



THE FUTURE OF INDUSTRIAL AIR CLEANERS

Intelligent control system
for optimal filter lifetime

Clean air solutions

CC X-Series Give your product quality and employee health a boost

With the intelligent Indoor Air Quality (IAQ) Control System of our new CC X-Series of industrial air cleaners, we can offer a solution to substantially improve the IAQ in industrial environments.

Research has proven that clean air creates a healthier work environment and drastically improves the well-being and productivity of employees. The IAQ control system enhancement reduces safety risks, sick days and lost profits by giving your employees the best working environment. Furthermore, our system offers robust protection for products and equipment which leads to better product quality and operations efficiency.



Designed with flexibility in mind

The CC X-Series is offered in various configurations and sizes tailored to meet specific requirements and according to regional market needs.



Camfil air cleaners

Proven and trusted in a wide array of industrial applications


Camfil industrial air cleaners are the ideal solution for air quality problems within your facility and have been specially designed for industrial environments. With longer filter lifetime and larger dust holding capacity than any other air cleaner, the CC X-Series ensures performance and product life. Camfil CC X-Series Air Cleaners are designed to supplement your HVAC system to not only protect your people, products and processes but also reduce energy consumption.





Food and beverage industry


Clean air is a vital ingredient in the final product, regardless of what food is being produced and packaged. The presence of contaminants in food and beverage production can threaten the reputation of a brand name that has taken years to establish. This is why it is important to ensure compliance with any applicable standards and to ensure regular validation of equipment and processes along with the air filters.

If the HVAC system in your facility is poorly maintained or the filtration system is not providing sufficiently suitable air quality, the entire production process is at risk of being compromised. At the very least poor air quality could create unwanted results such as early product spoilage. At the worst, it could spell disaster in the form of contaminated product. Air filters act as a barrier between food and microbiological cross-contamination from mold, bacteria, viruses, VOCs, fine dusts from dry ingredients and odors. Molecular air filtration can improve the equipment resistance to corrosion at the food and beverage production facility while also ensuring problematic odors are captured at the source and do not escape into the surrounding atmosphere.

 **Health**
Clean air increases the well-being and the productivity of employees and reduces sick leave.

 **Compliance**
Good IAQ contributes to food safety standards compliance.

 **Cost savings**
Gain operational efficiency and cut production downtime or product loss. Cleaning costs can also be reduced.

 **Satisfied customers**
Contribute to enhanced customer food experience, less claims from end consumers.

 **Energy consumption**
Best industrial air cleaner with the longest filter lifetime and best total cost of ownership (TCO).





Logistics and warehouses

Warehouses store more than just goods. Dust, dirt and harmful particles are more the rule than the exception for logistics management companies. Besides truck traffic, sources of dust include goods handling, sorting machines, street dust, and outdoor air pollution and pollen. Bacteria, dust, viruses and harmful particles in the air can cause itchy eyes, headaches, blocked noses and can give rise to asthma and irritation of the respiratory tract.

Poor IAQ control can also affect the goods stored inside warehouses. With stock moved on a daily basis, stored components and other items soon gather dust. This can pose the risk of damage when the components undergo further processing and even reduce your production yield rate.

Moreover, it is crucial to protect conveyor belts and packing areas from these contaminants to ensure smooth operation. Equally important is safeguarding sensitive areas such as robot warehouses that rely on optical sensors for functionality. These high-tech zones require stringent measures against particulate interference to maintain optimal performance.



Health

By effectively removing harmful particles, especially those as small as PM1, well-being and productivity improves thereby reducing sick leave.



Enhanced product quality

Reduces risk of damage to product from dusts, dirt and harmful particles.



Cost savings

High air changes per hour (ACH) decrease the need for cleaning and reduce maintenance requirements, leading to less downtime, saving both time and money.



Satisfied customers

Air cleaners extend the shelf life of products, leading to greater customer satisfaction and fewer claims from end-users.



Lowest energy consumption

Industrial air cleaners with long-lasting filters offer the best total cost of ownership (TCO), leading to energy savings.

Production and assembly industry

In the manufacturing industry, small particles significantly impact product quality, machinery performance, and employee health. While capturing all fine dust at the source is often challenging, the CC X-Series offers an ideal solution. Additionally, specific ISO cleanroom classes (ISO 14644) are necessary in industries like medical device production and assembly.

Camfil Air Filters' extraordinary performance will efficiently capture various types of fine dust and provide excellent resistance to oil mist and emulsion.

