



MODERN INDUSTRIAL KITCHEN VENTILATION



Aturala®



Dear business partners

For over 30 years, ATREA has been synonymous with state-of-the-art ventilation for professional kitchens. During this time, we have completed more than a thousand projects in the Czech Republic and abroad, and have become a respected partner in the field of ventilation for catering establishments.

Our many years of experience, technical know-how and continuous development enable us to deliver modern, efficient and reliable solutions that reflect the latest trends in the catering industry. This catalogue will introduce you not only to our new products, but also to our comprehensive approach to the design and implementation of ventilation systems for both small and large kitchen operations.

The ATREA project team has prepared an overview of our complete product range for you — from extractor hoods through ventilation and air-conditioning ceilings to intelligent control systems. The catalogue also includes inspiring case studies of completed projects, accompanied by photographs and brief descriptions of each installation.

A significant trend in contemporary gastronomy is open kitchens, or 'show kitchens', which combine the experience of quality food with the atmosphere of a professional kitchen. It is here that high-quality ventilation plays a key role. Our solutions help create a comfortable environment for both guests and staff, whilst enhancing the prestige of modern restaurants and hotels.

Intelligent control is an integral part of every system. Kitchen operations are extremely demanding in terms of heat, humidity and air pollution, which is why we have developed a fully automatic control system designed specifically for catering establishments. Standard features include continuous power control based on current temperature and humidity, zoned ventilation, or, for example, intensive extraction from dishwashers and combi ovens.

Our aim is not merely to supply the technology, but to offer comprehensive technical support — from designing the ventilation capacity right through to creating the overall ventilation concept for the premises. Our services also include the preparation of a study, including a free indicative quote.

We believe that you will find inspiration and all the necessary information for your project in this catalogue. And if you need advice, our team of experts is at your full disposal.

You can find our contact details at the end of the catalogue or on our website www.atrea.en.

On behalf of ATREA s.r.o.

Ing. Daniel Morávek
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The History and Present of ATREA

ATREA was founded in 1990 by Ing. Petr Morávek, CSc., as a private Czech company specialising in the microclimate of buildings and waste heat recovery. Since its inception, it has built on specialist knowledge, technical innovations and many years of development in the field of energy-efficient ventilation. The company's founder is the author of a number of patents, copyright certificates and industrial designs, which have significantly contributed to the development of modern heat recovery systems.

From the outset, the company's main objective has been to develop technologies that deliver high efficiency, energy savings and a healthy indoor environment. Gradually, a product range was established based on the principles of heat recovery and intelligent ventilation control.

A significant milestone came in 1996, when the company was transformed into ATREA s. r. o. The company's dynamic growth subsequently continued through investment in development, production and modern technologies. In 2003, a new aerodynamic test facility, featuring the most advanced equipment in the Czech Republic, was commissioned, enabling further progress in the development and testing of ventilation equipment. At the same time, product certification in accordance with European standards was carried out in collaboration with TÜV Berlin, and business activities were expanded abroad.

In 2005, the sister company ATREA SK s. r. o. was established, which gradually took over technical and commercial representation on the Slovak market and strengthened the ATREA brand's position in Central Europe.

Today, ATREA ranks among Europe's leading manufacturers of ventilation and heat recovery systems. At its modern production and administrative-technical complex, covering an area of over 25,000 m², the company employs over 400 specialists and staff. The company continuously invests in development, production automation and innovation, enabling it to offer cutting-edge solutions that meet the highest demands of today's market.

ATREA is increasingly focusing on export, and today more than 60 percent of its production is destined for foreign markets across Europe. The company's products are regularly showcased at prestigious international trade fairs, where they are recognised not only for their technical quality and energy efficiency, but also for their modern design and sophisticated control systems.

ATREA's long-term vision is to create healthy, comfortable and energy-efficient environments for the buildings of the future.

more info www.atrea.en

Atrea® Leader in ventilation and heat recovery



METHODOLOGY FOR KITCHEN VENTILATION DESIGN

EN 16282

The principles of detailed calculation according to VDI 2052 have been adopted by the new European standard EN 16282. Although the new standard is based on the VDI standard, it may differ in certain aspects of the design, such as the recommended clearances for cooker hoods above the hob.

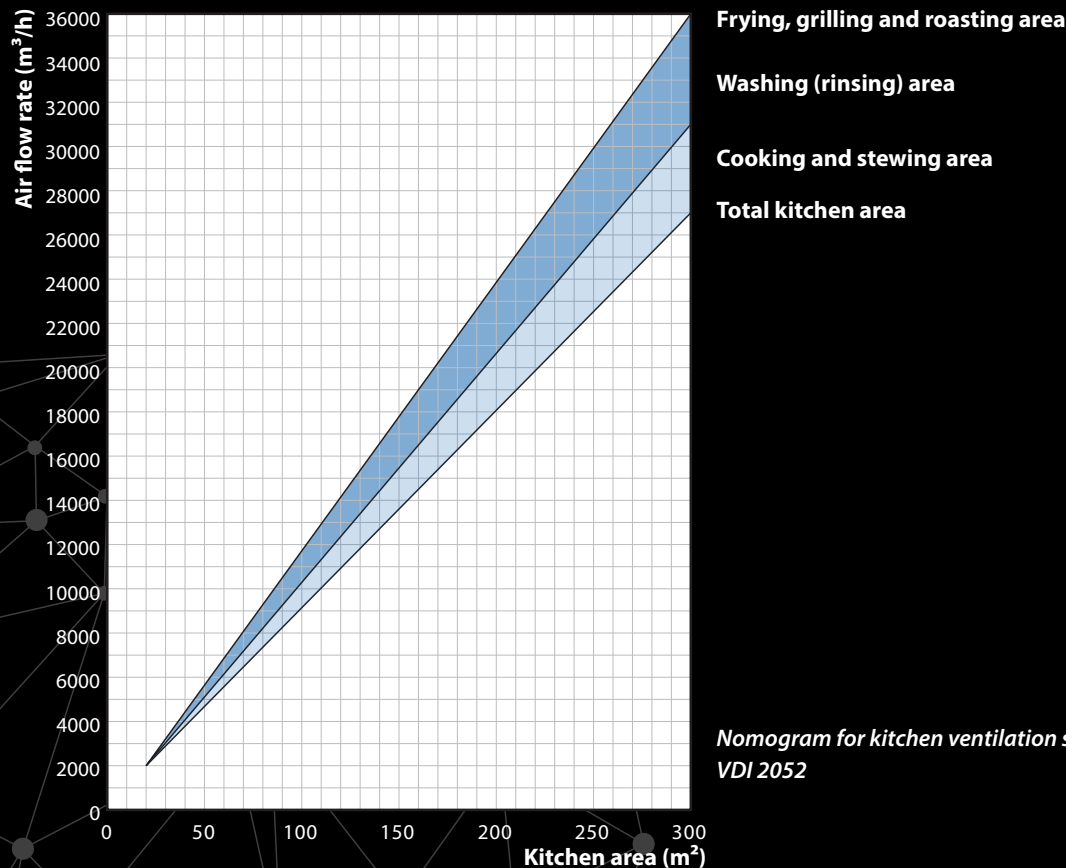
VDI 2052

The German VDI 2052 guideline is **historically the most widely used guideline for the design of kitchen ventilation systems**. Its provisions for kitchen ventilation design have been adopted not only by the Czech Republic but also by many other countries across Europe.

To carry out a calculation in accordance with VDI 2052, it is necessary to know several factors that influence the final calculation. The most important of these factors include:

- Kitchen area
- Kitchen workload
- Design of catering equipment (capacity and layout)
- State-of-the-art technology

Based on these parameters, it is then possible to design the most suitable and functional system for the given operation in accordance with the VDI procedure.



Nomogram for kitchen ventilation sizing in accordance with VDI 2052



ATREA offers its own design software, which is a very useful and practical tool not only for the correct selection of suitable DUPLEX air handling units, but also provides extensive technical support when determining the ventilation requirements for kitchen facilities.

Very positive feedback from designers across Europe is being used to further improve the software, with the aim of enabling quick and easy design.

A detailed design of each kitchen facility, in accordance with the latest regulations and standards, is provided as standard.

The software automatically checks whether the entire calculation and all components have been correctly designed and whether the selected system will function correctly. In this way, you can avoid potential errors as early as the design phase.

The design software allows calculations to be carried out in accordance with both VDI Guideline 2052 and the new EN 16282.

