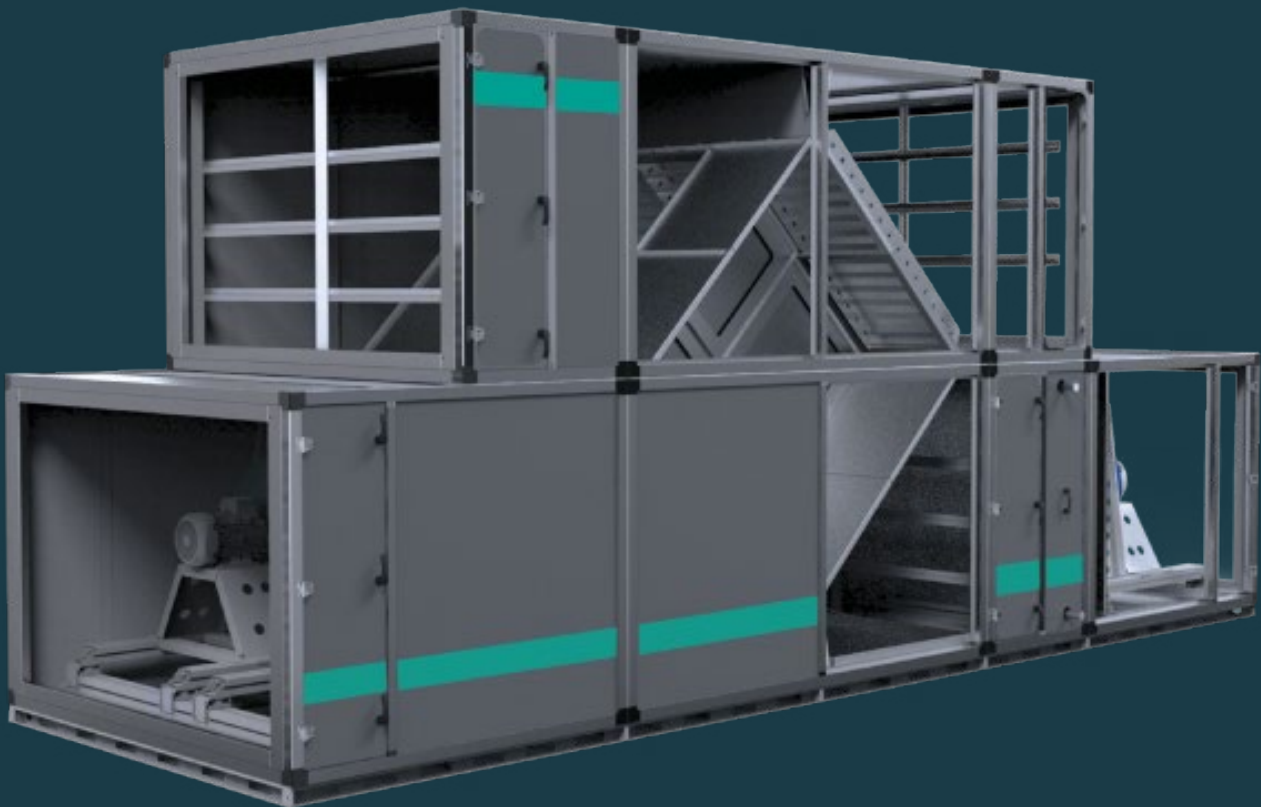


GlobalStar

Multifunctional air handling unit

CAPACITY: from 25 000 up to 106 000 m³/hour



Solutions that work



AREA OF USAGE:

for facilities of various assignments, including medical institutions and other premises with high requirements for cleanliness conditions.

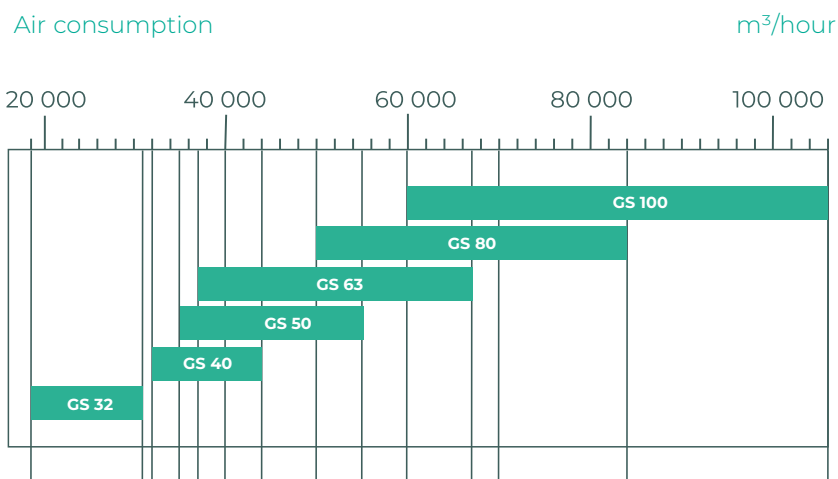
MODULAR DESIGN

Functional units are designed taking into account all the necessary parameters: the size of the mounting and construction slots that highly simplifies the process of assembling of ventilation units on the site.



