, while cool air, being heavier, falls to the floor. This separation creates distinct layers of air at different temperatures within a space.

The Impact of Stratification

Air stratification can significantly impact both the comfort and energy efficiency of a building. Here are some key consequences:

- Inconsistent Temperature: Stratification leads to uneven temperatures within a space, with warmer air trapped near the ceiling and cooler air at the floor level.
- Increased Energy Costs: Heating, Ventilation, and Air Conditioning (HVAC) systems must work harder to maintain a consistent temperature at floor level.
- **HVAC System Strain:** The constant over-delivery by HVAC systems not only increases operational costs but also accelerates wear and tear.
- Environmental Impact: The inefficiency of HVAC systems due to stratification also negatively impacts your company's carbon footprint.

How Airius Fans Work

To combat the problem of thermal stratification, Airius offers a range of destratification fan systems designed to balance internal temperatures by recycling heated or cooled air. Here's how Airius fans make a difference:

• **Balanced Temperatures:** Airius 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 until it hits a vertical surface or other air mass and then rises. As the air rises, it entrains back into the descending column, continuously mixing the air volume, achieving a balanced temperature.



How You Benefit

Energy Savings: By reducing the workload on your HVAC system, Airius fans help lower energy consumption and reduce utility costs. Savings on average are up to 50% on heating and cooling costs. Airius fans can also be used for cooling. By enhancing air circulation and reducing perceived temperatures, Airius fans can significantly reduce or even eliminate the need for AC.

Improved Comfort & Productivity:

Comfort: During the winter months, the naturally rising heat is projected down to occupant level. In the summer, enhanced air movement reduces perceived temperatures.

Productivity: Maintaining ideal temperatures ensures optimal productivity conditions.

Enhanced HVAC Efficiency: Airius fans significantly reduce the operation time and workload required of heating and cooling systems. This enhances the efficiency of your existing HVAC system.

Safety: Effective air movement keeps perceived temperatures within the safe zone.

By addressing air stratification, Airius fans help create a more comfortable, energy-efficient environment, making them an essential component for any large indoor space.

			CEILING	HEIGHT	
		20ft	26ft	33ft	40ft
	5.4°	12.7%	15.8%	18%	20%
	7.2°	14.7	17.6	20	22
400C	9°	16.2	19	21.8	23.6
	10.8°	17.5	20.8	23.2	25.6
	□ 12.6°	18.7	22.1	24.8	27
TEMPERATURE	j́ 14.4°	19.8	23.3	26.3	28.4
DIFFERENTIAL WASTES	[∼] 16.2°	21	24.4	27.6	30
	18°	22	26	28.8	31.8
	19.8°	23	27	30.5	33.2
			Percenta	ge of wasted	heat energy
OFHEATENERGY Computational Fluid Dynamics for a 100' x 165' x 26' building with a 100kW gas heater at 3,600cfm. Insulation and lighting constar					building with ting constant.

Building Scientific Research Information Association, UK, 1997.

Our Patented Technology

At Airius, our advanced patented technology

is designed to effectively combat thermal stratification and enhance air circulation in any facility. Our unique innovations ensure superior performance and energy efficiency.

Multi-Vane Stator Technology

Our Multi-Vane Stator Technology minimizes the rotational flow and generates columnar laminar air flows, resulting in increased air flow velocities and enhanced vertical (ceiling to floor) throw distances.

Venturi Nozzles

Venturi nozzles, combined with the stator vanes, further boost air flow velocities, throw distances, and secondary air entrainment. This powerful design allows Airius fans to effectively destratify conditioned spaces with high ceilings by efficiently moving warm air from the ceiling to the floor.

Side Intake Bypass

Our Side Intake Bypass features a secondary inlet that allows additional air to be entrained into the primary flow path, maximizing the air volume through the fan discharge. This ensures optimal air circulation and efficiency in maintaining balanced temperatures.

By integrating these advanced technologies, Airius fans provide an unmatched solution for destratifying air, reducing energy consumption, and enhancing comfort in any building.

RECOMMENDED BY THE CARBON TRUST

Main benefits

- Reduces heating costs by up to 50% or more
- Reduces cooling costs by up to 50%
- Reduces CO² emissions by up to 50%
- Rapid ROI usually between 12 24 months
- Dramatically improves internal environments
- 3 year warranty
- Eligible for carbon reducing grants / loans
- Increases lighting lifespan
- Minimal maintenance required
- Recycles heat from machinery, lighting, solar gain, etc.
- Reduces condensation
- Reduces wear on existing HVAC equipment
- Simple to install with no ducting required
- Small, versatile, unobtrusive units
- Stand alone or BMS integrated controls
- Works alongside all types of HVAC systems



Air Pear Series

educing energy costs since 2004, the Airius Air Pear destratification fans are our most popular range, with ove 175,000 units sold worldwide.

