



DOMESTIC LINE
DUPLEX EASY





WHY VENTILATION?

Healthy environment

We all need to breathe. Air nowadays is polluted both by external and internal influences. DUPLEX Easy ventilation units reduce pollutants such as radon, fumes chemicals, CO₂ or moisture to a healthy level.



Comfort feel

The high standard of today's comfort living requires for modern flats and houses to renew their indoor atmosphere automatically based on factors such as cooking and use of bathrooms or toilets. DUPLEX Easy air handling units can help to ventilate to meet these intelligent living requirements based on real needs of the indoor climate.



Energy savings

DUPLEX Easy air handling units save energy and subsequently the costs of living. The counterflow exchanger reaches a heat recovery efficiency of up to 93 %. Also the German EC fans have outstandingly low energy consumption which together with the heat recovery reduces significantly the costs.



DUPLEX Easy



COMPETITIVE ADVANTAGES

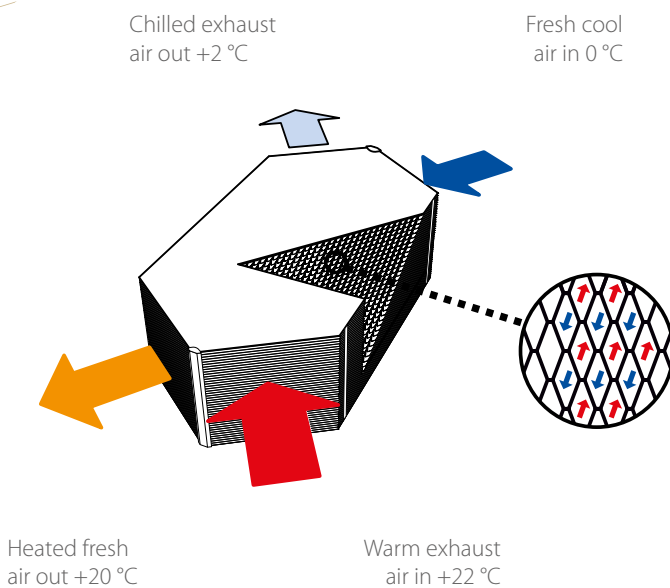
The new air handling unit DUPLEX Easy is a top quality product that meets the most modern requirements. It can be mounted under the ceiling, in floorstanding position or flat position. The unit is designed for comfort ventilation in all types of residential and civil buildings, and is particularly suitable for low-energy and passive houses and flats in residential buildings with decentralized ventilation systems.

Control system	DUPLEX Easy
CP +2x external signal	
RD5 +2x external signal	

NOTE: All types of built-in control system standardly include at least two inputs for connecting electrical signal, that are a result of human manipulation of light, or other device, which automatically controls power of the unit. These inputs must be always connected, or instead of them must be connected other types of sensors (e.g. CO₂, VOC, rH etc.).

- 93 % counterflow heat recovery exchanger
- Top quality EC fans – German quality
- Underceiling, flat or floor-standing position
- 100 % by-pass damper
- Excellent dimensions
- Easy filter replacement
- Possible of constant pressure in the supply
- Possible of distribution the supply and exhaust air
- Certificate Passive House Institute – mark of highest efficiency

ATREA HEAT RECOVERY EXCHANGER SYSTEM



Heat recovery principle

Heat transfer occurs through the separating walls of a heat exchanger – in winter warmer exhaust air pre-heats colder supply air. The same principle is applied also in summer for cool recovery.

In winter time humidity condensates in exhaust air. This condensate increases heat recovery efficiency through improved heat transfer and is continuously drained into a sewer system.

Significance of heat recovery

An energy-optimised heat recovery exchanger reaches a highly economical ratio between power consumption (to run fans), air performance and heat recovery. The fan input vs. heat recovery gain ratio during ventilation reaches an energy efficiency of 17–25, i.e. from 1 W of power used to run a DUPLEX Easy up to 25 W is recovered from exhaust air.

