

**Airna®**

# Product catalogue



# TABLE OF CONTENTS

## ABOUT US

ATREA Company & Foundation .....	1-3
ATREA's Heat Recovery Exchangers .....	4
Product range .....	5

## COMMERCIAL LINE

DUPLEX Multi .....	6-7
DUPLEX MultiEco .....	8-9
DUPLEX Flexi 3 .....	10-11
DUPLEX Flexi-V .....	12-13
DUPLEX Roto .....	14-15
DUPLEX Basic .....	16-17
DUPLEX RS5 .....	18-19
DUPLEX Silent-N .....	20-21

## CENTRAL VENTILATION FOR APARTMENT BUILDINGS

Air flow regulators .....	22-23
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## SCHOOL LINE

DUPLEX Inter .....	24-25
DUPLEX Inter-H .....	26-27

## DOMESTIC LINE

DUPLEX Pro / Pro-V .....	28-29
DUPLEX Easy2 .....	30-31
DUPLEX Slim .....	32-33
DUPLEX R5 .....	34-35
DUPLEX RDH5-L .....	36-37

## KITCHEN LINE

Ventilation ceilings .....	38-39
Kitchen hoods .....	40-41

## CONTROL SYSTEM

ATREA aMotion Control System .....	42
ATREA CP Control System .....	43

## ATREA COMPANY

ATREA Selection Software .....	44
Certification .....	45
References .....	46-47



# ATREA HISTORY

1973

The first plastic heat recovery exchanger in the Czech Republic by Ing. Petr Morávek CSc.

1989

The Velvet revolution

1990

ATREA was established

1992

The first export to Germany

1996

First production premises reconstruction

2000

ATREA is employing 100 people

2014

Moving into new production facilities

2024

ATREA's premises reached 20,000 m<sup>2</sup> and approximately 500 people

## About company

ATREA s.r.o. was established in 1990 by Ing. Petr Morávek, CSc., and his son Daniel in the laundry room of their family home. Thanks to the technical erudition of our founder, the flexibility of a private family-owned company and an active business policy, ATREA has become one of the largest manufacturers of ventilation equipment in the European market with over thirty years of experience.

ATREA currently employs around **500 employees in thirteen countries**. The manufacturing premises of the company are situated in the Czech Republic – Jablonec nad Nisou, about 20 km from the border with Germany. **The area of the manufacturing plant is about 20,000 m<sup>2</sup>** with further planned expansion in the next few years. The manufacturing plant includes state-of-the-art robotic machinery and advanced automation 4.0., which results in the production of top products.

## Production policy

ATREA is one of the **leading European producers of ventilation units with heat recovery**. The production programme of the company focuses mainly on ventilation units, but they

also produce innovative and exceptional products for ventilation of industrial kitchens and the company is further active in passive houses and energy-saving solutions. Unlike most competing companies, an important part of the company's success is the **maximum control of strategic components of its own production programme**. The company thus develops and manufactures its own heat recovery exchangers, as well as its own top control system, which is directly tailored to ATREA ventilation units.

## Technological innovation

The success of ATREA therefore lies mainly in the **constant technological innovation** and deep technical erudition of its founders and the entire development team. The development of strategic components and the pressure on constant innovation thus allow the maximum possible leadership over competition through **innovative and unique products of top quality** and penetration to the demanding Western markets where lower-quality manufacturers struggle to compete.



## Certifications

We can prove our top-quality products by having the most demanding international certifications:

- Passive House / VDI 6022
- Eurovent / Ecodesign 2018
- Conformité Européenne



Rotary heat exchangers are a Eurovent certified product of the renowned company Kastt



### Trade policy

**ATREA is a multinational company building a holding of European subsidiaries.** Since it is a family-owned company, its business policy is guided by an effort to achieve the most slender and effective structure.

This makes the company very active and flexible in its business strategies, which allows to react flexibly to local and international movements on the HVAC market compared to corporate structures.

**This makes ATREA the leader in the Czech, Slovak and Romanian markets and one of the leading players on the German market,** where the company has built strong representation through a top partnership lasting more than 20 years.

**Overall, ATREA is present in more than 23 foreign markets, including not only Germany but also the UK, Switzerland, Denmark and Australia, and is also building its own subsidiaries – currently associated subsidiaries in Slovakia, Hungary, Romania, Bulgaria, Poland, Croatia, Moldova, Denmark, Sweden, Norway and Austria.**

### Own accredited laboratory

ATREA also has its own testing laboratory **Air-Lab**, which is an **internationally recognised, certified and accredited laboratory** for measuring not only HVAC units with heat recovery. This allows the company to respond flexibly to its own development trends and cooperate with international players such as the PHI Institute or Eurovent.

### EVIA

**ATREA is also a member of the prominent Evia Group, which brings together the most important and largest European producers.** The European Ventilation Industry Association (EVIA) was established in Brussels in July 2010. EVIA's mission is to represent the views and interests of the ventilation industry and serve as a platform between all the relevant European stakeholders involved in the ventilation sector, such as decision-makers at the EU level as well as our partners in EU member states.



## ATREA Foundation

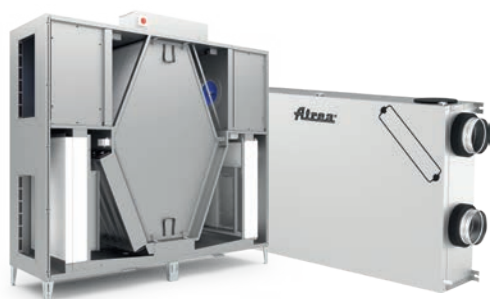
As a family owned company we believe that successful business should be socially responsible and care about its region. Thus ATREA foundation cares about social, educational and health projects. As a priority, we are ready to support our colleagues in difficult life situations.

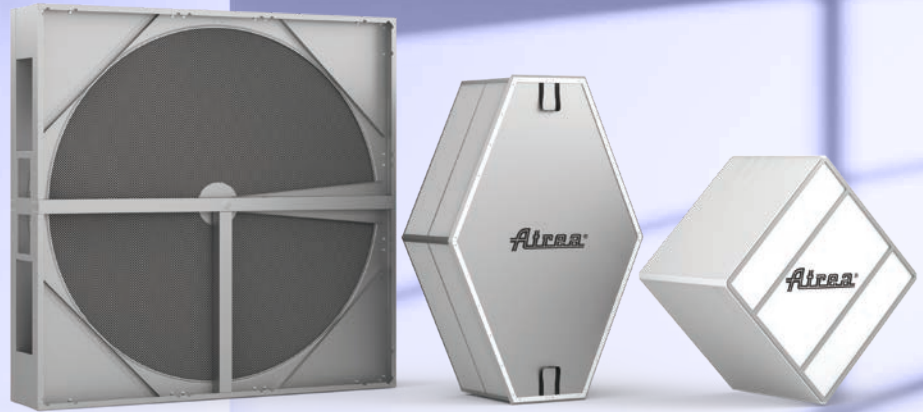
We try to be active mainly in our region and support various institutions like regional library, hospitals or different types of NGOs. We try to reflect the current needs so we also support invaded Ukraine. From longer-term projects, we are actively involved in supporting the fight against domestic violence.

**We believe business should care about other people.**

## ATREA product range

- Commercial ventilation  
– air-handling units from 500–15,100 m<sup>3</sup>/h
- Residential ventilation  
– air-handling units from 170–560 m<sup>3</sup>/h
- Kitchen ventilation  
– whole area ventilation ceilings and kitchen hoods
- SMART Box system  
– complete solution of VAV boxes, control system and a central unit
- School ventilation





- **Rotary-wheel** – efficiency up to 85%, range from up to 15,000 m<sup>3</sup>/h, Eurovent certified (Rotary heat exchangers are a Eurovent certified product of the renowned company Kastt spol. s r.o.)
- ⬡ **Counter-flow** – ATREA own production of plastic heat recovery cores, S7 type is the biggest diamond-shape heat-recovery exchanger on the market, efficiency up to 95%, range up to 11,000 m<sup>3</sup>/h.
- ◇ **Cross-flow** – ATREA own production of plastic heat recovery cores, efficiency up to 75%, range up to 15,100 m<sup>3</sup>/h

## OWN HEAT RECOVERY CORE PRODUCTION

### → ATREA highlights

**Own production of heat exchangers** – We have our own know-how for the production of heat recovery cores. Our range consists of cross-flow and counter-flow types for both domestic and commercial range.

**High quality products** – We use the best components on the market, such as Belimo servos and ebm-papst and Ziehl-Abegg fans.

**Control system** – There are two types of control system in our portfolio, a high-demand version with integrated web server or a simpler and cheaper version.



VDI 6022 ready



Eurovent  
Rotary heat exchangers are a Eurovent certified product of the renowned company Kastt



Passive House



Ecodesign 2018

## Certification

**Selection software** – A great tool for designers, easy, intuitive, includes all the technical and marketing information.

**Compact units** – Our units are very small and flexible to fit the strictest project requirements.

**Plug'n'play** – ATREA units are compact with all wiring done in the production. Thus quick commissioning saves the time and labour costs.

**Remotely controlled units** – There is no need to travel long distances to fix our units. Errors can easily be fixed using the unit's web interface.

**Certification** – We can prove the high quality of our products with various major certificates throughout our portfolio.

**Each heat-recovery exchanger leaving ATREA company is tested in the special testing chamber as a part of final quality check and labeled with the results.**

# ATREA's product range

## 150–550 m³/h DOMESTIC LINE

DUPLEX Pro / Pro-V  
DUPLEX Easy2  
DUPLEX R5  
DUPLEX Slim



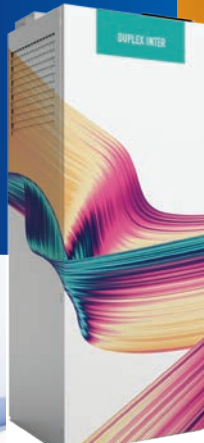
## 500–15,100 m³/h COMMERCIAL LINE

DUPLEX Multi  
DUPLEX MultiEco  
DUPLEX Flexi 3 / -V  
DUPLEX Roto  
DUPLEX Basic  
DUPLEX RS5  
DUPLEX Silent



