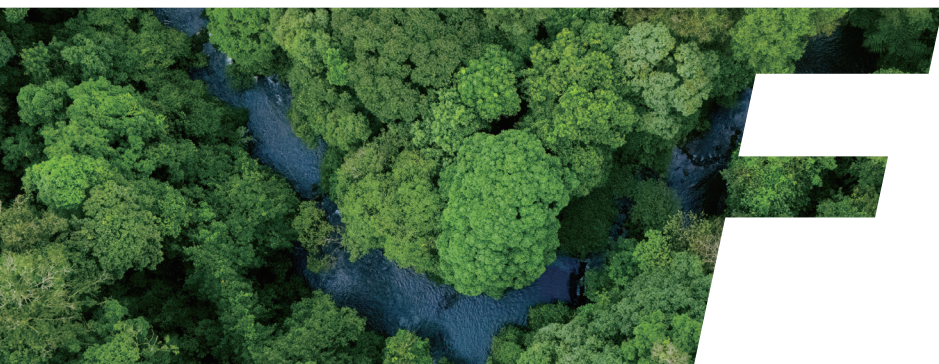




SUSTAINABILITY REPORT 2025

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About this Report

The AAF Sustainability Report 2025 outlines our commitment to sustainable growth and provides an overview of the results from our sustainability activities, along with our future plans. With a legacy of over 100 years in delivering high-quality air filtration solutions, AAF continues to innovate as part of the Daikin Group. We align our initiatives with Daikin's overarching goals and values, leveraging data and insights from Daikin to enhance the impact and depth of our work.

The AAF Sustainability Report 2025 includes information on the global operations of the filtration business under Daikin, collectively known as AAF International (hereafter referred to as AAF), including the Dinair Group and Flanders.

This report primarily focuses on FY25 but also includes relevant data from previous years to provide context and highlight our ongoing progress. The report is organized into three key areas:

- Environmental (Section: Planet and Processes)
- Social (Section: People)
- Governance (Section: Key Foundations)

At the end of the report, we have included a glossary of relevant topics to guide the reader in understanding key concepts and terminology.





Introduction

About AAF

At AAF, our purpose is clear: to improve air quality and protect the planet, people, and processes. For over a century, we've been committed to providing clean air solutions that positively impact communities and industries around the world—creating healthier, more sustainable environments at every turn.

As a proud member of the Daikin Group, the world's largest air conditioning company with over 100 years of history, we are empowered by cutting-edge technology, deep expertise, and a shared vision to transform air quality globally. Headquartered in Osaka, Japan, Daikin is a global leader in air innovation, with over 100 production facilities and a presence in more than 170 countries. AAF has 25 production sites worldwide which allow us to serve the global community, with operations spanning 30 countries. This global presence aligns perfectly with Daikin's commitment to driving sustainable progress and enhancing air quality worldwide.

Our customers trust AAF for advanced air filtration solutions designed to meet the rigorous requirements of diverse industries—from educational institutions safeguarding future generations to life science facilities supporting groundbreaking discoveries. By focusing on quality, efficiency, and sustainability, we not only help our customers comply with regulatory standards but also enhance operational performance and reduce their environmental impact.

Together with Daikin, we proudly build on a combined legacy of over 200 years of innovation and progress. We remain committed to advancing sustainable practices that ensure cleaner, healthier environments—for our customers, communities, and the world at large.

AAF Key Figures

NET SALES (Million \$)



720+

NUMBER OF EMPLOYEES



5,000+

NUMBER OF
MANUFACTURING SITES



25

NUMBER OF COUNTRIES
USING AAF PRODUCTS



130+

YEARS OF FILTER EXPERTISE



100+

FACTORY GREENHOUSE GAS
EMISSIONS BY 2030



Net 0

NUMBER OF COUNTRIES IN
WHICH AAF OPERATES



30

R&D CENTERS



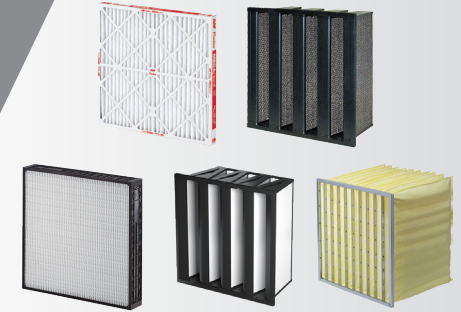
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AAF offers advanced air filtration products which enhance air quality and safety across industries, providing tailored solutions for hospitals, commercial buildings, manufacturing, and more.

General Ventilation

Ensures clean, healthy air by removing dust, allergens, and pollutants within HVAC systems and indoor environments across various settings.

Industries Commercial & Public Buildings, Healthcare, Education, Government, Transportation, Logistics, Datacenters



High Purity Filtration

Provides ultra-clean air for sensitive environments to ensure product and process integrity, while also protecting people from airborne contaminants.

Industries Life Science, Microelectronics, Electric Vehicle, Food, Agriculture & Beverage, Healthcare



Industrial Filtration

Captures dust, particulate matter, and other pollutants in the energy and industrial sectors, ensuring safety for people and operational efficiency.

Industries Material Processing, Food, Agriculture & Beverage, Waste & Recycling, Offshore Oil & Gas, Power Generation, Automotive



Over 100 Years of AAF Protecting our Planet, People and Processes

1920s



The Rise of Industrial Power

After World War I, factory expansion boosted efficiency but increased pollution. In response, Bill Reed invented a dust filter in 1921, laying the foundation for AAF.

1930s



Economic & Environmental Issues

The Great Depression slowed industrial growth, but pollution persisted. As smog worsened, AAF expanded, adding two plants and introducing fiberglass filters.

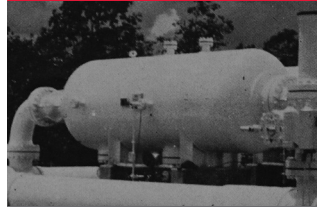
1940s



Wartime Manufacturing Boom

World War II boosted industrial production, causing round-the-clock factory operations and worsening air quality, increasing the need for better filtration in precision industries.

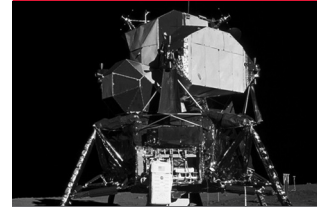
1950s



The Post-War Expansion

As industrialization and car use rose, urban smog worsened. Air filtration solutions evolved to protect products and improve workplaces, with AAF leading the demand for cleaner air.

1960s



Environmental Awareness Takes Root

Smog in cities like Los Angeles led to the Clean Air Act (1963) to regulate emissions. HEPA filters set new standards, while AAF advanced filtration and supported NASA's Apollo 11.

1970s



Energy Crises & Industrial Challenges

The oil crises highlighted the need for energy efficiency. Factories adopted advanced filtration to meet regulations, and AAF expanded with energy-efficient air solutions.

1980s



Globalization & Urban Growth

As industrial production grew in developing countries, pollution rose. Meanwhile, vehicles with catalytic converters reduced urban pollution in developed nations. AAF expanded globally.

1990s



Climate Change Awareness

Scientific consensus linked fossil fuels to global warming, while renewable energy remained niche. Meanwhile, air filtration advanced for cleanrooms in biotech and electronics, with AAF leading.

2000s



Green Technologies & Renewables

Renewable energy advanced, and industries and transportation adopted cleaner technologies, supported by improved air filtration. AAF innovated with eco-friendly products, aiding global sustainability.

2010s



Sustainability Becomes Mainstream

Global agreements like the Paris Agreement pushed for carbon emission cuts, while electric vehicles reduced pollution. AAF pioneered smart filtration systems for energy efficiency.

2020s



Innovations for a Cleaner Future

Air filtration combats industrial and urban pollution. Smart systems using sensors and AI optimize air quality. As sustainability grows, AAF leads in innovations that protect the planet, people and processes.

2030s



Technology Drives Sustainability

Technology will drive breakthroughs in how consumers perceive and measure air quality. Real-time data on HVAC systems' sustainability and impact will show consumers the value of their purchases.

The Current Green Glossary

The field of sustainability, particularly within our industry and the sectors we serve, is evolving rapidly, with new specialized terms emerging frequently. To assist both our internal and external stakeholders in understanding and navigating this complex landscape, we have compiled a comprehensive glossary of terms. We hope this glossary will serve as a valuable resource to enhance your understanding of key concepts, including but not limited to, environmental management, economic viability, and social well-being.

Detailed explanations for each term are provided on pages 46 to 51.

Standards

ASHRAE 62.1-2025	ASHRAE 241-2023	ISO 9001:2015	ISO 14025:2025-10	ISO 14044:2006	ISO 14072:2024
ASHRAE 62.2-2025	EN 15804:2012+A2:2019 + AC:2021	ISO 14001:2026-09	ISO 14040:2006-02	ISO 14067:2018-02	ISO 26000-2010

Terms

A <u>ACT</u> : Accelerate Climate Transition®	<u>EPD HUB</u>	<u>LCA</u> : Life Cycle Assessment
B <u>BREEAM</u> : Building Research Establishment Environmental Assessment Method	<u>EPD International AB</u>	<u>LEED</u> : Leadership in Energy and Environmental Design
C <u>CASBEE</u> : Comprehensive Assessment System for Built Environment Efficiency	<u>ESG</u> : Environmental, Social, Governance	<u>Life Cycle Stages</u>
<u>CBAM</u> : Carbon Border Adjustment Mechanism	<u>ESPR</u> : Ecodesign for Sustainable Products Regulation	P <u>Paris Agreement</u>
<u>cPCR</u> : Complementary Product Category Rules	<u>ESRS</u> : European Sustainability Reporting Standards	<u>Passivhaus Certification</u>
<u>CSDDD</u> : Corporate Sustainability Due Diligence Directive	<u>EU Taxonomy</u>	<u>PCR</u> : Product Category Rules
<u>CSRD</u> : Corporate Sustainability Reporting Directive	F <u>Fitwel Certification Program</u>	<u>Pearl Certification</u>
D <u>DGNB</u> : German Sustainable Building Council	G <u>GHG</u> : Greenhouse Gas Emissions	<u>PPWR</u> : Packaging and Packaging Waste Regulation
<u>DPP</u> : Digital Product Passport	<u>Green Globes Certification</u>	R <u>RESET Certification</u>
E <u>ECO Platform</u>	<u>Green Mark Certification</u>	S <u>SBTi</u> : Science Based Targets initiative
<u>EcoVadis SAS</u>	<u>Green Star Certification Program</u>	<u>SDGs</u> : Sustainable Development Goals
<u>EGD</u> : European Green Deal	<u>GRI</u> : Global Reporting Initiative	T <u>TCO</u> : Total Cost of Ownership
<u>Enterprise Green Communities Certification</u>	H <u>HQE</u> : High Environmental Quality Certification Program	<u>Three-Star Program</u>
<u>Environmental Impact Categories</u>	<u>HVAC</u> : Heating, Ventilation, and Air Conditioning	U <u>UL Verified Healthy Building Certification Program</u>
<u>EPD</u> : Environmental Product Declaration	I <u>IAQ</u> : Indoor Air Quality	<u>UNFCCC</u> : United Nations Framework Convention on Climate Change
	<u>IEQ</u> : Indoor Environmental Quality	W <u>WELL Building Standard</u>
	L <u>LBC</u> : Living Building Challenge	

AAF's Sustainability Mindset

AAF's sustainability mindset is built on the 'three Ps'.

AAF's Contribution and Related SDGs

- Improve environmental performance of our products.
- Optimize resources and reduce waste throughout the full product lifecycle.



Reduce the environmental impact through all business activities and contribute to climate change mitigation.

Protect our Planet



AAF's 'three Ps'

Protect People



Ensure clean air to safeguard public health and improve quality of life.

AAF's Contribution and Related SDGs

- Reduce harmful contaminants and improve comfort in indoor environments through AAF products and services.
- Educate and collaborate with stakeholders to establish global standards for indoor air quality, ensuring healthy and cost-effective clean environments.
- Foster human development and community strength through inclusive and sustainable initiatives.



AAF's Contribution and Related SDGs

- Implement advanced air filtration technologies to optimize energy consumption while maintaining safety and efficiency.
- Focus on consumer feedback to prioritize process protection, while embedding sustainability into every solution.



Protect Processes



Enhance the safety, quality, and efficiency across our customers' processes and equipment with innovative air solutions.

Key Foundations

Daikin Group
Conduct Guidelines

Anti-Bribery and
Anti-Corruption

Respect for
Human Rights

Responsible
Procurement

Information
Security



Planet and Processes

Daikin Group Environmental Vision 2050

Toward Net-Zero Greenhouse Gas Emissions

Guided by the "Daikin Environmental Vision 2050", established in 2018, the Daikin Group, including AAF, is committed to reaching net-zero greenhouse gas emissions across our entire value chain by 2050.

Daikin Environmental Vision 2050

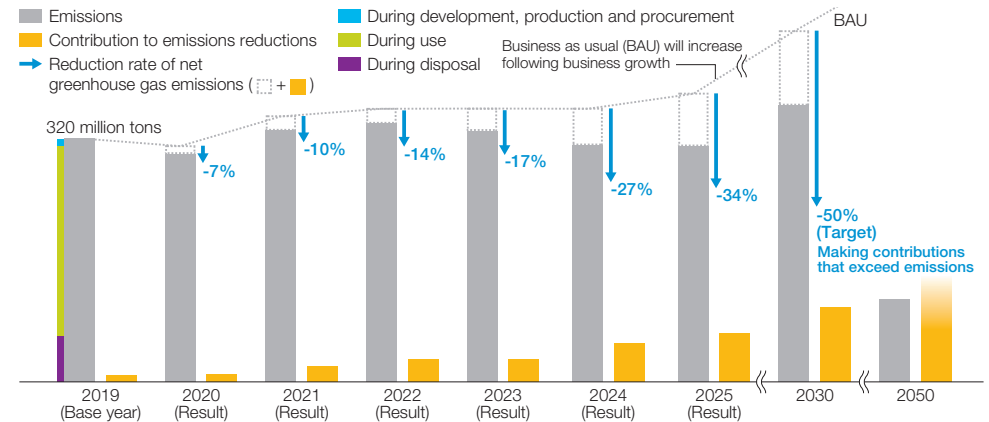


We will reduce the greenhouse gas emissions generated throughout the entire lifecycle of our products. Furthermore, we are committed to creating solutions that link society and customers as we work with stakeholders to reduce greenhouse gas emissions to net zero. Using IoT, AI, and open innovation attempts, we will meet the world's needs for air solutions by providing safe and healthy air environments whilst at the same time contributing to solving global environmental problems.