The software allows for the following settings or exports:

- Selection of ventilated ceilings, extractor hoods and air-handling units, including accessories
- Display of parameters for selected equipment and components
- Selection of a control system with associated components
- Electrical wiring diagram in the form of an installation report
- Display, printing and export of all system parameters including dimensional diagrams of components
- Cost calculation for the selected system
- Option to print or export to a PDF file
- Exporting data in DXF format in 2D or 3D
- Direct link to send via email
- Links the project to the Partner Zone on the internet
- **In addition, the design software includes the complete ATREA product catalogue in PDF format.**





ATREA SEPARATORS

HIGH-EFFICIENCY



ATREA AEROSOL SEPARATORS

The company's guiding principles have always been, and will always be, quality and efficiency. Through this catalogue, we would like to introduce you to our aerosol separators for kitchen operations, which meet these principles to the highest standard, even when compared with similar products on the European market.

ATREA offers two types of separators:

1. The lamellar separator has been part of our range for several years. Its design is so unique that, when the new standard for kitchen operations (EN 16282) was published, this separator already met its most stringent requirements. All the technical specifications for this separator can be found in a separate catalogue.

2. The cyclone separator is a cutting-edge new addition to our range. Thanks to its design, this separator ensures the separation of even the smallest aerosol particles in the air. At the same time, it is manufactured in such a way that, even with very high separation efficiency, it becomes clogged as little as possible by the separated aerosol. More detailed specifications can be found within this catalogue.

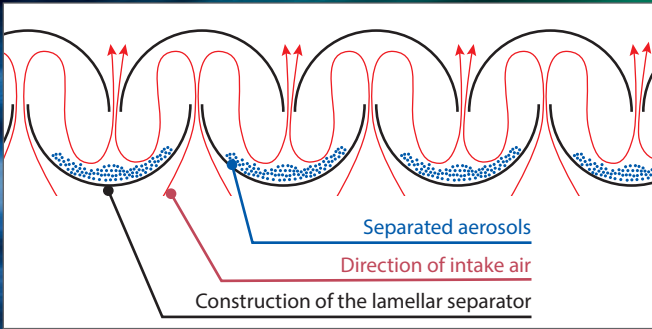
Both series of separators have undergone the most rigorous testing at the leading European laboratory, DMT. The separators have passed tests for both flame-back protection and separation efficiency. We therefore comply with the strictest standards (VDI 2052, EN 1 6282, DIN 18869-5, etc.) required in commercial kitchens.

A good practical example of how effective these separators are comes from a customer's first-hand experience; we therefore present one example to illustrate the point, in the words of the operator and owner of Q-Burger Bar:

"We used to have wire mesh filters, which were completely inadequate given the nature of our business. We had to clean them every day; the ventilation ducts were becoming clogged with grease, and we had to change the fabric filter in front of the motor once a week. Since we've had cyclone separators from ATREA, it's enough to clean the separators once a week; the ventilation ducts no longer get clogged, and the filters only need replacing once a month."



Diagram of how a lamellar separator works



Separator configuration

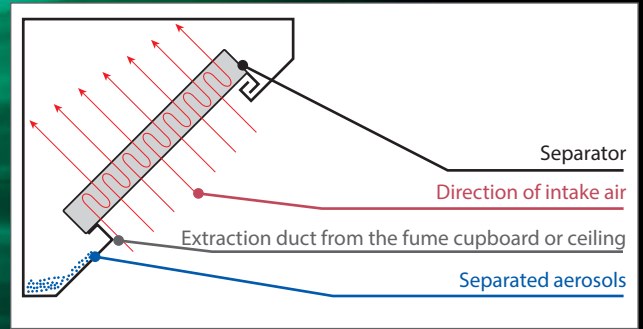
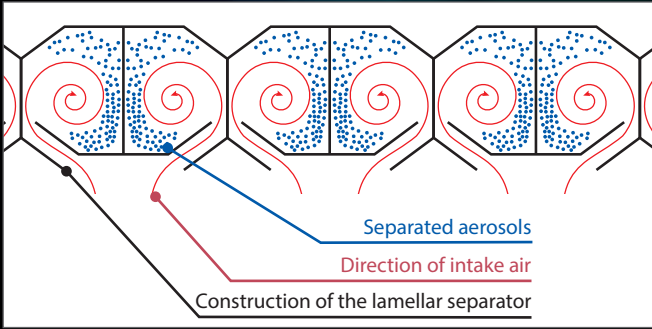
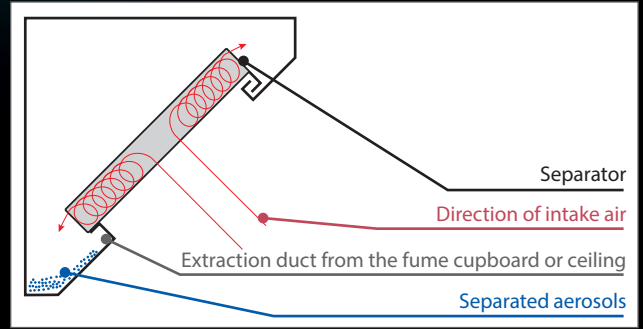


Diagram of the cyclone separator's operation

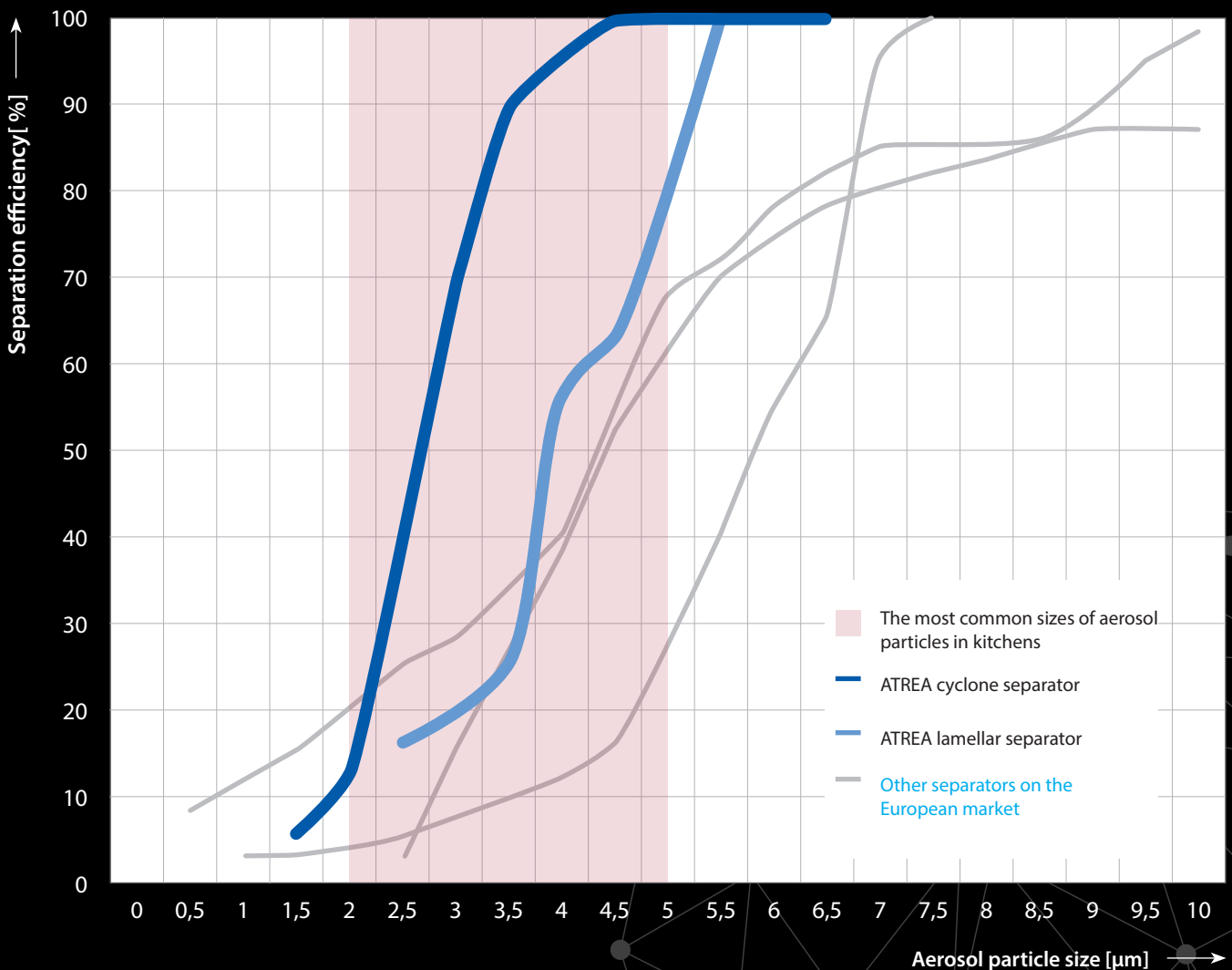


Separator installation



Comparison of aerosol separator efficiency

For kitchen areas, aerosol particle sizes of 0.5–10 μm are considered, most commonly 2–5 μm.