Filled up with a high-efficiency refrigerant R410A at the manufacturing plant that ensures their environmental safety and energy efficiency.

The standard model range is presented in 6 standard sizes



ADVANTAGES:



Automation system is developed individually for each particular unit. Allows controlling the parameters of the equipment with maximum efficiency.



High-accuracy designing and exclusive selection program AeroSelect.



The units are equipped with a number of energy-saving technologies that allow users to gain the maximum efficiency at the minimum resource costs.



Minimum manufacturing time of equipment.



Medical modification of unit is possible.



Non-standard solutions for the premises of all types.

BASIC CONFIGURATION

ANTI-CORROSION COATING

Metal with high zinc content and extra-strong anti-corrosion coating allow installation of equipment inside and outside the buildings of all types.

- In case of outside installation the units are equipped with an air intake covers, protective deflectors and roof. In this case the air valves and automatic equipment are mounted inside.



SANDWICH PANELS

provide increased structural strength, heat and sound insulation.

Thickness – 45 mm.

Filling compound – polyurethane foam, mineral wool.



INNOVATIVE PROFILED CASE

The rigid profile strengthens construction of the unit and simplifies its assembly.

- Strong hermetic corner elements prevent the occurrence of heat bridges, as well as guarantee the accuracy of sections connection and allow assembly directly on the site.

ITALIAN ACCESORIES

The unit is equipped with high-quality ergonomic Italian accessories: locks, handles, hinges.

The doors can be opened in either direction or can be removed.

FAN GROUP WITH DIRECT DRIVE

Impeller is mounted on the electric motor shaft that highly increases efficiency of the fan.

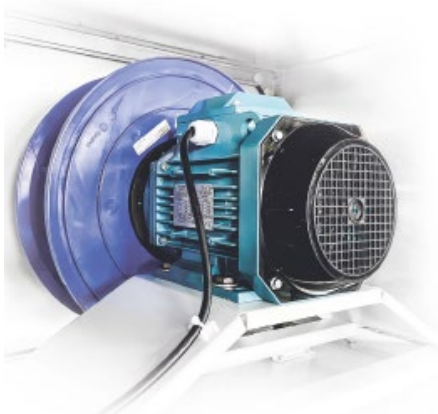


OBĚŽNÉ KOLO

- ⊕ 3 types of impellers - metal, composite, special performance - explosion protected;
- ⊕ Welded steel construction;
- ⊕ Static pressure up to 2500 Pa;
- ⊕ Static efficiency up to 73%;
- ⊕ Quality balancing G2.5
- ⊕ 3D blades in the form of water drops;

Airfoil blade.

Low noise level.



AC-MOTOR

Is placed on a vibration-resistant frame separated from the body of the unit. Perfectly adjusted to the aerodynamics of the ventilation network, it is possible to adjust the parameters if necessary.

Energy efficiency classes: IE2, IE3.

Protection class: IP 55

For ERP compliance an IE2 motor is required to be equipped with a frequency inverter.



EC-MOTOR

Brushless synchronous motor with electronic control highly reduces noise level.

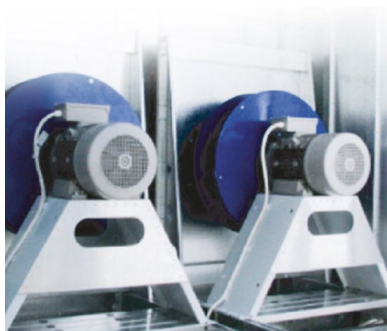
High working pressure: up to 2500 Pa.

Wide range of nominal voltage: 200-277V and 380-480 V $\pm 15\%$.

Long service life: more than 80 000 of continuous work.