Medium-Term Targets for Carbon Neutrality

The Daikin Group, including AAF, has set medium-term goals to reduce net greenhouse gas emissions across the value chain by 30% by 2025 and 50% by 2030, compared to the 2019 baseline. We are accelerating our efforts to achieve net-zero emissions in all factories by 2030, advancing our original target of 2050, and also plan to achieve net-zero emissions at our offices. In addition, the Group's fiscal year 2030 targets also include reducing emissions intensity per unit of sales revenue by 40% from 2022 levels and increasing its greenhouse gas emissions reduction contribution to 60 million t-CO₂. During fiscal year 2025, the Daikin Group achieved a 34% reduction in net greenhouse gas emissions, exceeding its reduction target of 30%.

Reduction Targets and Results for Net Greenhouse Gas Emissions throughout the Lifecycle



Science Based Target

The Science Based Targets initiative certifies carbon emissions reduction targets based on scientific data. The Daikin Group, including AAF, received certification in February 2024 for its 2030 goal to reduce greenhouse gas emissions. This goal aims to limit global warming to below 1.5°C compared to pre-industrial levels. Furthermore, we obtained certification for our net zero target in July 2025.



Environmental Management Structure

Basic Principles and Environmental Management Structure

Global Environmental Management

At AAF, we promote environmental management across the organization in line with the Daikin Group's Environmental Policy. We actively participate in the Daikin Group's Environmental Conference and address environmental issues such as climate change, water conservation, and waste management in every region. Annual regional environmental conferences are held, gathering environmental managers from AAF sites worldwide to work on reducing environmental impact and conserving biodiversity at production sites. The biennial Global Environmental Conference brings together presidents, environmental managers, and environmental department heads from all AAF sites to foster cooperation and strengthen initiatives across the Daikin Group. Key themes are presented to Daikin's CEO through Daikin's Corporate Social Responsibility Committee and are reported to the Board of Directors.

In addition, we have established the Joint Environmental Committee, focusing on the filter business. This committee works on identifying issues and formulating strategies at each AAF site, contributing to AAF's overall environmental management efforts.

Environmental Management System

At AAF, we ensure the safety and quality of our products and services from the customer's perspective. Additionally, AAF has obtained ISO 14001 certification at 76% of its sites, establishing a foundation for implementing environmental management at other locations and expanding certification. Furthermore, AAF discloses any significant legal violations in its operations and reported no major violations of environmental laws in fiscal year 2025.



The Daikin Group Global Environmental Conference in China



AAF at the Daikin Global Environmental Meeting 2025

Working Toward Carbon Neutrality in Manufacturing



Daikin Global Environment Meeting 2025

Based on the Fusion 25 strategic management plan, Daikin has set a target for manufacturing (development and production) of achieving net-zero greenhouse gas emissions by 2030 at all production bases excluding chemical plants. In line with this plan, AAF aims to reduce emissions as much as possible and to utilize carbon credits for the remaining emissions, thereby striving for a higher level of carbon neutrality. With this approach, we are fully committed to leveraging our energy-saving technologies to reduce electricity usage, expand renewable energy generation, reduce the use of LNG and LPG through the development of new methods and technologies, and introduce green power.

As a member of the Daikin Group, AAF participates in Daikin's globally unified environmental management system, which covers more than 130 bases worldwide with diverse business formats and scales. This system is utilized to share policies from the top down while frontline problem-solving is discussed face-to-face, allowing

effective measures to be implemented throughout the Group. Under this system, Daikin regularly convenes global and regional meetings to drive environmental initiatives.

In May 2025, Daikin held a Global Environmental Meeting, bringing together 123 people from 46 Group companies, including AAF. Presidents, environmental officers, and environmental department heads from around the world were in attendance. In addition to sharing key energy-saving measures, in-depth discussions were held on solutions to technical issues. At regional environmental meetings held every year, we also exchange information and share technical consultations within the region. Relevant departments are working to develop new technologies and methods to address common global issues, while secretariats in each region spearhead measures to address regional issues by implementing tailored measures. In this manner, the entire Daikin Group, including AAF, is accelerating these actions together.

Furthermore, Daikin operates its own certification system that recognizes and awards carbon neutrality achievement levels. This puts into place an environment where each base is highly motivated to work toward improvements in energy conservation rates and the introduction rates of energy creation solutions. Within AAF, our factory in Malaysia received Platinum-level recognition under Daikin's Green Heart Factory (GHF) program in fiscal year 2025. GHF is Daikin's internal certification program that evaluates and recognizes business sites for environmental and sustainability performance.



AAF Malaysia Factory Receiving GHF Platinum Recognition

Sustainability and Innovation

Basic Principle

Innovation in environmental technology and energy-saving solutions is essential for a sustainable future. AAF, founded as Reed Air Filters in 1921 by Bill Reed, carries forward his vision through the development of sustainable technologies and products that balance environmental protection with economic growth.

Collaborative Market Response within the Daikin Group

As part of the Daikin Group, AAF addresses market needs with six global development sites. For example, in Indiana, USA, we established the 3,065m² Clean Air Innovation and Research (Clean AIR) Center. AAF's commitment to innovation extends internationally through close collaboration with Nippon Muki, which manages the air filter business primarily for the Japanese market within the Daikin Group, and the Daikin Technology and Innovation Center (TIC) in Japan, where around 900 engineers drive pioneering research. This collaborative effort spans the fundamental development of filter media, structures, and sensors, significantly advancing our filter technology capabilities.

Introducing Clean AIR Center

Mission of the Clean AIR Center

The Clean Air Innovation and Research (Clean AIR) Center advances filter technology through detailed analysis and modeling of filter media performance. The engineers at the Clean AIR Center continuously innovate new filter media and enhance air quality through cutting-edge research. Additionally, Clean AIR Center's state-of-the-art biosafety lab conducts biological testing and assessments, ensuring filter efficiency for agricultural applications.

Dedicated Labs and Testing Standards

The Clean AIR Center features specialized laboratories as follows:

Filter Testing Laboratory:

- Examine new and existing AAF filter performance.
- Testing standards: ASHRAE 52.2, ISO 16890, UL 900, etc.
- Equipped with a dedicated UL filter test room.

Media and Materials Laboratory:

- Analyze filter media performance.
- Develop and prototype new media rapidly, followed by evaluations in the ASHRAE test duct.

Biosafety Laboratory:

- Conduct biological testing (PRRS, PED, Influenza A, etc.) for agricultural clients.



Biosafety Laboratory



Clean AIR Center

Roles and Functions of TIC

Established in November 2015, TIC serves as a core hub for technological development, consistently generating unique technologies and products that contribute to the Daikin Group's business while addressing social challenges. With around 900 engineers, it creates new value by integrating diverse expertise. In collaboration with companies and academic institutions from various industries and fields, TIC drives innovative technological advancements. The center also features facilities like Future Labs and Open Labs, designed to promote active discussions among engineers.

For the filtration business, TIC's dedicated teams focus on developing filter media and core technologies, which are essential for sustainable products. AAF's unique strength lies in its ability to develop everything from filter media to air filters.



Daikin Technology and Innovation Center (TIC)



Daikin Technology and Innovation Center (TIC) Work Area

Advancing Filtration through Group Collaboration

As a member of the Daikin Group, AAF leverages not only the research and development capabilities of Daikin's TIC but also its extensive experience in air conditioning. Being part of the world's largest air conditioning group, AAF strives to further improve efficiency and reduce environmental impact through the development of technologies that integrate air filters with air conditioning systems, rather than focusing solely on standalone air filters.

Sustainable Filter Design

Introduction

In recent times, the push for sustainable business practices has gathered momentum. Within this effort, the filter industry is embracing innovative designs and manufacturing techniques to lessen environmental impacts. This article delves into various aspects of how filters—from material selection to system efficiency—impact the environment.

System Integrity

The effectiveness of a filter depends not only on the performance of the media itself but also on how well the media is sealed to the frame and how the filter is installed. Bypass, leaks, and poor installation affect the efficiency of the system and increase the risk of system failure. Ensuring that filters are properly mounted with high-quality frames is critical to maintaining system integrity and efficiency.

System Economics

The initial pressure drop and lifespan of a filter significantly influence energy consumption. This impact extends beyond the filter media itself to the overall design of the filter. The AAF Europe DriPak® pocket filter range demonstrates how design optimization—through pocket shape (tapered or straight stitch), frame construction, and carefully selected media grades—can significantly improve energy efficiency throughout the filter's lifecycle.

AAF's A+ energy-rated DriPak® filters, certified under the Eurovent Certified Performance Programme, represent the highest energy efficiency classification, indicating minimal energy consumption over the product's operational lifetime while maintaining consistent filtration performance.

Similarly, advanced media technologies further enhance system efficiency. The MEGAcel® HEPA and ULPA filters feature a high-efficiency, ultra-low-pressure drop membrane developed by Daikin. Compared to conventional glass fiber filters, it

delivers more than 50% lower pressure drop, resulting in substantial energy savings. By carefully selecting these design elements, improvements in long-term energy efficiency and cost reduction are achievable. This reduction in environmental impact also brings economic benefits to our customers.

Material Selection

In the design of filter products, a wide range of materials—including steel, aluminum, plastic, glass, membrane, polyurethane, and adhesives—are utilized, with a strong focus on optimizing material selection from both performance and Life Cycle Assessment (LCA) perspectives. At AAF, we offer environmentally responsible options by integrating sustainable design principles, including recycling, and we are striving towards carbon neutrality.

For instance, AAF/Dinair Sweden has introduced an option for pocket filter frames made from carbon-compensated steel. This steel significantly reduces environmental impact by offsetting the carbon emissions generated during production through activities such as reforestation. The product contains at least 78% recycled steel, and by selecting this option, customers can reduce carbon emissions by 85% compared to plastic alternatives. This results in a reduction of 7.19 kg-CO₂ in greenhouse gas emissions per filter. AAF remains committed to advancing the development of environmentally sustainable products and services in the future.



DriPak®



MEGAcel®

MEGAcel® HEPA and ULPA Filters

Bringing Sustainability to Clean Air Performance

Achieving reliable clean air performance while minimizing energy consumption has become a key priority across critical manufacturing and healthcare environments. The MEGAcel® HEPA and ULPA filters from AAF are engineered to deliver uncompromising filtration performance alongside sustainability-driven design, enabling customers to reduce energy use, extend service life, and minimize waste through longer filter lifespans—while meeting the most stringent air quality standards.

At the core of MEGAcel® is an ultra-fine fiber membrane media. It delivers high filtration efficiency with significantly lower pressure drop than conventional solutions. This reduced pressure drop is maintained consistently throughout the filter's service life until replacement, lowering energy demand and, in comparable applications, delivering energy savings of up to 56%.

MEGAcel II ME Vs Fiberglass

Media	Differential Pressure (Pa, at 0.45 m/s)			
	H13	H14	U15	U16
MEGAcel® II ME	50	60	80	85
Fiberglass	105	135	150	195
Difference (%)	52%	56%	47%	56%

Energy Savings of up to 56%

In addition, the membrane's robust structure is designed to withstand high particulate loading, chemicals, oil aerosols, and high-humidity conditions, helping maintain stable performance and extend operational life in demanding environments.

These advantages make MEGAcel® well suited for a wide range of critical applications, including semiconductor and microelectronics manufacturing, pharmaceutical and biotechnology cleanrooms, research laboratories, hospitals, and other environments where consistent, energy-efficient air filtration is essential.

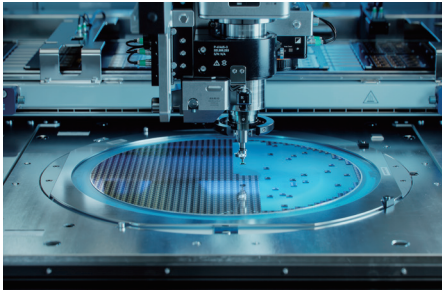
Microelectronics Cleanroom – Denmark

In a major cleanroom upgrade project, MEGAcel® II ME filters were selected to replace legacy HEPA solutions with a focus on reducing energy consumption and sound levels. Integrated with modern fan filter units, the solution supports long-term operation of ISO Class 4 cleanroom environments.

The installation achieved approximately 236,000 kWh of annual energy savings.

Microelectronics Cleanroom – United States

In a large-scale semiconductor facility expansion, MEGAcel® II ME filters were installed in a new cleanroom to meet the customer's objective of lowering energy expenses while ensuring long service life and high-performance filtration. Designed for demanding production environments, the product enables reliable operation with optimized energy use.



Semiconductor Manufacturing Cleanroom

The upgrade reduced airflow resistance by approximately 50% compared to conventional glass media filters, resulting in annual energy cost savings of around \$294,000.

Healthcare Facility – Sweden

In a major hospital project, MEGAcel® II filters were introduced in operating rooms to replace previous HEPA solutions, driven by a need for improved reliability and efficiency. Integrated into existing ventilation systems, the solution ensured consistent high performance, low defect rates, and dependable delivery.