VENTILATION AND AIRCONDITIONING CEILINGS

TYPES OF VENTILATION CEILINGS



SFC

The improved SFC (Sky Flow Ceiling) ventilation ceiling design represents a modern solution with an emphasis on design, performance and operational efficiency. Compared to the standard TPV system, it offers a more elegant and attractive appearance, a lower installation height, whilst also enabling higher air change rates in kitchen operations. This makes it the ideal choice for modern catering establishments, including open 'show kitchen' layouts, where the emphasis is not only on functionality, but also on the overall aesthetic impression of the space.



SFC-S

The SFC – S (Stainless Steel) design variant is an exclusive version of the ventilation ceiling, emphasising a modern look and clean lines. Instead of standard lighting panels, elegant stainless steel panels are used across the ceiling surface, whilst lighting is provided by integrated LED strips that emphasise the minimalist design of the entire system. For maximum architectural flexibility, the ceiling can also be supplied in any colour from the RAL colour chart, allowing the system to be perfectly matched to the interior of a specific catering establishment.



TPV

Standard version of a fully illuminated ventilation ceiling. The lighting not only adds a stylish aesthetic but also creates a more pleasant working environment for kitchen staff than a standard stainless steel design.



MODERN SYSTEMS

MODERN INDUSTRIAL KITCHEN VENTILATION

MODERN SOLUTIONS FOR (COMMERCIAL) KITCHENS

VENTILATION AND AIR-CONDITIONING CEILING

ATREA ventilation and air-conditioning ceilings represent a state-of-the-art solution for professional catering establishments and have long been among the company's flagship products. We have been successfully supplying this modern and highly efficient system for over 30 years, during which time it has been installed in more than a thousand projects in the Czech Republic, Slovakia and other countries around the world.

ATREA systems are designed to meet the most demanding requirements of today's professional kitchens — not only in terms of performance and hygiene, but also in terms of design and the comfort of the working environment. An elegant design, high-quality lighting in the kitchen area, draught-free fresh air supply and highly efficient extraction create optimal conditions for staff and the overall running of the kitchen.

The system also features intelligent control, which ensures efficient operation, energy savings and maximum user comfort. Thanks to this smart control, the system's performance automatically adapts to current conditions in the kitchen. A major advantage of ATREA ventilation and air-conditioning ceilings is their high efficiency in separating grease particles from the air. The highly efficient separators used significantly reduce the amount of impurities in the exhaust air, thereby minimising maintenance requirements and contributing to cleaner and safer operation.

The quality, reliability and functionality of the system are also confirmed by a pan-European TÜV certification, which guarantees compliance with strict European standards.

MAIN BENEFITS

- Attractive design
- Low purchase costs
- LED technology
- Wide range of optional accessories (UV-C filtration, automatic fire suppression system)
- Perfect protection of the ceiling structure against heat and moisture
- Uniform, full-surface lighting
- Simple design solution
- A versatile solution when changing the layout of kitchen equipment
- TÜV certification valid throughout Europe



more info www.atrea.en

Atrea® Leader in ventilation and heat recovery



VENTILATION AND AIR-CONDITIONING CEILING

DIAGRAM OF A VENTILATION CEILING

VENTILATION AND AIR-CONDITIONING CEILING

In terms of function, there is no difference between the various types of ventilated ceilings. All types supply fresh air, extract stale air, provide lighting for the entire kitchen area and protect the ceiling structure from the effects of heat and humidity. They differ fundamentally in the design of the ceiling panelling and the air ducts. It is entirely up to the client, architect or designer to choose which type to use. If necessary, it is possible to design a bespoke, non-standard solution (a combination of individual types) tailored to the specific premises.

THE IDEAL SOLUTION



Škoda Auto
Mladá Boleslav

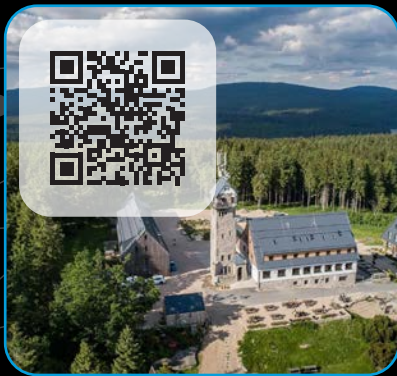


Papilio
Vysoký Újezd



Pralinča
Jablonec nad Nisou

References – our customers' experiences



Královka Restaurant
Bedřichov



Hotel Zaton Holiday Resort
Zaton-Croatia



Potrefená Husa
Liberec

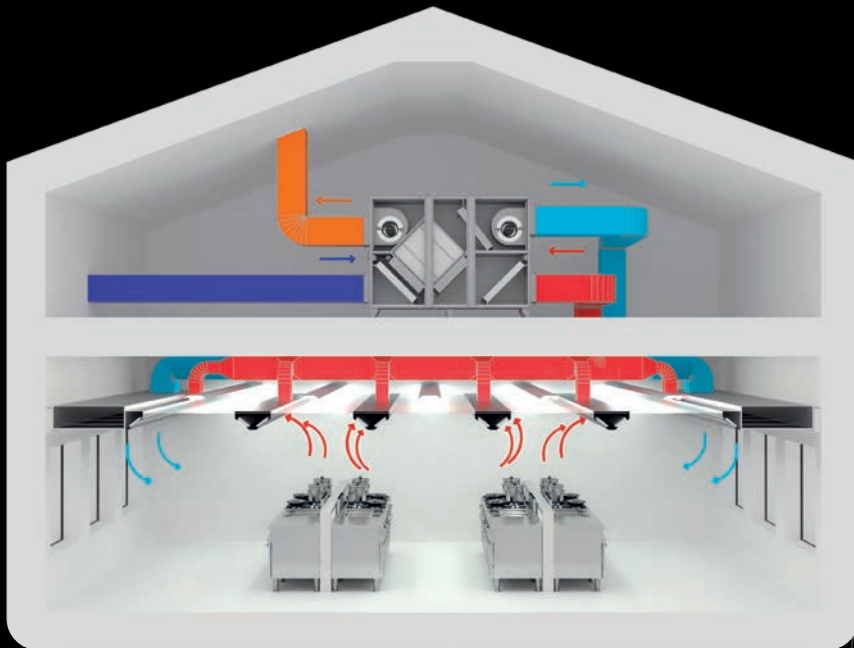
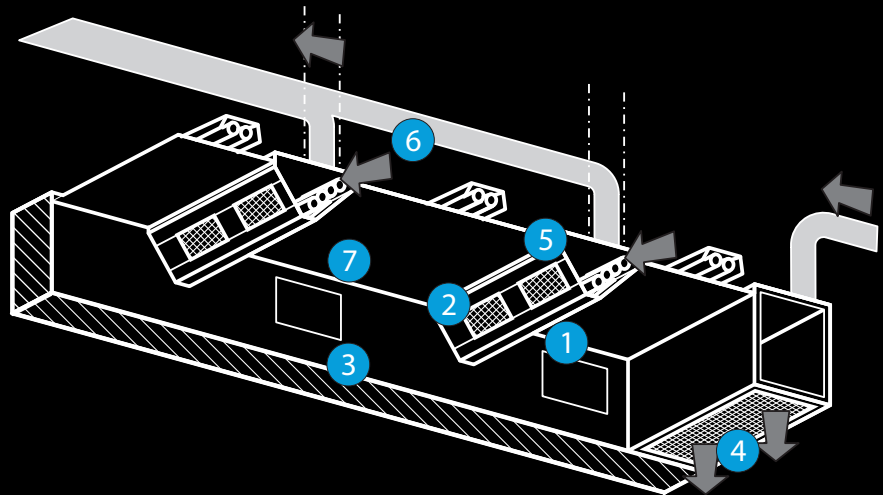


FOR EVERY
TYPE AND
SIZE OF KITCHEN

MODERN SYSTEMS

MODERN INDUSTRIAL KITCHEN VENTILATION

1. exhaust air duct
2. transparent, translucent infill
3. cleaning and inspection openings
4. side air inlet duct
5. LED lighting
6. top exhaust air ducts
7. UV-C filtration



ŠKODA INDUSTRIAL KITCHEN, MLADÁ BOLESLAV

TPV



TPV

In 2019, construction began on a new central kitchen for the entire ŠKODA Auto production site. This kitchen is unique in terms of its size. The cooking area itself covers 860 m², and together with the preparation areas, the total area exceeds 1,000 m². The central kitchen is designed for automated operation to ensure the preparation of more than 35,000 meals a day. To handle this workload, the design includes not only several large combi ovens but also several multifunctional pans, boilers and a dough processing line (dumpling station). More than 3,000 kW of total power is required for the catering equipment; therefore, great emphasis was placed on the proper functioning of the entire ventilation and air-handling system. To ensure ventilation of the entire kitchen area, two roof-mounted heat recovery units with a capacity of 90,000 m³/h are used, capable of exchanging the air in the entire kitchen 40 times per hour.