Especially in the industrial field, dust collectors or oil separators are often used to capture most sources of the particles. However, it can be difficult to capture all of the hazardous particles being produced. The CC X-Series is the perfect supplemental solution to dust collectors and HVAC systems.



Reliability & cost saving

Enhanced equipment reliability, resulting in reduced maintenance and safer cleaning procedures, ultimately saving costs.



Health

In the industry, harmful airborne substances are often present, leading to "Black Nose Syndrome" characterized by the buildup of dark nasal mucus. A significant enhancement in environmental conditions has been observed to result in improved well-being, which results in the prevention of "Black Nose Syndrome".



Compliance

Good IAQ contributes to safety and quality standards compliance.



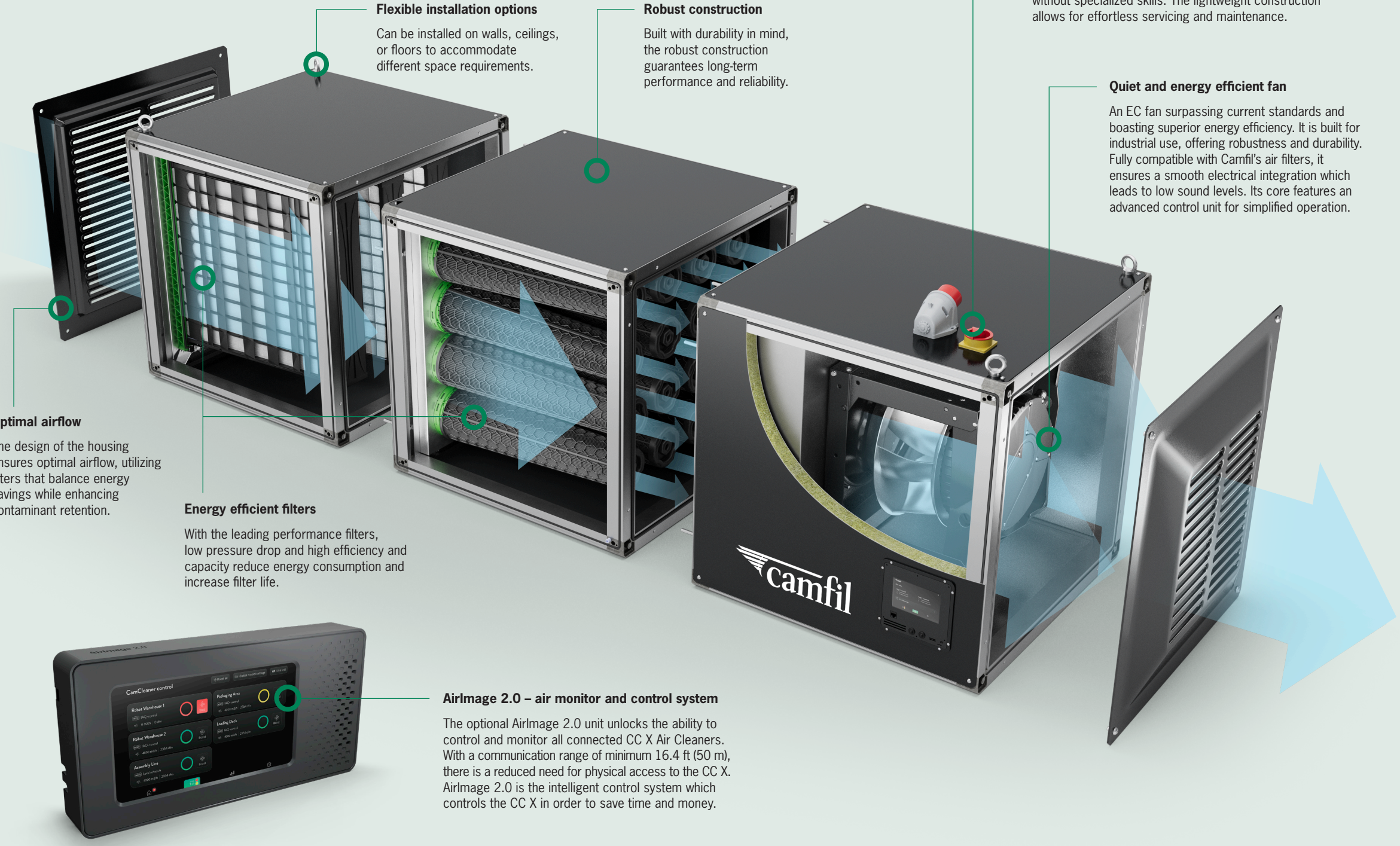
Reduction of gases

Our unique molecular carbon solution helps prevent corrosion, minimize odors, and filter out harmful gases from the air.