An average pressure drop reduction of approximately 40% was achieved, saving around 217,000 kWh in annual energy consumption.



Operating Room with Ceiling-Integrated Filters

Environmentally Friendly Manufacturing

Basic Principle

At AAF, we are committed to achieving net-zero greenhouse gas emissions at all our factories by 2030, advancing our original target of 2050. This will be accomplished by optimizing energy usage through equipment upgrades and productivity improvements, increasing energy generation through solar and wind, and introducing green electricity.



Greenhouse Gas Emissions

A significant portion of our greenhouse gas emissions comes from energy use in daily operations. We collect energy consumption across multiple sources, such as electricity, natural gas, and other fuels, across all our factories worldwide. This data is converted into CO₂ emissions, providing a clear basis for understanding our environmental footprint. Based on these insights, we define and monitor annual reduction targets across all operations.

In fiscal year 2025, AAF's global CO₂ emissions totaled 18,609 t-CO₂, achieving a 2% reduction compared with fiscal year 2024 (19,010 t-CO₂).

This progress reflects the effectiveness of our structured approach. Through continuous monitoring, we strengthen accountability and support data-driven decision-making, reinforcing our commitment to reducing emissions and advancing toward net zero.

Introduction of Renewable Energy

The expansion of renewable energy plays a central role in our transition to carbon neutrality. Several of our manufacturing facilities—including those in Finland, the United Kingdom, and two sites in Sweden—already operate on 100% renewable energy.

Building on this strong foundation, we are further increasing our use of clean energy through a solar installation in China, with additional projects planned in Spain, Malaysia, and India.

We remain committed to advancing our use of renewable energy by identifying and implementing new opportunities across our global operations.



Solar Panels at AAF Suzhou Factory

Energy Efficiency and CO₂ Reduction in Operations

AAF continuously implements initiatives to improve energy efficiency and reduce CO₂ emissions across its operations.

LED Installation in Factories

AAF's global factories are progressively implementing LED lighting to reduce electricity consumption from lighting systems. Full conversion to LED lighting has been achieved in Finland, the United Kingdom, Sweden, Malaysia, Brazil, and two factories in the United States. In the United States, the transition to LED lighting at our Smithfield and Louisville factories resulted in a reduction of approximately 19 t-CO₂ emissions compared to the previous year.

Energy Usage Optimization Examples

Energy-Efficient Equipment Upgrade at the Fayetteville Plant, USA

We expanded fiberglass media production at our Fayetteville plant and, as part of this expansion, implemented measures to reduce energy consumption.

An investment was made in two high-efficiency production machines, replacing older, more energy-intensive equipment.

These machines deliver a 93% reduction in electricity use per machine and generate approximately 346,000 kWh of annual electricity savings, significantly lowering overall energy demand. They also improve operational efficiency by requiring fewer labor hours while maintaining production output.

We plan to expand this technology to additional facilities over the next two years to further reduce energy consumption and support more sustainable manufacturing practices.



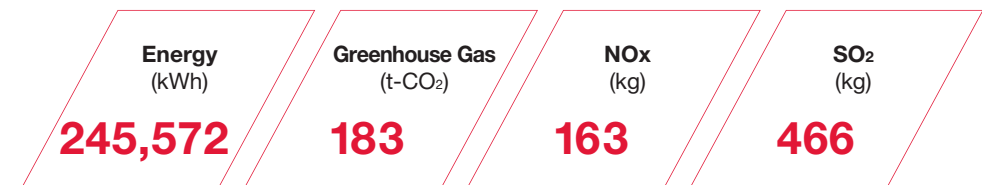
19-t CO₂ Reduction

Year-over-Year CO₂ Reduction at Smithfield and Louisville Plants

Reducing Compressor Air Leakage at the Columbia Plant, USA

At the Columbia Plant in the USA, air compressors, accounting for 20-25% of the plant's electricity consumption, were inspected for leaks. Typically, 20% of compressed air is lost to leaks, with an additional 10-30% wasted through unnecessary release. The detailed inspection identified 49 leak points, wasting 241 m³/h of air—equivalent to 245,572 kWh per year. Prompt corrective actions significantly reduced energy consumption and environmental impact, cutting greenhouse gas emissions by 183,155 kg.

Energy and Emissions Reductions from Repairs



Sustainable Packaging and Material

As part of our commitment to reducing environmental impact, significant improvements have been made to packaging design and material use across our operations.

Packaging improvements have increased transport efficiency while substantially reducing material use. For two filter products sold globally, packaging weight has been reduced by 50%, delivering an annual saving of approximately 31,600 kg of cardboard. This reduction equates to an estimated 29.7 t-CO₂ avoided each year. In addition, reduced material use contributes to substantial water savings, with approximately 2.4 million liters conserved annually based on lifecycle water footprint data.



Across Europe, our approach to packaging emphasizes material circularity and responsible sourcing.

In Spain, all boxes used for deliveries are made from recycled cardboard, reducing the use of virgin raw materials. This approach is applied to all deliveries, supporting a standardized packaging process. Cardboard packaging is considered recycled when it contains at least 50% recycled content, and certificates are available to confirm compliance. In Finland, recycled cardboard packaging is also used for deliveries. This contributes to measurable environmental benefits, with a CO₂ reduction of approximately 22,000 kg in 2025. Together, these initiatives reinforce our commitment to sustainable packaging across Europe.



In the United States, initiatives have focused on improving material sustainability in both packaging and production. Retail shrink film has been transitioned from PVC to polyolefin, a more environmentally responsible plastic with lower associated environmental impacts.

In addition, production materials have been updated through the adoption of a thixotropic formulation using castor oil as an alternative to petroleum-based materials. This material is used to seal end panels during filter assembly and is applied across multiple product lines. As a plant-derived, renewable, and biodegradable resource, castor oil supports reduced reliance on fossil-based materials while maintaining required performance characteristics.

Filter Recycling

In Spain, we offer a service to collect used filters and deliver them to certified recycling companies. Customers receive an official recycling certificate confirming proper treatment and compliance with environmental regulations.

To date, we have successfully recycled 2 tons of filters through this program, contributing to waste reduction and supporting more sustainable operations.

Water Efficiency and Reuse

In Malaysia, water conservation initiatives have been implemented through rainwater harvesting and reuse. By collecting rainwater for toilet flushing, we achieved an average 4% reduction in domestic water consumption, demonstrating improved water efficiency and resource management.

Green Logistics

At AAF, we are dedicated to reducing our environmental impact in our logistics process and contributing to a more sustainable future. In line with this commitment, we are taking significant steps through two key initiatives—one in Europe and one in North America—that demonstrate our ongoing efforts to promote sustainability and reduce our carbon footprint across the supply chain.

Europe: DHL's Green Carrier Certification

AAF/Dinair is proud to participate in DHL's Green Carrier Certification program, a key step in enhancing our sustainability efforts.

The Green Carrier Certification, introduced by DHL Freight, promotes transparency in sustainable logistics. DHL Freight invests in fossil fuel-free transport, and AAF/Dinair covers any additional costs, ensuring no impact on our customers. By participating, we aim to measure and improve our sustainability performance, reduce greenhouse gas emissions in the supply chain, and align with industry-leading environmental standards.

This program is now a standard initiative in our Swedish locations, with 66% of shipments using 100% renewable fuels.

We are committed to increasing this share further while continuing to invest in eco-friendly transport solutions and optimizing routes to reduce fuel consumption, strengthening our sustainability performance across our operations.



North America: C.H. Robinson's Emissions IQ™

AAF is joining forces with C.H. Robinson to advance sustainability in our North American supply chain. This collaboration leverages Emissions IQ™, a powerful technology developed by C.H. Robinson to measure and analyze carbon emissions across various transportation modes, helping us better understand and reduce our environmental impact.

Emissions IQ™ provides us with critical insights, allowing AAF to map and track Scope 3 emissions from transportation. Using this tool, we can identify opportunities to minimize fuel consumption, optimize supply chain efficiency, and reduce our carbon footprint. The costs associated with these improvements are fully absorbed by AAF, ensuring no added burden for our customers.

As part of this initiative, AAF has achieved significant reductions, cutting over 300 t-CO₂ in greenhouse gas emissions, alongside a 5% year-over-year reduction in emission intensity between 2024 and 2025. Emission intensity, which measures emissions per unit of output, plays a crucial role in minimizing our environmental footprint. By reducing intensity, we substantially lower our overall impact.

Our utilization of the SmartWay program—designed to improve transportation efficiency—is above 40%, reflecting our ongoing progress in enhancing logistics performance. This improvement underscores our ongoing commitment to sustainability. Our efforts, however, are just beginning, and we are dedicated to continuing our progress in emissions reduction in the years ahead.

300+ t-CO₂
Emissions Reduced

5%
Emission Intensity
Reduction

40%
SmartWay Volume

AAF Technology Tools Driving Enhanced Sustainability

AAF is dedicated to improving air quality and sustainability worldwide. We take pride in delivering environmentally friendly solutions through our innovative technology tools. Here are some examples of our latest technology tools that enhance sustainability by reducing Total Cost of Ownership (TCO) and minimizing environmental impact.

What is TCO?

Total Cost of Ownership (TCO) encompasses a comprehensive assessment of all expenses involved in acquiring, operating, and maintaining a product or system throughout its lifespan. This includes initial purchase costs, ongoing operational expenses, and maintenance fees.

How Reducing TCO Helps the Environment

Reducing TCO not only lowers expenses but also significantly reduces environmental impact. Specifically, lowering energy consumption reduces greenhouse gas emissions, longer product lifespans result in less waste, and decreased maintenance costs provide benefits for both the environment and the company's financial health.

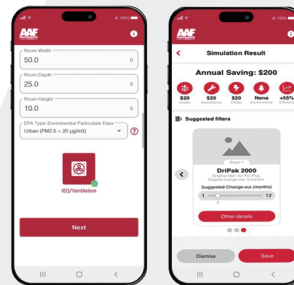


Introduction to AAF Technology Tools



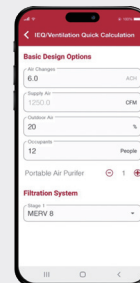
VisionAir® TCO

VisionAir® TCO is a cloud-based software designed for commercial building owners and facility managers. Users can leverage the tool's real-time performance information, Total Cost of Ownership (TCO) analysis, and comparison reports to make data-driven decisions that improve air quality and reduce costs.



VisionAir® Clean

VisionAir® Clean is a specialized software for cleanrooms that helps users to reduce energy consumption through efficient filtration solutions. The program includes features such as air change rate selection, Total Cost of Ownership (TCO) calculations, and built-in design templates. Users can run simulations for multiple rooms, generate detailed reports on recovery time and air change rate optimization, and access a technical library of industry standards.



VisionAir® IEQ

VisionAir® IEQ, part of the VisionAir® Clean app, is a software designed to optimize Air Change per Hour (ACH) rates and identify reductions in particulate matter (PM) levels across various particle sizes in spaces like schools, offices, and commercial buildings. VisionAir® IEQ allows users to compare scenarios— with and without air purifiers— to visualize the health benefits of enhanced air filtration and identify the most effective clean air solutions for their environment.

Introduction to AAF Technology Tools



VisionAir® 360

The VisionAir® 360 app was specifically designed for AAF to help our team deliver personalized IAQ solutions to customers. Team members use the app to capture images of customers' air handling units and filters, assess the equipment's current condition, and generate detailed audit reports based on the collected data. Finally, Total Cost of Ownership (TCO) simulations are performed to provide customers with cost-effective recommendations, helping them control energy usage and reduce environmental impact.

VisionAir® SAAF

VisionAir® SAAF is software designed to simplify the control of airborne gaseous contaminants. It can be integrated with existing equipment, tailoring solutions that provide precise configuration of clean air products for specific industries. The software includes an extensive contaminant library and 10 different types of chemical media, allowing users to fine-tune key variables and quickly create personalized submittal packages.

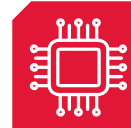
Successful TCO and Environmental Impact Reduction with AAF Technology Tools and Products



Healthcare

Cancer Treatment Center in Arizona, USA

50% energy reduction resulting in greenhouse gas saving of 19 t-CO₂, using MEGAcel® filters.



Microelectronic

Cleanrooms at a Global Semiconductor Company

Energy savings of \$340K+ anticipated over 5 years, amounting to a 1,250 t-CO₂ greenhouse gas emission reduction, using AstroFan™ FFU and MEGAcel® filters.



Lifescience

Cleanrooms at a US Medical Device Manufacturer's Facility

Filter failure reduced to 0%, achieving significant energy savings, leading the company to replace all existing glass HEPA filters with MEGAcel® filters.



Commercial & Public Buildings

LEED-Gold Certified Convention Center, USA

Filter lifetime doubled, contributing to the customer's green building practices, using PerfectPleat® SC M8 and VariCel® MERV 13 filters.



Transportation

Global Manufacturer of Large Diesel Engines and Parts

50% decrease in AHU energy consumption, resulting in a 72 t-CO₂ greenhouse gas emission reduction, using MEGAcel® filters.



Food & Beverage

World's Leading Producer of Food Products

Filter life extended from two weeks to five weeks — 2.5 times longer than the previous service life, using DriPak® 2000 filters, with a cost benefit of \$48,895 per year.

AAF Supporting Energy Decarbonization

With the global energy landscape rapidly shifting, the pressure to reduce greenhouse gas emissions in oil and gas production, as well as gas turbine power generation, has never been more urgent. Achieving a cleaner, more sustainable future requires more than a shift to renewable sources; it demands significant improvements in operational efficiency. For decades, AAF has been at the forefront, providing innovative solutions to support our customers' decarbonization efforts. Filter upgrades can be easily implemented by customers with a relatively low capital investment, which in return, can deliver quick gains and savings toward net-zero strategies. Through products like Optimize™ and N-hance®, AAF has continually enhanced gas turbine efficiency, minimized fuel consumption, and reduced greenhouse gas emissions. Our longstanding commitment to sustainability has made us a trusted partner in the pursuit of cleaner, more efficient energy operations.



