

Air handling units

Catalog



 **VentiAir**



VENTIAIR – Air conditioning units from Czechia

Our company is a leading Czech manufacturer of air conditioning units. One of the goals of our company is the complexity of delivery. That is why we have built a production company with a complete portfolio of units which, at the same time, remains flexible in solving individual customer requirements. Thanks to this, we manufacture and supply units to many, not only European, countries.

We place great emphasis on minimizing operating costs, and therefore we approach each order very carefully and always propose individual solutions tailored to the needs of the project. We supply ventilation units also including measurement and control systems. That is why we have managed to build a strong position on the European ventilation unit market.

Our facilities are installed in various projects such as office buildings, schools, hotels, hospitals, sports facilities, banks, production halls, shopping centres, private and public swimming pools.

We strive for the team of our company to be composed of professionals who are able to address the needs of our customers to their maximum satisfaction. We are aware of the importance of a quality relationship between the supplier, the installation company and the designer and so we approach the business.



VentiAir



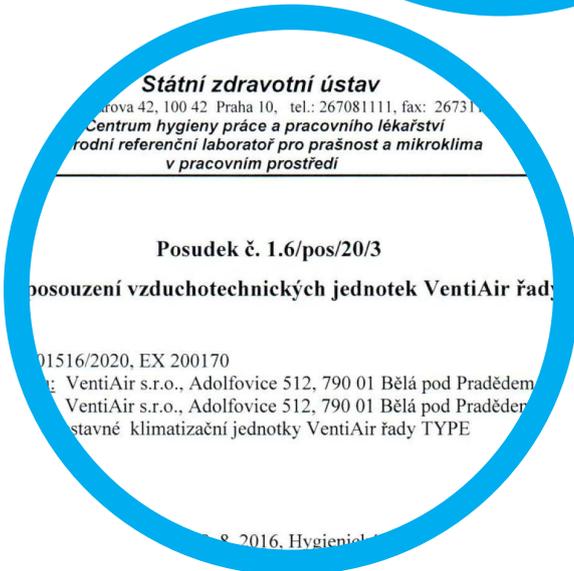
CERTAINTY FOR YOU AND YOUR PARTNERS

Our units go through a complex product certification process from several certification authorities. Among the main ones, we can name an authorized person 227 - RESEARCH INSTITUTE OF BUILDINGS - CERTIFICATION COMPANY and then laboratories of the internationally recognized TÜV standard.

Part of the certification is also the verification of the actual parameters of the products and comparison with the stated characteristics.

Certification includes:

- ◆ **Measurement of air performance of the device** and comparison of measured values with the parameters specified by the manufacturer
- ◆ Measurement and control of parameters according to **EN 1886 and EN 13053**
- ◆ **Measurement of noise characteristics** and comparison of measured values with parameters specified by the manufacturer according to EN 13053
- ◆ Comparison of technical data with valid legislation
- ◆ Regular **annual supervision in production, repeated measurements**



Regular Production Surveillance Safety



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* under the conditions specified in the operational and technical documentation



Brief characteristics of VentiAir air conditioning units

Construction

- ◆ Skeletal structure consisting of aluminium profiles, plastic corners and sandwich panels
- ◆ Panel filling - **polyurethane (PUR)** or **mineral wool**
- ◆ Panel cladding - galvanized or stainless steel, RAL according to customer requirements
- ◆ Service access – from side (as standard), from bottom (under-ceiling design), or according to requirements and options
- ◆ The exterior design is equipped with a full-area roof with overlaps, material **galvanized sheet metal**, dampers including actuators inside the chambers, intake and exhaust rain shutters on request.

Advantages of the used construction

- ◆ Reduction of energy losses - minimization of thermal bridges
- ◆ Elimination of moisture condensation
- ◆ High rigidity and durability of the structure
- ◆ Elimination of moisture condensation
- ◆ Elimination of moisture absorption
- ◆ Insulating material with a very long degradation time
- ◆ Smooth inner sheathing surfaces - easy to maintain hygiene
- ◆ Lightweight inspection panels - simple operation
- ◆ High resistance to external atmospheric influences
- ◆ High resistance to mechanical damage

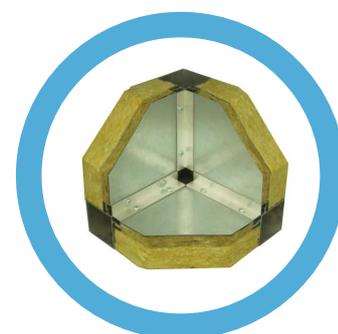


Regular
Production
Surveillance
Safety



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| Data according to EN 1886 for PUR panel 45mm | Value |
|---|-------------------------------|
| Working conditions | -40 to +90°C |
| Heat transfer coefficient for cladding $K=0,67 \text{ W/m}^2\text{K}$ | T2 |
| Coefficient of thermal bridges | TB2 |
| Mechanical resistance of the casing | D1 |
| Sheath tightness -400 Pa/+700 Pa | L1 |
| Filter tightness | F9 |
| Panel thickness - PUR | 25, 45 mm |
| Panel thickness - mineral wool | 50, 60 mm |
| Sheet thickness - PUR panel | 0,6 mm |
| Sheet thickness - mineral wool panel | 0,8 mm |
| Thermal conductivity coefficient PPU | 0,022 W/mK |
| Fire resistance of cladding | fire resistant material (NRO) |
| Moisture absorption | 0,04 % |
| PPU density | 42 kg/m ³ |
| Panel weight | 10 kg/m ² |
| Corrosion protection - weight of galvanic coating | 275 g/m ² |
| Material / thickness of outer safety coating | polyester 25 µm |



Components

- ◆ The individual components of the VentiAir series are supplied by reputable manufacturers
- ◆ Fans - Ziehl-Abegg, EBM (free impeller, speed control by frequency converter, EC)
- ◆ Heat exchangers - Klingenburg, Heatex, Hoval, Roen, Recutech, DBM
- ◆ Control system - EL-Piast, UCS, CAREL, Siemens, Domat
- ◆ Frequency converters – Danfoss

Delivery

On the frame - according to the customer's request, the whole unit on one frame. Availability depends on dimensions, unit weight and destination. The advantage is fast installation, minimization of time needed for installation on site.

In blocks (by chambers) - suitable for engine rooms inside buildings, ideal for larger and heavier pieces, individual blocks are connected by the assembly company according to the written instructions into a functional unit directly at the installation site.

In whole or in blocks for disassembly - advantageous for reconstruction of buildings. Complete chambers or equipment are delivered without glued joints (not sealed). It is thus possible to disassemble the components and transport the individual components (motors, fans, recuperation units, exchangers, panels) to the destination separately. Subsequently, the unit is folded back to its original state and sealed.

The price of delivery includes the delivery of both individual chambers which are connected to a functional unit on the construction site as well as accessories - sleeves, dampers, frequency converters.

Measurement and control - depending on the customer's requirements, VentiAir units can be equipped with integrated Plug & Play control - ideal for compact units that do not connect multiple chambers into a functional unit. In case of modular units, a completely fitted switchboard and other components are supplied separately for installation on site.

Hygienic design - VentiAir-TYPE units meet the requirements for air conditioning in all types of clean rooms, including healthcare, from a material, constructional and operational point of view.

Explosion-proof design zone II - the design of the units allows the installation of explosion-proof motors and fans.

Above-standard equipment of VentiAir air conditioning units - hinges with the possibility of turning left / right, sight glasses, epoxy coatings for swimming pool design, chemical operations, stainless steel design, surface treatment in RAL according to customer requirements, chamber lighting, etc.