CC X-Series – designed for optimal efficiency

The intelligent air cleaning solution – customizable for your specific industrial environments



Optimal airflow
The design of the housing ensures optimal airflow, utilizing filters that balance energy savings while enhancing contaminant retention.

Energy efficient filters
With the leading performance filters, low pressure drop and high efficiency and capacity reduce energy consumption and increase filter life.

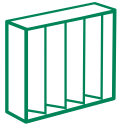
Flexible installation options
Can be installed on walls, ceilings, or floors to accommodate different space requirements.

Robust construction
Built with durability in mind, the robust construction guarantees long-term performance and reliability.

Plug-and-play installation and easy maintenance
The system is designed for straightforward setup, ensuring that it can be quickly and efficiently installed without specialized skills. The lightweight construction allows for effortless servicing and maintenance.

Quiet and energy efficient fan
An EC fan surpassing current standards and boasting superior energy efficiency. It is built for industrial use, offering robustness and durability. Fully compatible with Camfil's air filters, it ensures a smooth electrical integration which leads to low sound levels. Its core features an advanced control unit for simplified operation.

Airlmage 2.0 – air monitor and control system
The optional Airlmage 2.0 unit unlocks the ability to control and monitor all connected CC X Air Cleaners. With a communication range of minimum 16.4 ft (50 m), there is a reduced need for physical access to the CC X. Airlmage 2.0 is the intelligent control system which controls the CC X in order to save time and money.



Best lifetime filters
Camfil's filters are optimized for capturing PM1 particles, ensuring the highest clean air rate available. With industry-leading service life and minimal maintenance needs our high dust holding capacity means fewer replacements are required.



Best Total Cost of Ownership (TCO)
Our filters strike an optimal balance between energy consumption and longevity, addressing the often overlooked running costs of your investment. Our filters undergo external testing to ensure reliability – what you see on the box is exactly what you get. Energy efficiency is embedded in Camfil's DNA, so we encourage you to compare our products with competitors.



State of the art communication
The CC X-Series integrates seamlessly with BMS systems via BacNet or Modbus. Control is simplified through the Airlmage 2.0 or the Airlmage IoT platform.



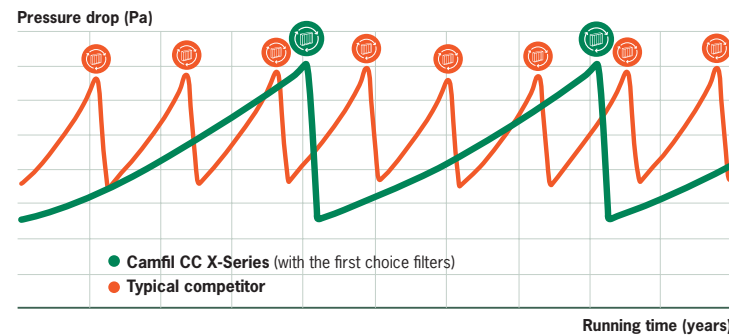
Easy Installation
Featuring a superior industry design that complements any setting, Camfil Air Cleaners are designed for easy installation on walls or ceilings with plug-and-play solutions.

Lower your operational and service costs with class-leading total cost of ownership (TCO)

Realize large cost savings through fewer filter changes and service visits



Compared to a typical competitor, Camfil Air Cleaners can achieve three times longer running time between filter changes resulting in a significant saving in the service cost of your units. Thanks to Camfil's excellent filter lifetime and high performance with low pressure drop, you will also benefit from lower energy consumption.



Further reduce running costs by allowing Airmage 2.0 to automate your CC X-Series



The intelligent Airmage 2.0 control system continuously monitors air quality and automatically decides when and at what fan speed the CC X needs to run. This ensures high Indoor Air Quality and efficiency while maximizing filter lifetime, lowering maintenance, cleaning costs, downtime and energy consumption is always optimized.