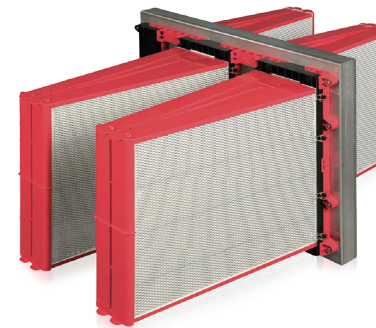
Optimize™ is a service that helps gas turbine users optimize their air inlet systems, improving airflow, temperature control, and contaminant management. This enhances turbine performance, reduces fuel consumption and operational costs, and supports the transition to cleaner operations, ultimately lowering the total cost of ownership.

Over
200 GTs
optimized.

10M GJ
fuel saving
per year.

580,000
t-CO₂ GHG*
emissions
reductions
per year.

*GHG = greenhouse gas



N-hance®
Performance Filtration

N-hance® Performance Filtration is a custom-engineered filter designed for offshore environments. It optimizes turbine performance, reduces costs, and minimizes environmental impact, promoting sustainability in the energy sector. With 80% of the addressable market in North Sea offshore operations choosing N-hance®, it sets a benchmark for both performance and sustainability.

Typical example for 1 representative GT installation:

22,000
GJ
fuel saving
per year.

2,000
t-CO₂ GHG*
emissions
reductions
per year.

*GHG = greenhouse gas



People

Air Filtration for Health

A Healthy Building = Healthier People

The Importance of Indoor Air Quality (IAQ)

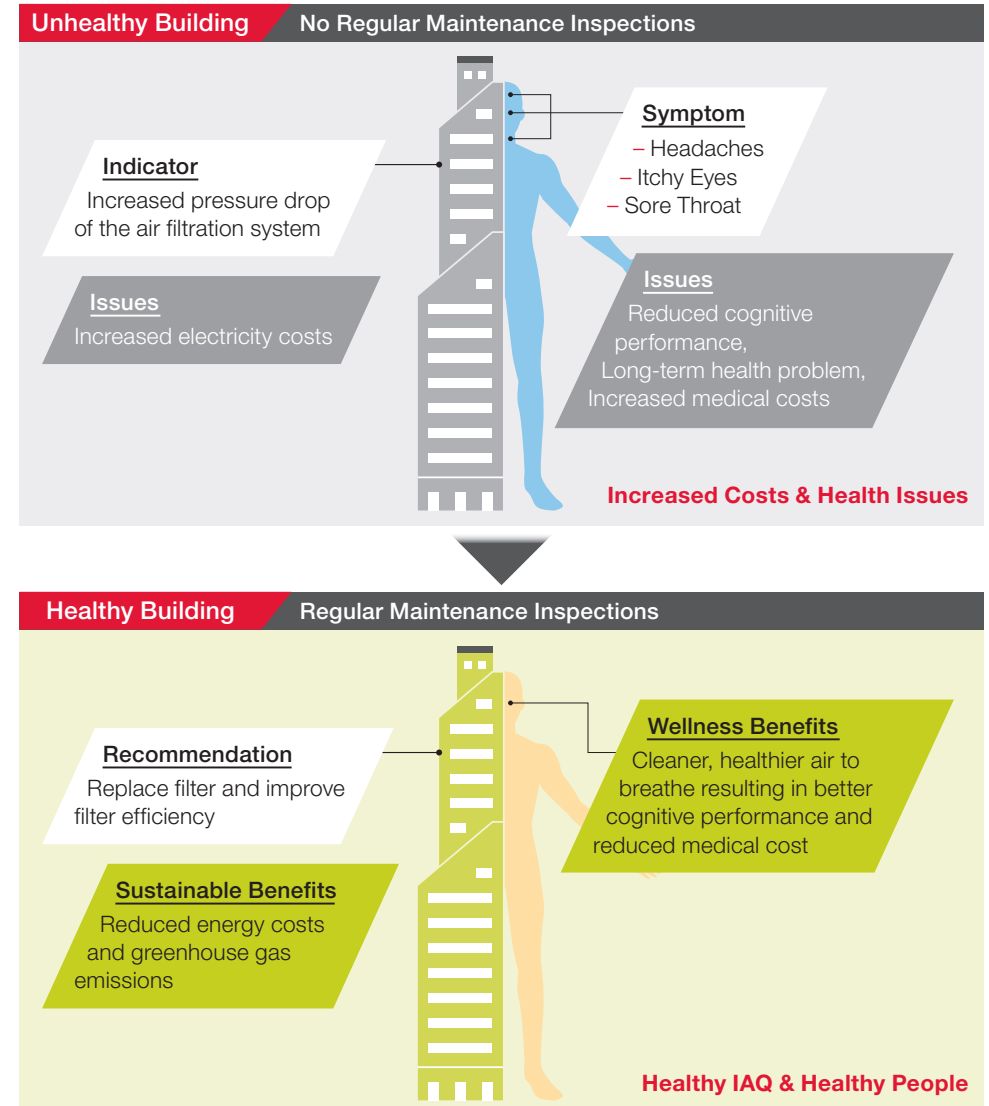
In today's world, where we spend the majority of our time indoors, indoor air quality (IAQ) plays a critical role in protecting our health. Studies show that indoor air can be three to five times more polluted than outdoor air, potentially affecting our long-term health. Indoor air can harbor hundreds of species of viruses, bacteria, fungi, and molds, which may enter the human body and cause a wide range of negative health effects.

These microbial contaminants have been linked to symptoms such as rhinitis, coughing, breathing difficulties, as well as allergies and asthma. This is also accompanied by reduced cognitive performance. While there have been improvements over the years and a surge in awareness, particularly during the COVID-19 pandemic, unfortunately, society is gradually returning to its pre-pandemic IAQ habits.

IAQ and Preventive Management

Efficient IAQ management necessitates a proactive strategy. Regular inspections and management of a building, akin to routine health check-ups, can detect early signs of issues, leading to long-term benefits and cost savings. This method not only improves the well-being of both the building and its occupants but also enhances long-term value for owners and residents, while reducing facility operating costs. Ultimately, maintaining healthy buildings contributes to healthier people, fostering public health and sustainable living environments.

Impact of Preventive Measures on IAQ: Focusing on Air Filtration

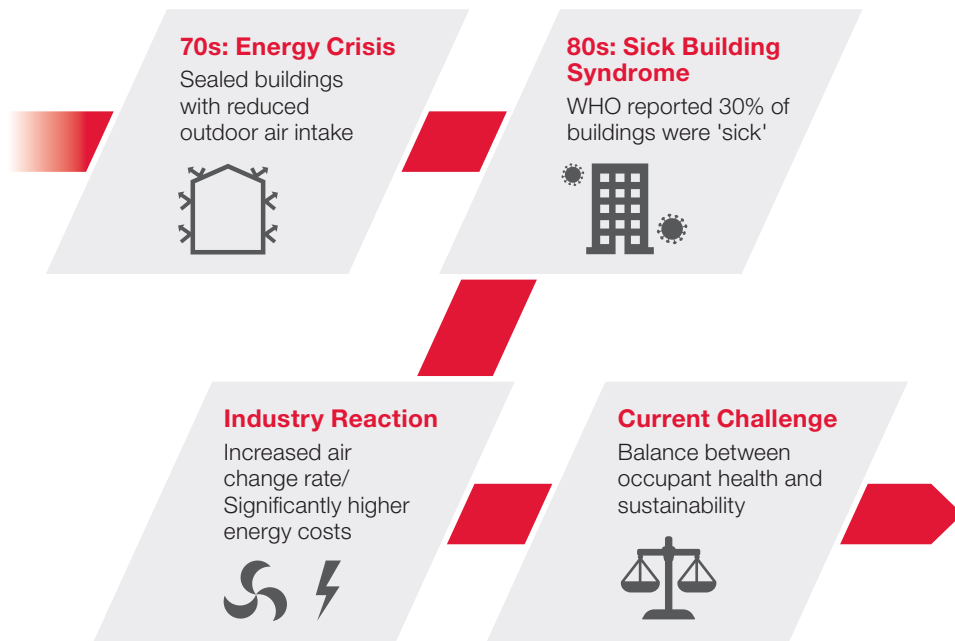


The Evolution of IAQ

During the energy crisis of the 1970s building designers tried to save energy by sealing buildings more tightly and reducing the amount of outdoor air brought indoors. This resulted in fewer air changes inside buildings. In the 1980s, the World Health Organization noted that about 30% of new and existing buildings were considered 'sick', giving rise to the term Sick Building Syndrome (SBS).

To address this, the industry increased outdoor air flow and air changes, but this raised energy costs significantly. Now, almost 50 years later, the challenge remains to strike a balance between protecting occupants' health and implementing sustainable practices.

Timeline of IAQ Evolution



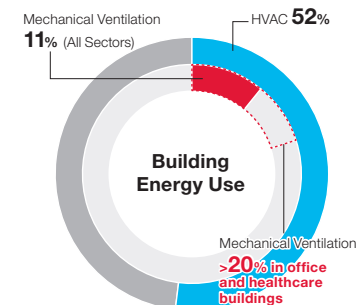
New Standards and Guidelines

Fortunately, to address these ongoing challenges, many standards and guidelines have been developed over time. Notable ones include ASHRAE 62.1 and 62.2, and the newer ASHRAE 241. These frameworks establish minimum ventilation rates and other requirements to ensure acceptable indoor air quality (IAQ) while minimizing adverse health effects. ASHRAE 241 guides us on improving ventilation and filtration during flu seasons or pandemic-like situations. Eurovent Recommendation 4/23 establishes a guideline with which particle filters the desired IAQ level can be achieved under the respective ambient conditions.

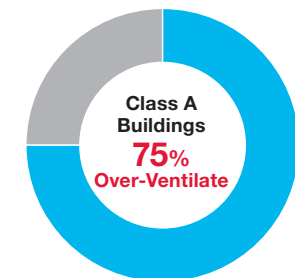
Interestingly, HVAC systems, which include mechanical ventilation, account for a significant portion of a building's energy consumption—around 40-60%. Ventilation alone contributes to about 11% of total energy usage, and in office and healthcare buildings, this figure can exceed 20%. Remarkably, studies show that 75% of buildings are ventilated more than necessary, presenting a clear opportunity for optimization.

Today, AAF's technology allows building owners to optimize their indoor air quality while monitoring the performance of their ventilation systems, allowing them to save energy without compromising the health of the occupants.

Commercial Building Energy Consumption



Class A Building Over-Ventilation Ratio



*Class A buildings are a top-tier property classification in the US, characterized by new or well-maintained structures in prime locations with superior construction and modern infrastructure.

AAF's Utilization of Technology for IAQ Improvement

Learn more about how AAF's technology improves IAQ through our case study described below.

Case Study AAF Air Purifiers Transform IAQ in Slovakian School

Overview Children spend a significant amount of their time indoors during their school years, making IAQ essential for their health and well-being. In Bratislava, Slovakia, an initial assessment was conducted to determine the level of microbial contamination in school and preschool facilities. This evaluation highlighted the presence of bacteria, fungi, and molds, which could potentially trigger respiratory issues and allergies, underscoring the need for effective air purification.



Problem Initial analysis revealed high levels of bacteria and mold, some surpassing acceptable thresholds. Some bacteria species can occasionally turn harmful in the right conditions, such as when immunity is weakened. Mold spores, on the other hand, could penetrate deep into the respiratory system, increasing allergenic potential.

Solution AAF's high-performance air purifiers were deployed in classrooms, dining halls, and gymnasiums, actively filtering and improving air quality. Throughout the six-month trial these purifiers reduced microbial presence, achieving noticeable decontamination. Regular sampling verified decreased levels of harmful microorganisms, confirming the purifiers' effectiveness in maintaining healthier school environments.



AstroPure 2000



Bacteria and Mold Samples

AAF's Product Solutions for Enhancing Industrial IAQ

Improving IAQ in industrial settings is critically important today. The initial focus on preventing air pollution has evolved with dust collection advancements that enhance product quality. AAF goes beyond regulations to improve the workplace environment itself. Creating a healthy air environment not only ensures worker health and product integrity but also tackles recruitment challenges by improving employee retention. AAF's innovative solutions are showcased in the following two case studies.

Case Study Air Quality Improvement in a Food Manufacturing Plant

Overview A leading food manufacturing company in Mexico was experiencing poor air quality in their fry coating mixing area due to chili dust. The existing system failed due to inadequate engineering design, resulting in discomfort among workers. The company chose AAF's turnkey solution to solve this issue.

Problem The existing ineffective air filtration system created an uncomfortable and unhealthy work setting, with continuous exposure to chili dust leading to respiratory challenges for employees.

Solution AAF delivered a comprehensive solution by implementing engineering improvements, supplying essential equipment like ducts, dust collectors, and ATEX*-compatible devices, along with a system start-up. The installation of WONDAIR™ successfully improved air quality, making the mixing area safe and a comfortable working place for employees.

*A European standard for explosive environments

Customer
“Now that the AAF system is installed, several people [...] are now requesting to be moved to the mixing area since there is now quality air in the area.”

WONDAIR™ at Customer's Plant



Case Study Oil Mist Filtration in a Thai Manufacturing Plant

Overview An advanced manufacturing company in Thailand faced challenges with oil mist produced by multiple CNC machines. In response, AAF's oil mist collector was adopted to address these issues.

Problem Traditional centrifugal oil mist collectors were inadequate for capturing fine oil droplets, resulting in higher maintenance needs and production downtime. In addition, the customer was looking for a solution to improve the working environment for employees. Oil droplets, 20 microns or smaller, pose health and safety risks, including skin irritation, respiratory problems, and slippery floors that increase the likelihood of falls.