ŠKODA INDUSTRIAL KITCHEN, MLADÁ BOLESLAV

TPV



TPV

ŠKODA AUTO 's internal regulations are stricter than European standards, and systems with standard extractor hoods do not meet them. In contrast, a comprehensive, enclosed ventilation ceiling system does comply with the relevant directive. Initiatives of this kind reflect current trends in the 'catering industry' and thus shape the overall view of modern ventilation and air-conditioning technology. In future, full-surface ventilation ceilings are therefore set to become the primary solution in (large) kitchens.

The TPV full-surface ventilation ceiling is a closed system that ensures an ideal climate within the cooking area itself, thanks to:

- High-efficiency grease filtration from the extracted air (100% for 4 μm – in kitchen areas, aerosols typically range in size from 0.5 to 10 μm)
- Elimination of odours that might be detectable at the exhaust from HVAC units
- Ventilation ductwork free of any grease deposits through the use of built-in UV-C technology
- Protection of all building structures in the space above the ventilation ceiling through the use of a so-called closed system
- Modern LED technology, ensuring uniform lighting of the space
- Draught-free supply of fresh air



BURGER KING, VÁCLAV HAVEL AIRPORT

TPV



TPV

One of the many installations of a full-surface ventilation and air-conditioning ceiling is the Burger King outlet at Václav Havel Airport, Terminals 1 and 2. This fast-food chain is new to the airport, and full-surface extraction is being used in these restaurants for the first time. The entire system operates in fully automatic mode, with the required ventilation capacity determined by the kitchen's workload; it is designed to prevent the spread of odours not only from the kitchen area but also via the exhaust air from the heat recovery unit. The built-in UV-C filtration system eliminates grease with up to 99% efficiency.



HOTEL KRÁLOVKA

TPV Exclusive

Královka



TPV Exclusive

At the newly opened Hotel Královka in the Jizera Mountains, we not only installed a standard full-surface TPV ventilation and airconditioning ceiling in the kitchen area, but it was also necessary to create a stylish and functional design for the ventilation ceiling in the open-plan front section featuring a bar and a banquet area. The TPV Exclusive model was therefore the obvious choice. The custom-printed stretch film, which depicts the history of Královka, complements the designer interior and lends our ceiling a touch of luxury. Within the space itself, it serves as a striking focal point without detracting from the overall look of the restaurant's interior.

The main benefits of TPV Exclusive include:

- Exclusive design
- Maximum natural light throughout the space
- Protection of building structures
- High filtration efficiency
- Built-in LED lighting
- Ideal for use in show kitchens
- Up to a 10-year warranty and the option to take out a maintenance contract (complete ceiling cleaning, replacement of fabric air outlets, inspection of lights, regeneration of grease separators)
- Low capital and running costs
- Short payback period for the system
- Option for fully automatic control
- Option to integrate an automatic fire protection system

HOTEL IMPERIAL

TPV



HOTEL IMPERIAL
Spa & Health Club

TPV

When designing the ventilation system, it was necessary to respect the originality of the dining room's existing interiors and ensure effective extraction to prevent exhaust air from spreading into the guest areas of this luxury hotel.



FALKENŠTEJN BREWERY

TPV



**FALKEN
STEJN®**

TPV

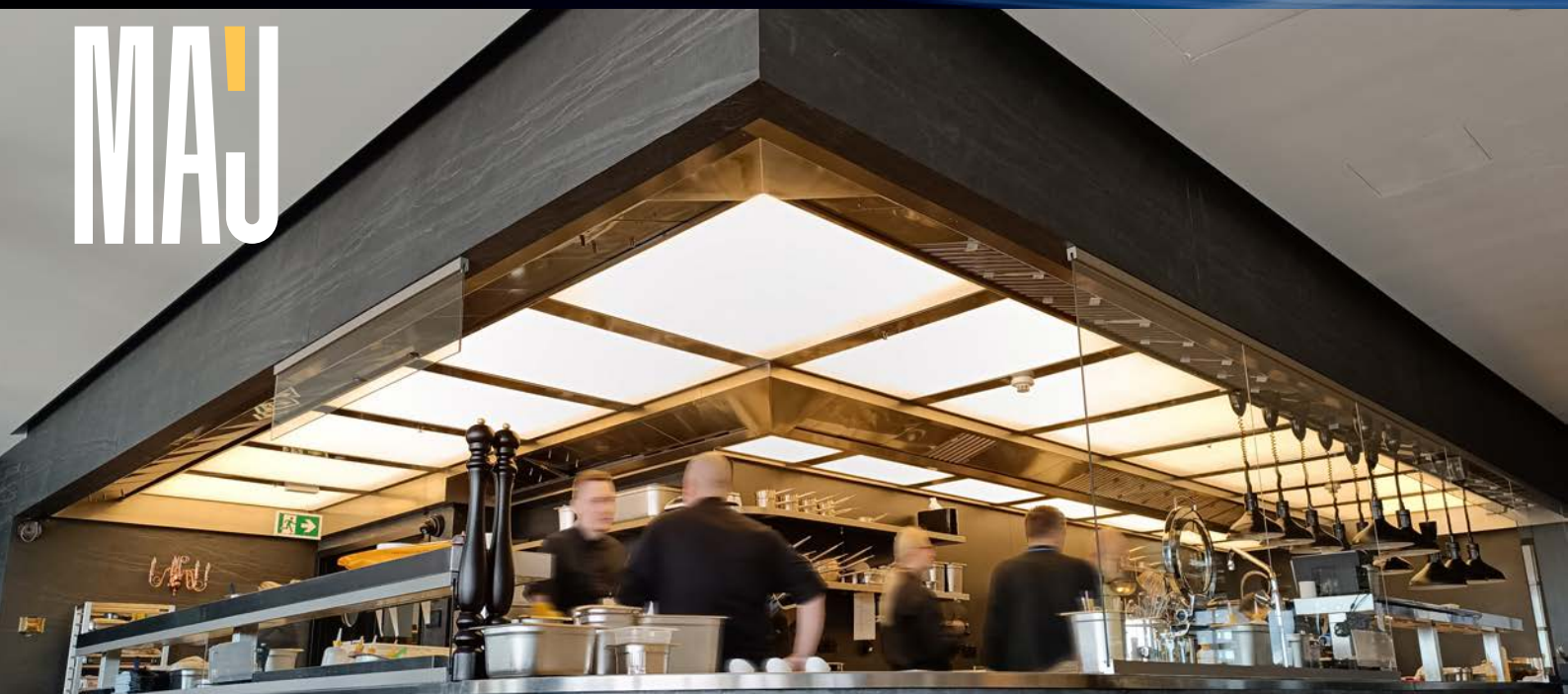
The kitchen at the Falkenštejn Brewery restaurant underwent a complete refurbishment in 2023. The investor opted for a ventilation solution using ventilation ceilings rather than traditional extractor hoods. The main factors were the low ceiling height – as the kitchen is on the ground floor of a historic building – as well as the timeless design and a pleasant indoor climate. The ventilation ceiling is connected to a DUPLEX 10100 Basic air-handling unit and the aMotion automatic control system.



MÁJ DEPARTMENT STORE

SFC

MAJ



SFC

Máj Department Store underwent a major refurbishment in 2024 and we are delighted to have been part of this huge project. We designed the ventilation system for the luxury restaurant on the 8th floor of Máj Department Store, which features an open-plan kitchen. This is one of the first ventilation ceilings at Máj Department Store where large-format light panels were used to meet the high design standards.



ZATON HOLIDAY RESORT

TPV-N

ZATON
HOLIDAY
RESORT

TPV-N

Zaton Holiday Resort is one of the most luxurious campsites in Croatia! This unique tourist complex comprises apartments, restaurants, swimming pools, over 1,100 camping pitches and even an amphitheatre. To meet the architectural requirements, ATREA, in collaboration with leading designers, fitted the complex with a TPV-K ventilation ceiling system.



PAPILIO, VÝSOKÝ ÚJEZD

SFC



An ATREA ventilation ceiling has been installed in the prestigious Papilio restaurant, which has been awarded two Michelin stars. It meets the highest demands of modern gastronomy by ensuring efficient extraction of heat, steam and odours alongside maximum hygiene thanks to its easy-to-clean design. At the same time, it offers quiet operation and an elegant, compact appearance. This solution creates the ideal working environment for a top-class culinary team and confirms that ATREA technology holds its own even in the world's finest kitchens.