The Airius Air Pear Series is available in a variety of models to suit any building, with ceiling heights ranging from 8 feet to 100 feet perfect for spaces from offices to aircraft hangars!

Airius fans work seamlessly with all types of heating and cooling equipment and are an extremely efficient supplement to ductwork.

All Air Pear models come in off-white or black color.

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

•

Control Options



- Wall mounted, manual speed control (AC and EC fans)
- Wi-Fi Based Pearlink App (EC fans only)
- Airius DeltaT control with 6 modes of operation (AC and EC fans)
- BACnet integrations with the AiriusBAC24 (EC fans only)
- Or any 0-10VDC source (AC and EC fans)
- **Best Use Application**



Product Data

Warranty

- Schools
 Greenhouses
 4 Sizes
- 4 Sizes
 Patented Multi-Vane State
- Standard AC Motors and Controls
- Premium FC Motors and Controls
- 6ft Stainless Steel Leash for Safety
- Standard and Short Nozzles

Air Pear Series Fans 3 Ye (All Parts/Components)



Designer Series

he Airius Designer Series shares many similarities with Air Pear Series and provides all the same benefits and functions, making it perfectly suited for architecturally sensitive installations.

We can customize the Designer Series with motor and control options to suit your requirements, as well as custom paint them.

The Designer Series is suitable for installation in applications with ceiling heights ranging from 8 feet to 125 feet high.



C

Control Options	 Wall mounted, manual speed control (AC and EC fans) Wi-Fi Based Pearlink App (EC fans only) Airius DeltaT control with 6 modes of operation (AC and EC fans) BACnet integrations with the AiriusBAC24 (EC fans only) Or any 0-10VDC source (AC and EC fans)
Best Use Application	 Atriums Lobbies Places of Worship Retail Offices Anywhere that might be architecturally sensitive
Product Data	 Patented Multi-Vane Stator and Venturi Nozzle Powder Coated Aluminum Housing 4 Sizes Standard AC Motors and Controls Premium EC Motors and Controls
Warranty	Designer Series Fans 3 Years (All Parts/Components)

Retail Series

Some of the most uncomfortable retail environments are supermarket chiller and freezer aisles. Maintaining comfortable environments in retail stores is crucial for sales and productivity, leading to increased customer browse times.

Airius has an excellent track record with many major supermarket brands for improving temperatures in these areas as well as mitigating door condensation.

In air-conditioned environments, hot and cold spots often lead to discomfort. Installing Airius fans eliminates these temperature differentials, balancing the temperature across the sales floor and maximizing the efficiency of the HVAC system, thereby reducing costs up to 30%.





Control Options	Wall mounted, manual speed control Wi-Fi Based Pearlink App Airius DeltaT control with 6 modes of operation BACnet integrations with the AiriusBAC24 Or any 0-10VDC source
Best Use Application	Grocery Stores Convenience Stores Restaurants Breweries and Distilleries Atriums & Lobbies Dealerships Schools Hotels
Product Data	Quick and Easy Installation Premium EC Motors and Controls Optional Intake Grille Standard and Narrow Aisle Nozzles
Warranty	Retail Series Fans 3 Years (All Parts/Components)



Before Airius

After Airius

Suspended Series

esigned for versatility, our Suspended Series seamlessly integrates into dropped ceilings from 8 to 25 feet high.

With its lightweight design and easy installatic it adapts effortlessly to evolving floor plans, replacing a standard 24-inch x 24inch ceiling tile. The fan's construction isolates the ceiling plenum, ensuring that only the air below is circulated.

They offer energy-efficient operation, as low as 16W, and the patented multi-vane stator and Venturi nozzle maximize throw, optimizing air circulation.





Pro

Product Features

Control Options	 Wall mounted, manual speed control (AC and EC fans) Wi-Fi Based Pearlink App (EC fans only) Airius DeltaT control with 6 modes of operation (AC and EC fans) BACnet integrations with the AiriusBAC24 (EC fans only) \ Or any 0-10VDC source (AC and EC fans)
Best Use Application	 Offices Grocery stores Schools Gyms Lobbies Car Dealerships Anywhere with acoustic ceiling tiles
Product Data	 Patented Multi-Vane Stator and Venturi Nozzle Standard AC Motors and Controls Premium EC Motors and Controls Additional corner support tabs Optional Duct Stub
Warranty	Suspended Series Fans 3 Years (All Parts/Components)

Q Series

he Airius Q Series takes noise management to a new level. Combining a unique motor mounting solution with our patented airflow technology, the Q series has set a new standard in acoustic management. Ideal for atriums, theaters, schools, shopping centers, offices, and entertainment centers, the Q Series is an exciting addition to the Airius range.