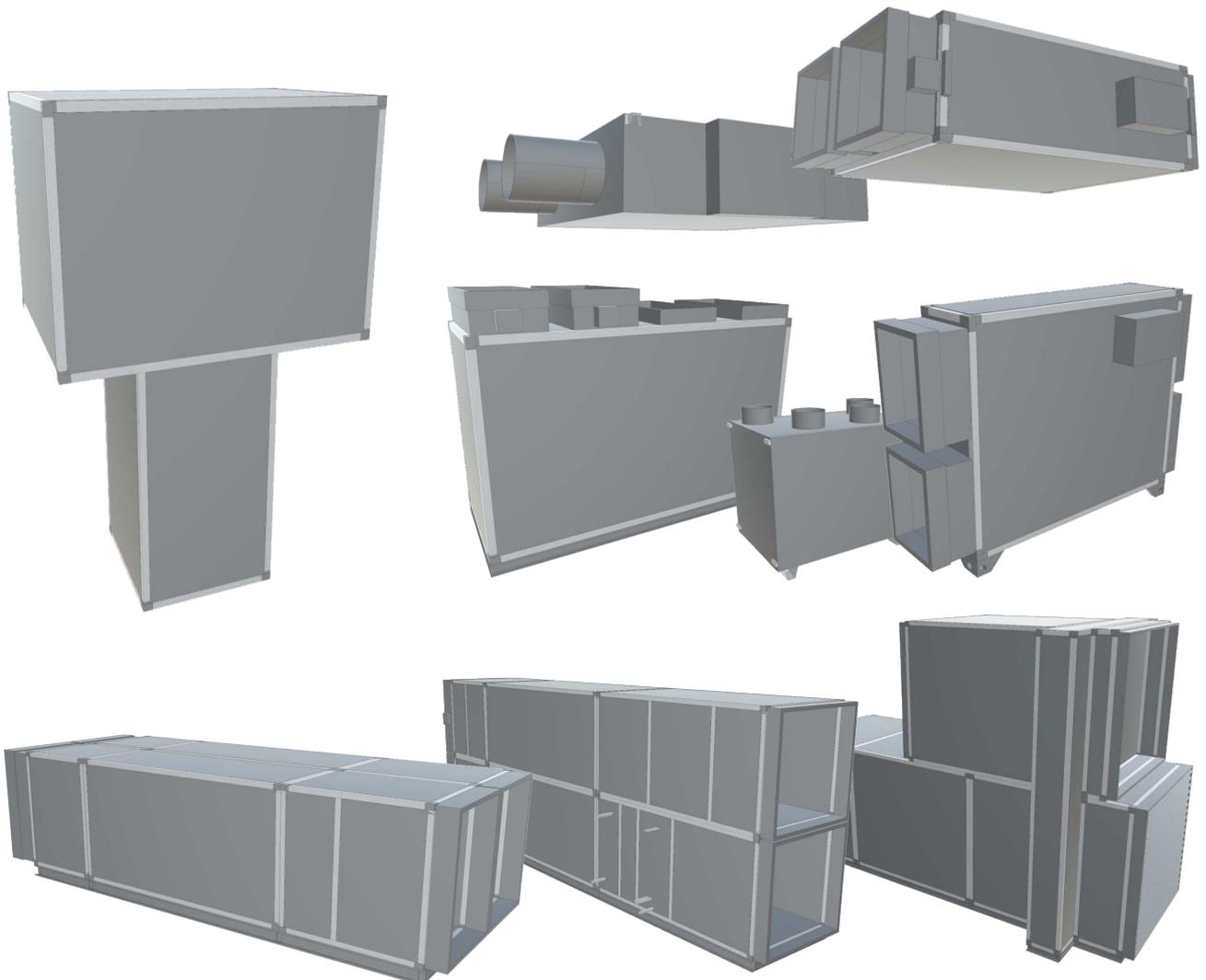
For the apartment or industry - VentiAir can do it all

Assembling and special units

- ◆ The basic production program is assembly units of frame construction
- ◆ Thanks to the variability of the design and the huge range of possible performance of the device, we can manufacture the device according to any requirements
- ◆ We also supply special units in swimming pool design, chemically resistant, with heat pumps or non-explosive design
- ◆ Thanks to almost unlimited possibilities, it is possible to further expand the production line – i.e. equipment out of the range of standard sizes

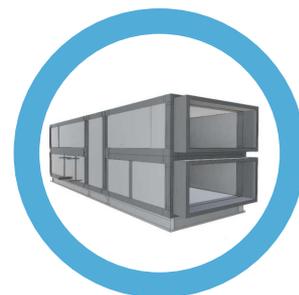
Compact units

- ◆ Units with minimal space requirements
- ◆ With the possibility of already integrated advanced regulation with high connectivity and access via Internet
- ◆ Several different types of connections and locations of units
- ◆ Unit flow ranges from 200 m³/h to 9 500 m³/h



S-TYPE - wide units

- ♦ air conditioning unit for rooms with a requirement for reduced installation height or installation on the roof
- ♦ preferred design in combination with rotary recuperation units - the exchanger does not deviate from the profile of the unit
- ♦ chamber cross-section ratio 1: 2 (HxW), the resulting cross-section of the bi-directional unit is a square
- ♦ stable frame construction, basic frame height 100mm — taller or adjustable legs on request
- ♦ 12 size ranges, any device configuration according to project requirements, air output of the unit from 1 000 m³ / h
- ♦ in this type, two or three fans are preferably placed in parallel in one chamber
- ♦ plug-fan fans with frequency converters or energy-saving EC motors
- ♦ PUR panel or mineral wool —25mm, 45mm, 50mm, 60mm, profiles with elimination of thermal bridges



W-TYPE - standard square units

- ♦ assembly air conditioning unit with square cross-section chambers
- ♦ vertical or horizontal design — the unit can also be hung under the ceiling
- ♦ minimum requirements for servicing space
- ♦ air output of the unit from 1 000 m³ / h
- ♦ stable frame construction, basic frame height 100mm — taller or adjustable legs on request
- ♦ 13 size ranges, any device configuration according to project requirements
- ♦ PUR panel or mineral wool —25mm, 45mm, 50mm, 60mm
- ♦ profiles with elimination of thermal bridges



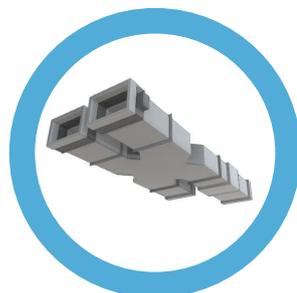
P-TYPE - flat units

- ♦ ventilation unit in a very low design, usually as an under-ceiling one
- ♦ low height of units, according to size from 350mm
- ♦ highly efficient counter-current recuperation exchangers as standard equipment
- ♦ insulation sandwich PUR panel 25 mm, 45mm or 50mm mineral wool
- ♦ free-impeller fans controlled by frequency converters, EC fans
- ♦ possibility of integrated measuring and control system



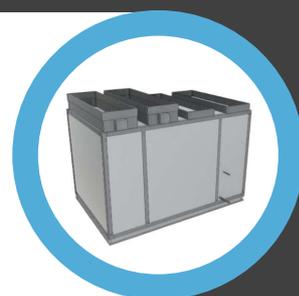
PE-TYPE - duct system

- ♦ pipeline modular ventilation system
- ♦ individual components can be installed in the pipeline
- ♦ high adaptability in case of complex constructions / reconstructions
- ♦ possibility of installation in any position
- ♦ low weight, easy connection and easy handling without technical demands
- ♦ in terms of operation and maintenance, it is a comparable device with conventional air conditioning units



K-TYPE - units with chimney neck system

- ♦ ventilation unit designed for installation in confined spaces
- ♦ the pipe connection is only from the top of the unit — side by side, air output of the unit from 500 m³/h
- ♦ the units are only intended for two-way air exchange with recuperation
- ♦ insulation sandwich PUR panel 25 mm, 45mm or 50mm mineral wool
- ♦ plug-fan fans with frequency converters or energy-saving EC motors
- ♦ units as standard as one transport unit, if required, can be produced in several sections
- ♦ stable frame design, basic frame height 100mm — taller or adjustable legs on request



D - outdoor design

- ♦ design for outdoor / roof operation
- ♦ the units have shut-off dampers inside, a roof and optionally an intake and exhaust shutter
- ♦ you can choose from S-TYPE, W-TYPE, K-TYPE, P-TYPE K configurations

E - epoxy design

- ♦ design suitable for areas with chemically aggressive environments or for operations requiring thorough cleaning of internal components with water
- ♦ all elements of the unit are treated with epoxy resin to prevent corrosion
- ♦ in this design, units for swimming pools, electroplating plants, etc. are supplied - for S, W, K and P-TYPEs avail.

