



# Ventilation for professional kitchens

   JUST BREATHE





# Introduction

## Expert in ventilation solutions for critical environments

Airvance Group is a leading designer and manufacturer of ventilation solutions for the most demanding and critical environments.

With 9 production facilities, 8 of which are located in France, the group develops innovative systems specifically adapted to the constraints of industry, hospital hygiene, and professional kitchens.

Our engineering teams design custom solutions that meet the strictest standards in air quality, safety, and energy efficiency.

Ranked among the top 5 European leaders in the ventilation sector, Airvance deploys its expertise across several countries and generates nearly 45% of its turnover internationally. This global footprint allows us to support our clients on their most complex projects, wherever air management is a critical issue.

## Ventilation for professional kitchens

For 50 years, we have been providing the commercial and mass catering industry with air handling and air conditioning systems designed for professional kitchens.

All capture methods for the food service industry are available, from traditional hood systems to ceiling systems with built-in cleaning.

We place the comfort of future users at the heart of our developments, while also taking into account the constraints faced by installers.

All our product innovations are created in-house at our factory and are subjected to real-world testing in our laboratory. Our expertise allows us to offer a complete range of technical solutions that guarantee quality and performance.



**Organic food shop**  
France



**Maison Greuze,**  
1-star michellin - France



**L'Ancienne Auberge -**  
Georges Blanc - France



**Le Pré aux Clercs - Georges**  
Blanc restaurant - France



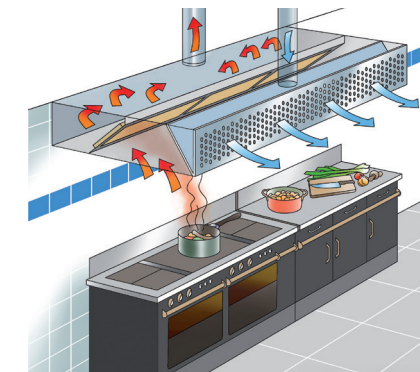
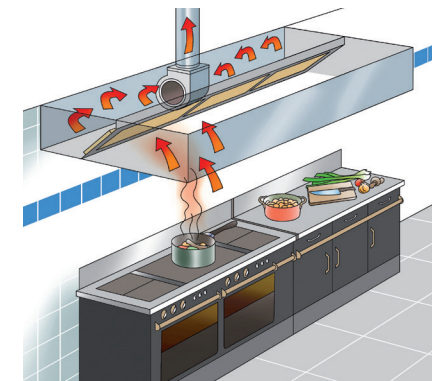
# Operating principle of hoods

## Static hoods/motorised single flow hoods

This traditional method only captures pollutants. In this configuration, the extraction fan can be installed in a remote configuration, in a duct or externally (static hood) or directly inside the hood plenum (motorised hood).

Compensation in this configuration must be put in place with independent systems.

The major advantage of this method is the low cost of investment.



## Compensation hoods

Compensation hoods, as with static ones, enable the extraction of pollutants, with the installation of a remote fan. The compensation casing also enables compensated air to be diffused via the hood visor.

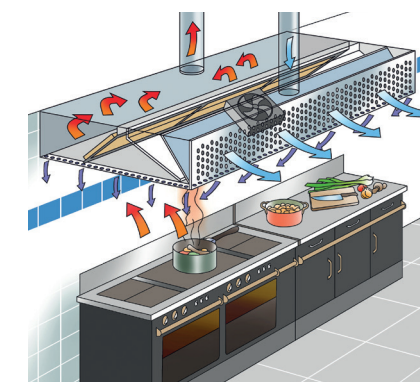
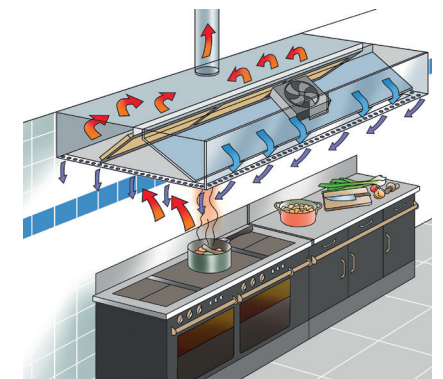
The major advantages of this principle are the low investment cost and the space savings with the diffusion system directly integrated into the hood.