## 770–1,100 m³/h SCHOOL LINE

DUPLEX Inter  
DUPLEX Inter-H



## KITCHEN LINE

Ventilation ceilings  
Kitchen hoods



## SMART Box central system

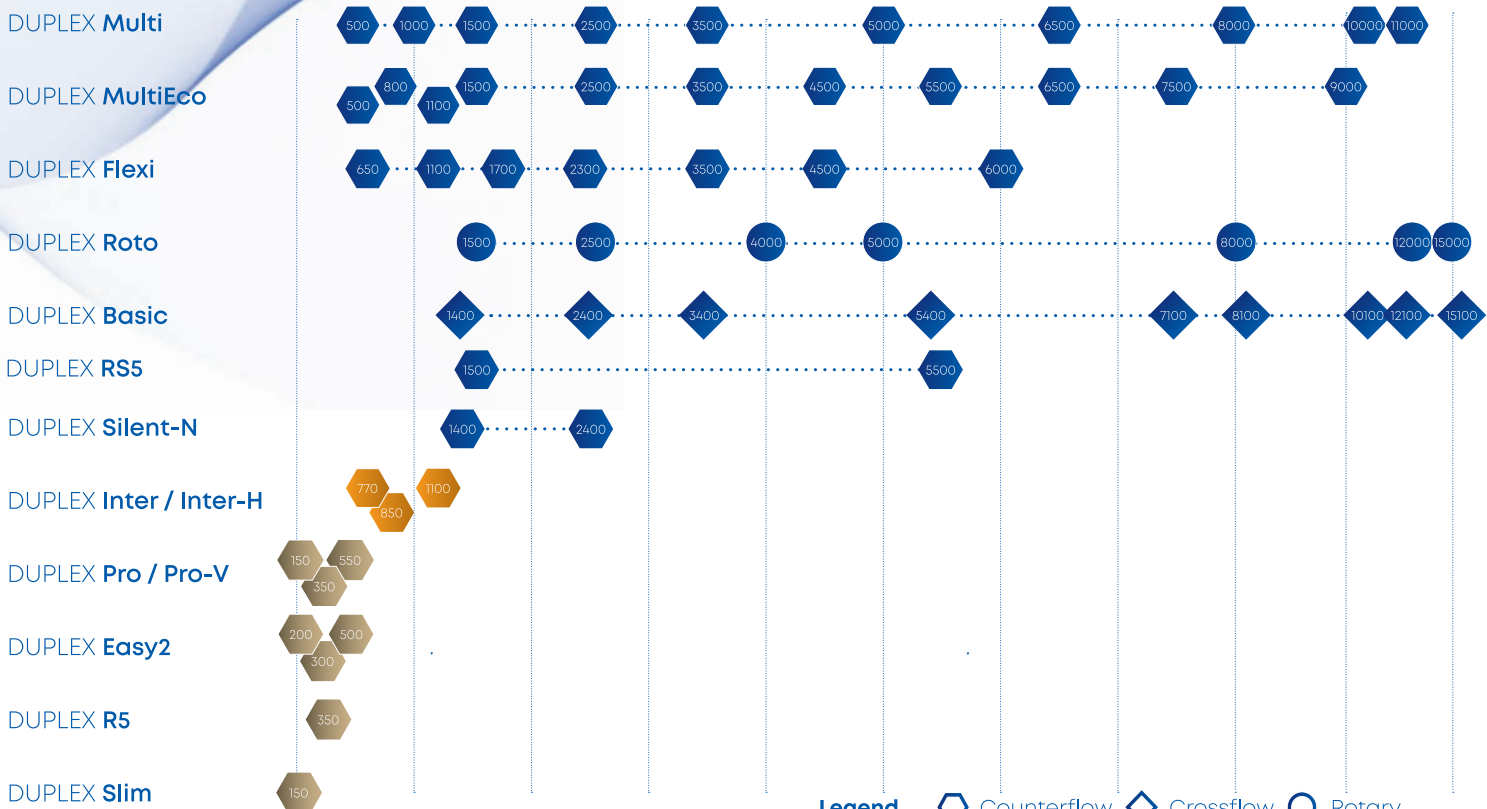
VAV boxes, central unit and control system guaranteed by one producer.



Domestic range

Schools

Commercial range





## DUPLEX Multi

500–11,000 m<sup>3</sup>/h |  Counterlow

DUPLEX Multi units represent the best of what ATREA offers to ventilate mainly commercial buildings. The philosophy of these units is based on plenty of possibilities of configuration and absolute variability. The units are exclusively tailored according to the requests and needs of individual projects. Superior construction of the units is suitably completed with the latest control system with the Internet connection.



### ADVANTAGES Multi

- Heat recovery efficiency up to 93%
- Superior plastic counter-flow heat exchanger
- Very flat design, suitable even for ceiling-suspended mounting
- Ceiling-suspended version up to 8,000 m<sup>3</sup>/h
- Highly variable
- Compact and semi-compact design
- Elegant look
- Integrated heating and cooling possibility
- Floor-standing, ceiling-suspended and floor-standing flat version
- The units meet requirement in accordance with Commission Regulation (EU) No. 1253/2014 (Ecodesign)
- Remote control via Internet interface
- Major savings in servicing costs
- Touchscreen controller
- EC type fans – top German quality
- Smartphone application
- BMS, KNX, Bacnet compatibility
- Hygiene version according to VDI 6022
- 100% by-pass
- Air circulation mode
- Constant airflow and pressure control

### Multi size range



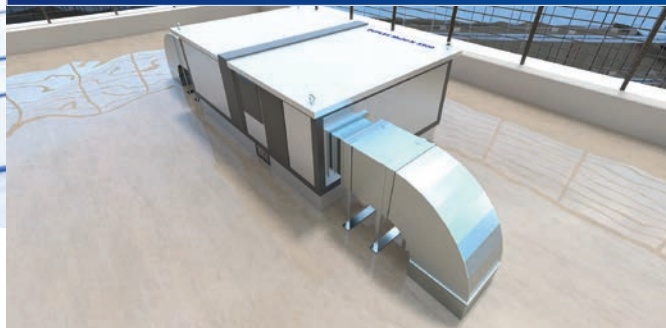
500 m<sup>3</sup>/h

11,000 m<sup>3</sup>/h

# DUPLEX Multi ways of application

**ATREA  
base-frame**

Unique solution for  
rooftop units – **no  
ducting needed!**



### Standard solution

- HEAT loss
- MATERIAL expenses
- LABOUR expenses
- UNATTRACTIVE design

### ATREA base-frame solution

- COST saving
- NO heat loss
- ELEGANT design

### inside horizontal



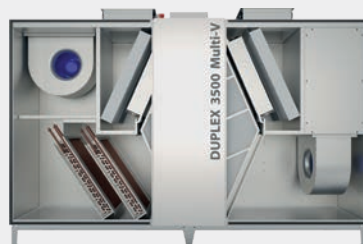
## DUPLEX Multi

500–11,000 m<sup>3</sup>/h

(500; 1,000; 1,500; 2,500; 3,500;  
5,000; 6,500; 8,000; 10,000; 11,000)

A compact and 100% customizable unit for various **indoor** installation positions including **floor-standing and under-ceiling** to meet all the requirements of all projects.

### inside vertical



## DUPLEX Multi-V

1,500–8,000 m<sup>3</sup>/h

(1,500; 2,500; 3,500; 5,000; 6,500; 8,000)

Air-handling unit with heat recovery efficiency of up to 93% with the same philosophy of total customization, but with special design of **all spigots upwards**.

### rooftop



## DUPLEX Multi-N

1,500–11,000 m<sup>3</sup>/h

(1,500; 2,500; 3,500; 5,000; 6,500; 8,000;  
10,000; 11,000)

Excellent customized **rooftop** compact HVAC units. These units can be 100% project tailored and have our professional S7 heat exchanger with heat recovery efficiency up to 93%.



## DUPLEX MultiEco

500–9,000 m<sup>3</sup>/h |  Counterlow

This unit line follows up to a very successful line DUPLEX Multi and it offers a wide range of versatile ventilation units with air performance from 500 to 9,000 m<sup>3</sup>/h. The philosophy of these units is based on several possibilities of configuration and absolute variability of these units. To keep up with the latest trends, we have created a whole new generation of compact commercial ventilation units that comply with EU Directive 1253/2014 and simply put, this is a solution that will take your breath away.



Certification



### ADVANTAGES MultiEco

- Heat recovery efficiency up to 93%
- Superior plastic counter-flow heat exchanger
- Very flat design, suitable even for ceiling-suspended mounting
- Highly variable
- Compact and semi-compact design
- Elegant look
- Integrated heating and cooling possibility
- Floor-standing, ceiling-suspended and floor-standing flat version
- The units meet requirement in accordance with Commission Regulation (EU) No. 1253/2014 (Ecodesign)
- Internet interface as standard (aMotion)
- Major savings in servicing costs
- Touchscreen controller
- EC type fans – top German quality
- Smart phones application
- BMS, KNX, Bacnet compatibility
- Hygiene version according to VDI 6022
- 100% by-pass
- Air circulation mode
- Constant airflow and pressure control

### MultiEco size range



500 m<sup>3</sup>/h

9,000 m<sup>3</sup>/h



# Valuation ECODESIGN 2018



Ecodesign is a new Commission Regulation (EU) No. 1253/2014 that must be followed by all EU markets. This applies to ventilation units with heat recovery; manufacturers and distributors.

**There are also few minimum requirements, such as:**

- The minimum thermal efficiency of all heat recovery systems except run-around heat recovery systems in bidirectional ventilation units shall be 73%
- The maximum internal specific fan power of ventilation components in W/(m<sup>3</sup>/s) for a bidirectional ventilation unit with other heat recovery system must fulfill a certain limit.
- Recommended class of filtration is F7 / M5 (supply / exhaust)
- The heat recovery system shall have a thermal by-pass
- All units shall be equipped with a multi-speed drive or variable speed drive

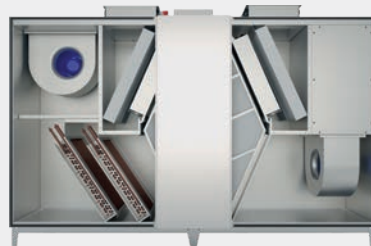
 **inside horizontal**



**DUPLEX MultiEco**  
500–9,000 m<sup>3</sup>/h  
(500; 800; 1,100; 1,500; 2,500; 3,500;  
4,500; 5,500; 6,500; 7,500; 9,000)

DUPLEX MultiEco units for **indoor** use. The whole range can optionally be equipped with built-in or external accessories – water or electric heating, water-based or direct cooling, shut-off dampers, by-passes and recirculation etc.

 **inside vertical**



**DUPLEX MultiEco-V**  
1,500–6,500 m<sup>3</sup>/h  
(1,500; 2,500; 3,500; 4,500; 5,500; 6,500)

An excellent, brand new generation of our customized compact HVAC units with all outlets **directed upwards**. These units can be 100% project tailored and have our professional S7 heat exchanger with heat recovery efficiency up to 93%.

 **rooftop**



**DUPLEX MultiEco-N**  
1,500–9,000 m<sup>3</sup>/h  
(1,500; 2,500; 3,500; 4,500; 5,500; 6,500;  
7,500; 9,000)

Ventilation unit with heat recovery targeted for the **rooftop** installations. A special feature of this new generation is their superb compactness with maximum focus on minimum height and ATREA innovative solution for heat loss elimination.

# COMMERCIAL LINE



## DUPLEX Flexi 3

650–6,000 m<sup>3</sup>/h |  Counterlow

The philosophy of these extraordinary and high-efficient units is serial production, with subsequent availability in stock – that means delivery possibility within 24 hrs. Our customers can therefore immediately react to their clients' needs and optimize transport cost. The units are universal and can be modified on the side. 6 configurations in 1 unit!



Certification



### ADVANTAGES Flexi

- Floor-standing, under-ceiling and rooftop in one
- Off-the-shelf delivery
- Efficiency of up to 93%
- Great compactness
- On-site variability
- Versatile positioning
- Heating and cooling
- Left or right configuration in one unit
- Major savings in servicing costs as a result of the built-in web server
- 100% by-pass
- Constant flow and constant pressure
- Hygiene version according to VDI 6022
- Wide range of additional accessories
- PHI certification of the whole Flexi range

### Flexi size range



650 m<sup>3</sup>/h

6,000 m<sup>3</sup>/h

# DUPLEX Flexi 3 ways of application

## Cooling

The units can just as easily be provided with our water cooling coil with a special surface with aluminium fins to better spread water droplets to prevent them from entering the HVAC duct. As standard, either water-based or direct coolers are supplied, they can also be operated in reverse mode to act as a heat pump.