H - hygienic design

- ♦ units intended primarily for hospitals
- ♦ the inner surfaces of the unit are treated with epoxy resin or are made of stainless steel
- ♦ the internal construction of the unit is further designed, any part of the unit can be effectively cleaned
- ♦ are installed sight-glasses into important chambers of the unit, variants H, HN ad HE

O - version with integrated heat pump

- ♦ the units are equipped with a complete heat pump circuit with compressor
- ♦ they are especially suitable for ventilation of swimming pool halls to reduce humidity
- ♦ they can also be used for all types of rooms where it is necessary to heat or cool with minimal costs and there is no space for a separate condensing unit

IF YOU HAVE NOT FOUND THE VARIANT YOU REQUESTED, DO NOT HESITATE TO ASK US. OUR TEAM WILL ANALYZE YOUR REQUIREMENT AND TRY TO FIND A SOLUTION THAT MEETS THE REQUIRED PARAMETERS.

P - plastic design

- ♦ the units are designed for environments with highly aggressive environments
- ♦ ideal for ventilation of galvanizing plants, where the air is removed directly from the production technology
- ♦ the unit also includes a durable plastic heat exchanger

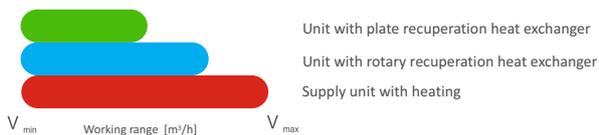
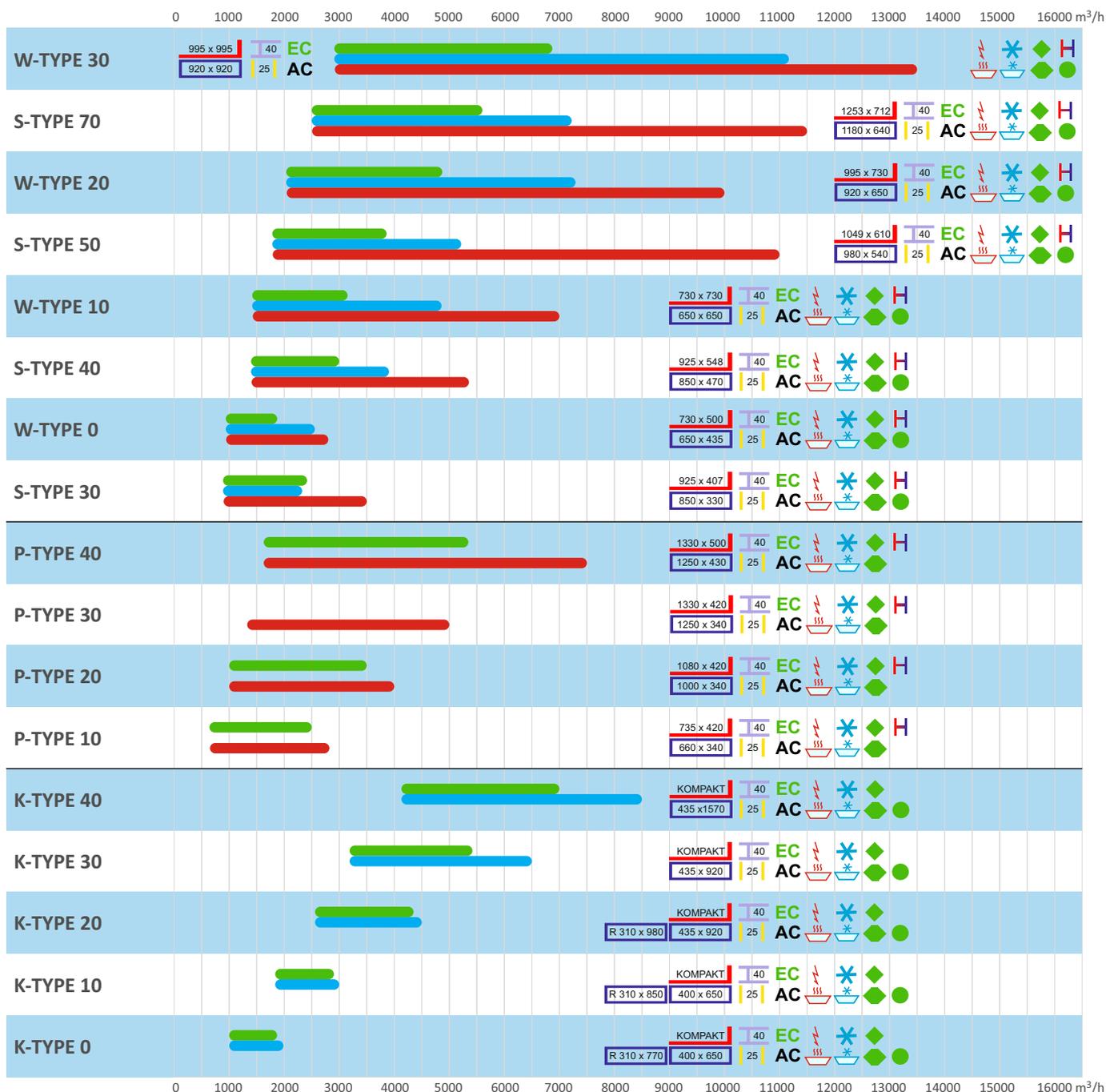
VentiAir assembly units



Overview of basic types of VentiAir air conditioning units

The overview is used for your quick reference. Our sales and technical consultant will be happy to prepare a specific unit design for your project.

Air flow



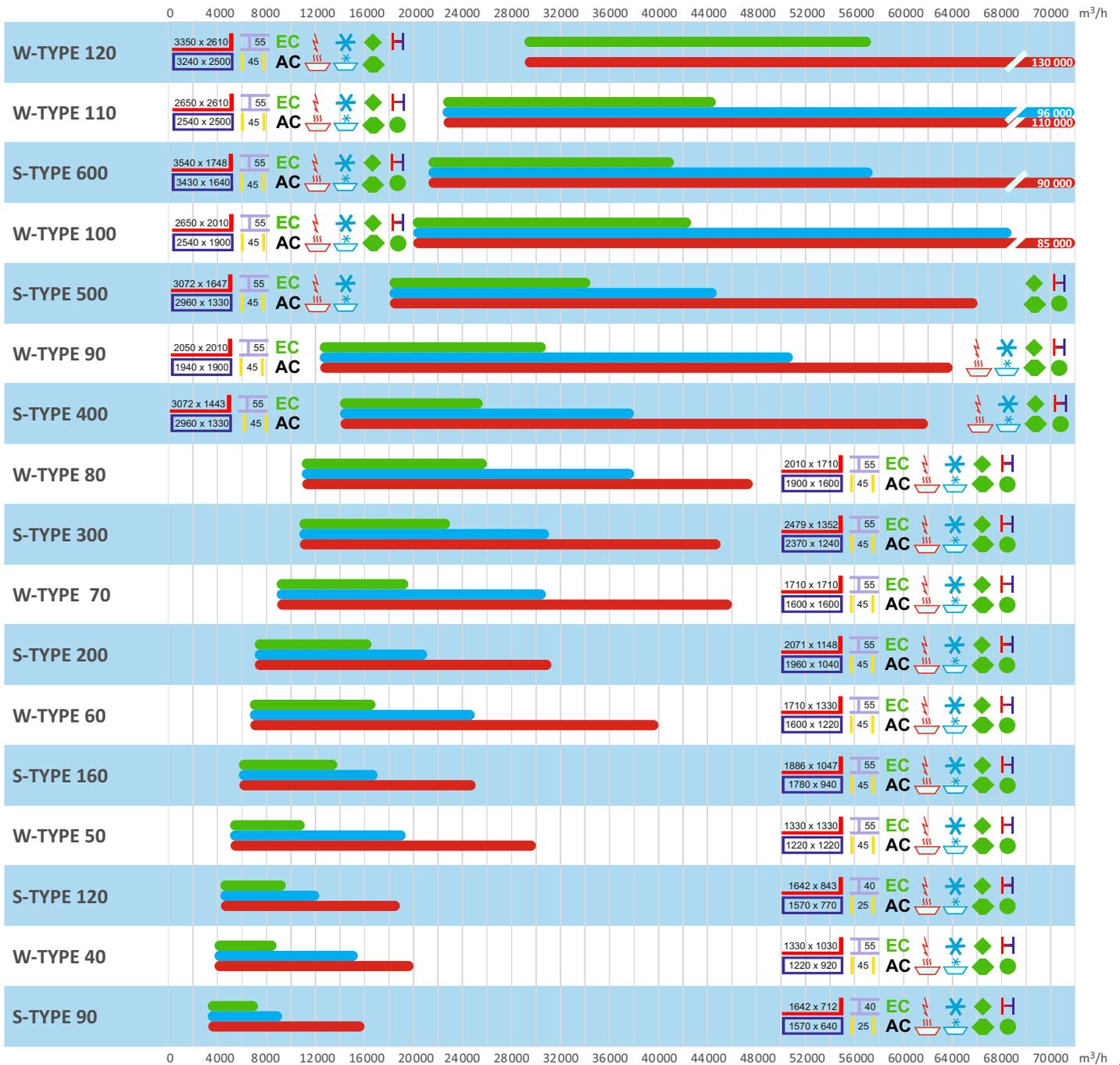
The tables show the approximate working ranges of our assembly units with regard to compliance with the Ecodesign 2018 standard.