Solve comfort issues, increase productivity, save on HVAC energy costs, and reduce your carbon footprint. Each Q Series fan delivers gentle, efficient air circulation to balance overall air temperature from ceiling to floor and wall to wall.

Available in Standard AC and energy-efficient EC motor varieties, the Q Series Airius Fans are designed to fit in soundsensitive spaces with ceiling heights up to 50 feet (or lower, with speed control). Quick, easy installation is possible in both new construction and retrofits, reducing costs up to 30%.



Control Options	 Wall mounted, manual speed control (AC and EC fans) Wi-Fi Based Pearlink App (EC fans only) Airius DeltaT control with 6 modes of operation (AC and EC fans) BACnet integrations with the AiriusBAC24 (EC fans only) Or any 0-10VDC source (AC and EC fans)
Best Use Application	 Atriums Lobbies Stairwells Mezzanines Concourses Auditoriums Theaters Court Rooms Retail Spaces Music Venues
Product Data	 Patented Multi-Vane Stator and Venturi Nozzle Unique Motor Mounting and Intake 6ft Stainless Steel Leash for Safety Standard AC Motors and Controls Premium EC Motors and Controls
Warranty	Q Series Fans 3 Years (All Parts/Components)

Onyx Series

he Airius Onyx Series is designed for powerful air circulation, destratification, and cooling in large spaces with high ceilings. These fans are engineered to deliver superior performance in challenging environments, ensuring consistent temperature control, enhanced comfort, and significant energy savings.

The Onyx Series is particularly effective in warehouses, manufacturing facilities, gyms, and other large spaces where managing temperature, air quality, and cooling needs are critical.

By efficiently circulating air and reducing perceived temperatures, the Onyx Series can also help reduce or even eliminate the need for traditional air conditioning systems, offering a cost-effective cooling solution.



Q

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Control Options	 Wall mounted, manual speed control (AC and EC fans) Wi-Fi Based Pearlink App (EC fans only) Airius DeltaT control with 6 modes of operation (AC and EC fans) BACnet integrations with the AiriusBAC24 (EC fans only) Or any 0-10VDC source (AC and EC fans)
Best Use Application	 Athletic Facilities Warehouses Garages and Work Shops Above Workstations
Product Data	 Patented Multi-Vane Stator and Side Intake Bypass Technology 6ft Stainless Steel Leash for Safety Standard AC Motors and Controls Premium EC Motors and Controls
Warranty	Onyx Series Fans 3 Years (All Parts/Components)

PureAir Series

he Airius PureAir Series leverages advanced Needlepoint Bipolar Ionization (NPBI[™]) technology to provide continuous air purification in indoor environments. People spend 90% of their time indoors, where the air can harbor particles, pathogens, bacteria, molds, and odors. These potentially harmful elements are often trapped and circulated throughout buildings, posing health risks. PureAir fans work continuously to mitigate these harmful elements so you can be assured that your indoor air is clean.

How It Works

Needlepoint Bipolar Ionization (NPBI[™]): This patented technology generates positive and negative ions that attach to particles, making them larger and easier to capture by filtration systems. The ions also disrupt the surface proteins of pathogens, rendering them inactive and unable to replicate.

Continuous Air Cleaning: PureAir fans continuously emit ionized air, which actively cleans the indoor air of unwanted organisms and odors.

Odor Neutralization: Ionized air breaks down odors from chemicals, pets, cooking etc. into harmless compounds.

Benefits

Improved Air Quality: Reduces airborne particles and neutralizes odors, providing a cleaner indoor environment.

Energy Savings: Cleaner air allows for reduced reliance on outside air ventilation, leading to potential energy savings of up to 30%.

Ductless Ionization: The Airius PureAir fans offer a unique solution by incorporating Needlepoint Bipolar Ionization (NPBI[™]) technology without the need for ductwork. Unlike traditional air purification systems that require ions to travel through ducts, often losing effectiveness along the way, PureAir fans deliver ionized air directly into the room. This ductless ionization ensures optimal air purification, making it easier to integrate advanced air cleaning technology into any space without the complexities of modifying existing HVAC systems.

Control Options	 are only recommended with EC motors. Wall mounted, manual speed control (EC fans) Wi-Fi Based Pearlink App (EC fans) Airius DeltaT control with 6 modes of operation (EC fans) BACnet integrations with the AiriusBAC24 (EC fans only) Or any 0-10VDC source (EC fans)
est Use Application	 Waiting Rooms Restaurants & Bars Senior Living Facilities Offices Schools Locker Rooms & Gyms
Product Data	 Needlepoint Bipolar Ionization (NPBI[™]) Self Cleaning Brushes Every 24 Hours Patented Multi-Vane Stator and Venturi Nozzle
Warranty	 PureAir Fans 3 Years (All Parts/Components) NPBI Module is 1 Year (All Parts/Components)

NPBI module installed within the fan unit

B

DISCLAIMER: Airius partners with Global Plasma Solutions to use their NPBI technology. Global Plasma Solutions (GPS) uses multiple data points to formulate performance validation statements. GPS technology is used in a wide range of applications across diverse environmental conditions. Since locations will vary, clients should evaluate their individual application and environmental conditions when making an assessment regarding the technology's potential benefit.