## Heating

The Flexi series units can easily be fitted with on-site heating accessories. An electrical EPO-V heater is available for use either as an electric re-heater or pre-heater. Another option is using a hot-water air heater.

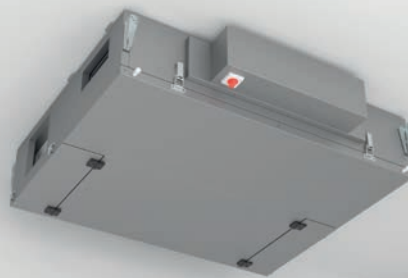
## **6in1** Three installation positions with two side orientations



 inside horizontal



 inside under-ceiling



 rooftop



## DUPLEX Flexi 3

650–6,000 m<sup>3</sup>/h

(650; 1,100; 1,700; 2,300; 3,500; 4,500; 6,000)

Versatile compact HVAC units designed for **indoor and outdoor** installation, with a counterflow heat recovery exchanger with efficiency up to 93% and highly efficient EC fans.



left



right

- Ultraslim height of under-ceiling installation
- Highly variable and easily adjustable on-site

- Immediately available to customers
- Six configurations in one unit!



## DUPLEX Flexi-V

500–3,500 m<sup>3</sup>/h |  Counterlow

The philosophy of these extraordinary and high-efficient unit is serial production, with subsequent availability in stock – that means delivery possibility within 24 hrs as well as thoughtful and imaginative unit design offers a wide range of on-site modifications and the possibility to meet conditions of various projects.



Certification

### ADVANTAGES Flexi-V

- Installer-friendly construction
- Off-the-shelf delivery
- Efficiency of up to 93%
- Great compactness
- On-site variability
- Heating and cooling
- Left or right configuration in one unit
- Major savings in servicing costs as a result of the built-in web server
- 100% by-pass
- Constant flow and constant pressure
- Hygiene version according to VDI 6022
- Wide range of additional accessories

### Flexi-V size range



500 m<sup>3</sup>/h



3,500 m<sup>3</sup>/h

# Performance sizes DUPLEX Flexi-V

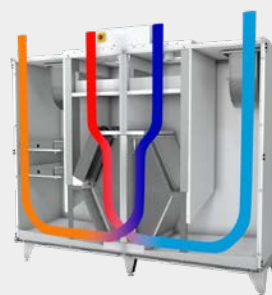
## Cooling

The units can be additionally fitted with our integrated water cooling coil with a special surface with aluminium fins to better spread water droplets to prevent them from entering the HVAC duct. As standard, either water-based or direct coolers are supplied, they can also be operated in reverse mode to act as a heater.

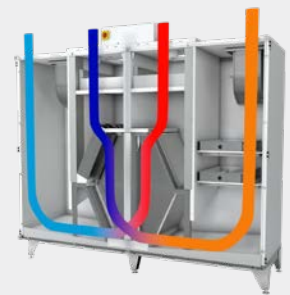
## Heating

The Flexi-V series units can easily be fitted with on-site heating accessories. An electrical heater is available for use either as an electric re-heater or pre-heater. Another option is using a hot-water air heater.

### inside vertical



left



right

## DUPLEX Flexi-V

500–3,500 m<sup>3</sup>/h

(500; 900; 1,800; 2,800; 3,500)

Units are supplied with all spigots facing upwards. It elegantly solves the sometimes problematic connection of air ducts and brings up new possibilities for installing the units in normally unusable spaces.



### Two stage air filtration

Units can be optionally fitted with two-stage air filtration on supply and exhaust branch.



## DUPLEX Roto

1,500–15,000 m<sup>3</sup>/h |  Rotary

All-purpose units DUPLEX Roto with rotary heat recovery core are used for comfort ventilation, as well as hot air heating and cooling offices, shops, retail, school buildings, restaurants, etc. The units are versatile because of the compact size, high heat recovery efficiency, low power consumption and minimal noise. DUPLEX Roto completes the series of DUPLEX Multi and DUPLEX Basic units and expands ATREA with seven additional sizes of ventilation units with air capacities from 1,500 to 15,000 m<sup>3</sup>/h (nominal outputs with external pressure min. 200 Pa). Roto units follow the philosophy of multiple variability. Designers can easily modify spigot connections, filters, heating, cooling or the position of the units themselves. Superior construction of units is suitably supplemented with the latest high-tech regulation, which includes web-server and communication via the Internet.



Certification

Rotary heat exchangers are a Eurovent certified product of the renowned company Kastt spol. s r.o.

### ADVANTAGES Roto

- Heat recovery efficiency up to 85%
- Rotary heat exchanger certified by Eurovent
- Highly variable
- Compact or assembly design – simplifies transport and installation
- Elegant look
- Integrated heating, preheating and cooling
- Floor-standing – indoor or rooftop installation
- Great thermal insulation of the casing
- Internet interface as standard (aMotion)
- Major savings in servicing costs
- EC fans – top German quality
- BMS, KNX, Bacnet compatibility
- Hygiene version according to VDI 6022
- Combined mode with air circulation
- Constant airflow and pressure control

### Roto size range



1,500 m<sup>3</sup>/h

15,000 m<sup>3</sup>/h

# Performance sizes DUPLEX Roto



DUPLEX 8,000–15,000 Roto units are assembled from 3 sections to simplify their transportation and installation. Parts can be delivered optionally and the unit can be fitted in highly inaccessible areas.

### LABYRINTH SEALING

DUPLEX 8,000–15,000 Roto rotary heat exchanger might be equipped with special labyrinth sealing. This patented solution improves the already excellent tightness against short circuit on the unique values of up to 1.5%.



### inside horizontal



## DUPLEX Roto

1,500–15,000 m<sup>3</sup>/h

(1,500; 2,500; 4,000; 5,000; 8,000; 12,000; 15,000)

All-purpose units DUPLEX Roto with rotary wheel heat recovery exchangers can be provided in both versions **inside and outside** and follow the philosophy of multiple variability of other ATREA sister lines.

### rooftop



## DUPLEX Roto-N

1,500–15,000 m<sup>3</sup>/h

(1,500; 2,500; 4,000; 5,000; 8,000; 12,000; 15,000)

Thanks to their construction design, DUPLEX Roto-N are fully adapted for rooftop installation. Rooftop units are equipped with special hoods and roofs that protect the unit against bad weather conditions.



## DUPLEX Basic

1,400–15,100 m<sup>3</sup>/h |  Crossflow

The DUPLEX Basic units are compact ventilation units with crossflow heat recovery core. Unlike DUPLEX Multi, these units have simpler a cheaper control system and also a different heat recovery core. Their performance range is between 1,400–15,100 m<sup>3</sup>/h. They are intended solely for applications that do not come under the field of activity of the committee's regulation (EU) No. 1253/2014. Ventilation units DUPLEX Basic are equipped with time-proven types of crossflow plastic heat recovery cores, which reach up to 75% of heat efficiency with low pressure loss of air. Other important parts are the new EC fans of the highest quality – the products of the internationally recognized manufacturers ebm-papst and Ziehl-Abegg.



Certification

### ADVANTAGES Basic

- Heat recovery efficiency up to 75%
- Superior cross-flow heat exchanger
- Very flat design, suitable even for ceiling-suspended installation
- Highly variable
- Compact and semi-compact design
- Elegant look
- Integrated heating and cooling possibility
- Floor-standing, ceiling-suspended and floor-standing flat version
- Great thermal insulation of the casing
- Internet interface as standard (aMotion)
- Cheaper and simpler CP control system
- A major decrease in servicing costs
- Touchscreen controller
- EC type fans – top German quality
- BMS, KNX, Bacnet compatibility
- Hygiene version according to VDI 6022
- 100% by-pass
- Air circulation mode
- Constant airflow and pressure control

### Basic size range



1,400 m<sup>3</sup>/h

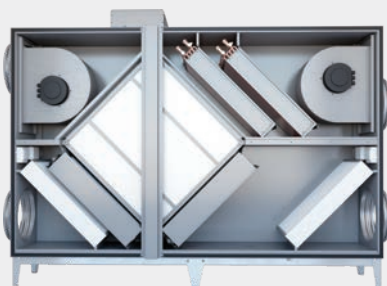
15,100 m<sup>3</sup>/h

# Performance sizes DUPLEX Basic



Heat recovery units with crossflow heat exchanger are especially suitable for the ventilation of commercial kitchens because of the bigger space between the lamelas. Such cross-flow core kitchen ventilation is also in accordance with ErP 2018.

## inside horizontal

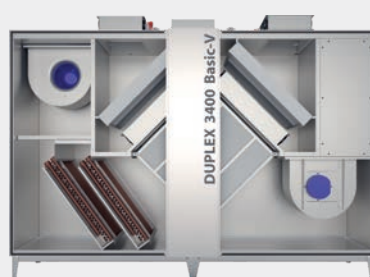


### DUPLEX Basic

1,400–15,100 m<sup>3</sup>/h (1,400; 2,400; 3,400; 5,400; 7,100; 8,100; 10,100; 12,100; 15,100)

Customized HVAC units with cross-flow heat recovery exchangers. This line is a cheaper version of the highest quality sister line DUPLEX Multi. Suitable for the indoor usage.

## inside vertical



### DUPLEX Basic-V

1,400–10,100 m<sup>3</sup>/h (1,400; 2,400; 3,400; 5,400; 7,100; 8,100; 10,100)

DUPLEX Basic line has cross-flow exchanger up to 75% of heat recovery efficiency and could be delivered also with **all spigots up**.

## rooftop



### DUPLEX Basic-N

1,400–15,100 m<sup>3</sup>/h (1,400; 2,400; 3,400; 5,400; 7,100; 8,100; 10,100; 12,100; 15,100)

These units can be 100% project tailored and customized for the rooftop installations.



## DUPLEX RS5

1,500/700–5,500/2,000 m<sup>3</sup>/h |  Counterlow

Ventilation units DUPLEX RS5 with unique air circulation and cooling solution via central air ducting, allowing full-fledged ventilation and internal air circulation at the same time. Units are produced in several sizes from 1,500 / 700 to 5,500 / 2,000 m<sup>3</sup>/h of circulation / ventilation volume and are intended for ventilation of every type of civil and residential buildings, as well as from commercial and industrial buildings, where the emphasis is not only for ventilation, but also for heating and cooling.



Certification

### ADVANTAGES RS5

- Heat recovery efficiency up to 93%
- Superior plastic counter-flow heat exchanger
- Ceiling-suspended mounting
- An integrated recirculation damper with independent recirculation air supply
- Elegant look
- Built-in heaters and coolers
- The units meet requirement in accordance with Commission Regulation (EU) No. 1253/2014 (Ecodesign)
- Internet interface as standard (aMotion)
- Major savings in servicing costs
- Touchscreen controller
- EC type fans – top German quality
- Smartphone application
- BMS, KNX, Bacnet compatibility
- Hygiene version according to VDI 6022
- 100% by-pass
- Air circulation mode
- Constant airflow and pressure control

### RS5 size range



1,500 m<sup>3</sup>/h

5,500 m<sup>3</sup>/h

- The units are designed for areas where **hot air heating** is required. For example, where it is not possible to use conventional heating systems either **due to interior design** (spaces where **radiators cannot be used**) and the impossibility of covering all heat losses (floor heating systems that have limited output).
- The units are advantageous for **buildings with low energy performance**, where it is necessary to **quickly balance the temperature**, eg due to a sudden external heat gain from sunlight, which conventional heating systems don't solve fast enough (especially floor heating systems). Air systems **respond more quickly** to the demands of **increasing and decreasing heat output**.
- Thanks to **ventilation at the required performance**, ie no over-ventilation or low-ventilation, **an optimal climate is guaranteed even in terms of relative humidity**.
- The circulation air from the unit can **transmit a high heating or cooling capacity**, of course corresponding to the air volume from the unit.
- The **minimalist dimensions of the units place small demands on the utility room space**. The units are always delivered in an **under-ceiling design**, thanks to which they **allow the use of the given space**, for example for storage.