For K-TYPE units, variants of only supply units with heating are not available - this type is intended exclusively for two-way ventilation.

P-TYPE units in their basic design do not allow the installation of a rotary heat exchanger. It is only available for the compact design - see another part of the catalogue.

VentiAir assembly units

Air flow



925 x 407

Dimension of chamber



Water heater



Rotary recovery exch.

925 x 407

Sleeve dimensions



Water cooler



Plate recovery exch.

45

Basic insulation in mm



Direct evaporator



Counterflow recovery

55

Profile dimension



Electric heater



Glycol exchanger

EC AC

Fan type

We also supply all assembly units with a **gas heating module**.

W-TYPE units can also be supplied in a **horizontal design** with chambers next to each other.

ATEX fans can be supplied for all types of units (except S-TYPE 30).

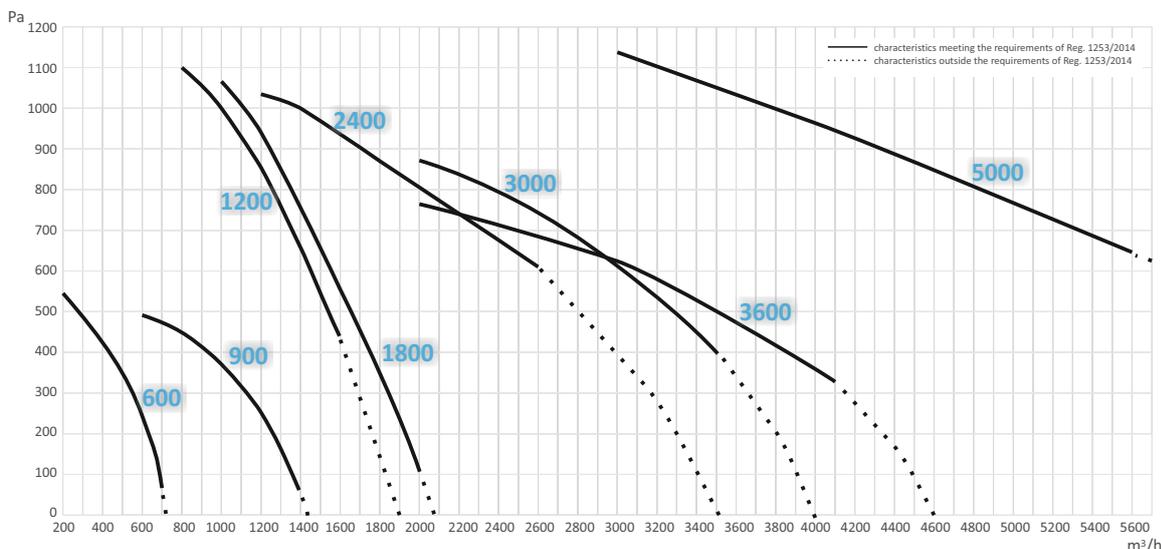
The units can be fitted with various types of filters: **cassette, pocket, metal (grease), carbon, electrostatic**. Filtration classes EU3-EU9 (or HEPA).

The basic design of the panel is made of galvanized sheet 0.6 mm on both sides and PUR filling. There is also a choice of mineral wool, or a thicker layer of insulation (available 25, 45, 50, 60 mm - the chart above shows the basic minimum size).

Compact P-TYPE K units

P-TYPE K - suspended, vertical and floor unit

- ♦ compact air conditioning unit with heat recovery
- ♦ counter-current recuperation exchanger with high efficiency
- ♦ minimum dimensions, **ceiling, floor and vertical design**
- ♦ **variant for outdoor operation**
- ♦ for ventilation of offices, shops, schools, restaurants, etc.
- ♦ integrated by-pass damper, mixing damper option
- ♦ low noise design, **eight sizes**
- ♦ integrated control system
 - ♦ digital controller, calendar, manual control, off-set
 - ♦ inputs for CO₂, hygrosat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control via internet
- ♦ filtration class standard F7 / M5 - other variants possible
- ♦ possibility of heating (internal) and cooling (external)
- ♦ **constant pressure and constant flow control**



| | 600 | 900 | 1200 | 1800 | 2400 | 3000 | 3600 | 5000 |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Air flow [m³/h] | 600 | 900 | 1200 | 1800 | 2400 | 3000 | 3600 | 5000 |
| Ac. pressure [dB(A)]* | 41 | 41 | 45 | 53 | 45 | 47 | 52 | 43 |
| Efficiency dry (max) [%] | 76(84) | 80(84) | 79(82) | 79(83) | 77(82) | 78(82) | 75(82) | 75(82) |
| Exchanger type | AL | AL | AL | AL | AL | AL | AI | AI |
| Control system | Integrated |
| Filters (intake/exhaust) | F7/M5 |
| Ceiling design | Yes |
| Vertical design | Yes |
| Horizontal design | Indoor/outdoor |
| Heating | W/EI 1,8kW | W/EI 2,6kW | W/EI 9kW | W/EI 13,5kW | W/EI 13,5kW | W/EI 13,5kW | W/EI 18kW | W/EI 18kW |
| Cooling | W/DX |
| Voltage (fans) [V] | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 400 |
| Fan [kW] | 2x0,17 | 2x2x0,17 | max 2x0,75 | max 2x0,75 | max 2x1,35 | max 2x1,35 | max 2x1,35 | max 2x2,5 |
| Protect. w/o heater [A] | 1x4 | 1x8 | 1x6 | 1x6 | 1x10 | 1x15 | 1x15 | 3x13 |
| Dimensions [mm]** | 1224x730x395 | 1224x1224x395 | 1550x1300x420 | 1550x1600x420 | 1700x1600x500 | 1700x2000x500 | 2100x1700x650 | 2850x1545x1100 |
| Connection [mm] | 250x340 | 460x315 | 500x340 | 660x340 | 650x435 | 850x435 | 700x560 | 700x560 |
| Weight [kg] | 75 | 90 | 150 | 220 | 250 | 300 | 320 | 550 |