NPBI is a registered trademark of Global Plasma Solutions Inc.

Technical Data

Airius remains at the forefront of air circulation technology, dedicated to pushing the boundaries of innovation and delivering superior products that enhance air quality and energy efficiency.

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 Venturi nozzle to maximize air circulation efficiency.

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. For full specifications please visit **airiusfans.com/downloads**.

Series	Part Number	Color ¹	Motor Type ²	Motor Size	Input Power
	A-10-SP-STD-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-10-SP-SH-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-15-SP-STD-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-15-SP-SH-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-25-SP-STD-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-25-SP-SH-120-X	(W) (G) (B)	SP	228mm	120VAC, 60Hz
	A-25-SP-STD-277-X	(W) (G) (B)	SP	228mm	277VAC, 60Hz
	A-25-SP-SH-277-X	(W) (G) (B)	SP	228mm	277VAC, 60Hz
	A-45-P4-STD-120-X	(W) (B)	PSC	250mm	120VAC, 60Hz
	A-45-P4-STD-277-X	(W) (B)	PSC	250mm	277VAC, 60Hz
	A-60-P4-STD-120-X	(W) (B)	PSC	330mm	120VAC, 60Hz
	A-60-P4-STD-277-X	(W) (B)	PSC	330mm	277VAC, 60Hz
AIR PEAR	A-15-EC-STD-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
	A-15-EC-SH-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
	A-15-EC-STD-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
	A-15-EC-SH-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
	A-25-EC-STD-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
	A-25-EC-SH-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
	A-25-EC-STD-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
	A-25-EC-SH-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
	A-45-EC-STD-100-130-X	(W) (B)	EC	250mm	100-130VAC, 60Hz
	A-45-EC-STD-200-277-X	(W) (B)	EC	250mm	200-277VAC, 60Hz
	A-60-EC-STD-100-130-X	(W) (B)	EC	330mm	100-130VAC, 60Hz
	A-100-EC-STD-100-130-X	(W) (B)	EC	400mm	100-130VAC, 60Hz
	A-100-EC-STD-200-277-X	(W) (B)	EC	400mm	200-277VAC, 60Hz
	ONYX-P4-STD-120-X	(W) (B)	PSC	300mm	120VAC, 60Hz
ONIVY	ONYX-EC-STD-100-130-X	(W) (B)	EC	300mm	100-130VAC, 60Hz
	ONYX-EC-STD-200-240-X	(W) (B)	EC	300mm	200-240VAC, 60Hz
	ONYX-560-EC-STD-200-277-X	(W) (C)	EC	560mm	200-277VAC, 60Hz

¹Color key = (W) off white, (G) gray, (B) black, (C) Custom, Replace X with Color selection

²Motor Type key = (SP) Shaded Pole, (PSC) Permanent Split Capacitor, (EC) Electronically Commutated