Solution AAF introduced the Oil Hunter™, featuring multi-stage filtration to target oil mist contaminants effectively. After testing two units, the oil mist levels dropped from 999 µg/m³ to just 1 µg/m³, leading to customer satisfaction and the installation of an additional 107 units.

Oil Hunter™ at Customer's Plant



AAF's Healthcare IAQ Solutions

Maintaining high indoor air quality in healthcare environments is critical to safeguarding patient health, supporting recovery, and ensuring safe working conditions for medical staff. This requires well-designed, efficient filtration systems that deliver reliable performance—expertise demonstrated by AAF in the following case studies.

Case Study Enhanced HVAC Filtration Efficiency in a Healthcare Facility

Overview AAF partnered with a leading healthcare provider in the United States to enhance indoor air quality and improve HVAC system performance, with a focus on reducing total cost of ownership (TCO) while maintaining the high air quality standards required in healthcare settings.

Problem The facility relied on an existing service provider associated with high operational costs and inefficient filtration practices. Frequent filter replacements and suboptimal system performance increased maintenance demands and elevated annual expenses, while limiting the system's ability to consistently maintain stable indoor air quality conditions.

Solution AAF conducted a comprehensive on-site audit of the HVAC system and implemented an optimized filtration strategy, replacing existing pre-filters with MEGApleat® filters and introducing VariCel® VXL RC filters. This approach improved system efficiency, reduced replacement frequency, and extended filter life cycles. It delivered a 30% reduction in total cost of ownership, along with energy savings of 7,215 kWh and a reduction of approximately 64.9 t-CO₂. By improving filtration performance and reducing variability in system operation, the solution supports consistent indoor air quality.

30%
Lower Total Cost of
Ownership

64.9 t-CO₂
Emissions Avoided

Case Study Filtration Design Optimization in Cancer Care

Overview AAF supported the development of a new cancer treatment facility in Canada by enhancing the design of its air handling and filtration system. The project focused on improving safety, airflow performance, and overall system efficiency in a highly sensitive healthcare environment.

Problem The initial basis of design specified a containment (BIBO) filtration system integrated within an air handling unit to support a heat recovery process. However, the configuration presented potential contamination and safety risks, as the containment system was not properly isolated. In addition, the design limited airflow capacity, reducing the effectiveness of heat recovery and increasing overall operational costs.

Solution AAF proposed an alternative system design using MEGAcel® I HEPA filtration, reducing pressure drop by approximately 42%. This enabled higher airflow, improved energy efficiency, and lowered operating costs compared to the original design. At the same time, the solution ensured compliance with required operational standards, including routine scan testing. By addressing isolation deficiencies and associated contamination risks, the optimized design supports a safe and well-controlled operating environment.



Diversity, Equity and Inclusion

Basic Principles

At AAF, we believe our competitive strength lies in our people. We recognize the importance of a diverse team that shares mutual values, enhances organizational strength, and pursues ambitious goals. Guided by the Daikin Group Human Rights Policy, we are dedicated to "Diversity and Inclusion", prohibiting discrimination and harassment. The Daikin Group Conduct Guidelines inspire us to embrace differences, collaborate, combine strengths, and work with passion while sharing our dreams. AAF promotes this spirit, valuing talent regardless of nationality, age, gender, sexual orientation, disability, or career background.

Operating in over 170 countries with 100,000 employees, the Daikin Group's greatest strength lies in its ability to excel globally by effectively managing its growing workforce diversity and leveraging individual strengths. AAF, as part of this network, empowers over 5,000 employees across 30 operating countries to transform personal strengths into organizational success, driving growth and innovation.



Promotion and Development of Diverse Talent

Diverse Leadership Allocation

At AAF, we drive growth by appointing diverse talent from the Daikin Group to leadership roles, fostering collaboration and development. Daikin managers also join AAF boards, enhancing unity and accelerating global growth.

Talent Development

The Daikin Executive Program (D-EP) is part of the Daikin Group's leadership strategy, developing senior management around the world. AAF executives join D-EP and advance diversity management suited to their regions.

Commitment in the Recruitment Process

In line with the Daikin Group Conduct Guidelines, AAF upholds individual human rights and prohibits discrimination based on nationality, race, ethnicity, religion, skin color, age, gender, sexual orientation, or disability. Our recruitment process respects diversity and includes measures to prevent discrimination worldwide.



Daikin Group's Approach to its People

Daikin Group Basic Policy and PCM (People-Centered Management) Behaviors

As AAF is a part of Daikin Group, our employees are aligned with the Daikin Group Philosophy and practice PCM Behaviors.

Daikin Group Philosophy states, "Practice 'People-Centered Management (PCM)' and Provide Challenging Opportunities." People-Centered Management is a philosophy that has been used since the company's founding, based on the belief that "Each individual possesses infinite potential" and "The cumulative growth of all employees is the foundation for the Company's development." That is why, through the ways in which we aim to create job satisfaction for our employees and to embody our spirit and technical fortitude at the frontlines of the organization, recognizing the inherent goodness of people, Daikin is fully committed to continuing its long-term efforts to ensure the growth of its employees and the company.

In May 2024, to mark the 100th anniversary of its founding, Daikin revised its Daikin Group Philosophy and formulated PCM Behaviors, as a way of making more explicit what it means by People-Centered Management.

PCM Behaviors is a set of the behaviors and attitudes expected of each employee. As our business environment grows more complex and our organization grows larger, PCM Behaviors is to further strengthen the understanding and practice of the values that form the basis of the Group's unifying core and sense of unity, and to unite the entire Group as "one team" as we have consistently followed over the years, as the group traditions, group pride, group challenge, and group principles, throughout the entire Group globally in this era of rapid change.

PCM Behaviors

Take Bold Action and Seek Growth - Innovation & Growth

People who strive to grow, challenge established norms, and lead innovation

- 1 Boldly take on challenging situations with full conviction of your potential
- 2 Refine and enhance your strengths and expertise until you excel in your field of expertise
- 3 Learn humbly

Build Genuine Trustworthy Relationships and Teamwork - Trust & Teamwork

People who share the Daikin Group's dreams and value dialogue and teamwork

- 4 Participate with a sense of ownership by sharing information and opinions through full and sincere discussions ("First and foremost dialogue")
- 5 Accept your role and responsibilities, and work together towards achieving goals
- 6 Respect each person, unleash your infinite potential, and embrace healthy competition

Strive for Results - Winning & Achievement

People who aspire to achieve great results with passion, strong will, perseverance, and confidence

- 7 Envision your goal and take creative action while being proud by past successes
- 8 Leverage Daikin's strengths, and pursue uniqueness and differentiation
- 9 Set challenging goals and achieve them with passion and perseverance by continuously taking action

Occupational Health and Safety

Basic Principles

AAF is committed to upholding the Daikin Group Human Rights Policy, aligning with international standards like the UN Guiding Principles on Business and Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work. Furthermore, we aim to create a safe workplace for all. Following the Daikin Group Conduct Guidelines, every AAF officer and employee ensures operational safety through careful and responsible actions. We adhere to local and international labor safety and health regulations, striving for a zero incident workplace to protect our employees, contractors, and community.

Management Structure

AAF holds monthly safety committee meetings and participates in the Daikin Group's regional safety meetings to continuously improve practices. Results are reported at global safety meetings chaired by Daikin's safety officer, where site-specific issues and global safety strategies are discussed.

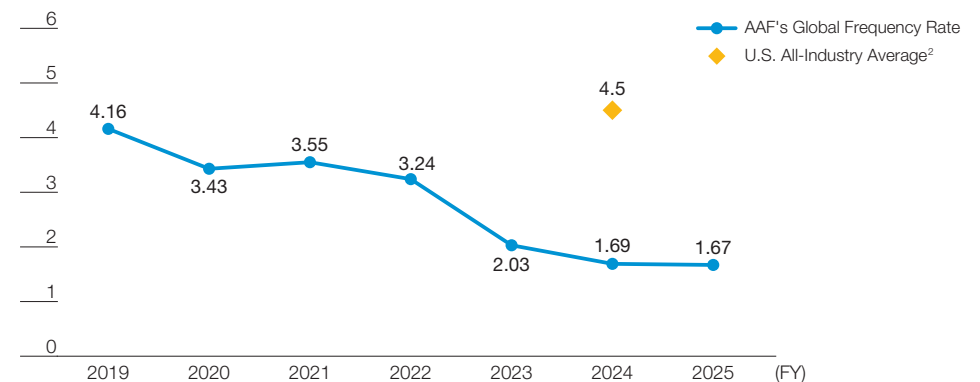
Risk Assessment

To prevent accidents, AAF conducts risk assessments at each site, identifying high-risk equipment and implementing safety measures. Monthly reports on incidents, causes, and countermeasures are submitted to Daikin's safety officer and discussed at global safety meetings. Recent accident trends include entanglement, cuts and material handling. We share these details and countermeasures, conducting risk reduction activities focused on "people," "people and equipment," and "equipment." We also provide protective gear, translate manuals, inspect equipment regularly, and use clear signage to enhance safety.

Goals and Performance

AAF aims for zero incidents as per the Daikin Group's policy, using lost-time incident frequency rates to measure safety. In fiscal year 2024, AAF achieved a frequency rate of 1.69, outperforming the U.S. all-industry average of 4.5. AAF has also made significant progress in reducing its frequency rate, from 4.16 in 2019 to 1.67 in 2025, representing a 60% decrease.

Lost Time Incident Frequency Rate¹



¹ This shows the frequency of occupational accidents resulting in lost work time, expressed in number of casualties per 1,000,000 working hours. Frequency rate = Number of fatalities or injuries caused by occupational accidents resulting in lost work time / Total actual working hours x 1,000,000

² Calculated based on information from U.S. Bureau of Labor Statistics (November 2025)
No data was released for the U.S. in fiscal 2025. (As of the end of August 2026)



Occupational Health and Safety Management System

With production sites around the world, AAF has established health and safety management systems at each global production site to ensure safe operations and employee safety. We conduct ongoing risk assessments, develop and execute action plans, track progress, and ensure compliance with relevant laws and regulations. We also perform annual internal and external audits, and conduct safety training and patrols to achieve zero workplace accidents.

Employee Education and Training

AAF offers various educational programs and training related to occupational health and safety for all individuals working at AAF, including employees, temporary staff, business partners, contractors, and subcontractors. We conduct experiential training to raise safety awareness by simulating hazards like entrapment and pinch points, combining hands-on experience with knowledge-based training. We also develop skills through training sessions in Japan and ongoing safety education and patrols, aiming for zero workplace accidents.

Every July, during Japan's National Safety Week, Daikin's President and COO sends a message highlighting key safety initiatives to the entire group. Daikin's executive leadership, safety officers, and safety department visit sites to provide safety guidance annually. The safety department compiles and shares monthly accident reports with safety officers at each site to continuously promote safety awareness.



Workplace Safety Training at Our Malaysia Factory

Empowering Action for Sustainability

Our employees are key to our sustainable strategies. We aim to improve the effectiveness of our sustainability initiatives by creating an environment where employees can actively engage in sustainable practices, supported by education and awareness activities. Below, we highlight some of these initiatives.

Promoting Workplace Sustainability

Our Bicycle Scheme for Employees is an active initiative in Finland, Sweden, Germany, the UK, and the Netherlands. This program allows employees to receive either a standard or electric bicycle on favorable terms. Cycling to work not only offers excellent exercise but also serves as an eco-friendly mode of transportation. Employees can use the bicycles for commuting, work-related tasks, and personal leisure activities.

This initiative makes a significant contribution to our sustainability goals by reducing our carbon footprint, improving employee productivity and well-being, and encouraging sustainable mobility.



Electric Bicycle Scheme

In India, environmental sustainability awareness sessions were held during the Sales Boot Camp event, with 50 participants, to promote environmental sustainability. Additionally, similar sessions were conducted for all factory employees, engaging 118 participants, to reinforce sustainability practices.

Environment Day is celebrated annually in India and Saudi Arabia, with plants distributed to all employees to encourage home planting initiatives. Additionally, tree-planting initiatives were carried out around plant sites to further support environmental sustainability.



Environment Day Celebration



Environmental Awareness Session

Protecting Ecosystems and Biodiversity

In Malaysia, we collaborate annually with the Centre for Marine and Coastal Studies (CEMACS) to conduct beach cleanup activities that support marine conservation and environmental awareness.

In 2025, the AAF Beach Cleanup Volunteering Activity was held at Batu Ferringhi Beach, Penang. 30 employees joined the activity, collecting approximately 33.6 kilograms of waste, including plastics, metals, glass, ropes, and other debris, contributing to improved beach cleanliness and reduced marine pollution.

Beyond waste removal, the initiative provided employees with practical insights into the impacts of marine pollution and the importance of protecting coastal ecosystems.



Beach Cleanup Campaign

Again in Malaysia, as part of its CSR Day activities, AAF conducted a butterfly conservation initiative to support environmental sustainability and ecosystem preservation. The activity was carried out in collaboration with the Melaka Butterfly & Reptile Sanctuary Park, Ayer Keroh, Melaka. 35 employees participated in the initiative, which included the planting of butterfly host plants and the release of approximately 50 butterflies into the Sanctuary Park. This initiative aimed to enhance biodiversity, promote pollination, and support ecological balance, while strengthening employee awareness of ecosystem conservation.