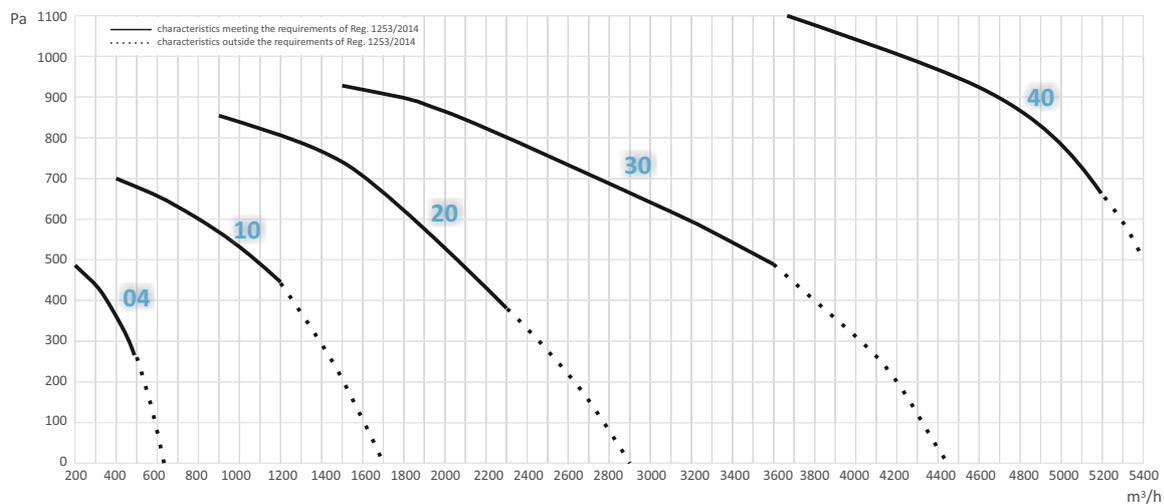
flow rates and other parameters may vary according to the specific unit configuration, the characteristic is valid for the reference configuration with electric heating and filters F7 / M5, ex. pressure 200 Pa, component performance values are maximum - less powerful component variants are possible

* sound pressure at a distance of 1 meter from the unit for mineral wool 50mm insulation

** dimension for basic 25mm PUR standard

P-TYPE K R - under-ceiling, parapet and floor unit

- ♦ compact air conditioning unit with heat recovery
- ♦ two high-efficiency rotary heat exchangers
- ♦ minimum dimensions, **ceiling and vertical design**
- ♦ **variant for outdoor operation**
- ♦ for ventilation of family houses, offices, shops, restaurants, etc.
- ♦ mixing damper option
- ♦ low noise design, **five sizes**
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ inputs for Co₂, hygrostat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control via internet
- ♦ filtration class standard F7 / M5 - other variants possible
- ♦ constant pressure and constant flow control
- ♦ possibility of heating (internal) and cooling (external)



| | 04 | 10 | 20 | 30 | 40 |
|---|----------------|----------------|----------------|----------------|----------------|
| Flow rate (nom.) [m³/h] | 400 | 1000 | 2000 | 3000 | 4000 |
| Acoustic pressure [dB(A)]* | 40 | 38 | 42 | 48 | 44 |
| Efficiency dry (max) [%] | 79(83) | 79(86) | 78(84) | 78(84) | 82(85) |
| Exchanger type | Rotary | Rotary | Rotary | Rotary | Rotary |
| Control system | Integrated | Integrated | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 |
| Ceiling design | Yes | Yes | Yes | Yes | Yes |
| Vertical design | Yes | Yes | Yes | Yes | Yes |
| Floor horizontal design | Yes | Indoor/outdoor | Indoor/outdoor | Indoor/outdoor | Indoor/outdoor |
| Heating | Water/EI 2,2kW | Water/EI 6kW | Water/EI 12kW | Water/EI 18kW | Water/EI 27kW |
| Cooling | Ne | Voda/DX | Voda/DX | Voda/DX | Voda/DX |
| Voltage (fans) [V] | 230 | 230/400 | 230/400 | 230/400 | 230/400 |
| Fan [kW] | 0,17 | 0,38 | 0,5 | 0,78 | max 1,35 |
| Protect. w/o heater [A] | 4 | 3,5 | 5 | 9 | 14 |
| Dimensions [mm]** | 1150x706x350 | 1500x1300x500 | 1650x1400x615 | 1650x1500x731 | 1800x1600x845 |
| Connection [mm] | 200 | 500x430 | 550x540 | 600x650 | 650x770 |
| Weight [kg] | 130 | 190 | 240 | 290 | 330 |

flow rates and other parameters may vary according to the specific unit configuration, the characteristic is valid for the reference configuration with electric heating and filters F7 / M5, ex. pressure 200 Pa, component performance values are maximum - less powerful component variants are possible

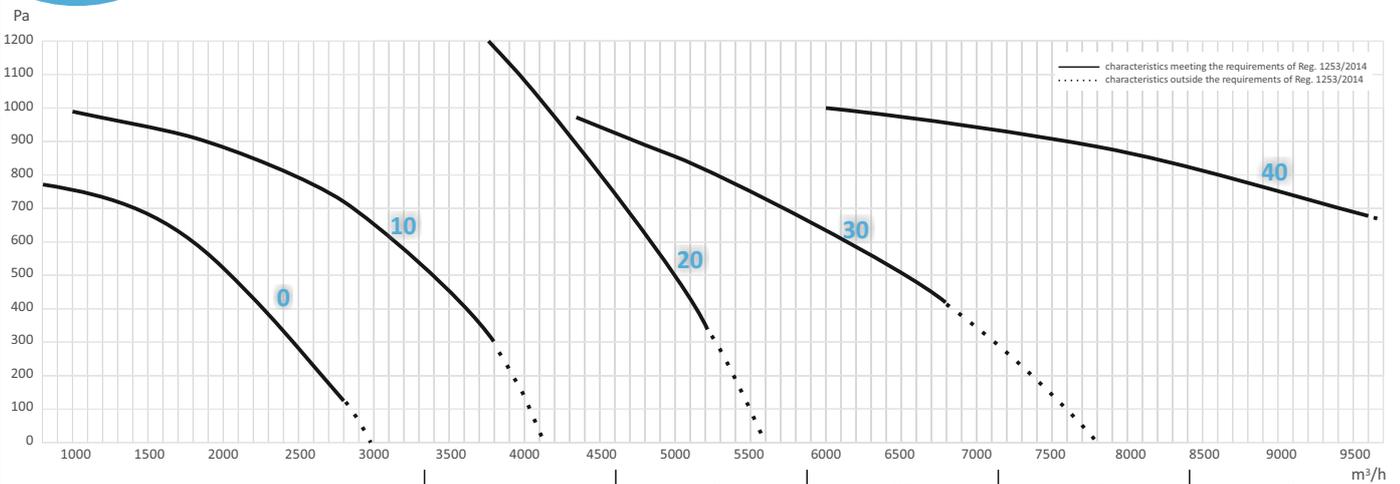
* sound pressure at a distance of 1 meter from the unit for mineral wool 50mm insulation

** dimension for basic 25mm PUR standard

Compact units K-TYPE R

K-TYPE R - chimney unit

- ♦ compact air conditioning unit with heat recovery
- ♦ **high-efficiency rotary heat exchangers**
- ♦ minimum dimensions
- ♦ **variant for outdoor operation**
- ♦ for ventilation of family houses, offices, shops, restaurants, etc.
- ♦ possibility of mixing damper
- ♦ low noise design, **five sizes**
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ inputs for CO₂, hygrosat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control via internet
- ♦ filtration class standard F7 / M5 - other variants possible
- ♦ possibility of integrated heating and cooling
- ♦ **constant pressure and constant flow control**



| | 0 | 10 | 20 | 30 | 40 |
|-----------------------------------|--------------|---------------|---------------|---------------|---------------|
| Flow rate (nom.) [m³/h] | 2000 | 3000 | 4500 | 5500 | 7500 |
| Acoustic pressure [dB(A)]* | 43 | 47 | 54 | 44 | 46 |
| Efficiency dry (max) [%] | 82(85) | 79(85) | 78(85) | 82(85) | 83(85) |
| Exchanger type | Rotary | Rotary | Rotary | Rotary | Rotary |
| Control system | Integrated | Integrated | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 |
| Outdoor design | Yes | Yes | Yes | Yes | Yes |
| Heating | Water/EI 9kW | Water/EI 18kW | Water/EI 18kW | Water/EI 18kW | Water/EI 54kW |
| Cooling | Water/DX | Water/DX | Water/DX | Water/DX | Water/DX |
| Voltage (fans) [V] | 230 | 230 | 230 | 400 | 400 |
| Fan [kW] | max 0,5 | max 1,35 | max 1,35 | max 2x1,35 | max 2x2,5 |
| Protect. w/o heater [A] | 4 | 14 | 14 | 8 | 16 |
| Width x height [mm]** | 2200x1150 | 2200x1250 | 2200x1350 | 2500x1550 | 2500x1700 |
| Depth [mm]** | 845 | 925 | 1049 | 1253 | 1642 |
| Connection [mm] | 310x770 | 310x850 | 310x980 | 435x1180 | 435x1570 |
| Weight [kg] | 275 | 420 | 460 | 610 | 740 |

flow rates and other parameters may vary according to the specific unit configuration, the characteristic is valid for the reference configuration with electric heating and filters F7 / M5, ex. pressure 200 Pa, component performance values are maximum - less powerful component variants are possible