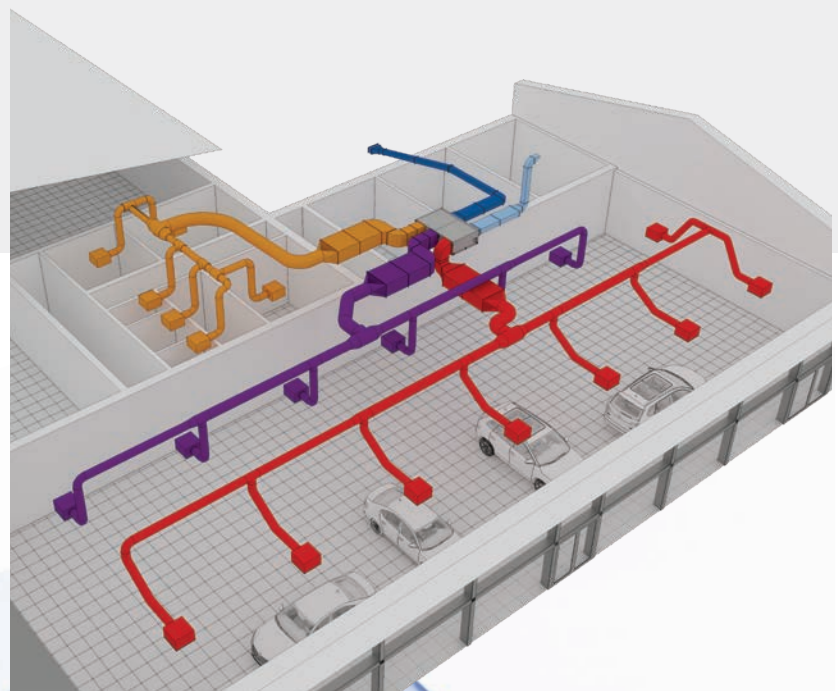
 **inside under-ceiling**



## DUPLEX RS5

**1,500–5,500 m<sup>3</sup>/h** (1,500/700; 1,500/1,000; 2,500/700; 2,500/1,000; 3,500/1,200; 3,500/2,000; 5,500/1,200; 5,500/2,000)

New DUPLEX RS5 series indoor units with a unique re-circulation design solution to allow full-scale ventilation with simultaneous interior air recirculation. The units are manufactured in several capacity versions.





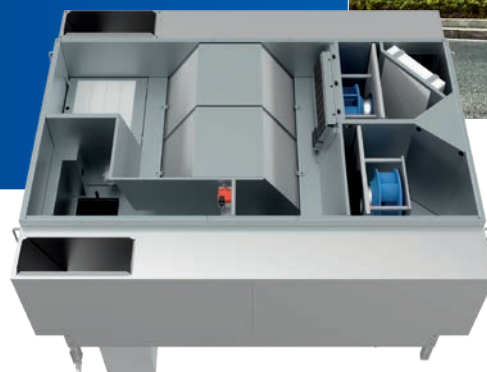
## DUPLEX Silent-N

1,400–2,400 m<sup>3</sup>/h |  Counterflow

The philosophy of the brand new units DUPLEX Silent-N, as the name suggests, is based on noise attenuation directly inside the ventilation unit. The design of the units with integrated noise silencers allows installation directly above the installation shafts of apartment buildings. This eliminates long ducts on roofs, reduces heat loss and significantly reduces maintenance costs. They are mainly used in central ventilation systems of apartment and industrial buildings, where the connection to the first apartment or office is usually 2 meters behind the unit.



Certification



### ADVANTAGES Silent-N

- Heat recovery efficiency up to 93%
- Superior plastic counter-flow heat exchanger
- Compact size with built-in noise silencers
- Wide variability
- Comfortable cooling mode at night in apartment buildings
- Eliminates major problems of central rooftop units (long ducting along the roofs of multi-storey apartment buildings)
- The units meet the requirements in accordance with Commission Regulation (EU) No. 1253/2014 (Ecodesign)
- Ideal location of the units directly above the installation shafts
- Internet interface as standard (aMotion)
- EC type fans – top German quality
- Smartphone application
- BMS, KNX, Bacnet compatibility
- 100% by-pass
- Constant airflow and pressure control

### Silent-N size range



1,400 m<sup>3</sup>/h ..... 2,400 m<sup>3</sup>/h

# DUPLEX Silent-N ways of application

## Construction of units

DUPLEX Silent-N units differs from other series in the placing of spigots for duct connection. Silencers are then placed inside the unit. This is an original solution, which guarantees noise attenuation and does not require ducting on the roof of the building.

The unit can be divided into a fan section (fans for supply and exhaust placed side by side), heat recovery section and ducting connection section. Thus, the mounting of the supply fan itself significantly contributes to the reduction of the noise. On-site, the unit is assembled into a common base frame and looks as a single set.

### rooftop



## DUPLEX Silent-N 1,400–2,400 m<sup>3</sup>/h (1,400; 2,400)

The compact ventilation units with heat recovery DUPLEX 1,400–2,400 Silent-N are, thanks to their top properties, predestined for the widest range of use in all types of buildings.

These units are characterized by a very steep characteristic and very low power consumption – thanks to top EC fans.



# CENTRAL VENTILATION FOR APARTMENT BUILDINGS

## Manage air with one system

### GREEN box – Intelligent ventilation solution from ATREA

Complete set of variable flow regulators.

The GREEN box system includes two tubes of the appropriate size with integrated measurement and continuous air flow control. It also includes a control module with autonomous regulation, which ensures maximum efficiency and comfort during ventilation.

### ADVANTAGES of the system

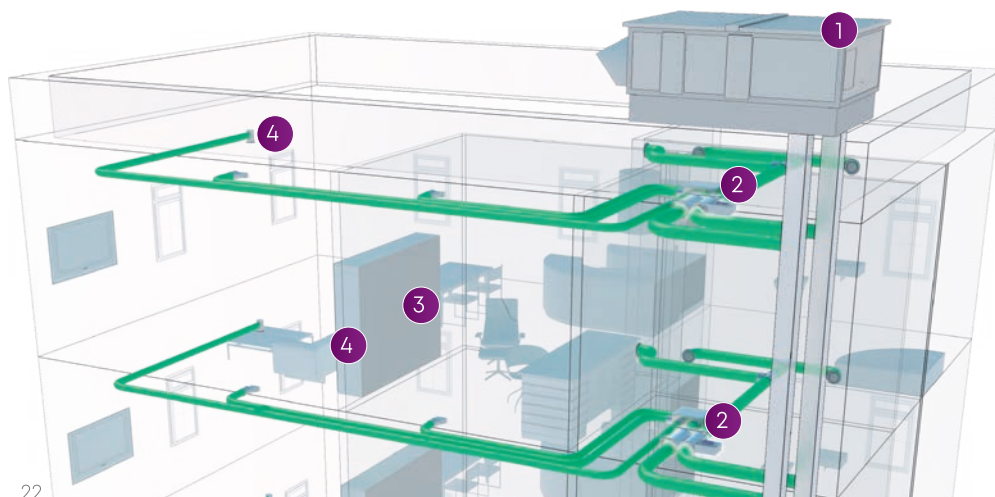
- Main source of noise outside the flat
- Minimised space requirements within the flat
- **Low** operating **costs** (filter replacement)
- **Economically efficient purchase**
- Routine servicing outside the flat, thus **no need for apartment owners to be present**

ATREA provides **complete** controlled ventilation **solutions** for modern buildings – from flats to offices, schools, hotels, industrial halls and many others.

A central heat recovery unit combined with VAV boxes ensures that **each ventilated zone gets exactly what it needs**. Controls? Intuitive, clear and highly modern.

When the standard is not enough and you need more controllers per unit? Contact us: [development@atrea.cz](mailto:development@atrea.cz)

### System configuration:



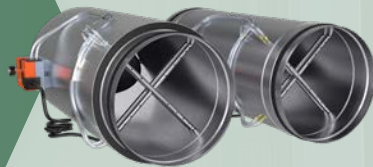
- 1 Central HVAC unit
- 2 VAV controllers with precise air flow measurement
- 3 aDot controller
- 4 Accessories – e.g.: CO<sub>2</sub>, VOC, rH

# CENTRAL VENTILATION FOR APARTMENT BUILDINGS

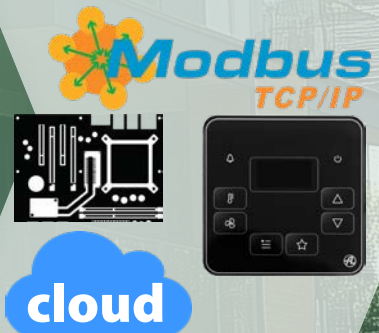
## DUPLEX unit



## VAV control



## Control and management options



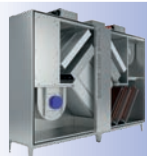
The system is based on a compact **ventilation unit with heat and cold recovery**, which can be located anywhere inside or outside the building, depending on the designer's choice.

**VAV controllers** for precise air flow measurement in dimensions of 100–400 mm offer high-quality, tight construction. Ideal for systems with an emphasis on economy, comfort and reliability.

The control module with aMotion support ensures intelligent control and operation of VAV controllers. It allows the connection of sensors (CO<sub>2</sub>, VOC, relative humidity), external signals, supports supply and

exhaust zoning supply and exhaust zoning and offers communication via Modbus TCP/IP. Three versions are available – for DIN rail, sheet metal or plastic distribution box.

## Comparison of central systems with the DUPLEX unit in combination with flow controllers



Conventional system with constant flow controllers (CAV-Constant Air Volume)

100 %



**GREEN box Lite:**  
set of pressure-dependent variable air flow controllers (VAV = Variable Air Volume)

65 %



**GREEN box Net:**  
set of variable air flow regulators with communication link to the DUPLEX ventilation (VAV = Variable Air Volume)

40 %

The graph shows the energy efficiency of individual system types in relation to each other.



**Modern aMotion control:**

brings comfort and control to every space

**Control from anywhere:**

you always have the climate under control

**Automatic ventilation:**

- sensors switch on ventilation exactly when needed
- a button allows quick ventilation with a single press

**Ready for smart homes:**

Compatible with LOXONE and other systems



## DUPLEX Inter



850 m<sup>3</sup>/h |  Counterflow

DUPLEX 850 indoor decentralised ventilation units are designed for equal-pressure ventilation in school classrooms, offices, restaurants, shops and anywhere else where they need to be installed directly into living spaces with the requirement for the lowest possible noise levels. The units are characterised by high heat recovery efficiency, very low noise levels and low power consumption.