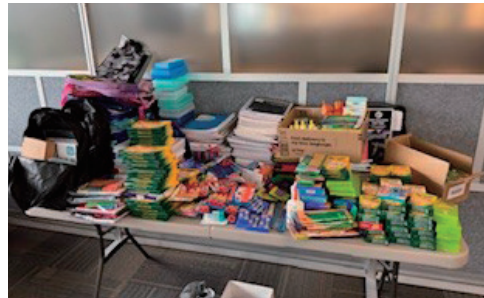
Butterfly CSR Day

Community Connections

Community Engagement in Education

Supporting education and local students is a key part of our sustainability efforts. Through various initiatives, we have contributed to enhancing educational opportunities for those in need.

In the United States, employees in Louisville organized a school supply drive alongside a community potluck event in preparation for the new academic year. Team members were encouraged to nominate local schools in need, ensuring that support was directed where it would have the greatest impact. Essential supplies—including notebooks, pencils, and backpacks—were collected and distributed to underserved schools across the region. In addition, we provided a \$500 donation to the duPont Manual High School Varsity Crimsons Cheer Team. This contribution supported the purchase of uniforms and related expenses, enabling greater student participation in extracurricular activities and fostering school engagement.



School Support Initiative

In Bengaluru, India, employees organized a charitable food stall to raise funds in support of a local school. The funds collected were used to purchase a water purifier and sports equipment, contributing to a healthier learning environment and supporting students' physical development alongside their educational needs.



School Supplies for Local Students

Food Support

Addressing food insecurity is an important part of our community engagement efforts.

In the United States, employees partnered with Dare to Care Food Bank, a local organization addressing food insecurity within the community. A total of 25 employees participated, supporting warehouse operations and the preparation of food supplies for distribution. As part of this effort, employees contributed to the preparation of approximately 900 food boxes for elderly individuals in need.



Food Bank Volunteers

In Malaysia, a food donation program was conducted in collaboration with the Kechara Soup Kitchen Society to support community well-being and short-term food security. The initiative benefited 15 underprivileged families through the provision of essential food supplies, with total donations amounting to RM1,800 (approximately \$455).

In the United Kingdom, employees supported Cramlington Foodbank through an annual Christmas food donation initiative aimed at addressing food insecurity within the local community. The initiative supports the preparation of essential food parcels for families in need and helps vulnerable households during the Christmas period, with a total contribution of 155 kg of food donations.

Children and Families in Need

In the United States, employees participated in the Salvation Army Angel Tree program, supporting children from vulnerable families during the holiday season. The initiative provides gifts to children who may not otherwise receive them. Employees allocated \$250 per child, fulfilling wishlist requests, and through additional employee contributions, were able to support three children in total, extending the initiative's impact.

Employees also supported Home of the Innocents, an organization that provides housing, care, and educational support for families with children with disabilities. As part of the initiative, employees donated \$500 worth of flowers and gardening tools to enhance the facility environment. Volunteer activities are regularly organized, with 20 employees per visit. During the year, employees contribute time to improving the organization's outdoor spaces, supporting a safe and welcoming environment for residents.



Facility Enhancement Activity

Animal Welfare Support

Support was also provided to local animal welfare initiatives addressing vulnerable pet and stray animal care. Contributions were made to My Dog Eats First, a local charity that helps individuals experiencing homelessness care for their pets, and to Alley Cat Advocates, which focuses on improving the lives of stray cats through trap-neuter-return programs to reduce stray populations. A combined \$1,000 donation supported these initiatives.



Pet Food Donations

Disaster Relief Support

In the United States, support was extended to communities affected by environmental and industrial incidents impacting air quality and public health. Following the California wildfires, efforts focused on assisting vulnerable populations most at risk from deteriorating air conditions. With a total estimated contribution value of approximately \$7,000, eight AstroPure air purification units were donated to the Pasadena Senior Center, complemented by the distribution of air filters to approximately 200 elderly residents in the surrounding community. This initiative aimed to improve indoor air quality and reduce exposure to harmful wildfire-related pollutants and particulate matter. The impact of the intervention was immediate, with the Director of the Senior Center reporting a noticeable improvement in indoor air conditions.

In addition to these donations, community engagement activities were organized to raise awareness of indoor air quality management during wildfire events and periods of elevated pollution. These sessions focused on practical actions individuals can take to minimize exposure to airborne contaminants and strengthen community resilience.



AstroPure Filters Supporting Local Community

Support was also provided to residents in Louisville following a UPS plane crash that resulted in elevated levels of airborne particulates within a 2–3 mile radius of the site. NaturalAire filters were distributed to local households to help mitigate air quality concerns and safeguard community health.



Community Air Quality Awareness Event



Key Foundations

Daikin Group Conduct Guidelines

Basic Principles and Management Structure

As a global enterprise, the Daikin Group establishes fundamental ethical and compliance principles that every executive and employee must adhere to through the Group Conduct Guidelines (16 key items).

Under these guidelines, as a member of the Daikin Group, AAF develops specific codes of conduct based on local laws, customs, and practices in each country and region where we operate, ensuring full adherence to corporate ethics and compliance.

Corporate Governance

Governance and compliance at the regional level are managed by AAF COOs. Each regional headquarters has a compliance officer, directly reporting to the COO, driving initiatives to strengthen internal controls. Regular compliance meetings are held to review progress on risk management, to share information, and to disseminate the Daikin Group Conduct Guidelines. AAF appoints representatives from Daikin to its board of directors and is regularly audited by Daikin to ensure adherence to Group standards and effective internal controls. Through these structures and processes, we aim to foster a culture that discourages misconduct and build systems that prevent it from occurring.



Daikin Group Conduct Guidelines

These conduct guidelines set forth the basic premises for all Group companies, as well as each and every one of their executives and employees to observe as a basic framework for compliance in the Daikin Group's global expansion of corporate ethics.

Each company of the global Group shall draft specific criteria based on these guidelines for a code of conduct that corresponds to differences in laws and customs of each country and region and thoroughly maintains legal compliance.

- 1 Providing Safe, High Quality Products and Services
- 2 Free Competition and Fair Trading
- 3 Observing Trade Control Laws
- 4 Respect and Protection of Intellectual Property Rights
- 5 Proper Management and Utilization of Information
- 6 Prohibition of Insider Trading
- 7 Timely and Appropriate Disclosure of Corporate Information
- 8 Preservation of the Global Environment
- 9 Ensuring the Safety of Operations
- 10 Respect for Human Rights and Diversity and Observance of Labor Laws
- 11 Protection of Company Assets
- 12 Proper Handling of Accounting Procedures
- 13 Practicing Moderation in Entertainment, Gift Exchanges, and Invitations
- 14 Maintaining a Firm Attitude against Anti-Social Activities
- 15 Relationship with Society
- 16 Observing Each Category of Industry Law and Regulation

Note: The above list provides an overview of the headings from our Group Conduct Guidelines. For further information and comprehensive details, please contact your nearest [AAF office](#) or refer to [Daikin's sustainability report](#).

Consistency in Compliance

Daikin Group's Self-Assessment System

AAF conducts annual self-assessments using the Daikin Group's system to ensure adherence to the Daikin Group Conduct Guidelines. Identified issues are addressed and reported to Daikin's Corporate Ethics and Risk Management Committee. The results also support audits conducted by Daikin's legal, internal auditing, and finance departments.

Group Collaboration for Enhanced Compliance

AAF participates in regional compliance meetings with the Daikin Group companies to review progress and share information. In fiscal year 2025, AAF attended local legal and compliance meetings in Asia/Oceania (July 2025) and China (March 2026), as well as the Global Legal and Compliance Meeting in Japan (October 2025), covering topics such as human rights, personal data protection, and anti-bribery.



The Global Legal and Compliance Meeting in October 2025

Fair Competition and Ethical Business Practices

AAF supports fair business practices in accordance with Item two of the Daikin Group Conduct Guidelines, which emphasizes "Free Competition and Fair Trading".

Education and Awareness Activities

AAF trains all staff in compliance per the Daikin Group Conduct Guidelines, offering case study-based sessions on relevant laws for sales, manufacturing, and procurement. Tiered programs are provided for new hires and new managers. To help employees recognize the importance of compliance through relatable examples, we share quarterly compliance news that highlights relevant compliance topics.

AAF's Legal Compliance Record for 2025

AAF is dedicated to transparency and discloses any major legal violations. In fiscal year 2025, no major violations were reported.

Consultation and Reporting Desk

AAF has established a corporate ethics hotline for consultations and feedback on various ethics-related issues, including bribery, human rights, power harassment, and sexual harassment. The hotline guarantees confidentiality and ensures prompt, appropriate responses. Inquirers and individuals cooperating in investigations are treated fairly and without retaliation.

Each AAF company investigates reported matters, consults with Daikin's legal team, and implements measures to prevent recurrence, ensuring a system for prompt action.

Anti-Bribery and Anti-Corruption

Basic Principles

AAF, as part of the Daikin Group, is committed to preventing bribery and corruption in line with the Daikin Group Conduct Guidelines, focusing on "Free Competition and Fair Trading," "Practicing Moderation in Entertainment, Gift Exchanges, and Invitations," and "Maintaining a Firm Attitude against Anti-Social Activities". We work closely with Daikin's legal department to address and manage these issues effectively.

Anti-Bribery Guidelines for Public Officials

AAF adheres to the Daikin Group's "Public Officials and Anti-Bribery Guidelines," which provide conduct guidelines for interactions with public officials. These guidelines outline specific standards and approval processes for activities involving public officials, such as hospitality and gifts. To prevent indirect benefits through third parties, we enforce strict screening, selection procedures, and include anti-bribery clauses in contracts. Legal inquiries are directed to the Daikin contact point. Compliance is verified through self-assessment, regular reports submitted to Daikin's Corporate Ethics & Risk Management Committee.

Education and Awareness Activities

Training for managers and employees focuses on maintaining healthy relationships with public institutions, and ensuring appropriate entertainment and gift-giving to business partners. These activities aim to raise awareness and enhance knowledge on these critical issues.

Monitoring

Daikin's Internal Auditing Department conducts audits of business units and companies in high-corruption regions to ensure that anti-bribery measures are properly implemented. Any issues identified are promptly addressed by AAF in collaboration with Daikin's legal department and reported to the Daikin Board of Directors and the Internal Control Committee.

Compliance Status in Fiscal Year 2025

In fiscal year 2025, AAF reported no violations or sanctions related to bribery.



Respect for Human Rights

Human Rights Policy

AAF promotes "Respect for Human Rights" based on the Daikin Group Conduct Guidelines and Human Rights Policy established in 2022. This policy aligns with international frameworks such as the UN Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the OECD Guidelines for Multinational Enterprises. It emphasizes compliance with international human rights standards and local laws, human rights due diligence, grievance mechanisms, employee education, and stakeholder dialogue. We also ask our business partners to adhere to these standards.

Human Rights Risk Assessment and Mitigation

AAF utilizes the Daikin Group's risk management system to identify and assess human rights risks throughout the value chain. Human rights-related questions are included in the annual self-assessment. The outcomes, along with identified risks, challenges, and countermeasures from the risk assessment, are reported to the Group's Corporate Ethics and Risk Management Committee and regional Legal and Compliance Meetings. The results are also shared with Daikin's Internal Control Committee and Board of Directors.

Respect for Human Rights in the Supply Chain

We include human rights guidelines in our Supply Chain CSR Promotion Guidelines, addressing discrimination, child labor, and forced labor. We ask our business partners to adhere strictly to these guidelines and improve their CSR practices. Additionally, we regularly share the results of CSR surveys with our suppliers, highlighting any identified issues and the actions taken in response.



Responsible Procurement

Basic Principles

At AAF, we are committed to responsible sourcing across our supply chain to meet our social responsibilities. We emphasize transparent, fair, and equitable business practices, viewing our raw materials and component suppliers as integral partners. AAF focuses on CSR-driven procurement, prioritizing environmental sustainability, quality, occupational safety, and human rights.

Supply Chain CSR Promotion Guidelines

https://www.daikin.com/csr/social/supplychain_gl

Green Procurement Guidelines

https://www.daikin.com/csr/social/green_gl

Guide to Our Global Sourcing Activities

<https://www.daikin.com/purchase>



Daikin Group Purchasing Philosophy and Policy

Purchasing Philosophy

“Respect Independence” and “Cooperation and Competition”

Purchasing Policy:

- Fair relations based on an open door policy
Provide open, equal, and fair opportunities for all companies, regardless of their locality, size, and sales results.
- Mutual growth through mutual trust
Create open conditions for business dealings and respect free competition.
- Look for good partners
In procuring from overseas, look for companies to share common profit and offer useful products to society.
- Observe laws and maintain confidentiality
Observe laws on business dealings and respect the spirit of these laws.

Provision of Equal Business Opportunities

AAF openly welcomes business partners regardless of their nationality, company size, or past business dealings.

Management Structure

As part of the Daikin Group, AAF identifies supply chain management as a key sustainability theme. The Green Procurement Subcommittee, which includes procurement leaders from each business, leads initiatives related to human rights and hazardous chemical management in our supply chain.

Promotion of CSR-driven Procurement

Evaluation of Suppliers

AAF ensures that suppliers understand the Daikin Group's Purchasing Policy and uses a supplier evaluation criteria sheet that takes regional risks into account. Suppliers are evaluated on management, quality, price, delivery time, and environmental impact. We assess suppliers' ESG-related risk management through surveys on compliance with the Global Supply Chain CSR Promotion Guidelines and conduct annual re-evaluations under the continuous business relationship evaluation system. Global standards are applied to environmental evaluations. Suppliers who fail to meet the standards must submit improvement plans, with our support provided, to help implement necessary improvements.



Deployment of Supply Chain CSR Promotion Guidelines

AAF promotes CSR across our supply chain, aligning with the Daikin Group's sustainability metrics and the 2025 goal of building a resilient, sustainable supply chain. Suppliers are expected to comply with the Daikin Supply Chain CSR Promotion Guidelines, established in April 2017, which cover environmental responsibility, quality control, labor safety, human rights, and the prohibition of transactions with conflict regions. Compliance is monitored through assessments, while feedback and guidance are given to ensure continuous improvement.