Amps	Watts	RPM	Sound Power dB(A)*	Weight	Operating Tempature	Destrat Max Height & Coverage
0.14	16	860	41.8	9 lbs.	-4° F (-20° C) to 158° F (70° C)	12 FT CEILING, 500FT ²
0.14	16	860	41.8	7 lbs.	-4° F (-20° C) to 158° F (70° C)	12 FT CEILING, 500FT ²
0.18	18	1057	47.3	9 lbs.	-4° F (-20° C) to 158° F (70° C)	15 FT CEILING, 800FT ²
0.18	18	1057	47.3	7 lbs.	-4° F (-20° C) to 158° F (70° C)	15 FT CEILING, 800FT ²
0.31	37	1670	60	9 lbs.	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.31	37	1670	60	7 lbs.	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	9 lbs.	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	7 lbs.	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.45	54	1550	69.3	14 lbs.	-13° F (-25° C) to 158° F (70° C)	40 FT CEILING, 1200FT ²
0.2	45	1630	69.3	14 lbs.	-13° F (-25° C) to 158° F (70° C)	40 FT CEILING, 1200FT ²
1.35	162	1490	75.2	22 lbs.	-13° F (-25° C) to 167° F (75° C)	60 FT CEILING, 2000FT ²
0.68	170	1660	75.2	22 lbs.	-13° F (-25° C) to 167°F (75° C)	60 FT CEILING, 2000FT ²
0.15	18	1170	62	9 lbs.	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.15	18	1170	62	7 lbs.	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.08	11	1170	62	9 lbs.	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.08	11	1170	62	7 lbs.	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.46	31	1640	69	9 lbs.	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.46	31	1640	69	7 lbs.	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1640	69	9 lbs.	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1640	69	7 lbs.	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
1.9	154	2790	85.7	14 lbs.	-13° F (-25° C) to 158° F (70° C)	45 FT CEILING, 1500FT ²
1.4	175	3050	85.7	14 lbs.	-13° F (-25° C) to 158° F (70° C)	45 FT CEILING, 1500FT ²
1.8	143	1605	78.2	22 lbs.	-13° F (-25° C) to 140° F (60° C)	60 FT CEILING, 2000FT ²
3.34	294	1520	80.9	45 lbs.	-13° F (-25° C) to 140° F (60° C)	100 FT CEILING, 2500FT ²
2.5	390	1690	80.9	45 lbs.	-13° F (-25° C) to 140° F (60° C)	100 FT CEILING, 2500FT ²
0.66	76	1573	73.7	13 lbs.	-13° F (-25° C) to 158° F (70° C)	50 FT CEILING, 2000FT ²
1.32	90	1732	76.4	13 lbs.	40° F (-40° C) to 176° F (80° C)	50 FT CEILING, 2000FT ²
0.8	98	1660	76.4	13 lbs.	40° F (-40° C) to 176° F (80° C)	50 FT CEILING, 2000FT ²
1.45	328	1009	78.5	100 lbs.	-13° F (-25° C) to 140° F (60° C)	Commonly Used for Cooling Only

*Sound Power Level, designed to meet ISO 3744 - engineering grade precision for determining sound power.

Series	Part Number	Color	Motor Type	Motor Size	Input Power
	Q-50-P4-STD-120-X	(W) (B)	PSC	300mm	120VAC, 60Hz
0	Q-50-EC-STD-100-130-X	(W) (B)	EC	300mm	100-130VAC, 60Hz
	Q-50-EC-STD-200-240-X 2	(W) (B)	EC	300mm	200-240VAC, 60Hz
	D-15-SP-STD-120-X	(W) (C)	SP	228mm	120VAC, 60Hz
	D-15-SP-SH-120-X	(W) (C)	SP	228mm	120VAC, 60Hz
	D-25-SP-STD-120-X	(W) (C)	SP	228mm	120VAC, 60Hz
	D-25-SP-STD-277-X	(W) (C)	SP	228mm	277VAC, 60Hz
	D-25-SP-SH-120-X	(W) (C)	SP	228mm	120VAC, 60Hz
	D-25-SP-SH-277-X	(W) (C)	SP	228mm	277VAC, 60Hz
	D-45-P4-STD-120-X	(W) (C)	PSC	250mm	120VAC, 60Hz
	D-45-P4-STD-277-X	(W) (C)	PSC	250mm	277VAC, 60Hz
	D-60-P4-STD-120-X	(W) (C)	PSC	330mm	120VAC, 60Hz
	D-60-P4-STD-277-X	(W) (C)	PSC	330mm	277VAC, 60Hz
DESIGNER	D-15-EC-STD-100-130-X-CON	(W) (C)	EC	230mm	100-130VAC, 60Hz
	D-15-EC-STD-200-250-X-CON	(W) (C)	EC	230mm	200-250VAC, 60Hz
	D-15-EC-SH-100-130-X-CON	(W) (C)	EC	230mm	100-130VAC, 60Hz
	D-15-EC-SH-200-250-X-CON	(W) (C)	EC	230mm	200-250VAC, 60Hz
	D-25-EC-STD-100-130-X-CON	(W) (C)	EC	230mm	100-130VAC, 60Hz
	D-25-EC-STD-200-250-X-CON	(W) (C)	EC	230mm	200-250VAC, 60Hz
	D-25-EC-SH-100-130-X-CON	(W) (C)	EC	230mm	100-130VAC, 60Hz
	D-25-EC-SH-200-250-X-CON	(W) (C)	EC	230mm	200-250VAC, 60Hz
	D-45-EC-STD-100-130-X	(W) (C)	EC	250mm	100-130VAC, 60Hz
	D-45-EC-STD-200-277-X	(W) (C)	EC	250mm	200-277VAC, 60Hz
	D-60-EC-STD-100-130-X	(W) (C)	EC	330mm	100-130VAC, 60Hz
	P-S3-SP-STD-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	P-S2-SP-STD-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	P-S1-SP-STD-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
PEARL	P-S1-SP-STD-277-X	(W) (B)	SP	228mm	277VAC, 60Hz
	P-E1-STD-100-130-X-CON	(W) (B)	EC	230mm	100-130VAC, 60Hz
	P-E1-STD-200-250-X-CON	(W) (B)	EC	230mm	200-250VAC, 60Hz
	R-20-EC-STD-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
DETAIL	R-20-EC-STD-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
KETAIL	R-20-EC-NA-100-130-X-CON	(W) (G) (B)	EC	230mm	100-130VAC, 60Hz
	R-20-EC-NA-200-250-X-CON	(W) (G) (B)	EC	230mm	200-250VAC, 60Hz
	S-10-SP-SH-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	S-15-SP-SH-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	S-25-SP-STD-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	S-25-SP-STD-277-X	(W) (B)	SP	228mm	277VAC, 60Hz
	S-25-SP-SH-120-X	(W) (B)	SP	228mm	120VAC, 60Hz
	S-25-SP-SH-277-X	(W) (B)	SP	228mm	277VAC, 60Hz
	S-15-EC-SH-100-130-X-CON	(W) (B)	EC	230mm	100-130VAC, 60Hz
	S-15-EC-SH-200-250-X-CON	(W) (B)	EC	230mm	200-250VAC, 60Hz
	S-25-EC-STD-100-130-X-CON	(W) (B)	EC	230mm	100-130VAC, 60Hz
	S-25-EC-STD-200-250-X-CON	(W) (B)	EC	230mm	200-250VAC, 60Hz
	S-25-EC-SH-100-130-X-CON	(W) (B)	EC	230mm	100-130VAC, 60Hz
	S-25-EC-SH-200-250-X-CON	(W) (B)	EC	230mm	200-250VAC, 60Hz