Certification

### 32 dB(A)!

# A new generation of school ventilation

## ADVANTAGES for designers

- Low noise level allowing installation directly in living areas of buildings with the most stringent acoustic requirements
- Fully autonomous operation based solely on CO<sub>2</sub> concentration
- Pipeless system without any pipes in the room
- Elimination of difficult condensate drainage
- Standard digital control system aMotion, which enables remote management via the internet/app
- Highly efficient ventilation thanks to airflow under the ceiling
- Very easy installation without the need for professional design or specialised ventilation and energy installation
- High heat recovery efficiency of up to 93%
- During bypass, it closes the inlet to the heat recovery exchanger, enabling night-time pre-cooling
- Preheating as a standard part of the unit for automatic frost protection
- Optional reheating of supply air
- Complies with Ecodesign 2018 requirements



The most important **ADVANTAGES:**

- ✓ NO need for condensation drain
- ✓ NO ducts needed!
- ✓ Extremely quiet **32 dB(A)!**



natural wood casing

### UNIQUE lacquered design

DUPLEX Inter

Choice of several designs of lacquered sheet metal cladding.





## DUPLEX Inter-H

770–1,100 m<sup>3</sup>/h |  Counterflow

Brand new under-ceiling ventilation units DUPLEX Inter-H are designed for balanced ventilation in school classrooms, open-plan offices, facilities, restaurants, shops and everywhere else where they are required to be built directly in ventilated areas requiring as low noise levels as possible. The units are characteristic with their high heat recovery efficiency, very low noise levels and low power input.



Certification

# A new generation of school ventilation units

## ADVANTAGES for designers

- The most silent school unit on the market – sound pressure 29 dBA at a flow rate of 650 m<sup>3</sup>/h (1,000 Inter-H)
- Air flow up to 1,100 m<sup>3</sup>/h
- High efficiency of heat recovery up to 93%
- Height only 550 mm
- Demanding condensate drainage eliminated (!)
- Integrated preheater as standard included in the unit price
- Integrated infrared CO<sub>2</sub> sensor included in the unit price
- 4 options of the connection port position (to be decided at the installation)
- An option for unit to be partly installed in the suspended ceiling (to be decided at the installation)
- Quick and easy installation – original installation kit
- Unit to be split into 2 parts for easier handling and manipulation (through the door)
- Interior design – additional cladding installation after the unit has been commissioned after the very final phase of the construction works
- Optional reheater – easily to be fitted additionally
- High heat recovery efficiency of up to 93%



The most important **ADVANTAGES:**

- ☑ NO need for condensate drain
- ☑ NO ducts needed!
- ☑ The most quiet unit on the market! **29 dB(A)!**

#### Cassette ceiling installation

The unit is fully ready to be partially installed in the ceiling, just rotate the front panel with supply diffusers, to minimize even more the interference with the room clearance. In addition, the unit's surface cladding covers the unit's suspension. As a result, the unit has a very clean look.



#### Draughtles air distribution

Innovative supply diffusers use the Coanda effect to distribute the supply air evenly without draughts throughout the ventilated room.



# DOMESTIC LINE



## DUPLEX Pro / Pro-V

150–550 m<sup>3</sup>/h |  Counterlow

New and already sixth generation of compact ventilation units with heat recovery DUPLEX Pro / Pro-V is, just like its predecessors, meant for comfort ventilation of houses and flats. Its parameters make it particularly suitable for low-energy passive houses. It is also very suitable for the use in flats with decentralized ventilation systems. The units come in two basic models – Pro to be mounted under the ceiling and Pro-V to be mounted on walls. The Pro and Pro-V units meet all criteria on appliance in the highest energy class A+.



A+



Certification



Smartphone app

### ADVANTAGES Pro / Pro-V

- Exceptionally low noise levels around the units
- Under-ceiling variant with very low installation height and variable neck placement
- Connection ports with thermal bridge suppression
- Filter replacement without opening the door
- Automatic bypass
- Three performance variants to choose from
- Heat recovery efficiency up to 93%
- Highest energy class A+
- Integrated electric preheating
- Two types of control for different price categories
- Hot water heating as an optional accessory
- Optional constant air flow function
- INTEGRATED web server and application

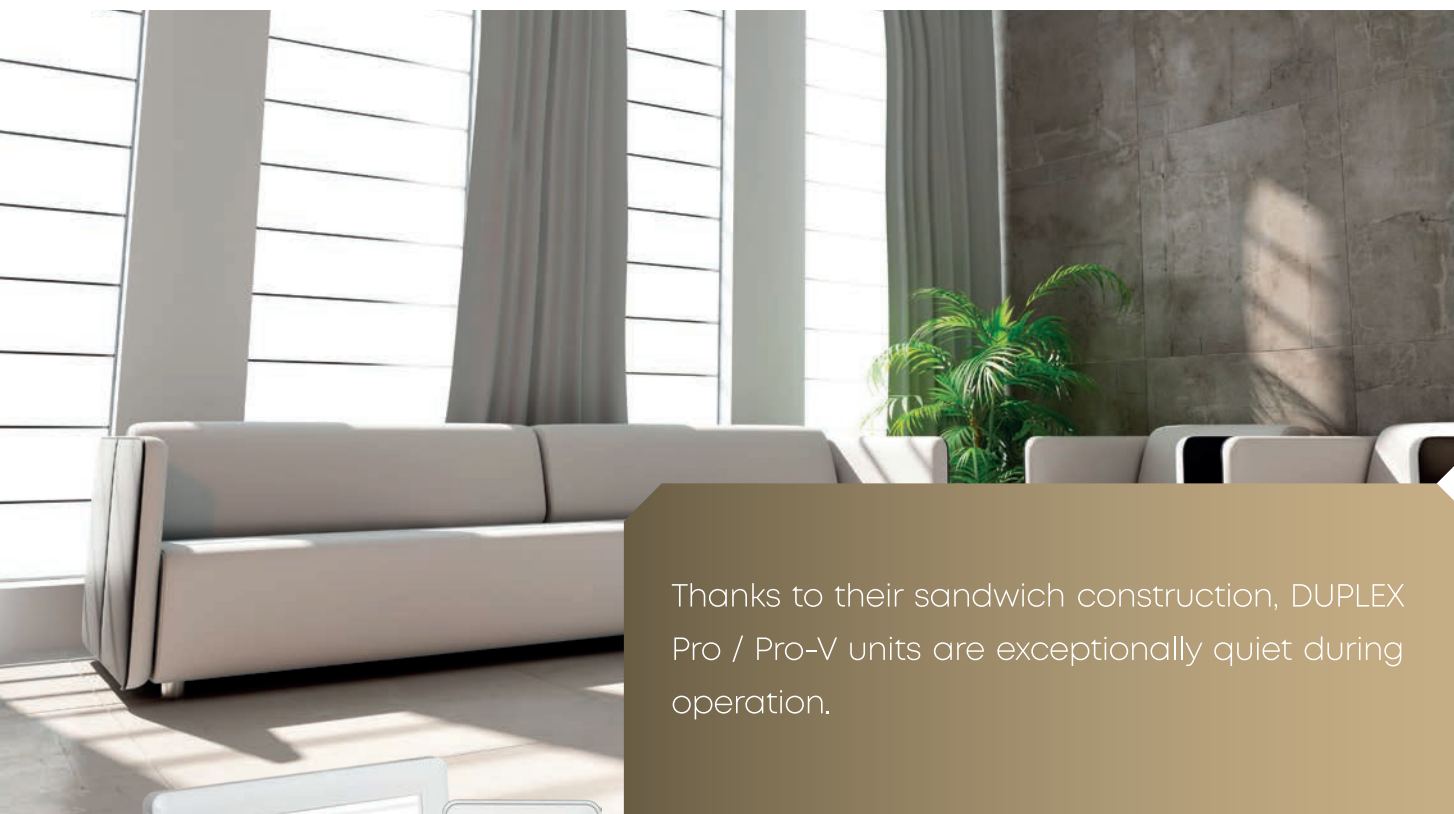
### Pro / Pro-V size range



150 m<sup>3</sup>/h ..... 550 m<sup>3</sup>/h



150 m<sup>3</sup>/h ..... 550 m<sup>3</sup>/h



Thanks to their sandwich construction, DUPLEX Pro / Pro-V units are exceptionally quiet during operation.



Two types of control panels

 inside under-ceiling



**DUPLEX Pro**  
150–550 m<sup>3</sup>/h (150, 350, 550)

 inside vertical



**DUPLEX Pro-V**  
150–550 m<sup>3</sup>/h (160, 360, 560)

## ADVANTAGES for end-users



### Easy filter replacement

Filters are important for a healthy indoor climate free of pollutants from the outside environment. Customers can choose the filter class that suits their needs. These filters are also very easy to replace.



## DUPLEX Easy2

200–500 m<sup>3</sup>/h |  Counterlow

DUPLEX Easy2 is a top quality product that meets the most modern requirements. It can be mounted on the wall or under the ceiling. The unit is designed for comfort ventilation in all types of residential and civil buildings, and is particularly suitable for low-energy and passive houses and fand apartment buildings with decentralized ventilation systems.



**A+**



Certification



Smartphone app

### ADVANTAGES Easy2

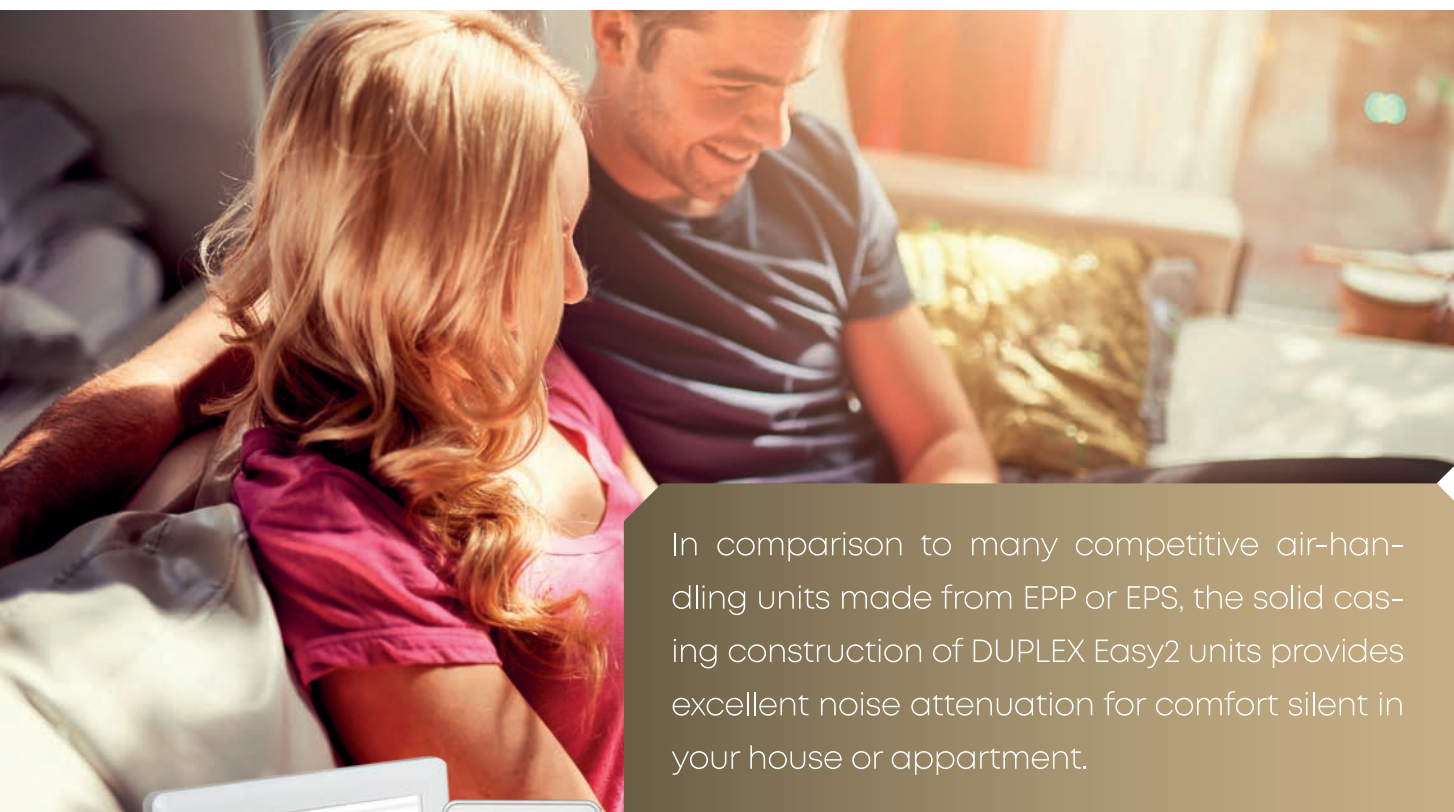
- Compact dimensions
- Versatile installation position: ceiling or wall
- Very low installation height from 220 mm
- Exceptionally low noise levels around the units
- Connection ports with thermal bridge suppression
- Integrated electric preheating
- Energy class **A+/A**
- Three performance variants to choose from
- Heat recovery efficiency up to 93%
- Two types of controls for different price categories
- Hot water heating as an optional accessory
- Optional constant pressure function
- INTEGRATED web server and application