RESTAURANT POTREFENÁ HUSA

TPV



TPV

Potrefená husa is situated right in the centre of Liberec and is one of the most popular venues in the city. It has recently undergone a complete refurbishment, which included the refurbishment of the kitchen using state-of-the-art technology. Among these technologies was our TPV ventilation and lighting ceiling, which met expectations so well that the ventilation ceiling has now become the standard for all the owner's premises. The main requirement was to prevent odours from spreading from the kitchen into the restaurant, as the kitchen here is open to guests.





COOKER HOOD

VENTURA

NEW
PRODUCT!



VENTURA

VENTURA

The condensing-type extractor hood has been designed to capture, condense and extract steam from dishwashers and other appliances. Thanks to condensation taking place directly inside the extractor hood, the volume of air extracted can be reduced, which also lowers the demands on the ventilation system and associated costs. For the extracted air, the ventilation ceiling features an ANSUL fire suppression system and UV filters.

Benefits:

- Lower exhaust airflow
- Lower noise levels
- Easy drainage of condensed water
- Integrated lighting with a built-in LED strip



COOKER HOOD

ALTURA



NEW
PRODUCT!



ALTURA

ALTURA

ALTURA cooker hoods ensure efficient extraction with filtration of exhaust air whilst simultaneously supplying treated fresh air for kitchens of all sizes and layouts, available to order with automatic operation control.

Benefits:

- Integrated fresh air supply to the kitchen
- Integrated fluorescent lighting with IP65 protection
- Lightweight
- Elegant design
- Use of an induction extractor
- Compact design





COOKER HOOD

MODIS 2



MODIS 2



MODIS 2

The MODIS 2 range of cooker hoods forms part of a comprehensive product range – the of ATREA modular cooker hoods. The unique modular design allows customers to choose between delivery in flatpack form without a flue connection, flat-pack with a flue connection (for assembly on site, either by the customer or by the manufacturer), or delivery as a complete unit. They can be assembled with the side panels facing each other to create a longer unit, or hung back-to-back to form a central unit above the hob.

Benefits:

- Low price
- 5-year warranty
- A Czech product from a renowned manufacturer with over 15 years' experience in the field of (large) kitchen ventilation
- Attractive design
- Integrated lighting
- Selected models can be ordered via the ATREA e-shop
- **Delivery within 3 working days**

COOKER HOOD

OPTIMA



OPTIMA

A compact cooker hood with heat recovery, reheating, filtration, air supply and lighting. OPTIMA is suitable for both new builds and refurbishments. When using this unit, a separate room for the ventilation system is not required. All functions are integrated directly into the cooker hood; only fans with the required specifications need to be installed in the central supply and exhaust ducts.

Benefits:

- Compact design
- Integrated fresh air supply
- Elegant design
- Built-in heat recovery exchanger with an efficiency of up to 68%
- Built-in fresh air heaters
- Integrated fluorescent lighting





COOKER HOOD

GRANDE



GRANDE

GRANDE

The Grande, a fully stainless steel, welded extractor hood, has been developed to meet both the stringent technical specifications of VDI 2052 and EN 16282, and the customer's design requirements. Thanks to these specifications, it can be used both for extracting fumes from cooking units under heavy loads and as a design feature in the serving area.

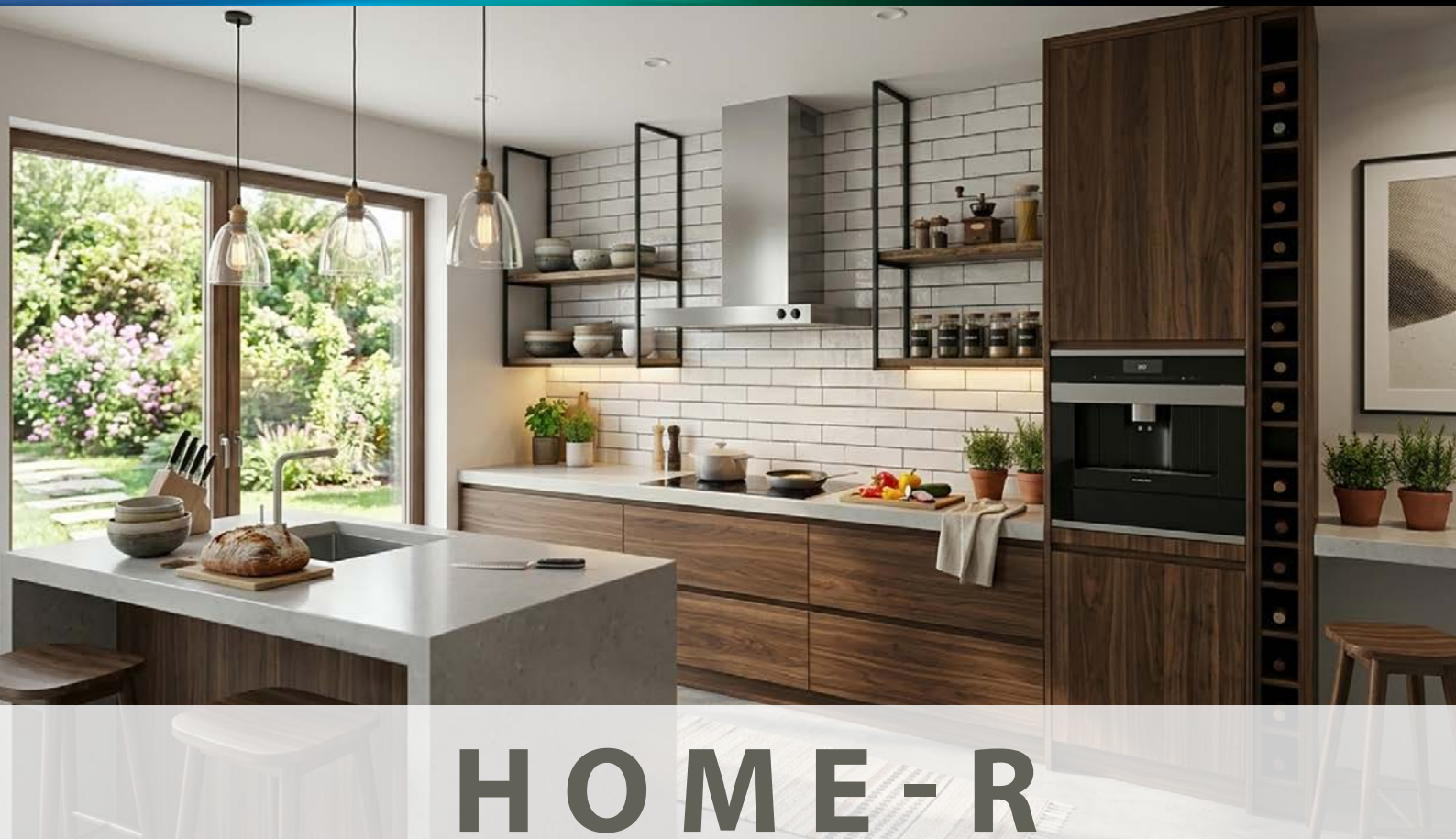
Benefits:

- All-stainless steel
- Construction Energy-efficient
- Lighting Wireless light control
- Minimisation of assembled joints (appearance of a fully welded construction)
- Huge storage capacity
- High efficiency of separators Design
- Design



COOKER HOODS FOR DETACHED HOUSES

HOME-R



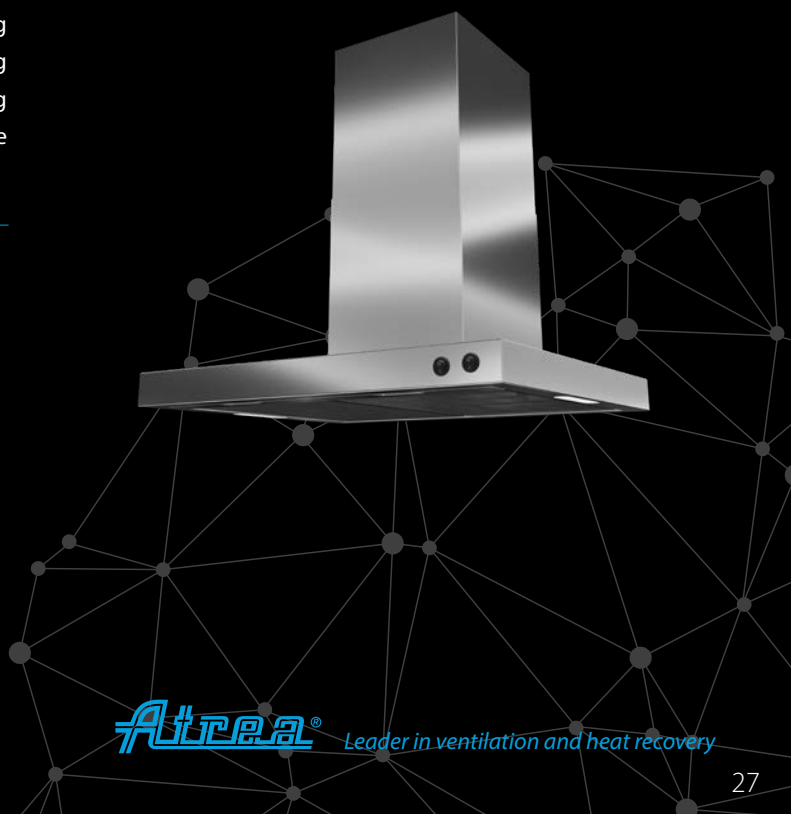
HOME-R

HOME-R

The HOME-R cooker hood is a specialised unit designed for ventilating detached houses and flats with a direct connection to an air handling unit. This allows you to utilise the warm air generated during cooking to preheat the air directly within the unit, thereby ventilating far more efficiently than with a standard recirculating cooker hood.