Amps	Watts	RPM	Sound Power dB(A)*	Weight	Operating Tempature	Destrat Max Height & Coverage
0.68	81	1580	70.3	22 lbs.	-13° F (-25° C) to 158° F (70° C)	50 FT CEILING, 2000FT ²
1.04	87	1670	73.8	22 lbs.	40° F (-40° C) to 176° F (80° C)	50 FT CEILING, 2000FT ²
0.8	98	1660	73.8	22 lbs.	40° F (-40° C) to 176° F (80° C)	50 FT CEILING, 2000FT ²
0.18	18	1057	47.3	15 lbs	-4° F (-20° C) to 158° F (70° C)	15 FT CEILING, 800FT ²
0.18	18	1057	47.3	12 lbs	-4° F (-20° C) to 158° F (70° C)	15 FT CEILING, 800FT ²
0.31	37	1670	60	15 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	15 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.31	37	1670	60	12 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	12 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.45	54	1550	69.3	19 lbs	-13° F (-25° C) to 158° F (70° C)	40 FT CEILING, 1200FT ²
0.2	45	1630	69.3	19 lbs	-13° F (-25° C) to 158° F (70° C)	40 FT CEILING, 1200FT ²
1.35	162	1489	75.2	38 lbs	-13° F (-25° C) to 167° F (75° C)	60 FT CEILING, 2000FT ²
0.68	170	1660	75.2	38 lbs	-13° F (-25° C) to 167°F (75° C)	60 FT CEILING, 2000FT ²
0.15	18	1170	62	15 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.08	11	1260	62	15 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.15	18	1170	62	12 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.08	11	1260	62	12 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.46	31	1640	69	15 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1700	69	15 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.46	31	1640	69	12 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1700	69	12 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
1.9	154	2789	85.7	19 lbs	-13° F (-25° C) to 140° F (60° C)	45 FT CEILING, 1500FT ²
1.4	175	3050	85.7	19 lbs	-13° F (-25° C) to 140° F (60° C)	45 FT CEILING, 1500FT ²
1.8	143	1605	78.2	38 lbs	-13° F (-25° C) to 140° F (60° C)	60 FT CEILING, 2000FT ²
0.14	16	860	41.8	6 lbs.	-4° F (-20° C) to 158° F (70° C)	10 FT CEILING, 500FT ²
0.18	18	1057	47.3	6 lbs.	-4° F (-20° C) to 158° F (70° C)	UP TO 15 FT CEILING, 800FT ²
0.32	38	1670	60	6 lbs.	-4° F (-20° C) to 158° F (70° C)	UP TO 22 FT CEILING, 1200 FT ²
0.17	45	1650	60	6 lbs.	-4° F (-20° C) to 158° F (70° C)	UP TO 22 FT CEILING, 1200 FT ²
0.46	31	1640	69	6 lbs.	-22°F (-30°C) to 122°F (50°C)	22 FT CEILING, 1200FT ²
0.26	30	1640	69	6 lbs.	-22°F (-30°C) to 122°F (50°C)	22 FT CEILING, 1200FT ²
0.53	35	1580	65	6 lbs	-22°F (-30°C) to 122°F (50°C)	20 FT CEILING, 1200FT ²
0.35	32	1700	65	6 lbs	-22°F (-30°C) to 122°F (50°C)	20 FT CEILING, 1200FT ²
0.53	35	1580	65	6 lbs	-22°F (-30°C) to 122°F (50°C)	20 FT CEILING, 1200FT ²
0.35	32	1700	65	6 lbs	-22°F (-30°C) to 122°F (50°C)	20 FT CEILING, 1200FT ²
0.14	16	860	47.3	15 lbs	-4° F (-20° C) to 158° F (70° C)	12 FT CEILING, 500FT ²
0.18	18	1057	47.3	15 lbs	-4° F (-20° C) to 158° F (70° C)	15 FT CEILING, 800FT ²
0.31	37	1670	60	16 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	16 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.31	37	1670	60	15 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.17	45	1650	60	15 lbs	-4° F (-20° C) to 158° F (70° C)	25 FT CEILING, 1200FT ²
0.15	18	1170	62	15 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.08	11	1260	62	15 lbs	-22°F (-30°C) to 122°F (50°C)	15 FT CEILING, 800FT ²
0.46	31	1640	69	16 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1700	69	16 lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.46	31	1640	69	15lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²
0.26	30	1700	69	15lbs	-22°F (-30°C) to 122°F (50°C)	25 FT CEILING, 1200FT ²