### Easy2 size range



200 m<sup>3</sup>/h

500 m<sup>3</sup>/h



In comparison to many competitive air-handling units made from EPP or EPS, the solid casing construction of DUPLEX Easy2 units provides excellent noise attenuation for comfort silent in your house or apartment.



Two types of control panels

## DUPLEX Easy2

200–500 m<sup>3</sup>/h (200, 300, 500)

 inside  
under-ceiling



 inside  
vertical



## ADVANTAGES for investors and designers

### Compact dimensions

The units are characterised not only by their low installation height of 220 mm for ceiling mounting, but also by their compact dimensions in length and width.



## DUPLEX Slim

150 m<sup>3</sup>/h

Counterlow

Compact ventilation units with heat recovery, designed for installation not only above concealed flush systems for wall-hung toilets with innovative side exterior connection.



A



Certification



Two types of control panels

### ADVANTAGES Slim

- Very low installation depth of 170 mm
- Exceptionally low noise levels around the units
- Filter replacement without opening the door
- Wall-mounted installation in two side orientations
- Exterior connection ports with thermal bridge suppression
- Energy class A
- Heat recovery efficiency up to 93%
- Two types of controls for different price categories
- Optional constant air flow function
- INTEGRATED web server and application

### Slim configuration



conf. 11

conf. 10

150 m<sup>3</sup>/h



DUPLEX Slim are compact ventilation units with heat recovery, designed for installation not only above concealed flush systems for wall-hung toilets.



Smartphone app

**I** inside vertical

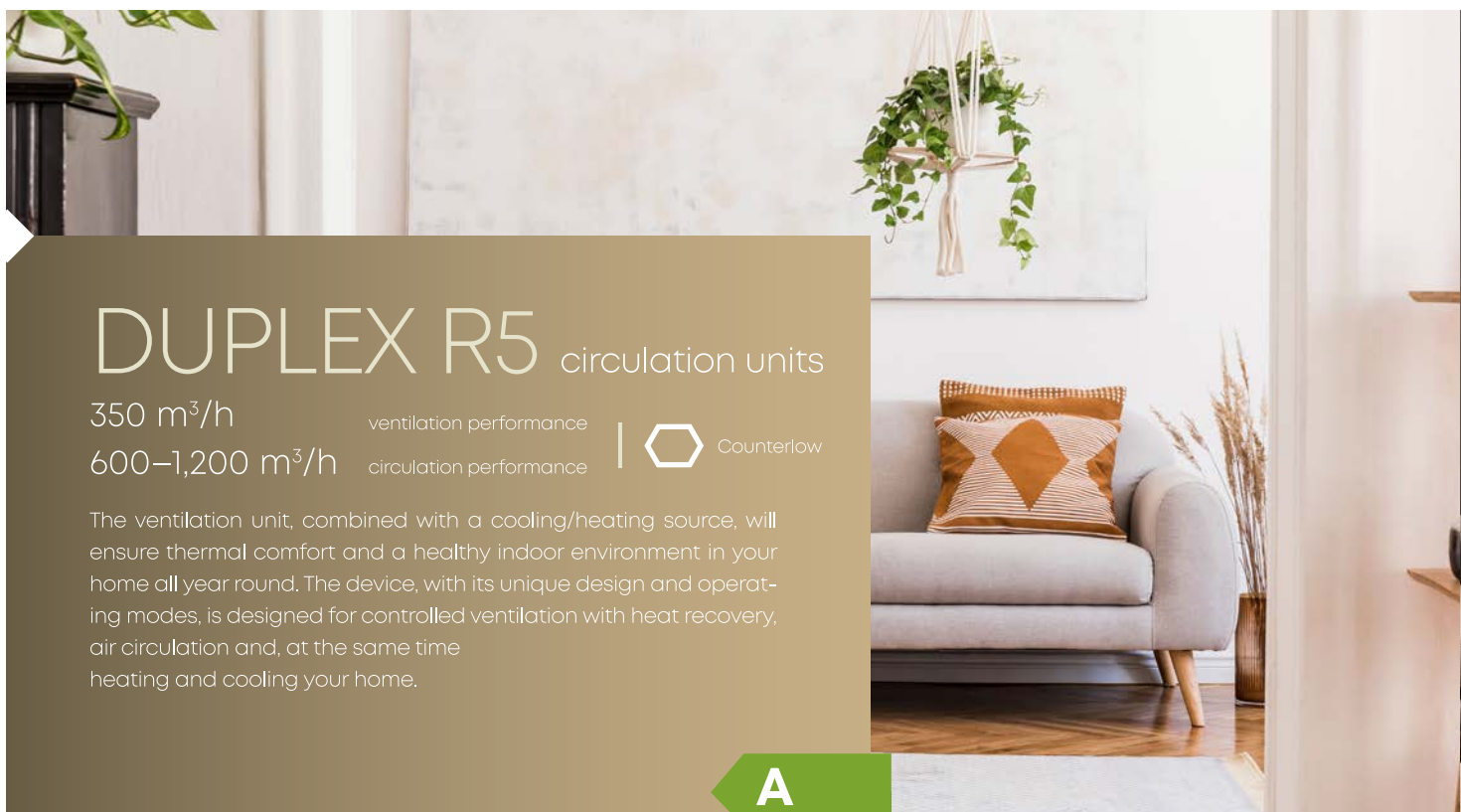
**DUPLEX Slim**  
150 m<sup>3</sup>/h (150)



## ADVANTAGES for end-users

### Easy filter replacement

Filters are important for a healthy indoor climate free of pollutants from the outside environment. Customers can choose the filter class that suits their needs. These filters are also very easy to replace.



## DUPLEX R5 circulation units

350 m<sup>3</sup>/h

ventilation performance

600–1,200 m<sup>3</sup>/h

circulation performance



Counterflow

The ventilation unit, combined with a cooling/heating source, will ensure thermal comfort and a healthy indoor environment in your home all year round. The device, with its unique design and operating modes, is designed for controlled ventilation with heat recovery, air circulation and, at the same time heating and cooling your home.

**A**



Certification

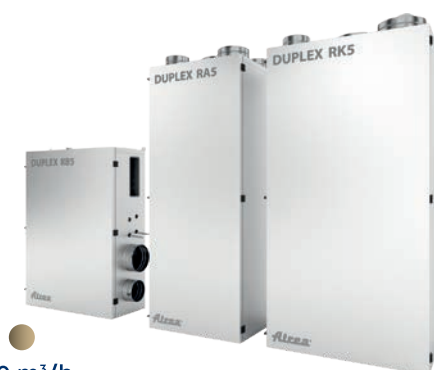


control panels

### ADVANTAGES R5

- Cooling and heating with water exchanger / direct cooler
- Heating and cooling are independent of ventilation
- Optional integrated electric heater
- Cooling up to 4 kW
- Heating up to 6 kW
- Low noise levels around the units
- Constant air flow function
- Energy class **A**
- Heat recovery efficiency up to 93%
- Fully closable automatic bypass
- Separate circulation circuit
- Stationary and ceiling-mounted design
- Option of communication with superior control
- INTEGRATED web server

### R5 size range



350 m<sup>3</sup>/h



DUPLEX R5 – this device, in combination with a heat/cooling source, is capable of fully replacing heating systems in a family home.



Web interface

The units can be equipped with heat exchangers for heating and/or cooling according to specific needs. Electric heaters, direct coolers or water heaters/coolers can be selected.