Good.
CamCleaner running continuously



Annual running time: **8.700 hours**

Total Cost of Ownership: **100%***


Better.
CC X using the Scheduling function of the inbuilt control



Annual running time: **5.200 hours**

Total Cost of Ownership: **70%***

Best.
CC X with Airmage 2.0 using control via IAQ



Annual running time: **2.000 hours**

Total Cost of Ownership: **43%***

*Comparison based on Swedish electricity prices

Airmage 2.0 – air monitor and control system

Monitor IAQ and control your CC X for maximum savings



Remote control for convenient operation

Effortlessly monitor all connected CC X-series units without the need for physical access, eliminating the use of ladders or scissor lifts.



IAQ monitoring and control

Monitor your IAQ historical data to create reports and take action to improve the IAQ. Manage operations based on air quality to save energy and reduce running costs. The system activates only when indoor air quality deteriorates to pre-set levels.



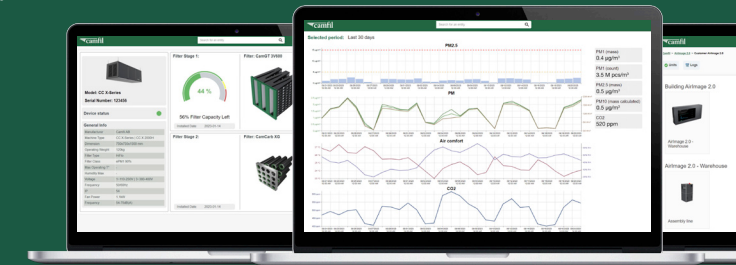
Efficient filter changes

When connected, Airmage 2.0 continuously tracks the current status of the filters in the CC X and calculates the optimal change time and alerts on changes through the notification system.



Connectivity for easy management

Seamless integration through ModBus or BacNet with Building Management Systems (BMS), or cloud connectivity. The setup is straightforward and user-friendly, supporting industry-standard filtration processes.



Cloud portal

All your IAQ data and connected equipment status is always available at a glance – wherever you are – with the Airmage 2.0 cloud portal.