Effective ratio 1 : 25



Easy **BUSINESS**



BUSINESS COMPETITIVE ADVANTAGES

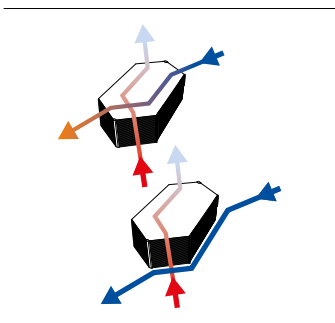
93 % counterflow heat recovery exchanger

ATREA counterflow heat recovery exchangers achieve an excellent efficiency of up to 93 %. This is of course effectively reflected in lower energy consumption and resulting savings on heating bills.



100 % by-pass damper

This enables the comfortable possibility of free-cooling. Unlike many competing products, DUPLEX Easy units have an option of 100 % by-pass of the heat recovery exchanger via a by-pass damper.



Servo drives

This means faultless operation of the by-pass damper in DUPLEX Easy units. In case of configuration with servo drives the top quality Swiss Belimo producer of this component is used.



DUPLEX Easy



Top quality EC fans – German quality

The fans used in DUPLEX Easy are of the highest German quality. In contrast to many competing products there are no Chinese ventilators but German fans from EBM Papst, the world's leading manufacturer. This German quality ensures a minimum failure rate and mainly gives maximum performance at very low energy consumption. The low power consumption of fans together with the high efficiency of the ATREA heat recovery core significantly reduce ventilation costs.



Filter – G4 / F7

Filters are important for a healthy indoor climate without pollutants from an outside environment. Customers can choose a filter class to meet their needs. These filters are also very easy to replace.



Three sizes to meet market requirements

DUPLEX Easy have three possible performance sizes:

- DUPLEX Easy 250
- DUPLEX Easy 300
- DUPLEX Easy 400.



Excellent dimensions (280 mm)

The DUPLEX Easy was developed with a constant emphasis on the market's requirements for the size of the units. The DUPLEX Easy units' design has been modified to achieve the height of the ceiling-suspended position of 280 mm! This factor extremely facilitates installation and saves space.



DUPLEX Easy allows you to choose the level of the control system according to your or project requirements. We offer three types of the controls: Easy CPB, Easy CPA and Easy RD5. The idea behind is to offer the kind of price level that is needed for individual projects, i.e. from Easy CPB as the cheapest, to CPA as the middle choice to the high-end control system RD5 with integrated webserver.



CONTROL SYSTEM 3 levels of possible control system

Easy CPB

This is the starting level of DUPLEX Easy control system that provides basic functions of controlling of the unit. The limited functions, however, give a **very good price** of this variant.

- **Frost protection** – fan disbalance
- **Automatic by-pass with servo drive**
- **Reheating**
- **Volume flow**
- **Analogue input (0–10 V)** for air quality sensor
- **Digital input** for signal from WC, bathroom ...
- **Minimum and maximum speed preselection**



Easy CPA

This version meets higher requirements and is fully ready for modern comfort living. This level of our control system comes with the **touch screen** controller.

- **Frost protection** – preheater or fan disbalance
- **Reheating**
- **Analogue input (0–10 V)** for air quality sensor
- **Digital input** for signal from WC, bathroom ...
- **Inlet and outlet shut-off damper**
- **Manual or weekly program**
- **Room temperature display**
- **Party mode, holiday mode**
- **Filter change notice**
- **Minimum and maximum speed preselection**



Easy RD5

This is ATREA's proprietary control system that meets all requirements for high-demand controlled ventilation. The great advantage is the **integrated web server** as standard.

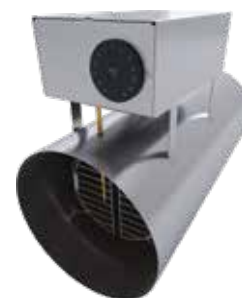
- **Frost protection** – preheating or fan disbalance
- **Optional constant flow function**
- **Modbus TCP**
- **Analogue / digital input**
- **Right or left configuration just through the controller setting**
- **Weekly programming**
- **Run-down and delay time option**
- **Boost and party mode**
- **Combined heating and preheating** – electrical and water based
- **... and much more**





ATREA EPO-PTC

New electrical PTC (Positive Temperature Coefficient) heating accessories with self-limiting temperature characteristic have fast heating response times, long service life and compact design. Can be used as a preheater or reheater.



For more information check our DUPLEX Easy technical catalogue.



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