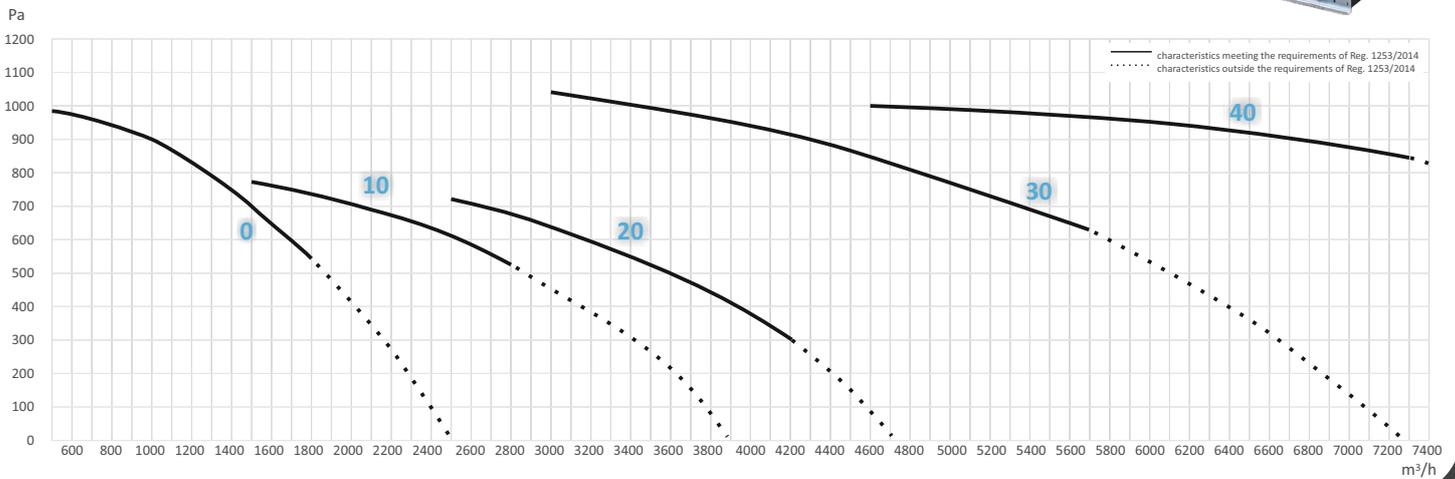
* sound pressure at a distance of 1 meter from the unit for mineral wool 50mm insulation

** dimension for basic 25mm PUR standard

Compact K-TYPE K units

K-TYPE K

- ♦ compact air conditioning unit with heat recovery
- ♦ economical EC motors
- ♦ counterflow heat recovery exchanger with high efficiency
- ♦ designed for indoor use, outdoor version on demand
- ♦ for ventilation of family houses, offices, shops, restaurants, etc.
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ inputs for Co₂, hygostat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control via internet
- ♦ filtration class standard F7 / M5 - other variants possible
- ♦ constant pressure and constant flow control
- ♦ possibility of heating and cooling (water / electric / direct evaporation)
- ♦ 5 unit sizes for use in each project



| | 0 | 10 | 20 | 30 | 40 |
|---------------------------------------|--------------|---------------|---------------|---------------|---------------|
| Air flow (nom.) [m³/h] | 1000 | 2000 | 3500 | 5000 | 6000 |
| Acoustic pressure [dB(A)] v 1m | 35 | 38 | 42 | 43 | 44 |
| Efficiency dry (max) [%] | 76(85) | 78(83) | 77(83) | 77(83) | 78(82) |
| Exchanger type | Counterflow | Counterflow | Counterflow | Counterflow | Counterflow |
| Control system | Integrated | Integrated | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 |
| Outdoor design | Ano | Ano | Ano | Ano | Ano |
| Heating | Water/EI 9kW | Water/EI 18kW | Water/EI 18kW | Water/EI 24kW | Water/EI 36kW |
| Cooling | Water/DX | Water/DX | Water/DX | Water/DX | Water/DX |
| Voltage (fans) [V] | 230 | 400 | 400 | 400 | 400 |
| Fan [kW] | max 0,78 | max 2,5 | max 2,5 | max 3,3 | max 3,3 |
| Protect. w/o heater [A] | 9 | 8 | 8 | 11 | 11 |
| Width x height [mm]** | 2000x1100 | 2550x1550 | 2550x1550 | 2550x1550 | 2550x1550 |
| Depth [mm]** | 730 | 730 | 995 | 1253 | 1642 |
| Connection [mm] | 400x650 | 435x650 | 435x920 | 435x1180 | 435x1570 |
| Weight [kg] | 280 | 360 | 460 | 550 | 650 |

flow rates and other parameters may vary according to the specific unit configuration, the characteristic is valid for the reference configuration with electric heating and filters F7 / M5, ex. pressure 200 Pa, component performance values are maximum - less powerful component variants are possible

* sound pressure at a distance of 1 meter from the unit for mineral wool 50mm insulation

** dimension for basic 25mm PUR standard

T-TYPE class unit

T-TYPE - school unit for ventilation of each class

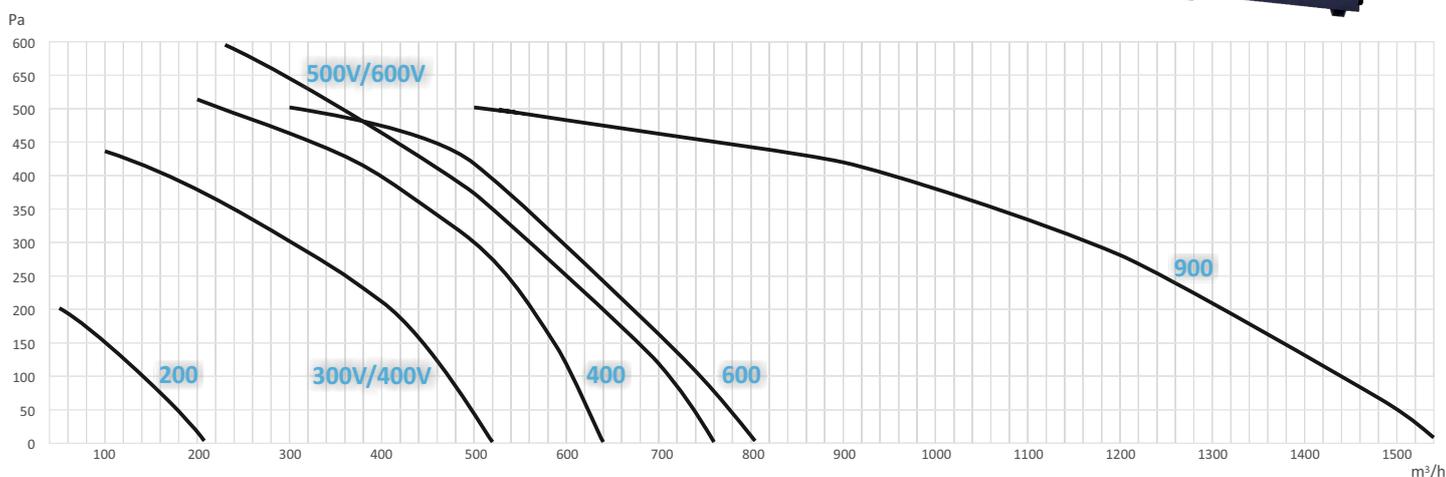
- ♦ compact air conditioning unit with heat recovery
- ♦ meets the high demand for low noise - only 35 dB
- ♦ easy to install to class
- ♦ **security against unauthorized entry into the unit and its control**
- ♦ **standing and ceiling design**
- ♦ possibility to connect to the superordinate system
- ♦ integrated by-pass damper
- ♦ integrated CO₂ sensor
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ MODBUS RTU, Ethernet - control via Internet
- ♦ filtration class standard F7 / M5
- ♦ possibility of heating
- ♦ possibility **UV air disinfection**