Approach to Addressing Conflict Minerals

AAF follows Daikin's Basic Policy on Conflict Minerals (July 2013) and the Supply Chain CSR Promotion Guidelines. We encourage suppliers to source from conflict-free certified smelters and conduct conflict mineral investigations. To prevent involvement in unethical practices for example by armed groups in the Democratic Republic of the Congo and its surrounding countries, AAF adopts supply chain transparency and ensures responsible mineral sourcing with procurement partners.

Promotion of Green Procurement

AAF requests that suppliers follow Daikin's Green Procurement Guidelines (2000), prioritizing environmentally-friendly materials. We assess compliance through the Green Procurement Survey, focusing on environmental and chemical substance management. Our goal is global compliance, and we provide guidance for improvements where needed. AAF aligns with standards like the RoHS Directive and REACH Regulation, updating guidelines regularly to meet stringent regulations.

Information Security

Information Security Policy

Effective Management and Protection of Confidential Information

AAF considers information leaks from internal systems, product services, and factory equipment as major risks. We strengthen information security based on the Daikin Group Conduct Guidelines, focusing on "Proper Management and Utilization of Information" and the "Basic Policy on Information Security". Information security leaders at each regional headquarters deploy the Daikin Group's security regulations and guidelines across AAF subsidiaries. Policies for social media use and management of confidential information, including third-party data, are established to raise awareness. The overall information security strategy, countermeasures, and common rules for the entire Daikin Group are reviewed by Daikin's Information Security Committee.

Robust Information Security

AAF continuously assesses compliance with security rules and implements improvements to prevent incidents. A reporting and response system minimizes damage from security threats. Employees report incidents to information security leaders, who then inform Daikin's IT Promotion Department and take the lead in identifying causes and preventing recurrence.

Information Security Education

AAF provides training to raise security awareness among managers, supervisors, and employees. Education on company rules through self-assessments, and information security articles in the company newsletter help maintain awareness. Additional training on targeted email attacks is also conducted.

Information Security Inspections and Results

AAF includes information security items in self-assessments and conducts annual incident response tests. Deficiencies and issues are identified, and measures are strengthened. Results and countermeasures are reported to Daikin's Information Security Committee. Important matters are also reported to the Daikin's Corporate Ethics and Risk Management Committee, Internal Control Committee, and Board of Directors.

Protection of Customer Information

AAF follows Daikin Group's Personal Information Protection Policy to manage and utilize customer information appropriately. Compliance is ensured through internal rules, self-assessments, legal audits, and operational audits.



IT Security Check at Horndal Factory, Sweden



Glossary

Standards

Standard	Area	Title	Overview
ASHRAE 62.1-2025	Ventilation	Ventilation for Acceptable Indoor Air Quality	The standard establishes minimum ventilation rates and other requirements to ensure acceptable indoor air quality (IAQ) for human occupants while minimizing adverse health effects.
ASHRAE 62.2-2025	Ventilation	Ventilation and Acceptable Indoor Air Quality in Residential Buildings	The standard establishes minimum ventilation rates and methods to achieve acceptable indoor air quality in residential buildings through whole-building ventilation, local exhaust, and source control.
ASHRAE 241-2023	Ventilation	Control of Infectious Aerosols	The standard establishes minimum requirements for ventilation, filtration, and air cleaning to reduce the risk of airborne disease transmission in buildings during infection risk management mode.
EN 15804:2012+A2:2019 +AC:2021	Environmental Product Declarations	Sustainability of Construction Works - Environmental Product Declarations - Core Rules for the Product Category of Construction Products	Basic rules for the preparation of environmental product declarations (EPDs) for construction products.
ISO 9001:2015	Quality Management Systems	Quality Management Systems - Requirements	The most frequently certified standard for quality management systems worldwide.
ISO 14001:2026-09	Environmental Management	Environmental Management Systems - Requirements with Instructions for Use	Recognized requirements for an environmental management system.
ISO 14025:2025-10	Product Assessments	Environmental labels and declarations - Type III Environmental Product Declarations - Principles and Procedures	Type III environmental declarations are also known as Environmental Product Declarations (EPDs). EPDs provide quantified, third-party verified information about the environmental impact of products or services throughout their entire life cycle. This distinguishes them from Type I (eco-labels) and Type II (self-declared claims) environmental declarations.
ISO 14040:2006-02	Product Life Cycle Assessments	Environmental Management - Life Cycle Assessment - Principles and Framework	The standard describes the principles and framework conditions of life cycle assessment. It covers life cycle assessment studies and life cycle inventory studies. This document was prepared by Technical Committee ISO/TC 207 "Environmental management" in collaboration with the CEN-CENELEC Management Centre (CCMC).
ISO 14044:2006	Product Life Cycle Assessments	Environmental Management - Life Cycle Assessment - Requirements and Guidelines	Summary of following standards: ISO14041: Definition of the objective and the scope of the investigation as well as the life cycle inventory ISO14042: Impact assessment ISO14043: Evaluation
ISO 14067:2018-02	Carbon Footprint for Products	Greenhouse Gases - Carbon Footprint of Products - Requirements and Guidelines for Quantification	Standard that specifies the principles, requirements, and guidelines for quantifying and reporting the carbon footprint of products throughout their entire life cycle, from raw material extraction to disposal. It ensures transparency and consistency in calculating greenhouse gas emissions associated with a product, enabling companies to assess and communicate their environmental impact.
ISO 14072:2024	Life Cycle Assessments for Companies	Environmental Management - Life Cycle Assessment - Requirements and Guidelines for Organizational Life Cycle Assessment	Rules for organizational life cycle assessments.
ISO 26000-2010	Corporate Social Responsibility	Guide to Social Responsibility	Guidelines that provide orientation and recommendations on how organizations of all kinds should behave so that they can be considered socially responsible.

Terms

A

ACT: Accelerate Climate Transition®

The ACT Initiative provides a standardized framework to evaluate and enhance corporate decarbonization efforts. It is supported by the French Government and the United Nations Framework Convention on Climate Change (UNFCCC). The initiative supports over 1,000 companies globally.

The ACT initiative supports comprehensive decarbonization through the following key programs:

1. ACT Step-by-Step: Provides a process for systematically improving climate strategies, including goal setting, identifying key actions, and measuring progress.
2. ACT Evaluation: Evaluates the effectiveness of current climate strategies, identifying strengths and areas for improvement.
3. ACT Adaptation: Offers strategies to respond to climate change impacts while minimizing environmental footprints and sustaining business operations.

ACT projects begin with a thorough analysis of a company's current situation, including:

- GHG Emissions Assessment (Scope 1-3): Evaluates direct, indirect, and value chain emissions.
- Evaluation of Current Climate Strategies: Identifies strengths and areas for improvement.
- Identification of Key Improvement Areas and Potential Barriers: Develops and implements tailored improvement strategies.

Source <https://actinitiative.org/home/>

B

BREEAM: Building Research Establishment Environmental Assessment Method

BREEAM (Building Research Establishment Environmental Assessment Method) is a globally recognized sustainability certification program that evaluates buildings across categories like energy, water, materials, and health to promote environmental performance. It offers various certification levels, including Pass, Good, Very Good, Excellent, and Outstanding, and applies to new

constructions, existing buildings, and refurbishments.

Source <https://breeam.com/>

C

CASBEE: Comprehensive Assessment System for Built Environment Efficiency

CASBEE (Comprehensive Assessment System for Built Environment Efficiency) is a Japanese green building certification program that evaluates buildings based on four key areas: energy efficiency, resource efficiency, outdoor environment, and indoor environment, assigning a performance score and certification level (S, A, B+, B- and C). Developed in 2001 by the Japan Sustainable Building Consortium (JSBC) with government support, it is widely used in Japan and offers tools tailored to different project scales, including new construction, existing buildings, and renovations.

Source <https://www.ibecs.or.jp/CASBEE/english/>

CBAM: Carbon Border Adjustment Mechanism

European policy that imposes a carbon price on imports to prevent carbon leakage and promote global emission reductions.

Source https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

cPCR: complementary Product Category Rules

cPCR adds product-specific details to PCR (Product Category Rules). cPCR for air filters are under development by a working group of CEN (European Standardization Organization).

Source <https://www.rethink-environmental-software-and-services.com/insights/product-category-rules-pcr>

CSDDD: Corporate Sustainability Due Diligence Directive

European directive requiring companies to identify and report on sustainability risks and opportunities in their supply chains. It aims to ensure that companies fulfil their due diligence obligations with regard to human rights, the environment and social aspects.

Source https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en

CSRD: Corporate Sustainability Reporting Directive

CSRD imposes strict requirements on how companies report their sustainability efforts. They must comply with the EU regulations under ESRS (European Sustainability Reporting Standards) and disclose both how sustainability issues impact their business and how they, in turn, affect the environment and society – this principle is known as double materiality.

Source https://finance.ec.europa.eu/financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

D

DGNB: German Sustainable Building Council

The DGNB (German Sustainable Building Council/ Deutsche Gesellschaft für Nachhaltiges Bauen) certification program evaluates the sustainability of buildings and districts across six thematic areas, including environmental, economic, and sociocultural qualities, using a lifecycle assessment approach. Projects are awarded certification levels—Platinum, Gold, Silver, or Bronze—based on their performance in meeting specific criteria and achieving a minimum performance index in each category.

Source <https://www.dgnb.de/en/certification/buildings>

DPP: Digital Product Passport

A digital ID for products containing essential information on sustainability, circularity, and environmental impact. It's introduced by Ecodesign for Sustainable Products Regulation (ESPR).

Source <https://data.europa.eu/en/news-events/news/eus-digital-product-passport-advancing-transparency-and-sustainability>

E

ECO Platform

ECO Platform is a European association that harmonizes and certifies Environmental Product Declarations (EPDs) to ensure they are reliable, comparable, and high quality. It brings together program operators, industry groups, and experts to create a unified digital EPD framework. Its goal is to support transparent, trustworthy environmental data across the construction sector.

Source <https://www.eco-platform.org/home.html>

EcoVadis SAS

EcoVadis is a globally recognized platform that evaluates the sustainability performance of companies based on four key areas: environmental impact, labor and human rights, ethics, and sustainable procurement. It provides a score ranging from 0 to 100, enabling companies to benchmark their performance and identify areas for improvement.

Source <https://ecovadis.com/>

EGD: European Green Deal

The European Green Deal (EGD) is a comprehensive growth strategy launched by the European Union in 2019. Its main goal is to make the EU climate-neutral by 2050 by reducing net greenhouse gas emissions to zero. By 2030, emissions should already be reduced by at least 55% compared to 1990 levels.

Main Objectives of the European Green Deal

- Climate Neutrality: The EU aims to become the first climate-neutral continent.
- Circular Economy: Introduction of an economic model that promotes reuse, repair, and recycling to minimize waste and conserve resources.
- Clean Industry: Supporting sustainable and energy-efficient industries.
- Healthier Environment: Commitment to restoring nature and creating a zero-pollution goal.
- More Sustainable Agriculture: Promoting environmentally friendly agricultural practices.
- Climate Justice and Fairness: Ensuring a just transition that leaves no one behind.

Source https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

Enterprise Green Communities Certification

The Enterprise Green Communities Certification is a national green building program in the USA specifically designed for affordable housing, focusing on sustainability through mandatory and optional criteria in areas like energy efficiency, water conservation, and healthy living environments. Projects undergo a two-step certification

process (Prebuild and Postbuild) and can achieve two levels: Enterprise Green Communities Certification or the higher-level Certification Plus, which recognizes advanced energy efficiency and zero-energy goals.

Source <https://www.greencommunitiesonline.org>

Environmental Impact Categories

Environmental impact categories are standardized measures used in Life Cycle Assessment (LCA) to quantify and classify the various ways human activities affect the environment. These categories originate from scientific models and international standards like ISO 14040/44, the Environmental Footprint Method (EF), and others. These categories help assess and compare the environmental performance of products, processes, or organizations throughout their life cycles. They provide a structured approach to understanding and mitigating various environmental impacts, from climate change to resource scarcity and human health effects.

Some of the main environmental impact categories include:

- 1) Global Warming Potential (GWP)
- 2) Ozone Depletion Potential (ODP)
- 3) Acidification Potential
- 4) Eutrophication Potential (freshwater, marine, and terrestrial)
- 5) Photochemical Ozone Creation Potential (POCP)
- 6) Resource Depletion (abiotic, fossil fuels, minerals, water)
- 7) Human Toxicity (carcinogenic and non-carcinogenic)
- 8) Ecotoxicity (freshwater, marine, and terrestrial)
- 9) Land Use and Transformation
- 10) Particulate Matter Formation
- 11) Ionizing Radiation
- 12) Water Consumption and Scarcity
- 13) Biodiversity Impact
- 14) Urban Land Occupation
- 15) Agricultural Land Occupation
- 16) Natural Land Transformation
- 17) Metal Depletion
- 18) Fossil Depletion
- 19) Climate Change (fossil sources, biobased sources, and land use changes.)

Source https://green-business.ec.europa.eu/environmental-footprint-methods/life-cycle-assessment-ef-methods_en

EPD: Environmental Product Declaration

A standardized and simplified representation of LCA results. EPDs are registered with the EPD program operator EPD International AB.

Source <https://ibu-epd.com/en/what-is-an-epd/>

EPD HUB

EPD Hub is a centralized platform that collects, manages, and shares Environmental Product Declarations (EPDs) in a standardized digital format. It streamlines how manufacturers, designers, and regulators access verified environmental data for products. By digitizing EPDs, it enables faster sustainability assessments and smoother integration into tools like BIM or LCA software.

Source <https://www.epdhub.com/>

EPD International AB

EPD International AB is the program operator and has the overall responsibility for the administration and operation of the International EPD System. EPD International AB is a subsidiary to IVL Swedish Environmental Research Institute.