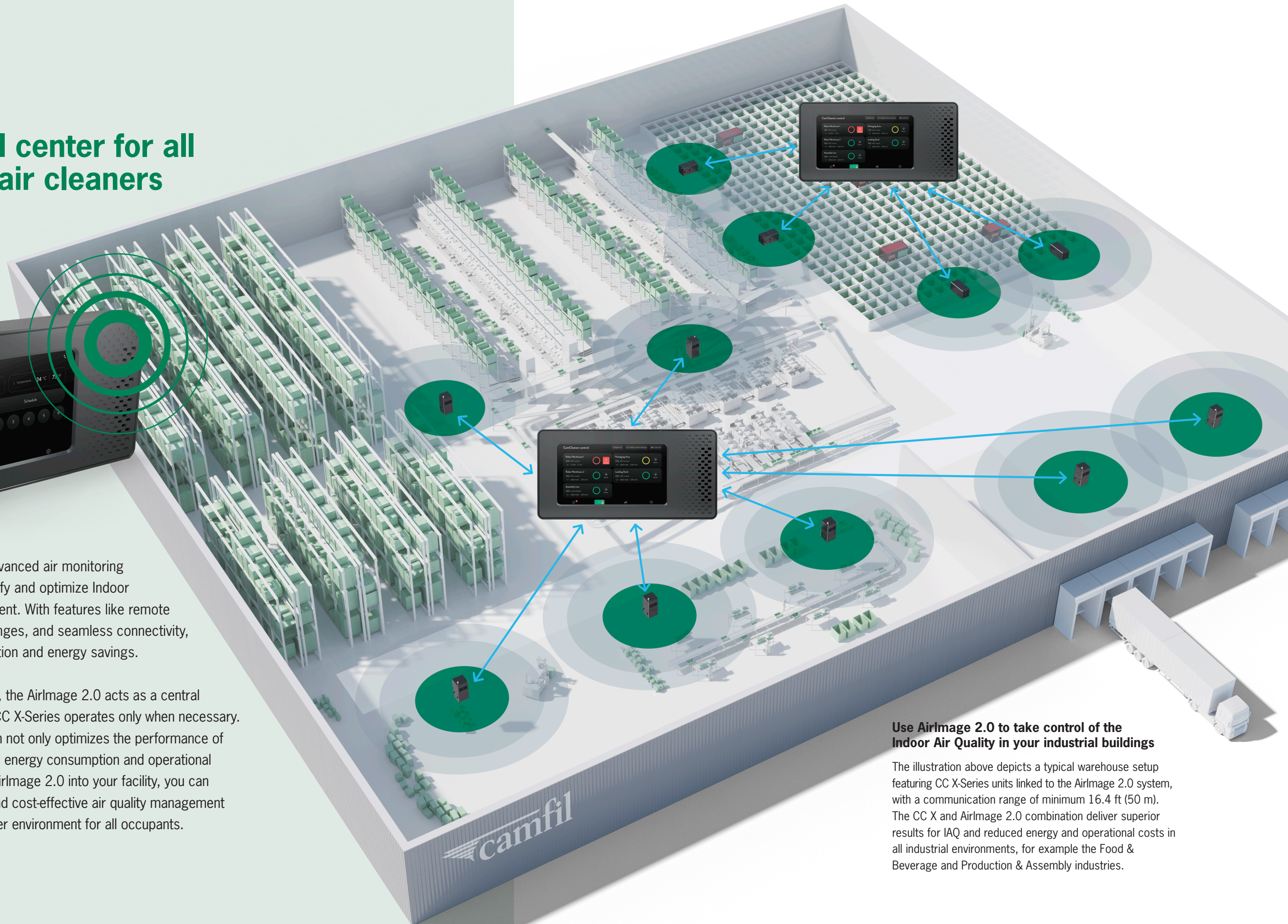
AirImage 2.0

The control center for all your CC X air cleaners



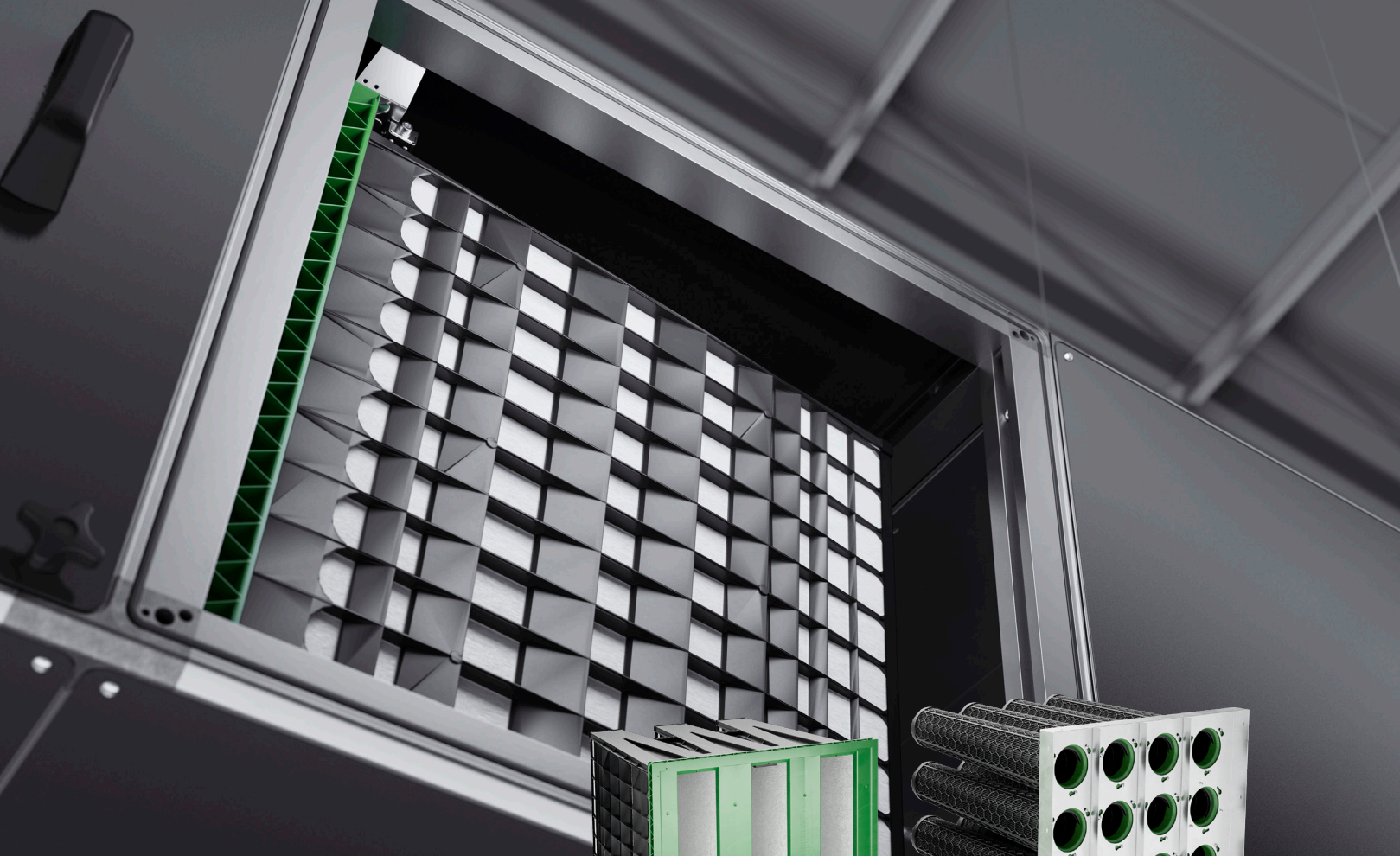
The AirImage 2.0 is an advanced air monitoring system designed to simplify and optimize Indoor Air Quality (IAQ) management. With features like remote control, efficient filter changes, and seamless connectivity, it offers convenient operation and energy savings.