| | 400 | 600 | 850 |
|---------------------------------------|--------------|--------------|--------------|
| Air flow (nom./max) [m³/h] | 400/600 | 600/800 | 850/950 |
| Acoustic pressure [dB(A)] v 1m | 35 | 35 | 35 |
| Efficiency dry (max) [%] | 81(85) | 80(85) | 80(85) |
| Exchanger type | Counterflow | Counterflow | Counterflow |
| Control system | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | F7/M5 | F7/M5 | F7/M5 |
| Installation | Floor | Floor | Floor |
| Heating | EI 1,2kW | EI 1,8kW | EI 2,2kW |
| Cooling | N/A | N/A | N/A |
| Voltage [V] | 230 | 230 | 230 |
| Fan [kW] | 2x0,17 | 2x0,17 | 2x2x0,17 |
| Current without heating [A] | 2x1,75 | 2x1,75 | 2x2x1,75 |
| Dimensions [mm] | 650x650x1500 | 650x809x2040 | 650x809x2040 |
| Connection [mm] | 200 | 250 | 315 |
| Weight [kg] | 70 | 85 | 105 |

REKU-TYPE V, H

- ♦ compact air conditioning unit with heat recovery
- ♦ economical EC motors
- ♦ counterflow recuperation exchanger with high efficiency
- ♦ **chimney, under-ceiling and parapet design**
- ♦ designed for indoor use
- ♦ for ventilation of family houses, offices, shops, restaurants, etc.
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ inputs for CO₂, hygrostat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control before the Internet
- ♦ filtration class standard M5 / M5 - other variants possible
- ♦ possibility of heating and cooling (water / electric / direct evaporation)
- ♦ 8 unit sizes for use in each project



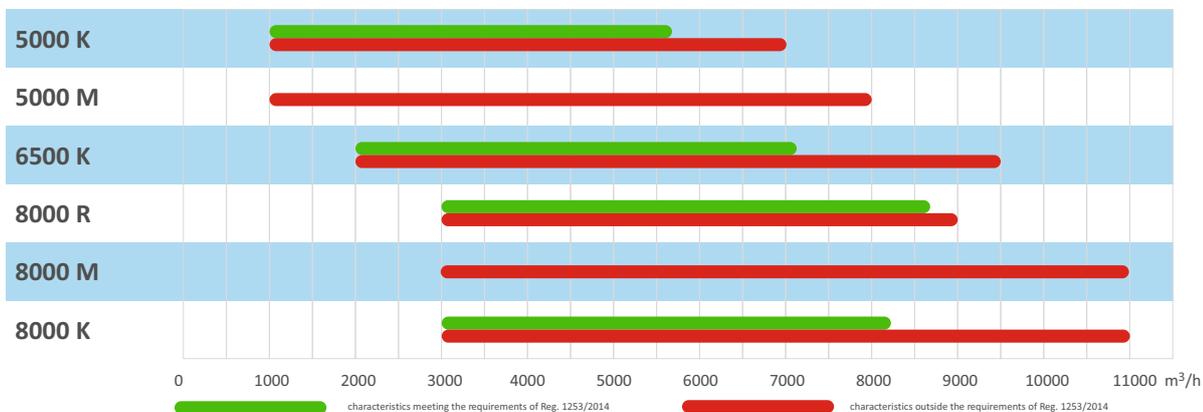
| | 200 | 300 V | 400 V | 400 | 500 V | 600 V | 600 | 900 |
|------------------------------------|-------------|-------------|-------------|---------------|-------------|-------------|---------------|---------------|
| Air flow (nom.) [m³/h] | 200 | 300 | 400 | 400 | 500 | 600 | 600 | 900 |
| Acoustic pressure [dB(A)]* | 45 | 45 | 46 | 44 | 44 | 47 | 46 | 46 |
| Efficiency dry (max) [%] | 79(86) | 76(86) | 77(88) | 79(86) | 76(84) | 78(87) | 79(84) | 80(85) |
| Exchanger type | Counterflow | Counterflow | Counterflow | Counterflow | Counterflow | Counterflow | Counterflow | Counterflow |
| Control system | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | M5(F7)/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 |
| Pipeline connection | Horizontal | Vertical | Vertical | Horizontal | Vertical | Vertical | Horizontal | Horizontal |
| Heating | EI 1,0kW | EI 1,0kW | EI 1,0kW | EI 1,8kW/Voda | EI 1,5kW | EI 1,5kW | EI 1,8kW/Voda | EI 2,2kW/Voda |
| Cooling | N/A | N/A | N/A | Water/DX | N/A | N/A | Water/DX | Water/DX |
| Voltage (fan) [V] | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| Fan [kW] | 2x0,06 | 2x0,12 | 2x0,12 | 2x0,17 | 2x0,17 | 2x0,17 | 2x0,17 | 2x2x0,17 |
| Current without heating [A] | 2x0,26 | 2x0,85 | 2x0,85 | 2x1,75 | 2x1,03 | 2x1,33 | 2x1,75 | 2x2x1,75 |
| Floor plan [mm] | 724x677 | 970x510 | 970x510 | 556x1150 | 970x710 | 970x710 | 706x1150 | 1200x1150 |
| Height [mm] | 380 | 790 | 790 | 350 | 790 | 790 | 350 | 350 |
| Connection [mm] | 160 | 160 | 160 | 200 | 200 | 200 | 200 | 250 |
| Weight [kg] | 50 | 61 | 61 | 70 | 86 | 86 | 70 | 105 |

* flow rates and other parameters may vary according to the specific unit configuration, the characteristic is valid for the reference configuration with electric heating and filters M5 / M5, ex. pressure 200 Pa (exc. REKU-TYPE 200), component performance values are maximum - less powerful component variants are possible
 * sound pressure at a distance of 1 meter

R-TYPE compact roof units

R-TYPE - compact roof unit for easy installation

- ♦ compact air conditioning unit with heat recovery
- ♦ economical EC motors
- ♦ designed for direct installation in the penetration of the roof
- ♦ rekuperační výměníky s vysokou účinností
- ♦ counterflow, rotary exchanger or mixing chamber
- ♦ for ventilation, especially of industrial, production and storage halls
- ♦ integrated control system
 - ♦ digital controller
 - ♦ calendar, manual control, off-set
 - ♦ inputs for Co₂, hygrosat, external max. speed switching
 - ♦ MODBUS RTU, Ethernet - control before the Internet
- ♦ filtration class standard F7 / M5 - other variants possible
- ♦ possibility of heating and cooling (water / electric / direct evaporation)
- ♦ choice from three unit sizes



| | 5000 K | 5000 M | 6500 K | 8000 R | 8000 M | 8000 K |
|----------------------------------|---------------|----------------|---------------|---------------|----------------|---------------|
| Air flow (nom.) [m³/h] | 5000 | 5000 | 6500 | 8000 | 8000 | 8000 |
| Acoustic pressure [dB(A)] | 73 | 73 | 75 | 70 | 80 | 80 |
| Efficiency dry (max) [%] | 78(81) | - | 74(80) | 78(85) | - | 74(79) |
| Exchanger type | Counterflow | Mixing chamber | Counterflow | Rotary | Mixing chamber | Counterflow |
| Control system | Integrated | Integrated | Integrated | Integrated | Integrated | Integrated |
| Filters (intake/exhaust) | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 | F7/M5 |
| Mixing | Yes | Yes | Yes | Yes | Yes | Yes |
| Heating | Water/EI 45kW | Water/EI 45kW | Water/EI 36kW | Water/EI 36kW | Water/EI 36kW | Water/EI 36kW |
| Cooling | Water/DX | Water/DX | Water/DX | Water/DX | Water/DX | Water/DX |
| Fan voltage [V] | 230 | 230 | 230 | 230 | 400 | 400 |
| Fan [kW] | 2x0,78 | 2x1,35 | 2x1,35 | 2x1,35 | 2x2,5 | 2x2,5 |
| Current w/o heating [A] | 2x4 | 2x6,7 | 2x6,7 | 2x6,7 | 2x4 | 2x4 |
| Floor plan [mm] | 1290x2100 | 1290x2100 | 1680x2100 | 1680x2300 | 1680x2100 | 1880x2100 |
| Height [mm] | 1850+1750 | 1850+1750 | 1850+1750 | 1850+1500 | 1850+1750 | 1850+1750 |
| Connection [mm] | 900x900 | 900x900 | 1100x1100 | 1100x1100 | 1100x1100 | 1100x1100 |
| Weight [kg] | 500 | 350 | 600 | 760 | 400 | 500 |