EC-ELECTRIC MOTOR WITH EFFICIENCY HIGHER 90%

- ⊕ Saves at least 30% more electricity than an AC motor. Complies with the ErP 2015 directive.
 - ⊕ Built-in EMC filter protects against phase loss and low voltage in the network.
 - ⊕ Protection against overheating of the motor and electronics, and protection against rotor lock.
 - ⊕ No starting currents.
 - ⊕ No service needed.
 - ⊕ The absence of the frequency converter saves installation space.
 - ⊕ Allows you to increase productivity fan up to 10%.
 - ⊕ EC-motor optionally has MODBUS RTU protocol.
- Option. Application of the **Flow Grid** technology: air flow rectifier.



DUAL FAN

- ⊕ Dual fan system. This configuration **is 50% more reliable than a system with one powerful fan.**
- ⊕ Occupies less space.

FAT TRAP FILTERS

The fat trap filter FVP-ZhKS consists of corrugated grids layers, placed in the cassette cartridge.



The filter casing of galvanized steel makes protection to corrosion and high temperatures, and the polymer coating provides protection against all types of mechanical damage.

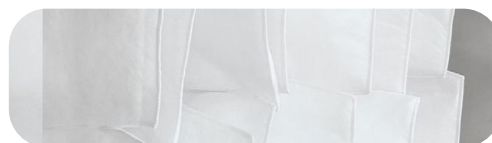
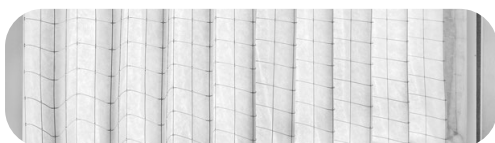
Filtration class EN 779: G2
Filtration class Eurovent 4/5: EU2
Filter material: galvanized / stainless steel grid
Frame material: galvanized painted steel

Fire safety class DIN 53438:
Fire resistance
Working temperature: $\leq 200^{\circ}\text{C}$
Working humidity: $\leq 100\%$
Filtration efficiency [Ea]: 75%

MODULAR FILTERS

Filtration classes ISO 16890: Coarse ($0,3 \leq x \leq 10$), ePM10 ($0,3 \leq x \leq 10$), ePM2,5 ($0,3 \leq x \leq 2,5$), ePM1 ($0,3 \leq x \leq 1$).
Prevent the migration of dust particles through the filter material.

Filter groups	Particle size (micron)	Classification criteria
ISO Coarse	$0,3 \leq x \leq 10$	Average efficiency $< 50\%$
ISO ePM10	$0,3 \leq x \leq 10$	Average efficiency $\geq 50\%$
ISO ePM2,5	$0,3 \leq x \leq 2,5$	Minimum efficiency $\geq 50\%$
ISO ePM1	$0,3 \leq x \leq 1$	Minimum efficiency $\geq 50\%$



CASSETTE FILTER

- ⊕ Durable galvanized metal frame.
- ⊕ The filter material is fixed on the mesh.
- ⊕ Made of polyester fibres.

Filtration class acc. to ISO 16890: Coarse 70%,
ePM10 60%, ePM2,5 75%
Working environment temperature: up to 80°C .
Humidity of the working environment: $\leq 100\%$.

POCKET FILER

The pocket design **guarantees the increase of filtration area** and provides maximum efficiency. Made of a durable painted metal frame.

Filter material: polyester / micro-fibreglass.
Filtration class acc. to ISO 16890: Coarse, ePM10, ePM2.5, ePM12,5 75%
Working environment temperature: up to 80°C .
Humidity of the working environment: $\leq 100\%$.

RECUPERATOR

The recuperation system allows reusing of the energy of the exhaust air from the room to heat up and cool down the air from the outside.

Recuperator allows to regenerate up to 90% of the exhaust air energy.



ROTOR RECUPERATOR

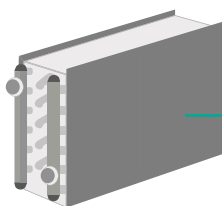
In rotary recuperators, heat transfer from the exhaust air to the supply air is carried out by means of a movable matrix with different types of coatings. The matrix of the rotary recuperator consists of two layers of aluminium foil, smooth and corrugated, alternately applied to each other. The recuperation efficiency will vary depending on the height of the corrugated tape, as well as the rotation speed of the wheel.

Reduction of heat exchange areas and speed of rotation in 10 rpm allows reducing energy consumption by 80%.

Foil thickness: from 1,4 to 1,8 mm.

Wave height of the foil: from 1,6 to 2,5 mm.

Efficiency: up to 88% depending on the type, size and operating parameters.



