



# air cleaners

Intelligent control system for optimal performance

# 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, The CC X-Series offers robust protection for products and equipment which leads to better product quality and operations efficiency.





2 Camfil – CC X-Series 3

# Camfil air cleaners

# Proven and trusted in a wide range 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.



#### Designed with flexibility in mind

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

# 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 current standards (e.g. ISO 14644) 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 in the food that is produced like high absenteeism and early product spoilage. At the worst, it could spell disaster in the form of contaminated product, poorly packaged food items. Air filters act as a barrier between food and microbiological cross-contamination from mould, bacteria, viruses, VOCs, fine dusts from dry ingredients and odours. Molecular air filtration can improve the equipment resistance to corrosion at the food and beverage production facility while also ensuring problematic odours are captured at the source and do not escape into the surrounding atmosphere.



#### Health

Clean air increases the wellbeing and 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



4 Camfil – CC X-Series Camfil – CC X-Series 5



# **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.



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 lifespan of products, leading to greater customer satisfaction and fewer claims from end-users.



## Lowest energy consumption

Industrial air cleaners with longlasting 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 time and safer cleaning procedures, ultimately saving costs.



#### Health

In the industry, harmful airborne substances are often present, leading to "Black Nose Syndrome", characterised by the build up 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".



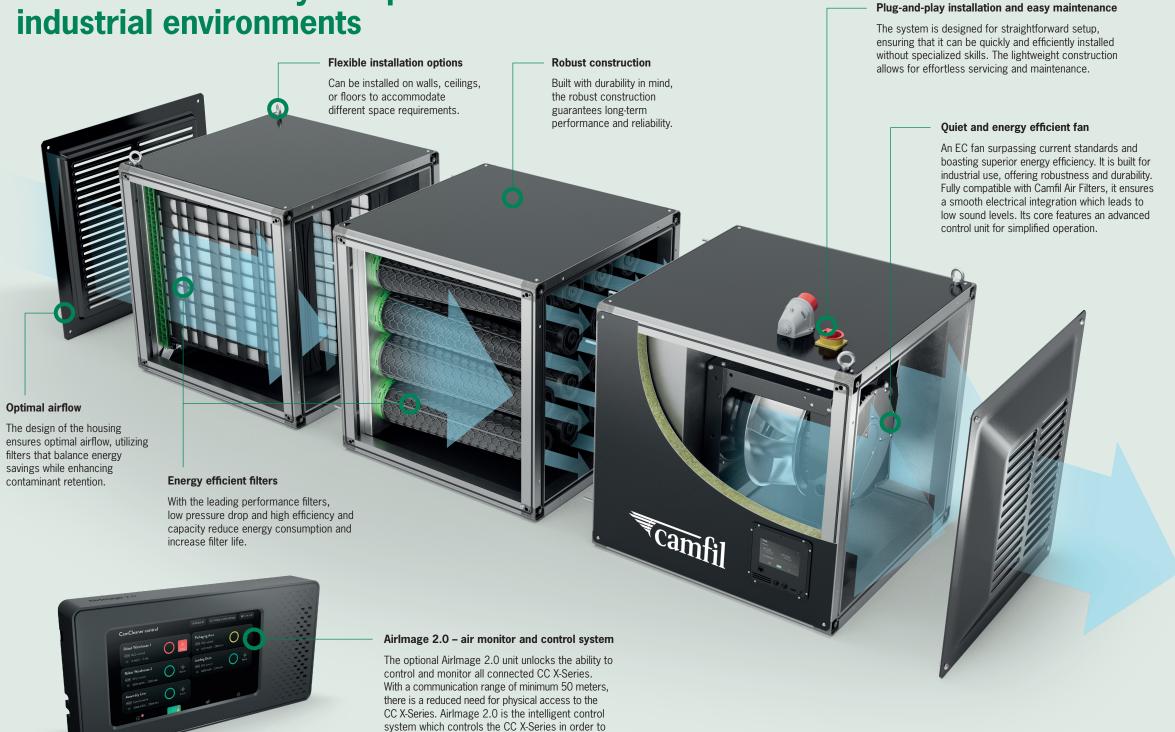
#### Compliance



6 Camfil - CC X-Series Camfil – CC X-Series 7

# **CC X-Series – designed for optimal efficiency**

# The intelligent air cleaning solution – customisable for your specific industrial environments



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 Owner-ship (TCO) on the market**

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 loT 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.