## High efficiency forced air hoods (HP)

The forced air hood introduces a flow of air directly from the ambient atmosphere to the capture plenum to ensure greater pollutant extraction efficiency. Through air supply air nozzles inclined at 40° on the front panel, and mounted vertically on the side panels, the air is forced by an energy efficient motor built into the hood.

This capture technique maximises user comfort while making energy savings due to the:

- Reduced extraction flow rates necessary due to the increased capture efficiency resulting from the air barrier created by the forced air.
- Simplified deployment of the hood with a single network to be installed for extraction.



## High efficiency forced air and compensation hoods (HPC)

This method integrates a compensation flow in addition to the forced air flow. This adds pretreated fresh air (+ 18°C) to compensate fully or partially for the extraction, as close as possible to the working area.

Low-speed blowing opposite the capture avoids disrupting the smoke and allows the flow of air to warm up in the ambient air before coming into contact with the operators.

The solutions combining forced air and compensation are particularly suitable for use in kitchens requiring high extraction and compensation flow rates.



# Our range of professional hoods

## MAÏA®

The MAÏA® range represents our premium line of professional kitchen hoods, with its fully welded stainless steel construction that ensures complete air and water tightness. MAÏA® range delivers superior robustness through its welded construction, making it ideal for intensive commercial and institutional kitchens with significant pollutant loads.



### MAÏA® STATIC

Engineering excellence in welded stainless steel construction with enhanced containment capabilities. The premium solution for medium-sized professional kitchens requiring superior durability and pollutant control in a static extraction system.



### MAÏA® COMPENSATION

Premium welded construction with integrated compensation plenum delivering controlled fresh air distribution, engineered for enclosed professional kitchens where thermal balance and air quality demand the highest standards of performance.



### MAÏA® PULSE (HP)

Advanced pulsed air technology in a fully welded structure that reduces extraction requirements by 30% while maximizing pollutant capture. Designed for highperformance commercial kitchens where energy efficiency cannot compromise extraction quality.



### MAÏA® PULSE COMPENSATION (HPC)

The ultimate kitchen ventilation solution combining high-efficiency pulsed air technology with integrated fresh air compensation in a welded stainless steel structure. Perfect for intensive professional kitchens requiring both superior pollutant capture and balanced airflow management.



## MAÏA® OVEN

Purpose-built oven hood with welded stainless steel construction for maximum heat and steam capture. The definitive solution for professional bakery and cooking environments generating intense thermal loads and vapor challenges.



## MAÏA® LAVAIR

Specialized humidity management in a fully welded structure with reinforced sealing and all-stainless steel components. Specifically designed for commercial dishwashing areas where moisture control and durability are mission-critical.

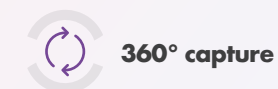
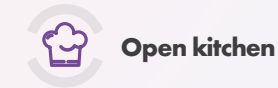


## ATRIA® : versatile standard solutions

Need a cost-effective alternative? ATRIA® range offers assembled 8/10e stainless steel construction with flexible canopy heights (250mm to 500mm) and the same functional variants as MAÏA. The range also includes differentiated products like the ATRIA® Pulse Island, specifically designed for "Scramble" and central cooking stations. While not featuring welded construction, ATRIA® delivers reliable extraction performance for medium-duty commercial kitchens where adaptability and value are key priorities.

### ATRIA® ISLAND PULSE (HP)

360-degree capture excellence with aesthetic refinement for central cooking stations, transforming open-concept "Scramble" kitchens into showpieces of efficiency and design.





# Specific professional kitchen hoods

Beyond their standard ATRIA® and MAÏA® collections, we have developed innovative, application-specific extraction systems that combine cutting-edge technology with targeted functionality.