Selection Considerations

A Velocity Profile is the downstream airflow pattern and average air speeds created by Airius fans, designed to ensure long throw from ceiling to floor for air circulation throughout a space.



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Sound Power is the total acoustical energy emitted by a sound source, and it remains constant regardless of the environment or distance from the source. It represents the inherent noise output of a device, such as a fan. Refer to individual fan cut sheets at <u>airiusfans.com/downloads</u> for sound

pressure which will give the best representation of what the noise level will be at varying distances from the fan once it is hung at ceiling level.



Cooling a person with a fan depends on several key factors, including air speed, air temperature, and humidity.

Fans enhance the body's natural cooling by increasing air movement across the skin, which is most effective in moderate temperatures and low humidity, allowing sweat to evaporate faster.

Clothing insulation and metabolic rate also play roles, as lighter clothing and higher activity levels influence how much cooling is needed.

Additionally, individual preferences and external heat sources like sunlight affect the overall cooling experience.

Because of these factors, please refer to our velocity profiles and ASHRAE-55 for guidance or alternatively reach out to an Airius expert or HVAC engineer.



AIRIUS DELTA-T FAN CONTROL



The Airius DeltaT controls allow for 6 modes of quiet speed control by utilizing an autotransformer (AC option only) to eliminate the hum often associated with TRIAC type controls. Packages available for AC or EC motor options.

- DeltaT control Dynamic speed control driven by the differential between temperature sensors.
- BAS integration 0-10VDC control input for controlling fan speed across 8 speed steps.
- Thermostat control When the temperature reaches a set-point, the fans energize to a set speed.
- Humidistat control- When humidity reaches a user defined threshold, the fans energize to a set speed.
- Manual control User control will override any automatic mode with 8 manual speed steps.
- 24hr timer Set fans to turn on and off at a set time every day.

PEARLINK WIFI CONTROL



Integrate with an existing WiFi network to provide wireless connectivity for monitoring stratification levels and individual or grouped fan control. Each installation will include a floor sensor to be installed 48 in. above the floor.

- Closed loop fan control. Adjust fan speed and monitor actual rpm.
- Compatible with EC motors.
- One year parts and workmanship.
- 4 GHz network required
- iOS and Android app available for free
- Recommended for smaller installations up to ~20 fans

BACNET MS/TP FAN CONTROL



Individual Airius fan control and status integration over BACnet MS/TP. Up to 63 fans per BACnet MS/TP network. One AiriusBAC24 device required per fan.

- On/off, fan speed control and rpm monitoring.
- ✤ Compatible with EC motors.
- Three year parts and workmanship.
- Part number: AiriusBAC24

BACNET IP TO MS/TP NETWORKING PANEL



The BACnet multi-network router panel provides versatile standalone routing between BACnet/ IP, BACnet Ethernet, and BACnet MS/TP networks.

- Includes a 24VAC power supply, network switch and BACnet router for integration of AiriusBAC24 BACnet cards.
- Maximum of 63 AiriusBAC24 devices per BACnet MS/TP network.
- Up to 26 AiriusBAC24 devices can be powered by the included power supply. For networks using more than 26 fans additional power supplies are needed.
- PSC100AB10: Enclosed Single 100 VA Power Supply, 120 to 24 Vac Can power up to 26 additional AiriusBAC24 Devices.
- Part number: AiriusBAC-IP-MSTP

WALL MOUNTED SPEED CONTROL



The control mounts in a standard 2" x 4" electrical wall box. Includes faceplate, knob, screws and wire nuts. Total fan amperage should not exceed the speed control amperage rating.