Source <https://www.environdec.com/about-us/epd-international-ab>

ESG: Environmental, Social, and Governance

Environmental, Social, and Governance. It is a framework used to evaluate the sustainability and ethical practices of businesses.

ESG has become increasingly significant for several reasons:

- Risk Management: Helps identify and mitigate environmental, social, and governance-related risks.
- Investor Attraction: Two-thirds of investors consider ESG factors in their investment decisions.
- Stakeholder Expectations: Meets the growing demands of consumers, employees, and investors for responsible business practices.
- Regulatory Compliance: Assists in navigating and complying with evolving sustainability regulations.
- Long-term Sustainability: Enhances a company's long-term viability and resilience.

Source <https://www.thecorporategovernanceinstitute.com/insights/guides/what-is-esg-and-why-is-it-important/>

ESPR: Ecodesign for Sustainable Products Regulation

European policy that promotes circular economy principles by ensuring products are durable, reusable, repairable, recyclable, and energy-efficient. It introduces a Digital Product Passport (DPP).

Source https://environment.ec.europa.eu/strategy/circular-economy/ecodesign-sustainable-products-regulation_en

ESRS: European Sustainability Reporting Standards

The European Sustainability Reporting Standards (ESRS) provide a standardized framework for companies in the EU to report on environmental, social, and governance (ESG) topics, ensuring transparency and comparability in sustainability disclosures.

Source https://finance.ec.europa.eu/news/commission-adopts-european-sustainability-reporting-standards-2023-07-31_en

EU Taxonomy

The EU Taxonomy is a classification system introduced as part of the European Green Deal to define and promote environmentally sustainable economic activities. It aims to guide investments toward projects that support the EU's climate neutrality goal by 2050 and its interim target of reducing greenhouse gas emissions by 55% by 2030.

Source https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

F**Fitwel Certification Program**

The Fitwel Certification program is a health-focused building standard developed by the U.S. Centers for Disease Control (CDC) and the General Services Administration (GSA), evaluating projects across 12 categories such as indoor environment, outdoor spaces, and emergency procedures, to promote occupant well-being. It offers three certification levels (1 to 3 stars) based on a scorecard system, with the process typically taking 12 weeks and involving steps like registration, assessment, and documentation submission.

Source <https://www.fitwel.org>

G**GHG: Greenhouse Gas Emissions (Scope 1-3)**

Internationally recognized method to determine greenhouse gas emissions, categorized into three scopes:

Scope 1: Direct emissions from a company's own operations (e.g., fuel combustion).

Scope 2: Indirect emissions from the generation of purchased electricity, steam, heating, and cooling.

Scope 3: All other indirect emissions in a company's value chain, including those from suppliers and customers.

Source <https://ghgprotocol.org/sites/default/files/2022-12/FAQ.pdf>

Green Globes Certification

The Green Globes Certification is a flexible, science-based building certification program that evaluates sustainability, health, and resilience across various building types, offering four certification levels (1 to 4 Globes) based on performance criteria. It uses a self-assessment questionnaire followed by a third-party audit to verify compliance with standards in areas like energy efficiency, water conservation, and indoor air quality.

Source <https://thegbi.org/greenglobes/>

Green Mark Certification

The Green Mark Certification is a green building rating system launched in Singapore in 2005 to evaluate a building's environmental performance, covering areas like energy efficiency, water conservation, and indoor environmental quality. It offers certification levels based on a comprehensive assessment framework, promoting sustainable design and best practices in construction and operations.

Source <https://www1.bca.gov.sg/sustainability/greenmark/>

Green Star Certification Program

The Green Star Certification Program, managed by the Green Building Council of Australia (GBCA), evaluates buildings, fitouts, and precincts across categories like energy, water, and materials, awarding ratings from 4 Stars (Best Practice) to 6 Stars (World Leadership) based on sustainability performance. The certification process involves two rounds of assessment, with independent third-party assessors reviewing documentation to ensure compliance with Green Star's rigorous standards.

Source <https://new.gbca.org.au/green-star/certification-process/>

GRI: Global Reporting Initiative

GRI is a consultancy for assessment and reporting on environmental, social, and economic impacts.

Source <https://www.globalreporting.org/>

H**HQE: High Environmental Quality Certification Program**

The HQE (High Environmental Quality/ Haute Qualité Environnementale) certification is a French green building standard that evaluates projects across 14 targets grouped into four themes: Eco-construction, Eco-management, Comfort, and Health, focusing on sustainability, energy efficiency, and occupant well-being. It offers multiple certification levels—Good, Very Good, Excellent, and Outstanding—based on a building's performance and lifecycle impact, and is applicable globally with adaptations for different regions.

Source <https://www.hqegbc.org>

HVAC: Heating, Ventilation, and Air Conditioning

HVAC (Heating, Ventilation, and Air Conditioning) systems regulate indoor temperature, humidity, and air quality by combining heating, cooling, and ventilation components to create comfortable and healthy environments. Key elements include furnaces, air conditioners, ductwork, and air filters, which work together to distribute conditioned air throughout a building.

Source <https://daikincomfort.com>

I**IAQ: Indoor Air Quality**

Indoor Air Quality (IAQ) refers to the quality of air within buildings, impacting the health, comfort, and well-being of occupants by influencing factors like temperature, humidity, and pollutant levels. Poor IAQ, often caused by pollutants such as mold, VOCs, or inadequate ventilation, can lead to health issues like respiratory problems and reduced cognitive function. Maintaining good IAQ involves strategies like proper ventilation, using low-VOC materials, and regular maintenance of HVAC systems.

Source <https://www.epa.gov/indoor-air-quality-iaq>

IEQ: Indoor Environmental Quality

Indoor Environmental Quality (IEQ) refers to the overall conditions inside a building, including air quality, lighting, thermal comfort, acoustics, and aesthetics, which collectively impact occupant health, comfort, and productivity. It emphasizes factors like adequate ventilation, natural light, and low levels of pollutants such as VOCs and mold to create a healthier indoor environment.

Source <https://build-up.ec.europa.eu/en/category/themes/thermal-comfort-indoor-air-quality-acoustics>

L**LBC: Living Building Challenge**

The Living Building Challenge (LBC) is a rigorous green building certification program that evaluates projects based on seven performance categories, or Petals, including Place, Water, Energy, and Equity, with a total of 20 imperatives to meet. Certification is performance-based, requiring buildings to demonstrate compliance over 12 consecutive months of operation, and offers pathways such as Living Certification, Petal Certification, and Zero Energy Certification. Developed by the International Living Future Institute, the LBC aims to create regenerative, net-zero energy and water buildings that enhance environmental and social sustainability.

Source <https://living-future.org/lbc/>

LCA: Life Cycle Assessment

A detailed analysis of the environmental impact of a product. In total there are 16 impact categories. Climate warming potential in CO₂ equivalents is the best known.

The LCA methodology itself consists of four main phases:

- Goal and Scope Definition: This phase establishes the purpose of the study, defines the system boundaries, and determines the functional unit. It sets the direction for the entire LCA process.
- Life Cycle Inventory (LCI) Analysis: The LCI phase involves collecting and quantifying all inputs and outputs of the studied system, including energy, raw materials, emissions, and waste.
- Life Cycle Impact Assessment (LCIA): In this phase, the LCI results are associated with specific environmental impact categories and indicators. This includes steps such as classification, characterization, normalization, and weighting.
- Interpretation: The final phase involves analyzing the results, drawing conclusions, and making recommendations based on the findings of the LCA.

By following these stages and phases, LCA provides a structured approach to evaluating and managing the environmental impacts of products and services throughout their entire life cycle.

Source https://green-business.ec.europa.eu/environmental-footprint-methods/life-cycle-assessment-ef-methods_en

LEED: Leadership in Energy and Environmental Design

LEED (Leadership in Energy and Environmental Design) is a globally recognized certification system for sustainable construction that was developed by the U.S. Green Building Council (USGBC) in 1998. It evaluates buildings according to environmental, social and economic criteria and serves as a symbol for sustainability performance in the construction industry.

Source <https://www.usgbc.org/leed>

Life Cycle Stages

In the context of Life Cycle Assessment (LCA), the life cycle stages refer to the different phases a product or service goes through, from its inception to end-of-life. These stages are defined as part of the LCA methodology to systematically evaluate the environmental impacts associated with each phase of a product's life.

The main life cycle stages in LCA are:

- Raw Material Extraction
- Material Processing
- Manufacturing
- Distribution and Transportation
- Use Phase
- End-of-Life (including disposal, recycling, or reuse)

These stages originate from the ISO 14040 and 14044 standards, which provide the framework for conducting LCAs.

The purpose of defining these stages is to ensure a comprehensive assessment of environmental impacts throughout the entire life cycle of a product or service.

Source https://green-business.ec.europa.eu/environmental-footprint-methods/life-cycle-assessment-ef-methods_en

P**Paris Agreement**

The Paris Agreement is a landmark international climate treaty adopted in 2015, aiming to limit global temperature rise to well below 2°C above pre-industrial levels, with a preferred target of 1.5°C. It requires each participating country to submit Nationally Determined Contributions (NDCs) - voluntary climate action plans that are reviewed and updated every five years to progressively reduce greenhouse gas emissions. The agreement represents a global collaborative effort to combat climate change, emphasizing adaptation, financial support for developing nations, and a transition to low-carbon economies. Unlike previous climate protocols, the Paris Agreement uses a flexible, bottom-up approach that allows countries to set their own emissions reduction targets while maintaining a collective commitment to mitigating global warming.

Source <https://unfccc.int/process-and-meetings/the-paris-agreement>

Passivhaus Certification

The Passivhaus Certification is a globally recognized standard for energy-efficient buildings, ensuring high performance through rigorous criteria such as airtightness, thermal insulation, and controlled ventilation with heat recovery. Buildings must meet specific energy consumption limits, with certification levels including Classic, Plus, and Premium, and the process involves independent verification by accredited certifiers.

Source <https://www.passivhaustrust.org.uk/certification.php>

PCR: Product Category Rules

PCR standardize environmental impact assessments within a product category to ensure consistency and comparability.

Source <https://www.environdec.com/pcr/the-pcr>

Pearl Certification

Pearl Certification is a US home performance rating program that evaluates homes based on five key categories, including building shell, heating and cooling, and renewable energy, assigning points to high-performing features like efficient insulation and smart home technologies. It offers four certification levels—Pearl Platinum, Gold, Silver, and Certified Assets—based on the home's total score, with adjustments for regional climate differences.

Source <https://pearlcertification.com>

PPWR: Packaging and Packaging Waste Regulation

The Packaging and Packaging Waste Regulation (PPWR) is a European Union law aimed at reducing the environmental impact of packaging, fostering a circular economy, and harmonizing packaging rules across EU member states. It replaces the previous Packaging Directive 94/62/EC and introduces stricter, binding requirements for packaging design, production, recycling, and reuse.

Source https://environment.ec.europa.eu/topics/waste-and-recycling/packageing-waste_en

R**RESET Certification**

The RESET (Regenerative, Ecological, Social and Economic Targets) Certification is a global, data-driven green building standard focused on continuous monitoring of indoor air quality (IAQ) and energy efficiency, ensuring healthier and more sustainable built environments. It emphasizes real-time data collection and performance-based criteria, with certifications available for air, energy, water, and waste, tailored to projects like commercial interiors and core & shell buildings.

Source <https://www.reset.build>

S**SBTi: Science Based Targets initiative**

SBTi is a global organization that helps companies set greenhouse gas emission reduction targets aligned with climate science to meet the goals of the Paris Agreement.

Source <https://sciencebasedtargets.org/>

SDGs: Sustainable Development Goals

The Sustainable Development Goals (SDGs) are 17 global objectives established by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development.

The 17 Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation

7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice, and Strong Institutions
17. Partnerships for the Goals

Source <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

T**TCO: Total Cost of Ownership**

Assessment of the direct and indirect costs associated with purchasing, operating, and maintaining an air filter over its entire lifecycle. Offered to AAF customers as a service to determine the most cost-effective time to change the filter.

Three-Star Program

The Three-Star Program, developed in 1980, is a strategic community development initiative in Tennessee (USA) aimed at enhancing economic and community prosperity through collaboration and local activity planning. It offers incentives like discounts on development projects, focusing on areas such as health, public safety, and education.

Source <https://www.tn.gov/ecd/rural-development/three-star-tnecd/threestar-about.html>

U**UL Verified Healthy Building Certification program**

The UL Verified Healthy Building Certification program, developed by UL Solutions, evaluates buildings for indoor environmental quality, focusing on factors like air and water quality, lighting, acoustics, and hygiene, with three tiers of verification options: Indoor Air, Indoor Air and Water, and Indoor Environment. It aligns with science-centric standards from organizations like ASHRAE, CDC, EPA, and WHO, and involves an inspection, evaluation, remediation, and accreditation process to ensure compliance.

Source <https://www.ul.com/services/verified-healthy-buildings>

UNFCCC: United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty established in 1992 to stabilize greenhouse gas concentrations and prevent dangerous climate interference. It provides a framework for global cooperation, leading to agreements like the Kyoto Protocol and the Paris Agreement, which aim to reduce emissions and limit global warming. With 198 parties, the UNFCCC facilitates annual Conferences of the Parties (COPs) to negotiate climate actions. It emphasizes collaboration between developed and developing nations through support for financial, technical, and capacity-building initiatives.

Source <https://unfccc.int>

W**WELL Building Standard**

The WELL Building Standard (WELL) is a globally recognized certification system developed by the International WELL Building Institute (IWBI) in 2014. It focuses on promoting human health and well-being in the built environment by addressing key factors such as air, water, nourishment, light, movement, thermal comfort, sound, materials, mind, and community.

Source <https://www.wellcertified.com/>