Benefits:

- Option of direct connection to an air handling unit
- Air handling capacity 200–500 m³/h (depending on the size of the air handling unit)
- Standard stainless steel version in stock
- RAL colours available on request
- Dimensions: 600x500 mm
- Enhanced filtration class
- HVAC and lighting controls directly on the extractor hood
- Available as an island-mounted or wall-mounted version





COOKER HOOD

LARGE-SIZE COOKER HOODS



LARGE-SURFACE HOODS

LARGE-SIZE COOKER HOODS

Large-area cooker hoods are suitable for kitchens with multiple cooking units. The undeniable advantage of this solution is the resulting appearance and lower installation costs compared to fitting several cooker hoods and a complex network of ventilation ducts. They are supplied in a modular design with dimensions tailored to your needs, optionally with an air supply. ATREA large-surface cooker hoods have become the standard for functional and architectural suspended ceiling for open-plan designer kitchens.

Benefits:

- Low purchase price
- 5-year warranty
- A Czech product from a renowned manufacturer with over 15 years' experience in the field of (large) kitchen ventilation.
- Attractive design
- Integrated full-surface lighting
- Option for built-in UV-C filtration

COOKER HOOD

LARGE-SIZE COOKER HOODS



LARGE-SURFACE HOODS



SFC large-surface cooker hood

Standard version of a large-surface illuminated cooker hood.



SFC-S large-area extractor hood

Stainless steel version of the SFS-S large-area extractor hood with stainless filler panels between the air ducts.



OPTIONAL ACCESSORIES



VENTILATION FOR (LARGE) KITCHENS OPTIONAL ACCESSORIES

ATREA products for ventilating (large) kitchens can be supplemented with a wide range of modern optional accessories. Specifically, these include energy-efficient and high-performance **LED lighting**, specialised **UV-C filtration** to eliminate odours and cooking aerosols, and, last but not least, **an automatic fire suppression system** to minimise damage to catering equipment in the event of a sudden fire. Last but not least, integration with the Master Therm AQ90I heat pump to utilise residual heat from the kitchens.

FIRE SUPPRESSION
SYSTEM
RGB LED LIGHTING
UV-C FILTRATION
CONNECTION TO AQ90I
HEAT PUMP

OPTIONAL ACCESSORIES

AUTOMATIC FIRE EXTINGUISHING SYSTEM

RGB LED LIGHTING



- 1 Large-scale ventilated ceiling
- 2 Catering technology
- 3 Fire-extinguishing pressure vessel
- 4 Fire-extinguishing system distribution
- 5 Automatic nozzles

AUTOMATIC FIRE EXTINGUISHING SYSTEM

ATREA extractor hoods and ventilation and air conditioning ceilings, when used in conjunction with an automatic fire detection and suppression system, form a unique combination that ensures a pleasant environment whilst preventing fires caused by catering equipment. The automatic fire suppression system is customised in conjunction with the extractor hoods or ventilation ceilings according to the kitchen's workload and the catering equipment installed.

Benefits:

- Low cost
- Compact solution
- Product from a reputable manufacturer
- Attractive design
- Protection of the extractor hood / ventilation ceiling
- Compliance with fire safety regulations



LED LIGHTING – RGB

RGB LED technology can be utilised across our entire range to reduce operating costs. For the TPV Exclusive ventilation ceiling, this technology is even fitted as standard.

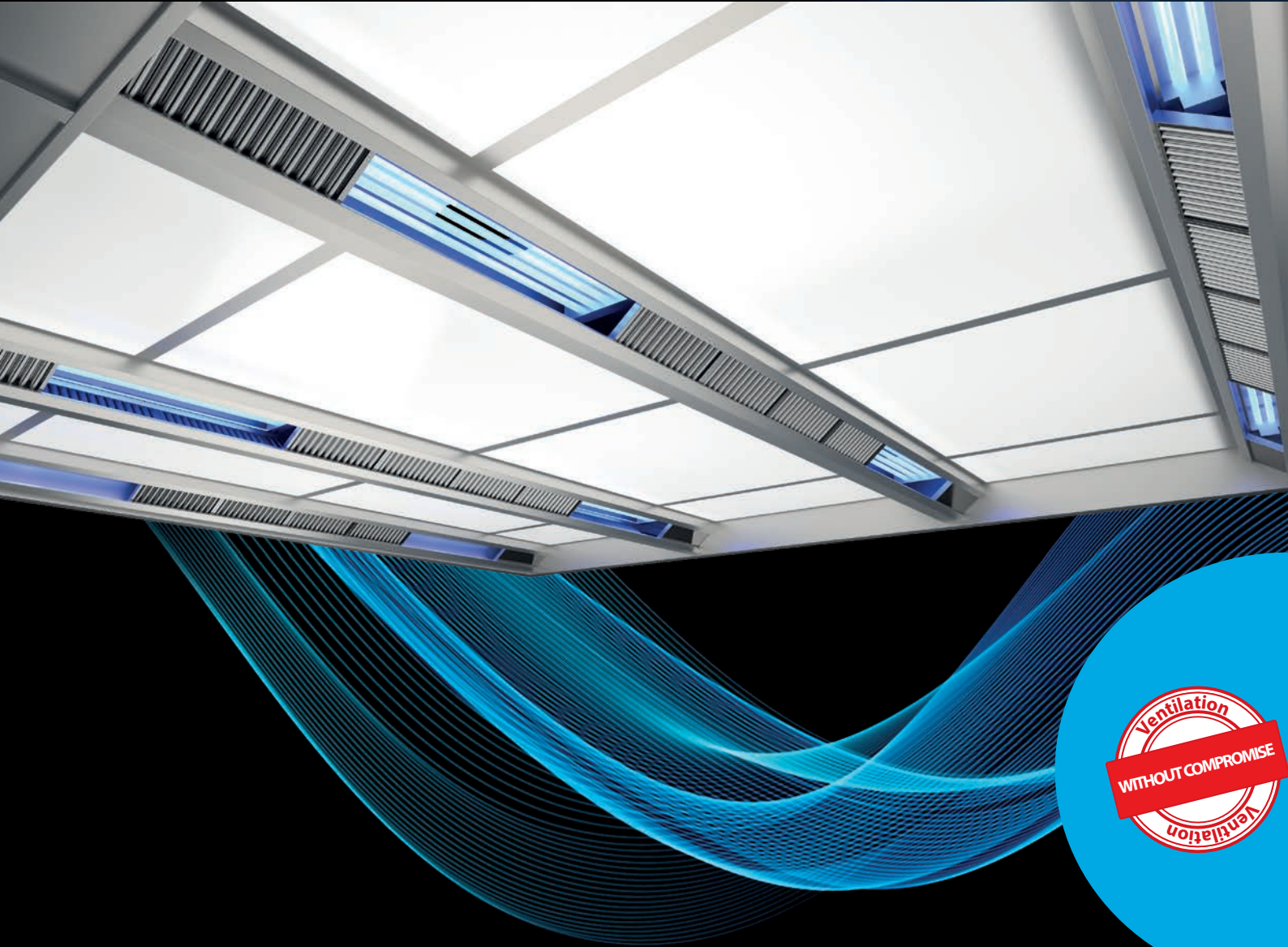
Benefits:

- Low purchase price
- Quick return on investment
- Optimal brightness
- Low running costs



OPTIONAL ACCESSORIES

UV-C FILTRATION



UV-C-TECHNOLOGY

The ATREA kitchen ventilation system also provides reliable exhaust air filtration; in addition to standard mechanical grease filtration, a second stage of UV-C filtration can be fitted – thereby achieving top-class efficiency of up to 99.9% in the removal of extracted aerosols! The result is significantly reduced maintenance and, above all, cleaner exhaust air free from unpleasant odours. The quality and functionality of this system are proven by its pan-European TÜV certification.