* flow rates and other parameters may vary according to the specific configuration of the unit, the characteristic is valid for the reference configuration with electric heating and filters F7 / M5, ex. pressure 50Pa, component power values are maximum - less powerful component variants are possible

* sound pressure at a distance of 1 meter

Units with integrated heat pump

Units not only for swimming pools

- ♦ air conditioning units combining plate or rotary recuperation heat exchangers and a heat pump circuit
- ♦ the delivery includes a complete compressor circuit, including all components
- ♦ units are most often used for ventilation of pool halls in order to reduce humidity
- ♦ they are also preferably used for heating and cooling where it is not possible to place an external condensing unit
- ♦ configuration is available for most models of our units
- ♦ own measurement and control system



Limited transport routes - no problem

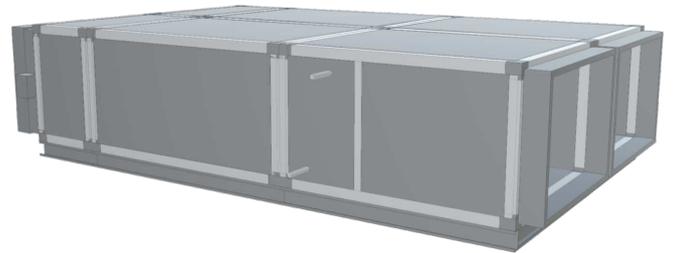
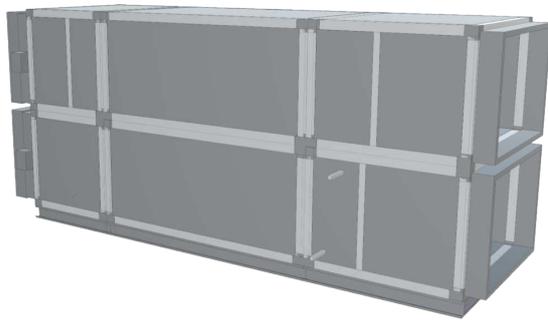
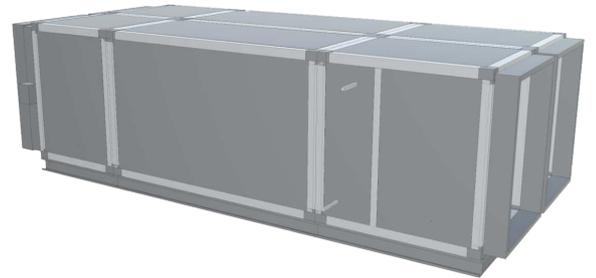
- ♦ especially during reconstructions, there is a situation where it is not possible to transport the units to the installation site in standard assembly units
- ♦ we can design the units so that each functional unit will have a separate chamber and in case that even this measure does not comply with ones needs, we can disassemble the units on site and reassemble at the installation site again
- ♦ the chief assembly service includes complete control of work on the construction site during disassembly of unit chambers and other parts and subsequent reassembly
- ♦ in compliance with the prescribed working procedures, all declared properties of the units are preserved as if they were assembled directly in the factory
- ♦ all standard warranties are kept as part of the delivery



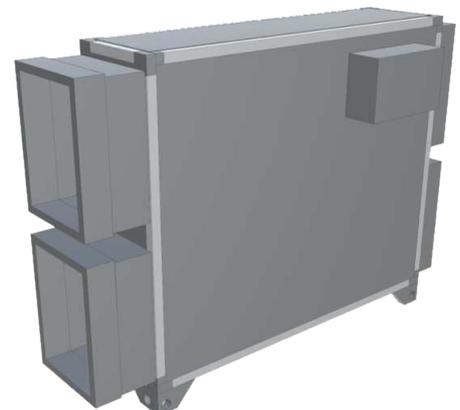
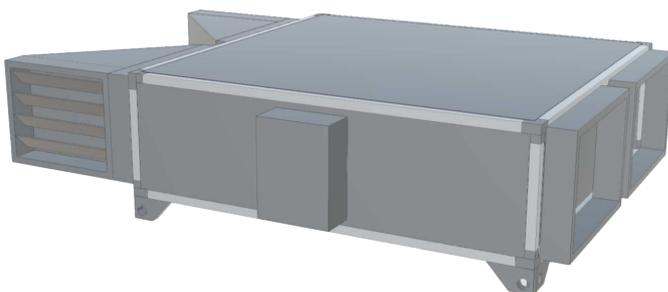
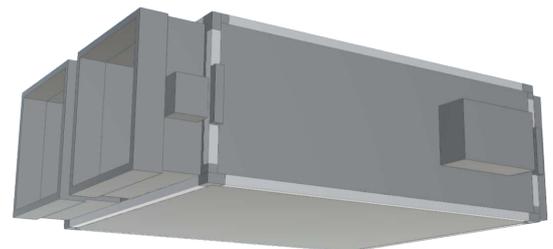
Maximum variability

Each unit size can be designed in several configurations

Unit type W-TYPE 20, 21 and 25 – i.e. chambers above each other, next to each other and next to each other in a low design.



Unit type P-TYPE 1200 in under-ceiling, parapet and roof horizontal version



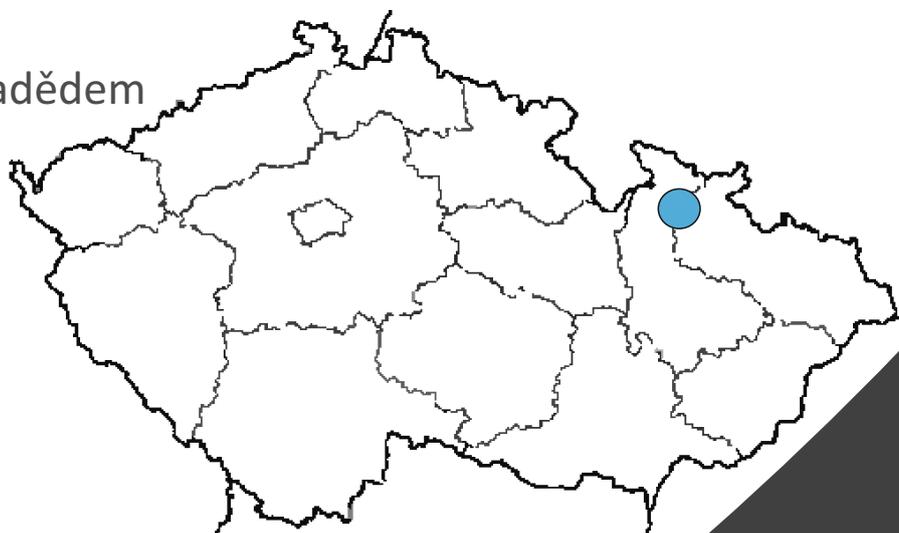
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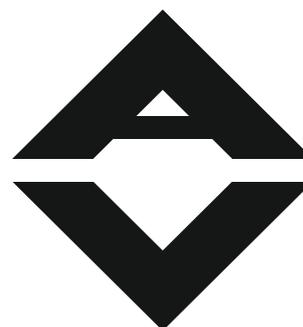
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