8 Camfil – CC X-Series Camfil – CC X-Series 9

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

# Realise large cost savings through fewer filter changes and service visits



Compared to a typical industrial air cleaners, the CC X-Series can achieve 3 times longer running time between filter changes resulting in a significant saving in the service cost of your units. Thanks to our filters excellent lifetime and high performance with low pressure drop you will also benefit from lower energy consumption.



Running time (years)

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



The intelligent Airlmage 2.0 control system continously monitors air quality and automatically decides when and at what fan speed the CC X-Series needs to run. This guarantees the Indoor Air Quality of your building and efficiency of the unit while also ensuring that filter lifetime, maintenance and cleaning costs, downtime and energy consumption is always optimized.





running time:

8.700 hours











running time: 5.200 hours

2.000 hours



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





**Total Cost** of Ownership: 43%

\*Comparison based on Swedish electricity prices

# Airlmage 2.0 – air monitor and control system

# Monitor IAQ and control your **CC X-Series 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.

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Montitor your IAQ histrorical 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.

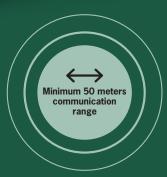


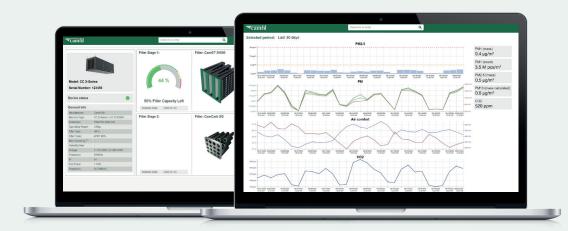
When connected, Airlmage 2.0 continously tracks the current status of the filters in the CC X-Series and calculates the optimal change time and alerts on changes through the notification system.