 inside under-ceiling

**DUPLEX RB5**  
350 m<sup>3</sup>/h / 600 m<sup>3</sup>/h



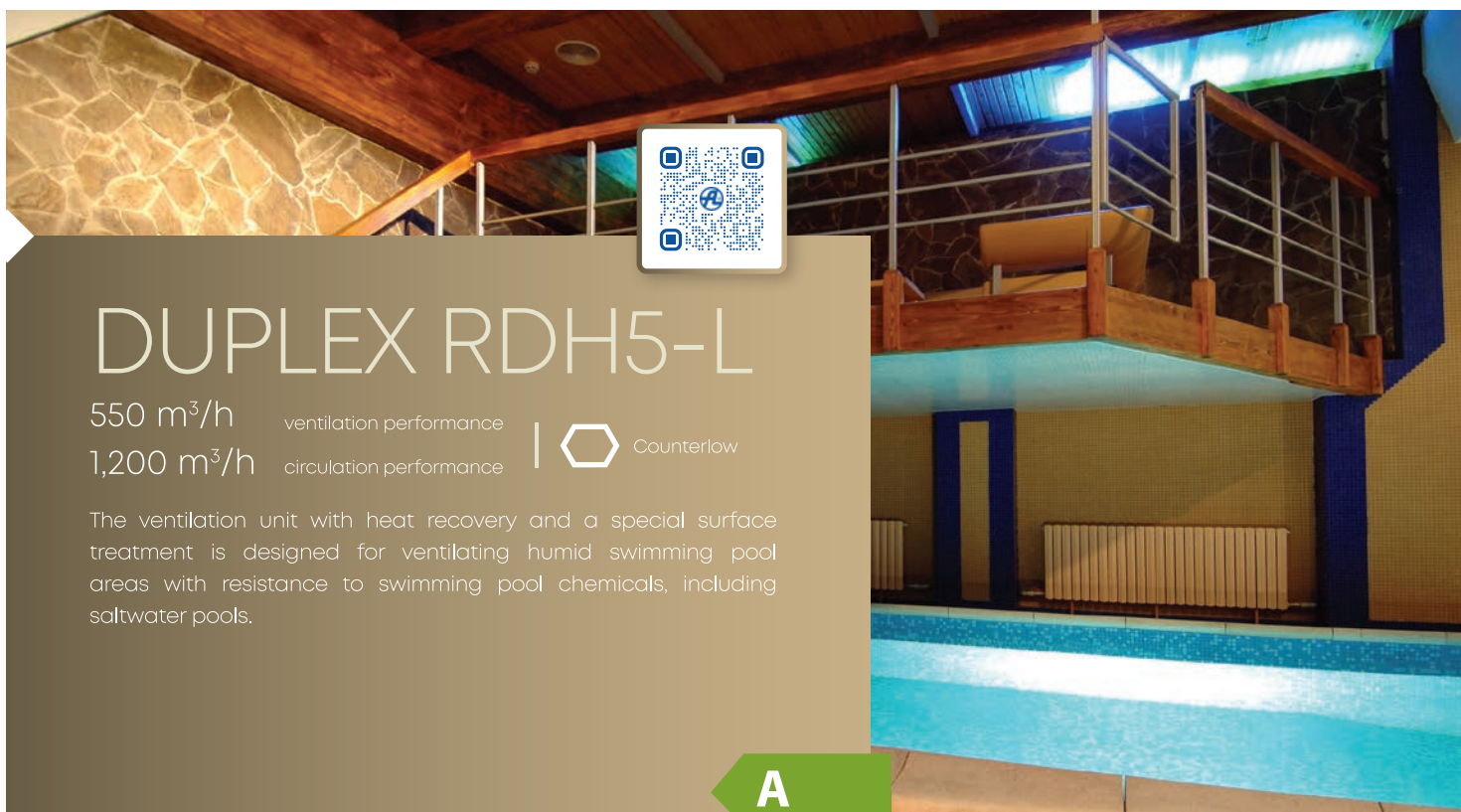
 inside vertical

**DUPLEX RA5 / RK5**  
350 m<sup>3</sup>/h / 600–1,200 m<sup>3</sup>/h



## Cooling/heating sources for DUPLEX R5

- Air-to-air heat pump with integrated **direct** refrigerant exchanger
- Air-to-water heat pump with integrated **water** exchanger
- Ground-water heat pump with passive cooling option. Use of ground borehole or surface collector for air cooling. **Two water** exchangers are integrated into the device.



## DUPLEX RDH5-L

550 m<sup>3</sup>/h ventilation performance  
 1,200 m<sup>3</sup>/h circulation performance



The ventilation unit with heat recovery and a special surface treatment is designed for ventilating humid swimming pool areas with resistance to swimming pool chemicals, including saltwater pools.



Certification



control panels

### ADVANTAGES RDH5-L

- Ventilation up to 550 m<sup>3</sup>/h
- Dehumidification capacity up to 5 kg/h
- Heating up to 4 kW
- Corrosion resistance
- (tested in a salty environment in accordance with ČSN ISO 9227 NSS, 480-hour test)
- Low noise around the units
- Energy class **A**
- Heat recovery efficiency up to 93%
- Constant air flow function
- Fully closable automatic bypass
- Separate circulation circuit up to 1,200 m<sup>3</sup>/h
- Option of communication with superior control
- INTEGRATED web server

### RDH5-L size range



550 m<sup>3</sup>/h



Special surface coating  
**FOR SALT  
 WATER POOLS!**

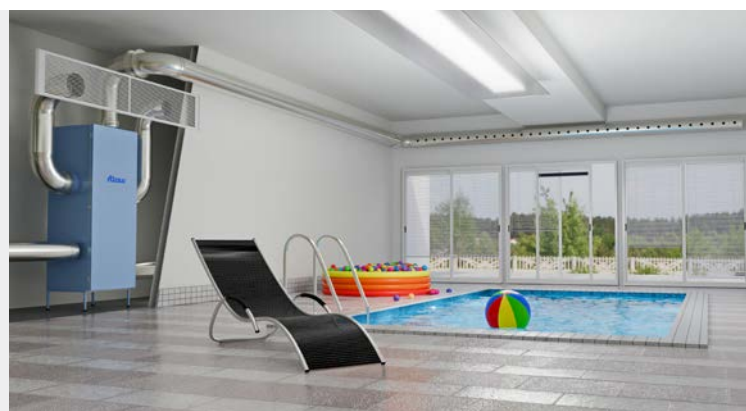
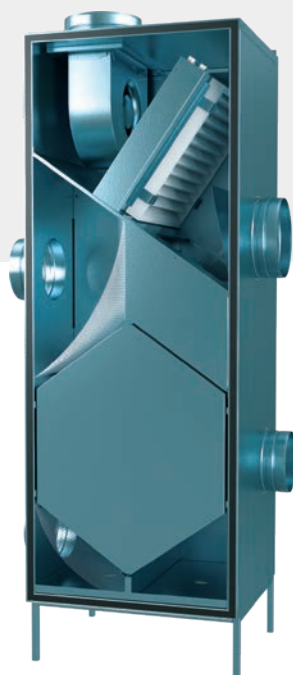


web interface

The basic version includes a circulation and extraction fan for air ventilation, humidity reduction and hot-air heating of the pool area.

**I** inside vertical

**DUPLEX RDH5-L**  
 550 m<sup>3</sup>/h / 1,200 m<sup>3</sup>/h





## Ventilation ceilings

ATREA is able to supply a complete solution for kitchen ventilation – from the ventilation ceiling to the air-handling unit with heat recovery. Having the whole service in one package gives us a huge competitive advantage, because it is both convenient and comfortable for the customer. ATREA ventilation system is designed according to both EN16282 and VDI 2052. The construction of our ventilation system meets the most stringent criteria in terms of health requirements as well as design. The well-lit space of the entire kitchen, the draft-free supply of fresh air and perfect extraction, all that with the additional benefit of a modern control system, create a pleasant and clean environment for kitchen staff.



Certification

## BUSINESS advantages

### • Attractive design

Polycarbonate fillings together with stainless steel elements create a very elegant kitchen design.

### • Easy maintenance

It is extremely easy to clean the ceiling. A wet dishrag will do the job.

### • Light weight

There are no special weight demands to install ATREA ventilation ceilings.

### • Pleasant environment for cooks

People need to work in a healthy and light environment, which is not a problem when having ATREA TPV ceiling in the kitchen.

### • Brightens up the space

Thanks to the polycarbonate light covers, the light spreads all over the place.

### • Air-tight (closed extraction system)

This system ensures that no polluted

air can come into contact with the building construction and thus no mold can form. This is extremely important, because we maintain a very high level of hygiene in all of our ventilation systems.

### • ATREA provides turn-key solution!

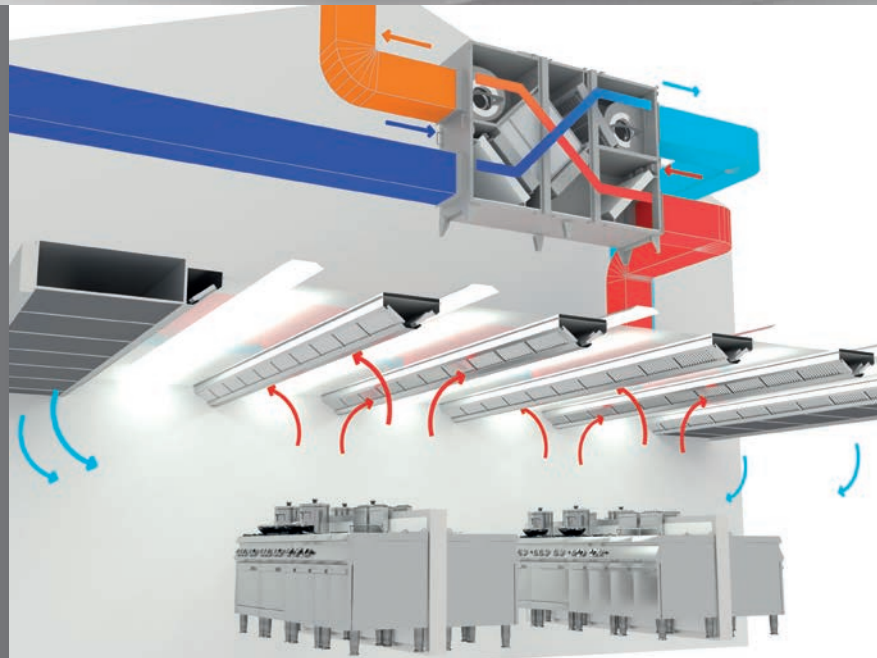
From the initial consultation via calculations and designing of the complete system to production and installation of kitchen ceiling, control system and the heat-recovery unit providing sufficient airflow. All in one package!

## TECHNICAL advantages

- Complete ventilation system from one producer
- Automatic control system
- Ventilates the entire area of the kitchen
- Hygienic air exchange
- High filtration efficiency
- Europe-wide TÜV certification
- Integrated supply of fresh air
- Integrated light for the whole area
- Perfect protection for the building construction
- Air-tight system perfectly protecting the building construction



Our flagship products are **ventilation, air conditioning and extraction suspended ceilings** that raise the bar in the market. Thanks to their unique **polycarbonate construction and innovative exhaust duct design**, we offer solutions that our competitors cannot match. Each system is **100% airtight and precisely tailored to the specific project**. With ATREA, you not only get technical perfection, but also the certainty of reliable and efficient operation.



TPV

TPV-N

TPV-Exclusive



CHARACTERISTICS

- TPV – A standard polycarbonate version of a fully illuminated ventilation ceiling.
- TPV-N – Ventilation ceiling made of stainless steel.
- TPV-K – Stainless steel design of the TPV ventilation ceiling with painted white aluminium fillings between the air ducts.
- TPV Exclusive – option to use stretched foil in various designs.





## KITCHEN HOODS

**Comprehensive hood solutions from ATREA – for every kitchen!**

We offer a **comprehensive range of cooker hoods**, from the reliable basic **KUBUS** model to **intelligent cooker hoods with heat recovery and OPTIMA reheating**. Our products are the ideal choice **for all types and sizes of kitchens** – from smaller establishments to large catering operations. What sets us apart? **Precise workmanship, high quality and long service life** you can rely on.

ATREA – your professional partner for clean and efficiently ventilated spaces.



### MODIS 2

MODIS 2 is part of ATREA's product line – assembled kitchen hoods with a unique construction solution based on a modular system. This line offers an option to choose how the product will be delivered.

- 5 year warranty
- Attractive design
- Integrated light



### KUBUS

A simple hood suitable for appliances such as dishwashers. The operation of such appliances does not result in the particles of fat being contained in exhaust air so it is not necessary to install grease filters.

- Fully welded construction
- Durable AISI 304 stainless steel

#### There are three choices to be made:

- Delivery of a disassembled hood without the spigot
- Delivery of a disassembled hood with the spigots ready to be assembled on-site
- Delivery of an assembled hood

## OPTIMA

OPTIMA kitchen hoods with heat recovery and up to 75% efficiency ensure effective extraction and filtration of exhaust air and, at the same time, a comfortable supply of fresh air with reheating for kitchens of all sizes and configurations, with automatic operation. Compared to the standard range, they also feature built-in electric reheaters or water exchangers for heating or cooling the supplied air.



## VARIANT

Kitchen hoods VARIANT ensure efficient extraction with exhaust air filtration and simultaneously the supply of fresh air for kitchens of all sizes. They are custom made and include an automatic operation control system.

- Integrated supply of fresh air
- Integrated fluorescent light with IP65
- Low weight
- Elegant design
- Optional directing of fresh air supply
- Compact size



## GRANDE

The welded stainless steel kitchen hood GRANDE was developed to meet the most stringent technical parameters according to the EN16282 and also the customer's design demands. Thanks to these parameters it can be used for ventilating cooking tops working under enormous strain and also acts as a design element.