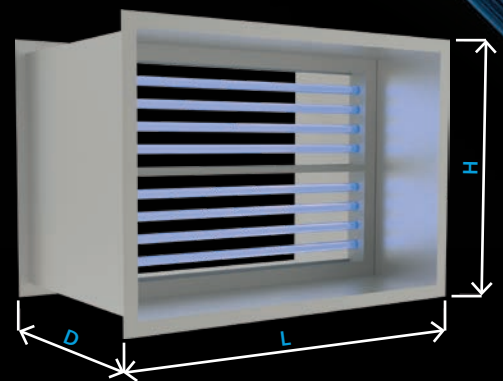
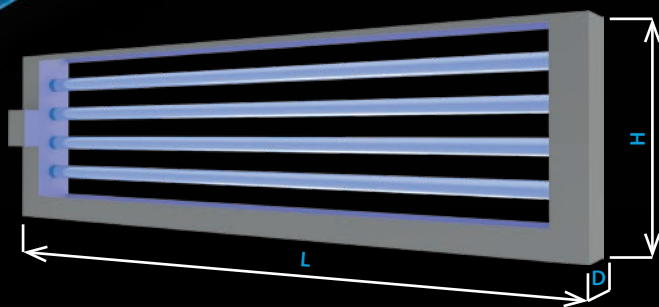
OPTIONAL ACCESSORIES

UV-C FILTRATION



Type	$V_{ma} \times$ [m ³ /h]	Length L [mm]	Height H [mm]	Depth D [mm]	Power consumption [W]
UV-C-lamp 1000 m ³ /h, 158 W	1000	1712	178	72	158
UV-C-lamp 2000 m ³ /h, 316 W	2000	1712	304	72	316
UV-C-lamp 3000 m ³ /h, 474 W	3000	1712	304	72	474
UV-C Box 2000 m ³ /h, 400 W	2000	350	950	650	400
UV-C Box 4000 m ³ /h, 800 W	4000	650	950	650	800
UV-C Box 8000 m ³ /h, 1 600 W	8000	650	950	650	1600

Dimensions:



Benefits:

- The entire system is kept completely clean, preventing system ageing.
- The exhaust air is odourless
- Significantly lower cleaning and maintenance costs
- Minimal risk of fire
- Meets the most stringent criteria and requirements for environmental cleanliness
- The module can be easily integrated into an existing system and does not cause pressure loss in the ductwork
- Long service life of UV-C lamps
- It also effectively eliminates bacteria, viruses, yeasts and mould spores

THE VENTILATION SYSTEM FOR (LARGE) KITCHENS IS NOW COMPLETE!

THE BASIS OF THE SYSTEM:

The compact DUPLEX Basic ventilation unit with heat recovery, combined with the ATREA ventilation, air-conditioning and lighting ceiling, or with ATREA extractor hoods. Mechanical filtration using lamellar or cyclonic separators is always installed in both the extractor hoods and ventilation ceilings. LED lighting with optimum luminous intensity also forms part of the core system.

OPTIONAL SYSTEM COMPONENT:

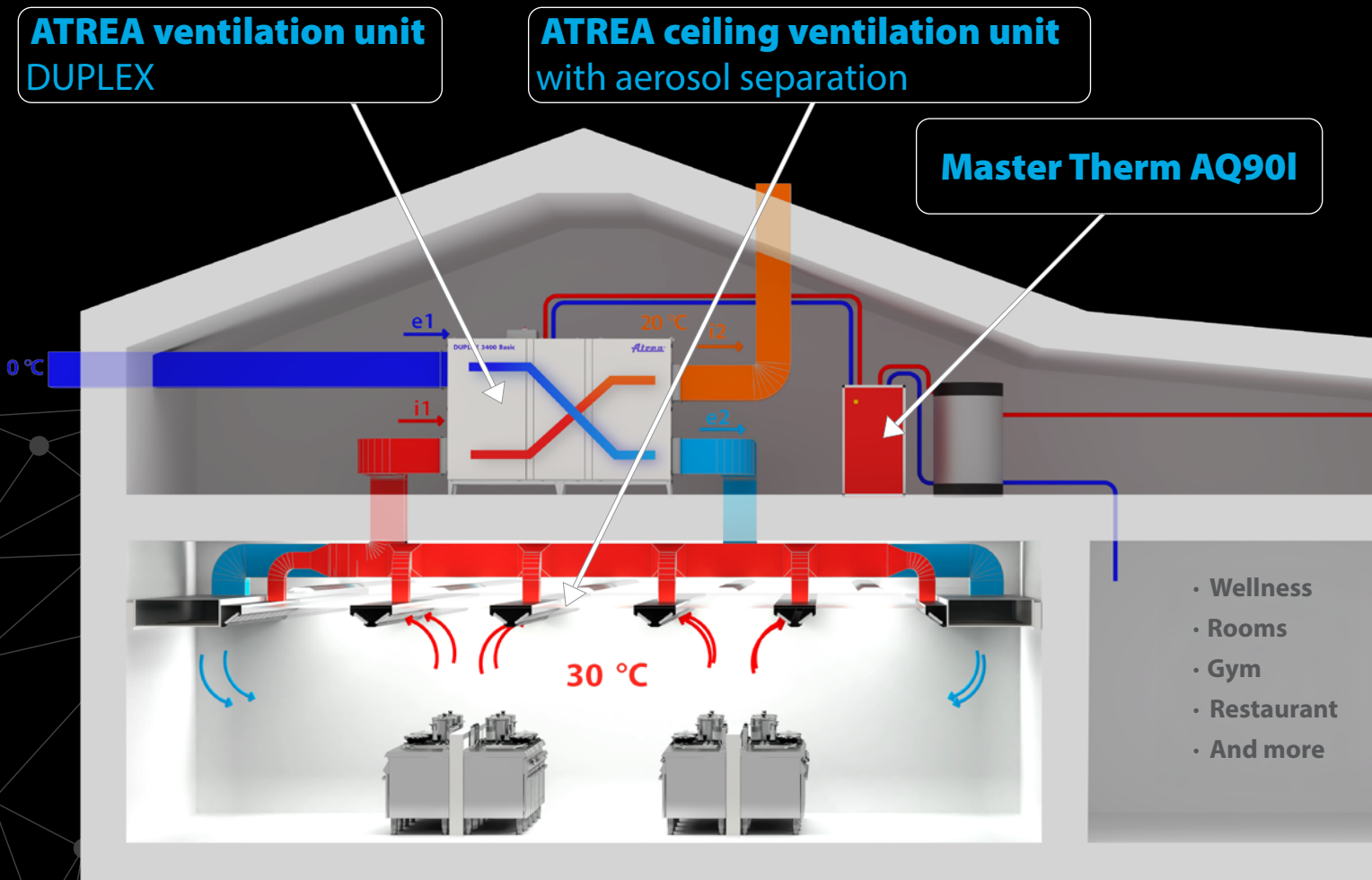
UV-C filtration to eliminate residual aerosols and ensure a long service life with minimal maintenance. An automatic fire-suppression system to protect the kitchen's expensive technological equipment.

NEW:

The Master Therm AQ90I heat pump, which recovers residual heat after heat recovery and uses it to heat domestic hot water, for example. With this addition, we can utilise all waste heat from cooking.

Benefits:

- Master Therm is part of the ATREA Group; you receive a complete system from a single manufacturer, with system communication and control guaranteed
- Economic payback from 3 years, depending on the type of kitchen operation and eligibility for grants
- Technical and design support (concept design, studies, project plans, supervision during installation, warranty and post-warranty service)
- Up to 7-year warranty





Sample utility room with a DUPLEX Basic 15100 ventilation unit with heat recovery, a MasterTherm AQ90I heat pump and a heat storage tank.

CONTROL

The integration of the aMotion ventilation unit control system with the MasterTherm heat pump control system ensures seamless automatic operation of the entire system.



The integration of the new aMotion control system with the ATREA cloud is achieved using state-of-the-art secure systems that protect communication from hackers.

Data is stored on secure servers and is not personalised – that is, it is not linked to a specific user's name or address. Everything is managed via separate databases organised by serial numbers.



- **Almost 100% utilisation of kitchen waste heat**
- **Heat pump heating capacity up to 40 kW for ventilation systems at 10,000 m³/h***
- **Return on investment 3.5–5 years**
- **In summer mode: COOLING of supply air**
- **Improved working comfort for staff**

DUPLEX Basic	Capacity*	Heat pump
B8100 5R	29 kW 7/2	AQ90I
B10100 5R	30 kW 7/2	AQ90I
B12100 5R	42 kW 7/2	AQ90I
B15100 5R	45 kW 7/2	AQ90I





OPTIONAL ACCESSORIES

AUTOMATIC OPERATION CONTROL

aMotion CONTROL

Automatic control for kitchen ventilation is an optional accessory for ATREA kitchen hoods and ventilation and air-conditioning ceilings. The digital control system ensures economical ventilation operation based on the current heat output of kitchen appliances, thereby preventing inefficient fan operation.