When paired with the CC X, the AirImage 2.0 acts as a central control hub, ensuring the CC X-Series operates only when necessary. This intelligent coordination not only optimizes the performance of the air cleaner but reduces energy consumption and operational costs. By integrating the AirImage 2.0 into your facility, you can achieve a more efficient and cost-effective air quality management system, ensuring a healthier environment for all occupants.



Use AirImage 2.0 to take control of the Indoor Air Quality in your industrial buildings

The illustration above depicts a typical warehouse setup featuring CC X-Series units linked to the AirImage 2.0 system, with a communication range of minimum 16.4 ft (50 m). The CC X and AirImage 2.0 combination deliver superior results for IAQ and reduced energy and operational costs in all industrial environments, for example the Food & Beverage and Production & Assembly industries.



Filter selection

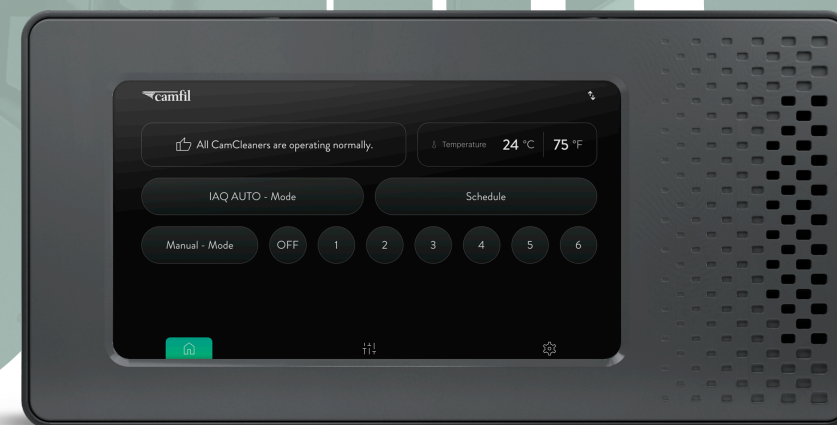
Filtration performance you can trust in all conditions

At Camfil, our customers' health and the quality of our products are our number one priority. That is why PM1 filters are the preferred solution – the premier choice for capturing the smallest and most invasive particles. Our focus on PM1 filtration guarantees that critical sectors like food and beverage, as well as medical devices, receive unmatched protection.

We understand the importance of delivering the highest clean air rate from a PM1 perspective. Our specialized filters are engineered to provide optimal clean air delivery with minimal pressure drop, ensuring a consistent supply of clean air that enhances efficiency and reduces energy consumption. By choosing our filters, you ensure the best possible clean air rate, safeguarding health, products, and the environment.

For various applications involving gases, we offer conical, corrosion-resistant molecular filters filled with Camfil's activated alumina or activated carbon. These versatile gas-phase air filters are suitable across commercial, industrial, and process applications. Their design ensures the best total cost of ownership for removing corrosive, odorous, and irritant gases.

Our commitment to clean air goes hand in hand with our dedication to sustainability. We take pride in our filters' industry-leading performance and energy efficiency.



Camfil – a Global Leader in Air Filters and Clean Air Solutions.

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment.

We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That's why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing sites, six R&D centers, local sales offices in 35+ countries, and about 5,700 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you protect people, processes and the environment, visit us at www.camfil.com.

www.camfil.us



www.camfil.com

For further information please contact your nearest Camfil office.