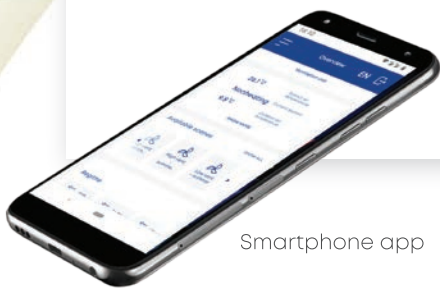
- Stainless steel design
- Cost-saving light
- Wireless control of the light
- Minimum of mounting joints (a "fully welded" look)
- Huge accumulation space
- High efficiency of separators

# CONTROL SYSTEM

There are two types of control system available for our customers

## aMotion Control system

A convenient system with integrated support for online monitoring and control via the internet. It can also be connected to higher-level centralised building management systems. The system can include a wide range of sensors (temperature, humidity, air quality, etc.) that enable automatic control for economical operation. The aMotion system is suitable for both standard and complex applications (e.g. ventilation of restaurants, offices and residential buildings).



Smartphone app



aTouch controller



aDot controller

### Various functions of the aMotion control system

- User-configurable intuitive interface allowing easy switching between automatic and manual control modes.
- Constant pressure – optional accessory for maintaining constant pressure in the ductwork.
- CO<sub>2</sub>, relative humidity and air quality sensors – option to automatically adjust ventilation intensity based on these parameters.
- Modbus TCP – Communication with the superior BMS system.
- User preferences – including weekly settings programmes for ventilation, heating and cooling.
- Option of temporary manual control with timing for return to weekly programme.
- External input functions – programmable switches, according to user needs
- Electric preheaters and reheaters, water or refrigerant heaters and coolers.
- Zoning – option to divide the building into zones and define their operation.
- BACnet / KNX – optional converter allows connection to a higher-level system via BACnet or KNX protocol.

### aTouch controller

- Touch controller with colour display
- Wall-mounted design
- Uniform design of the controller, mobile application and web interface
- Option to lock the display with a PIN code

### aDot controller

- Two colour versions – black and white
- Simple touch control for intuitive operation
- Easy adjustment of power, temperature and operating mode
- Simple on/off button and favourite scenes
- Suitable for easy control in homes, restaurants, shops, etc.

- Built-in temperature sensor for room temperature control
- Option to use a combination of both controllers for a single unit
- Up to 4 controllers per unit

# CP Control system

The CPA and CPB variants are basic digital control systems. A wide range of sensors (temperature, humidity, air quality, etc.) can be integrated into the system, enabling automatic control for economical operation. The CPM variant is suitable for above-standard application (e.g. ventilation of restaurants and offices).



CPA / CPM controller

CPB controller

## CPA controller

- In the version with CPA or CPB controller (not possible without controller)
- CPA controller with touch screen
- Weekly programme
- Party mode – for when higher ventilation performance is required
- “Holiday” mode – automatic activation and deactivation according to the set date
- Filter replacement alert

**aMotion meets all the requirements for a state-of-the-art control system.**

**CP is a cheaper and simpler control system for operating the unit's basic functions.**

## CPB controller

- Manual or automatic mode
- Smooth fan control
- Switching to selected power according to external signal
- Control of supply and exhaust shut-off dampers
- Option to limit maximum and minimum ventilation power
- Option to automatically control ventilation power to a constant pressure level in the supply duct
- Control is divided into user and service sections (accessible only to service technicians)
- CPB – simplified mechanical controller with limited functions
- CPM – control with extended options

# SELECTION SOFTWARE



ATREA offers **its own** design software, which is a useful and practical tool for selecting units from the DUPLEX series

- Detailed calculations of all technical specifications are a matter of course.
- The software checks whether all necessary components have been selected and whether the entire system is fully functional. This helps to prevent potential errors.
- BIM support – allows you to export selected devices in RFA and IFC formats.



ATREA selection software is frequently updated and available to download for **FREE**.

## IT INCLUDES

- Setting of all operating parameters – flow rates, pressures, temperatures, humidity
- Intuitive selection of accessories and components – filters, dampers, heaters, coolers, silencers
- Selection of control system – including remote management and connection to BMS
- Electrical connection diagrams
- Display and print parameters of installed components – including h-x diagram and HVAC diagrams
- Export of drawings to DXF – in 2D or 3D for CAD software

**Easy selection and design of suitable heat recovery units, Green Boxes, kitchen hoods.**

# ATREA CERTIFICATES

We, as ATREA, can prove our quality by **having premium European certificates** and complying with highest European standards. Thus, we give the base to our customers to win even the most difficult projects.



Commission Regulations No. 1254/2014 and No. 1253/2014, which apply to ventilation units with heat recovery. According to this regulation, a ventilation unit must meet the following minimum requirements:

**1) ventilation units for residential buildings** – maximum flow rate **does not exceed** 250m<sup>3</sup>/h or ranges from 250 to 1,000 m<sup>3</sup>/h and the manufacturer declares its use only for residential buildings (within the ATREA DUPLEX Pro, Pro-V, Easy2, Slim, R5, RDH5-L product range).

**2) Units for non-residential buildings** – maximum flow rate between 250 and 1,000 m<sup>3</sup>/h not declared by the manufacturer for use in residential buildings or above 1,000 m<sup>3</sup>/h (within the ATREA DUPLEX Multi, MultiEco, RS5, Flexi, Roto, Silent, Inter, Inter-H product range).

All ventilation units under these regulations must meet a number of technical parameters and conditions specified directly in the relevant legislation.



Rotary heat exchangers are a Eurovent certified product of the renowned company Kastl

Passive house certificate; requires compliance with a number of criteria and parameters, for example:

- **Recuperation efficiency**  
Specific fan power consumption
- **Unit tightness**
- **Noise**
- **Energy consumption**
- **Automatic protection of heat exchangers against freezing**

A German standard with very strict requirements. It guarantees that **health-nd non-hazardous materials have been used**, together with smooth surfaces that **do not promote the growth or spread of microorganisms**. This is declared by a special test according to the ISO EN846 standard. It also defines the minimum requirements for the design of the unit so that all its **parts are easily accessible and safely reachable**. In addition, it takes into account the indoor air quality by determining the correct filtration class.

This independent certification body guarantees customers **that the parameters declared by the manufacturer are true**.

# REFERENCES



SKODA Auto  
Mlada Boleslav  
Czech Republic

TPV Ventilation ceiling  
with 1,000 m<sup>2</sup> area



Battersea Power  
Station London  
Great Britain

10 pcs of DUPLEX Flexi units

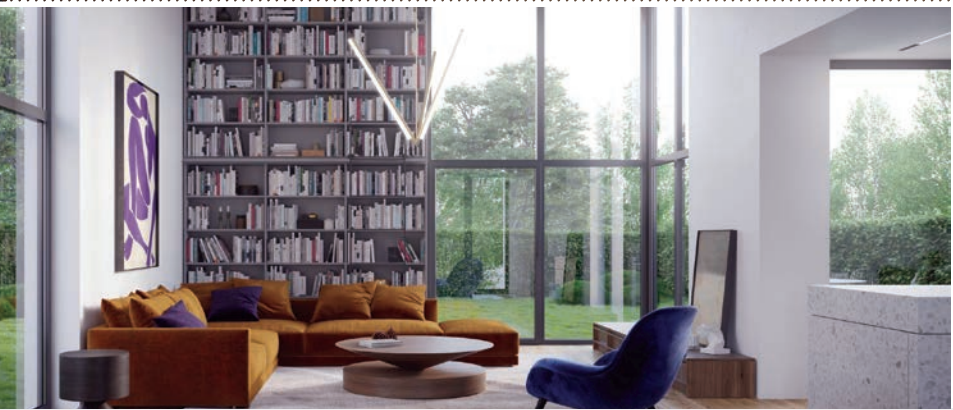


# REFERENCES



Amber Forest  
Romania

250 pcs of DUPLEX Easy units

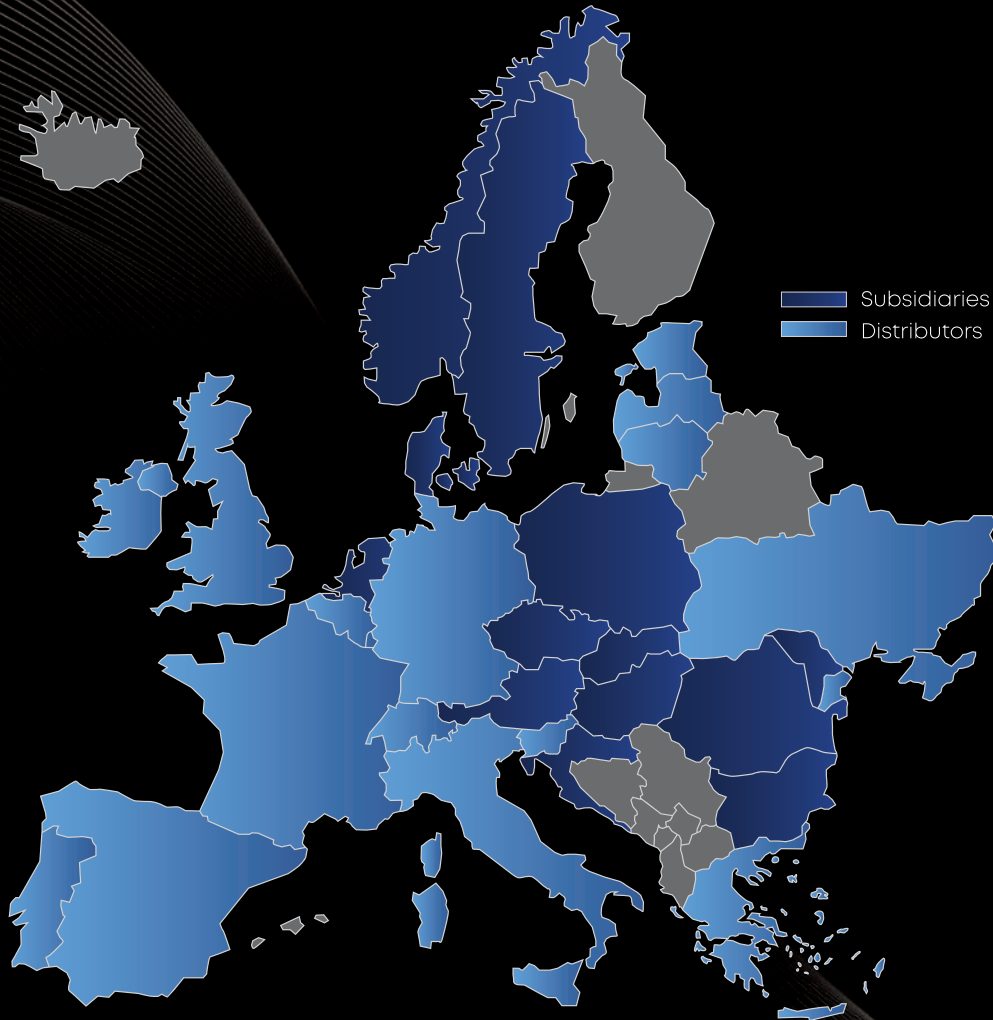


University  
of Tasmania

10 pcs of DUPLEX Multi units



# Atrea®



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