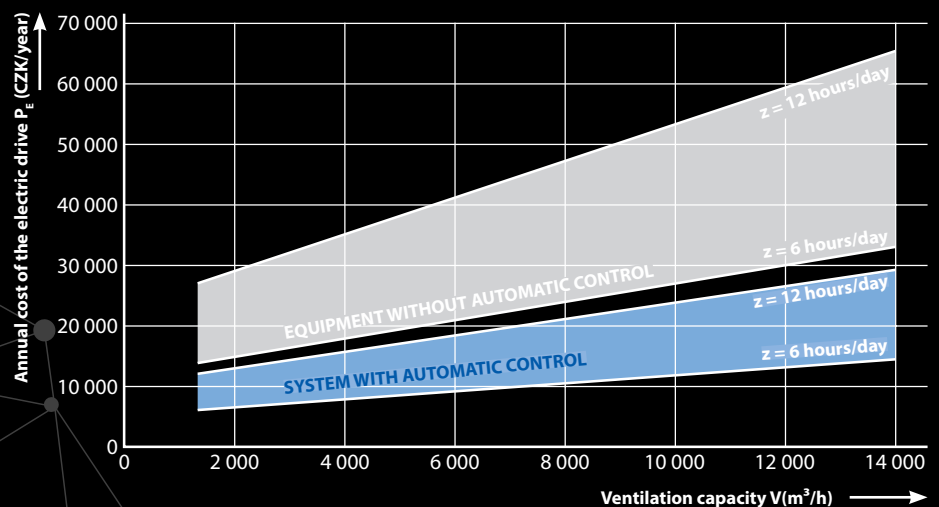
The basic principle of automatic control is to monitor the temperature above the appliances and throughout the kitchen. If there is no difference in temperature, only the minimum (preset) fan speeds are activated to ensure basic air exchange in the kitchen, and the operation of gas appliances is permitted. As the temperature difference between the temperature sensors increases, the output of both the extractor and supply fans is automatically increased. The fans are continuously controlled by a 0–10 V signal. When this difference decreases, the output is automatically reduced, or the system may switch back to the basic, minimum air exchange rate.

ADVANTAGES OF aMotion CONTROL

- Cost-effective operation
- Ensuring perfect hygiene conditions in the kitchen
- External signal from the combi oven for maximum output
- Continuous control of ventilation output (0–10 V)
- Option for fully automatic control of ventilation output based on the current kitchen workload
- Control based on temperature and humidity
- Zone ventilation for premises or cooking stations
- Remote access
- Option to set weekly programmes
- 'Holiday' mode (can be used, for example, during public holidays)
- Option to set several operating segments for a single day
- Control of the heating and non-heating seasons

OPERATIONAL EFFICIENCY

A properly designed automatic control system is primarily intended to eliminate the human factor and thereby reduce the energy consumption associated with fan operation and the reheating of ventilation air. The graph shows a comparison of annual costs for fan operation depending on ventilation capacity and daily operation. The graph does not include the energy savings required for air reheating.



OPTIONAL ACCESSORIES

AUTOMATIC OPERATION CONTROL



Controller aTouch



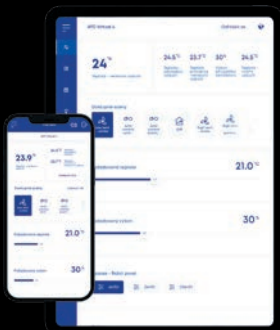
- Office installation
- Fully graphical touchscreen
- Wall-mounted installation
- Interface similar to web-based control for easier navigation and more convenient operation
- Built-in temperature sensor for air temperature control
- Password-protected service access for enhanced security
- Range of up to 50 m
- Automatic screen saver
- Optional variant

Controller CP 10 RT



- Installation directly in the kitchen
- A simpler and more cost-effective option
- Easy adjustment of temperature and ventilation output
- Simple on/off control
- IP43 protection

Mobile app



- Intuitive interface
- Unlimited number of users and units
- Personalised control panel

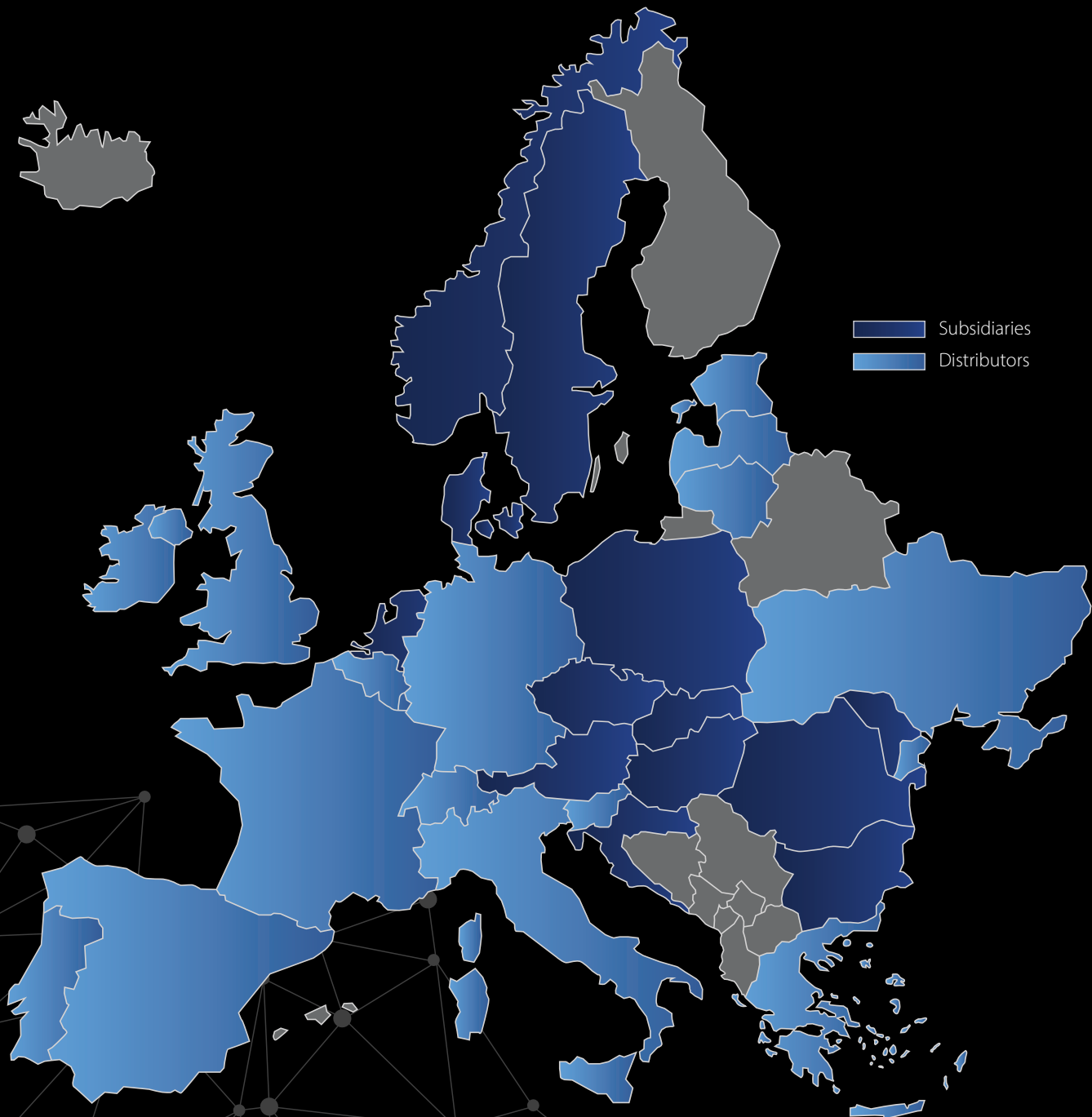
Web server as standard when using DUPLEX units.



REFERENCES ACROSS EUROPE

COMPLETED VENTILATION CEILINGS

The field of modern industrial kitchen ventilation has a long-standing tradition at ATREA. Over the past 25 years, we have been involved in more than a thousand ventilation projects for kitchen facilities, not only in the Czech Republic but also across the rest of the world. We use the experience we have gained to modernise existing products and introduce new, state-of-the-art technologies.



TECHNICAL AND SALES SUPPORT

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WE PROVIDE

- Consultations
- Support for designers and partners
- Training
- Kitchen ventilation calculations
- Designs for cooker hoods and ventilated ceilings
- Structural and architectural solutions
- Visualisation of the final kitchen design with a ventilated ceiling
- Option to provide project documentation
- Turnkey supply of ventilation ceilings
- Calculation of lighting for the kitchen area



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