## DEOX EVO

Low-profile Plug & Play motorized hood with integrated control system and reduced canopy height of just 250mm, offering a complete turnkey extraction solution for small to medium kitchens with limited ceiling height where quick installation, compact dimensions, and simplified maintenance are essential.



Plug & Play



Low profile



Integrated controls



## AQUILA®

Premium welded stainless steel hood with integrated automatic filter washing system available in multiple configurations (Static, Compensation, Pulse HP, and Pulse HP Compensation)—combining superior extraction performance with maintenance-free operation for intensive commercial kitchens where continuous operation, airflow adaptability, and hygiene are non-negotiable.



Welded construction



Water-tight



Self-cleaning



## BRASERIA

Specialized hood with integrated flame extinguishing system activated by infrared temperature detection. Specifically engineered for high-temperature cooking applications like grills, charcoal ovens, and barbecues where fire risk management is critical.



Grill specialist



Temperature monitoring



Water-saving



## ALTO® FRYER

Compact, targeted extraction hood designed specifically for fryers with optimized airflow patterns, reducing extraction requirements by up to 66% compared to conventional hoods while ensuring maximum capture efficiency directly at the pollution source.



Fryer-specific



Compact design



Targeted extraction



## CLEAN LIGHT®

Advanced UV-C technology hood that neutralizes grease particles and odors through photolysis and ozonolysis—ideal for street food, fried food outlets, and grill restaurants where odor control and reduced duct maintenance are primary concerns.



UV-C technology



Odor elimination



Reduced maintenance

# Kitchen ceiling systems

Our innovative ceiling extraction systems represent a paradigm shift in professional kitchen ventilation, transforming traditional overhead extraction into architectural elements that harmonize form and function. Moving beyond conventional hood designs, our sophisticated ceiling solutions create unobstructed sightlines and optimize kitchen space while delivering superior pollutant capture across the entire cooking area.



## SPACIO®

Elegant ceiling-mounted hood designed for show kitchens with installation heights up to 2.6m and customizable ambient lighting options. Ideal for open-concept restaurant designs where aesthetics and customer visibility are as important as extraction performance.



## STARSPACE®

Premium 100% welded flat ceiling system with invisible filters, 360° extraction, and customizable LED lighting effects. The signature solution for high-end restaurants and luxury hospitality venues where architectural integration, acoustic comfort, and visual aesthetics are paramount.



## NEOSPACE® & LUMISPACE®

Neospace and Lumispace systems represent the evolution of ceiling filtration technology for professional kitchens, sharing a common closed plenum design.

The compact Neospace, with its streamlined 300mm profile, delivers efficient full-coverage extraction and integrated LED lighting for kitchens prioritizing space optimization and discreet aesthetics.

Lumispace, elevates the concept with an automated filter washing system housed within its slightly taller 370mm profile—eliminating manual cleaning requirements and ensuring continuous high-performance operation in intensive cooking environments.



# Ventilation and extraction systems

Ventilation and extraction units are the backbone of any professional kitchen environment, ensuring the removal of heat, steam, grease, and odors while maintaining optimal air quality and comfort for staff. Our added value lies in its ability to provide complete customized solutions that combine superior performance with energy efficiency, reducing operational costs by up to 70% while ensuring kitchen safety and comfort. With modular designs, intelligent control systems, and dedicated technical support, we position ourselves as the trusted partner for kitchen professionals seeking reliable, efficient, and sustainable ventilation solutions.

## EXTRACTION AND VENTILATION UNITS



### CULINAIR®

Cost-effective ventilation solution in galvanised steel for small to medium kitchens, delivering reliable performance with minimal space requirements and simplified maintenance. The Culinair range includes 5 distinct models with airflow capacities ranging from 190 m³/h to 4,000 m³/h, available in two motor technologies (AC or EC).