- 💠 230V, 8 AMP
- **\$** 120V, 1.5 AMP
- 💠 120V, 6 AMP
- 💠 120V, 15 AMP
- 💠 277V, 5 AMP

SPEED CONTROL, POTENTIOMETER



The control mounts in a standard 2" x 4" electrical wall box. Includes faceplate, knob and screws. Do not exceed 1000 ft. of control wire.

- Push Button On/Off Infinitely variable speed settings.
- Compatible with EC motors.
- One year parts and workmanship.
- Part number: POT-1







































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

Due to the new lighting, roof insulation and Air Pears, our first energy bill at our main showroom was 75% less compared to the previous owner!!! DAVE DILLEY, BUILDING MANAGER BRIGHT IDEAS FURNITURE

First thing we noticed is that the heaters were finally shutting off and the temperature was staying comfortable without the feeling of being blasted with air. The second, and most impressive thing.... our utility bill dropped 25% even though the outside temperatures had significantly fallen! STEVE THOMAS, OWNER, FLAT BROKE SHOOTER

We could not be more pleased with the fans. There have been no floor sweating issues since they were installed except in one area not under the fans. The weather has presented conditions where we would normally experience significant sweating, but the fans have prevented it. We are currently leaving them running all the time. Thanks! WORLDWIDE LEADING SHIPPING COURIER The fans have performed wonderfully and the University has received many compliments on the improvement to the atmosphere in the facility during high volume events. Thanks to the help of Airius, and the great fans they produce, we now have a very usable venue.

WALLY BEETS, FACILITIES SERVICES UNIVERSITY OF TENNESSEE

> We had a major weather change earlier this week that would have normally caused floor sweating. We did not have any issues. The weather went from very warm and sunny over the weekend to cold and rainy on Monday/Tuesday. I was here in the evening and night on both days and the floor remained dry. So far it is working out very well. WORLDWIDE LEADING SHIPPING COURIER

> Everything is going great. It was the best investment we have probably made in our station. I have not seen any "Sweat Slab" issues since the install of the fans. They are doing their job perfectly and we couldn't have asked for a better solution. WORLDWIDE LEADING SHIPPING COURIER

CASE STUDY



National Resource Management Inc.

Manufacturing Facility, Dorset

Airius Fans and National Resource Management Inc. (NRM)

developed a solution which increased energy savings by 33.28% over the first five months of operation.

An array of 70 low-wattage Airius destratification fans were part of a strategy implemented by National Resource Management Inc. to increase the time between cycles of power-hungry 1 to 2 horsepower ventilation motors (total load of 62kW) from 7 to 20 minutes.

To make this possible, Airius destratification fans were added to the 36ft. high warehouse ceiling to maintain thermal equilibrium throughout the space, floor to ceiling and wall to wall.

By recirculating the conditioned air in the cold storage space, NRM's controls were able to optimize the facility's energy usage for a 33.28% decrease in energy use and a total refrigeration savings of 60%.

The reduced electrical load from running Airius fans in lieu of large ventilation fans, along with the increased cycle times programmed by NRM, are responsible for a significant portion of the savings.

Whether you are a wholesaler, distributor, manufacturer or 3rd party logistics provider, your cold-storage facility can financially and operationally benefit from a partnership with Airius and NRM.

		Energy Usage in kWh/Day	
	BEFORE	AFTER	% SAVINGS
NOV	5,481	4,227	22.88%
DEC	5,164	3,330	35.52%
JAN	5,096	3,123	38.72%
FEB	5,088	3,135	38.38%
MAR	4,831	3,338	30.90%

Key points:

- ROI: Within the first year
- Cost Savings: \$42,000 First 5 months
- Installation Site:
 Manufacturing Facility
- System: 70 low-wattage Airius Fans
- Energy Savings: 33.28%
- Reduced electrical load



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:

- Savings after install: \$25,093.19
- Installation: 120 Airius Fans
- Energy Savings: 60%
- All overheating issues eliminated
- Directional airflow targets problem areas
- Speed Controls adapt to changes.
- Warehouse Manufacturing Facility:20-33 feet high ceiling32,290 square feet



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 01/30/12 - 02/05/12, and running during the week 01/24/12 - 01/29/12.

Key points:

- ROI: Under 18 months
- \$15,290 First-year savings
- \$24,983 Full system and installation cost •
- 1,141,113 kWh Energy usage before Airius •
- 709,956 kWh Energy usage after Airius •
- System: 26 Airius Model 45 units •
- Approx. Annual CO2 Reduction: 82.7 ton •



TEMPERATURE

CONTACT US

Get in touch!

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GP University of Colorado Boulder

Wegmans BRITISH AIRWAYS









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