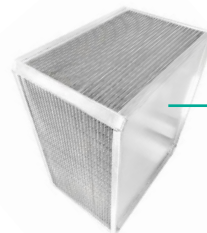
GLYCOL RECUPERATOR

Consists of two **heat exchangers**: one in the exhaust air flow, the other one in the supply air flow.

The main advantage of this recuperator is the possibility of its application in case of air streams are at a distance from each other.

To be used in systems where it is NOT allowed mixing of air flows.

The heat exchanger located in the stream of exhaust air takes away thermal energy and transfers it with the help of circulating thermal medium: a solution of water and glycol, of the heat exchanger mounted in a stream of supply air.



CROSS-FLOW RECUPERATOR

Thanks to the plate heat exchangers, two air streams, a warm exhaust air stream and a cold supply air stream, pass next to each other through thin plates without any contact.

Energy exchange occurs on the surface of the heat exchanger plates. At the same time there is no mixing of two air streams.

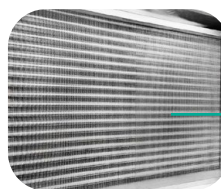
Efficiency: up to 85%, depending on the type, size and operating parameters.

⊕ Corrosion-resistant aluminum foil.
* Epoxy coating is possible optional.

⊕ Strong connection of plates thanks to double folding, pressure stability thanks to five-fold thickness of material.

Plate structure: embossed plates, distance between plates from 3,8 to 11,5 mm.

Air productivity: from 25 000 up to 120 000 m³/h.



HEAT EXCHANGER

Suitable for thermal mediums of any types: freon, steam, water, glycol solution.

Basic configuration

Slat block:

- corrugated surface;
- internal notches, arranged in a chessboard order;
- number of tubes rows: 1-12;
- distance between the ribs: 1,6-5,0 mm;
- thickness of plates: 0,1-0,19 mm.

Nomenclature series

heat exchangers: up to 350 liters

Maximum working pressure: 20 atm.

Copper pipes: diameter - 9,52 mm, wall thickness - 0,27 mm / 0,33 mm.

Collector made of copper or steel pipes.