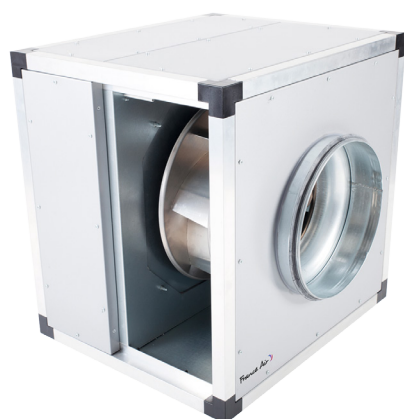
**Budget-friendly**



**Space-saving**



**Low maintenance**



### CULIVAP ECM

Culivap ECM is a specialized ventilation unit engineered specifically for hot and humid environments in professional kitchens. This high-performance solution combines advanced ECM motor technology with robust construction to withstand the challenging conditions of commercial dishwashing areas, steam rooms, and other high-moisture kitchen zones. The Culivap ECM range includes 3 distinct sizes with airflow capacities ranging from 0 to 4,000 m³/h.



**Heat resistant**



**Humidity proof**



**Energy efficient**



**25mm insulation**

### NOVATYS® FLAT ECM

Novatys® Flat ECM is an ultra-thin, double-skin supply air unit specifically designed for professional kitchens where fresh air introduction, filtration, and pre-heating are essential for staff comfort and operational efficiency. This all-in-one solution combines a remarkably slim profile with advanced air treatment capabilities, making it ideal for kitchen renovations and new installations with limited ceiling space. The unit's comprehensive design integrates ventilation, filtration, and heating functions in a single compact package.



**Ultra-thin**



**Integrated heating**



**Fresh air filtration**



**Multi-position installation**



**25mm insulation**



## FIRE-RATED VENTILATION UNITS

Fire-rated ventilation and extraction units represent a crucial safety component in professional kitchen environments, where the risk of grease fires poses a significant threat to both property and lives. These specialized systems are certified to maintain operation during fire conditions (F400-120 certification), extracting smoke and heat at temperatures up to 400°C for 120 minutes, providing vital time for evacuation and firefighting efforts.

### SIMOUN®/SIMOUN® ECM

The SIMOUN® range offers dual-purpose roof extractors that combine daily ventilation with emergency smoke extraction. The standard version provides high-capacity airflow up to 34,000 m³/h, while the ECM version features energy-efficient motor technology that significantly reduces power consumption. Both models are certified for 400°C/120min operation, ensuring regulatory compliance while the pre-wired controls simplify installation. Ideal for commercial kitchens balancing operational efficiency with mandatory fire safety requirements.



**F400-120 certified**



**Comfort/emergency dual-use**



**Acoustic kit (-6dB)**



### DEFUMAIR® AC / DEFUMAIR® ECM

The DEFUMAIR® series provides certified fire-rated extraction units specifically designed for professional kitchens. Both models feature a tilting turbine system for easy maintenance and effective grease management, with capacities from 1,000 to 6,000 m³/h. The standard AC version offers reliable performance for high-grease environments, while the ECM version adds energy-efficient motor technology with remote electronics for enhanced reliability and reduced operating costs. Perfect for operations requiring certified fire safety compliance with either standard functionality or advanced energy savings.



**F400-120 certified**



**Grease management**



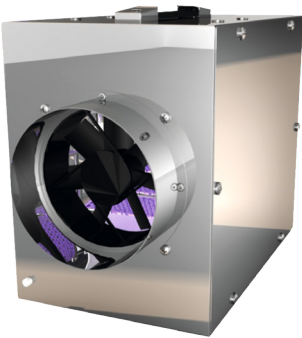
**Easy-clean design**





# AIR TREATMENT SYSTEMS FOR PROFESSIONAL KITCHENS

Air treatment systems are essential in modern kitchen ventilation, addressing two critical challenges: odor control, which prevents cooking smells from affecting neighboring spaces; and grease management, which reduces fire hazards, extends equipment life, and minimizes maintenance costs.



## ODOR LIGHT® 2

ODOR LIGHT® 2 uses ozonation technology to eliminate both odors and grease within kitchen extraction ducts. This compact system installs easily on existing ventilation, automatically activating with kitchen operation. Ideal for restaurants in mixed-use buildings and operations where odor control is essential for customer experience and neighborhood relations.