# **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.



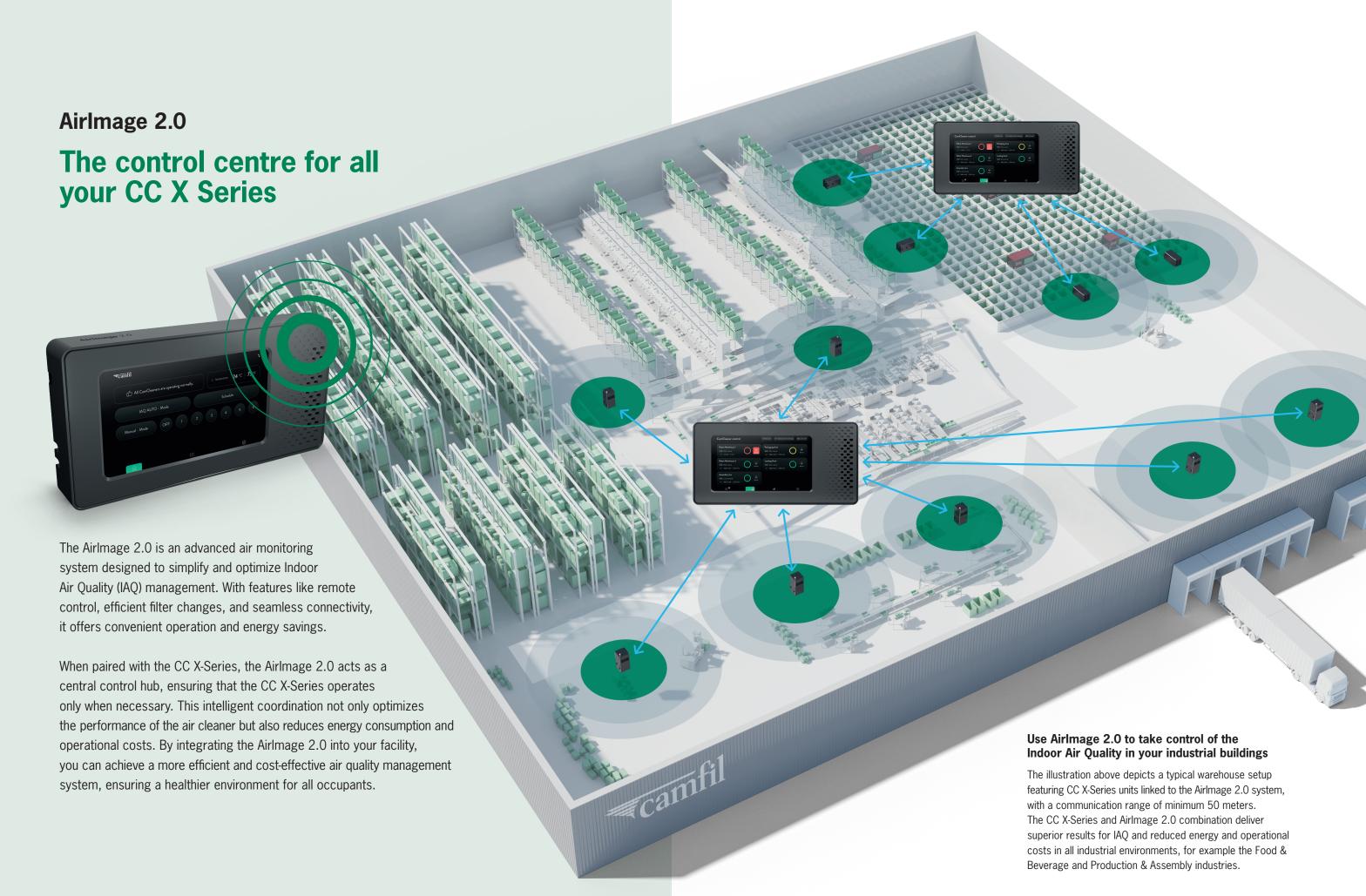




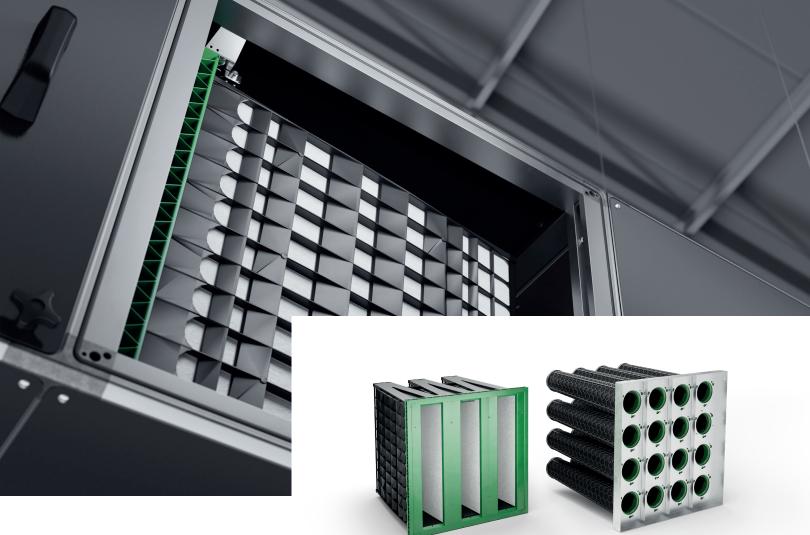
## Cloud portal

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

10 Camfil - CC X-Series Camfil - CC X-Series 11



12 Camfil – CC X-Series 13



# **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 PM 1 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 specialised 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, minimise energy use, and benefit human health and the environment.

To discover how Camfil can help you to protect people, processes and the environment, visit us at camfil.com