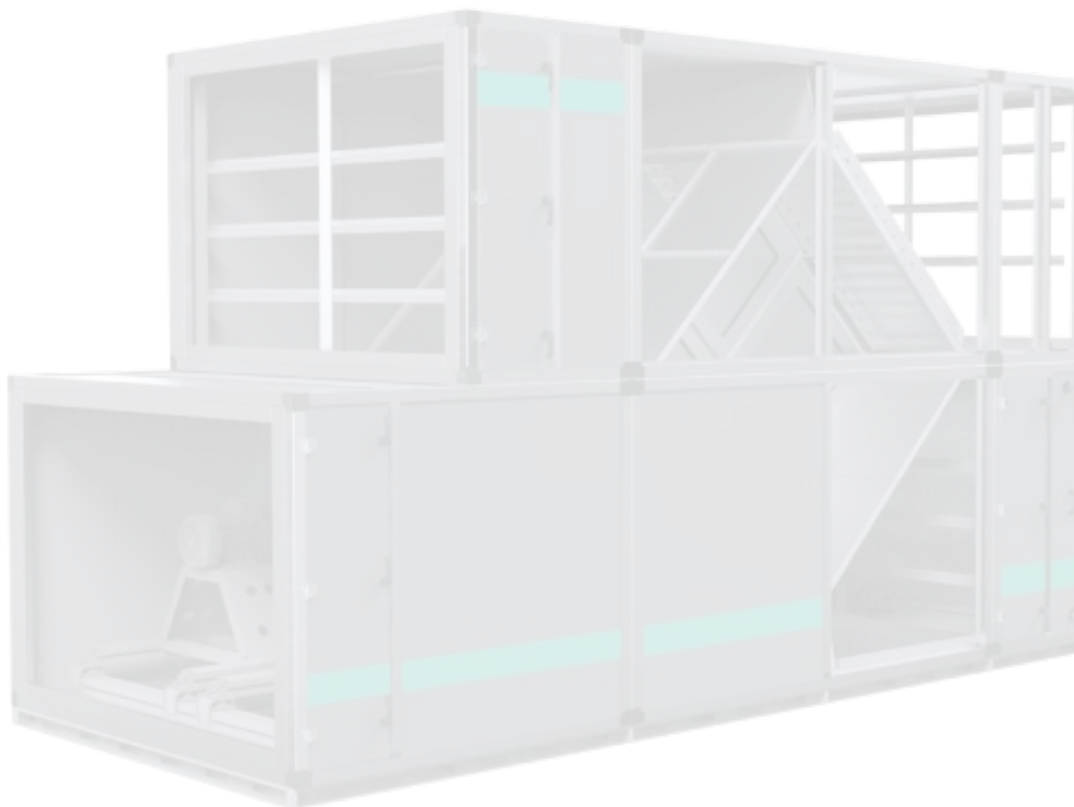
Slats: Al OR Alepoxy

ADDITIONAL OPTIONS

- ⊕ **NON-STANDARD DESIGNING**
Allows adapting to any parameters and solve the problems of different levels of engineering complexity.
- ⊕ **POSSIBILITY OF INSTALLATION OF THE HEAT PUMP of any complexity level:**
 - heating of supply air,
 - cooling of supply air,
 - heating / cooling of supply air by means of the energy-efficient heat pump working on ozone-safe freon R410a.
- ⊕ **INSPECTION WINDOWS**
Allow inspecting the unit without opening the door.
- ⊕ **PAINTING IN ANY COLOUR OF THE RAL PALETTE**

Different types of controllers are adapted to the solution of any problem and perform the control over:

- fan;
- Electric heater / water heater;
- Water cooler;
- compressor air and condensate unit;
- Humidifier;
- Air mixing chamber;
- Glycol or rotary recuperator.



REALISED PROJECTS



Pharmaceutical factory
"Biopharma" LLC,
Bila Tserkva, Kyiv region



Zaporizhzhia NPP,
Energodar



Plank Electrotechnic,
Bila Tserkva, Kyiv region



Plant for the production of electrical
cable networks "Elektrokontakt
Ukraine", Brody, Ukraine



Enhanced Resource Company
(ERC), Kyiv



PRJSC "INDAR"



"BIOPHARM AT" LLC,
Kharkiv region



Modern-Expo Group LLC,
Strumivka, Lutsk



Office "Integral-Bud M8",
Kyiv, Moskovska Str.



Residential Complex
"New England" (Housing
Maintenance Office), Kyiv



Residential Complex
"Green Wood", Odesa



"CITYHOTEL", Kyiv

REALISED PROJECTS



Residential Complex “Lux Hall”,
Dnipro



Residential Complex
“Smart Plaza Obolon”, Kyiv



Ukrainian IT-factory UNIT
Factory, Kyiv



Business City “Tekhnopark”,
Lviv



Residential Complex “Panorama”,
Dnipro



Hotel Complex “ALOFT”,
Kyiv



Residential Complex
“Smart Plaza Polytech”, Kyiv



First organic office center
“ASTARTA”, certified according
to the Breeam standard, Kyiv



Residential Complex
Respublika (school
and nursery school), Kyiv



Novus, Residential Complex
“Lipinka”, Kyiv



Novus, Vyshneve



Novus at M. Rakovoi Str.,
Kyiv

REALISED PROJECTS



Ornament Mall, Kyiv



Varus Mall, Kyiv, Palladina Ave.



KFC Restaurant, Kyiv



Car showroom Jaguar, Kharkiv



Car showroom Bentley,
Boryspil, Kyiv region



Shopping mall "MYR",
Vinnytsia, Keletska Str.



Shopping mall "Appetite",
metro station Osokorky



Sports Complex "Prometei",
Kamianske, Dnipro region



Recreation center Horse
yard "Leleky", Rudka
village, Dnipro region



Shopping Mall "Lavina Mall",
Kyiv



Supermarket "Silpo"
in the shopping mall
"Lavina Mall", Kyiv



Supermarket "Silpo" in the
residential complex "Smart
Plaza Obolon", Kyiv

REALISED PROJECTS



Shopping mall "Chocolate", Kyiv



Shopping mall
"Kadorr City Mall", Odesa



Lutsk city district court
of Volyn region, Lutsk



"Cherkasy Academic Music
and Drama Theater after
T.G. Shevchenko", Cherkasy



Nursery school "Academy
Ecoland" in Residential
complex "Tetris Hall", Kyiv



Taras Shevchenko National
Academic Opera and Ballet
Theater of Ukraine, Kyiv



Ivano-Frankivsk Academic Music
and Drama Theater after I. Franko,
Ivano-Frankivsk



School № 19, Kyiv



Shopping and entertainment
center "Amstor" cities
Severodentsk and Dnipro



"Labor Reserves" Stadium
Dnipro



Family horse club
DERGACHOV, Veremia village,
Kyiv region



Fitness center Sport life,
Kryvyi Rig, Dnipro region

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- ⊕ receive notifications of emergencies
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