Odor elimination



Grease breakdown



Simple installation



## OLFACARB® 2

OLFACARB® 2 is an activated carbon filtration system available in static or motorized versions that eliminates cooking odors from kitchen exhaust. Featuring rechargeable cartridges and optional pre-filtration, it's perfect for restaurants in mixed-use buildings and operations using strong-smelling ingredients where odor control is critical for both customer experience and neighborhood relations.



Rechargeable cartridges



Pre-filtration capability



Optional motorization

# CONTROL SYSTEMS

Control systems are the intelligent core of modern professional kitchen ventilation, automatically adjusting airflow based on actual cooking activity through temperature and humidity sensors. We offers complementary control solutions ranging from simple local controls to sophisticated automation systems.



## EVOLYS COOK/VARIONYS COOK

User-friendly local control interfaces for professional kitchen hoods, available in two versions: Evolys Cook for EC motors and Varionys Cook for AC motors. These robust controllers offer intuitive operation with essential functions including ventilation on/off, boost mode for high-intensity cooking periods, and manual airflow adjustment to match kitchen activity. Ideal for small to medium restaurants, cafeterias, and food service operations requiring straightforward, reliable control of kitchen ventilation without complex automation. The waterproof design makes them particularly suitable for humid kitchen environments.



User-friendly



IP54 waterproof



Integrated lighting control

## SENSEO DRIVE

A specialized frequency inverter designed specifically for ventilation applications in professional kitchens, pre-configured at the factory for simplified installation and operation. With its IP66-rated enclosure and tropicalized circuit boards, Senseo Drive provides reliable motor speed control even in humid, greasy kitchen environments. Perfect for kitchen retrofits and upgrades requiring precise control of standard three-phase (400V) or single-phase (230V) motors, particularly in challenging environments where conventional electronics would quickly deteriorate.



IP66 protection



Pre-configured



Grease/acid resistant



## KWIXO®

Kwixo® systems provide single-zone solutions with energy savings up to 70%, enhanced chef comfort, and critical safety features like emergency smoke evacuation and gas valve shutdown. Suitable for a wide range of food service operations from small restaurants to large hotel kitchens, particularly those seeking to reduce energy consumption without compromising ventilation performance.



Single-zone solution



Automatic modulation



Energy savings



## CUISINYS®

Cuisinys® systems delivers sophisticated multi-zone control for complex kitchens with distinct cooking sections, enabling independent airflow management across different areas through motorized dampers while using a single extraction and supply unit. Designed for large commercial kitchens with distinct cooking sections, hotel and resort operations with varied food preparation areas, and institutional facilities requiring zone-specific ventilation control based on actual usage patterns rather than maximum capacity.



Multi-zone management



Zone-specific control





## AIRVANCE GROUP: YOUR EXPERT PARTNER IN PROFESSIONAL KITCHEN VENTILATION

As a leading French manufacturer, we deliver solutions that combine performance, energy efficiency, and regulatory compliance. Our specialists understand the unique challenges of commercial kitchen environments, from heat management to odor control, ensuring optimal working conditions while minimizing environmental impact.



### Made in France Quality

Our French manufacturing facilities deliver excellence through:

- Certified fire-rated equipment (400°C for up to 120 minutes),
- Corrosion-resistant stainless steel for demanding environments,
- Custom-engineered solutions for specific project requirements.



### Tailored Solutions for Every Kitchen

We create customized ventilation systems for projects of all sizes:

- Custom-sized hoods and ceiling systems,
- Specialized extraction for unique cooking equipment,
- Adaptable control systems for various operational patterns.



### Engineering Expertise & Design Tools

Our technical team supports your projects with specialized knowledge and advanced tools:

- Expert engineering support from concept to completion,
- AIRGICOOK®: Specialized dimensioning software for professional kitchen ventilation,
- Free CAD/BIM library with detailed 3D models of all products.





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