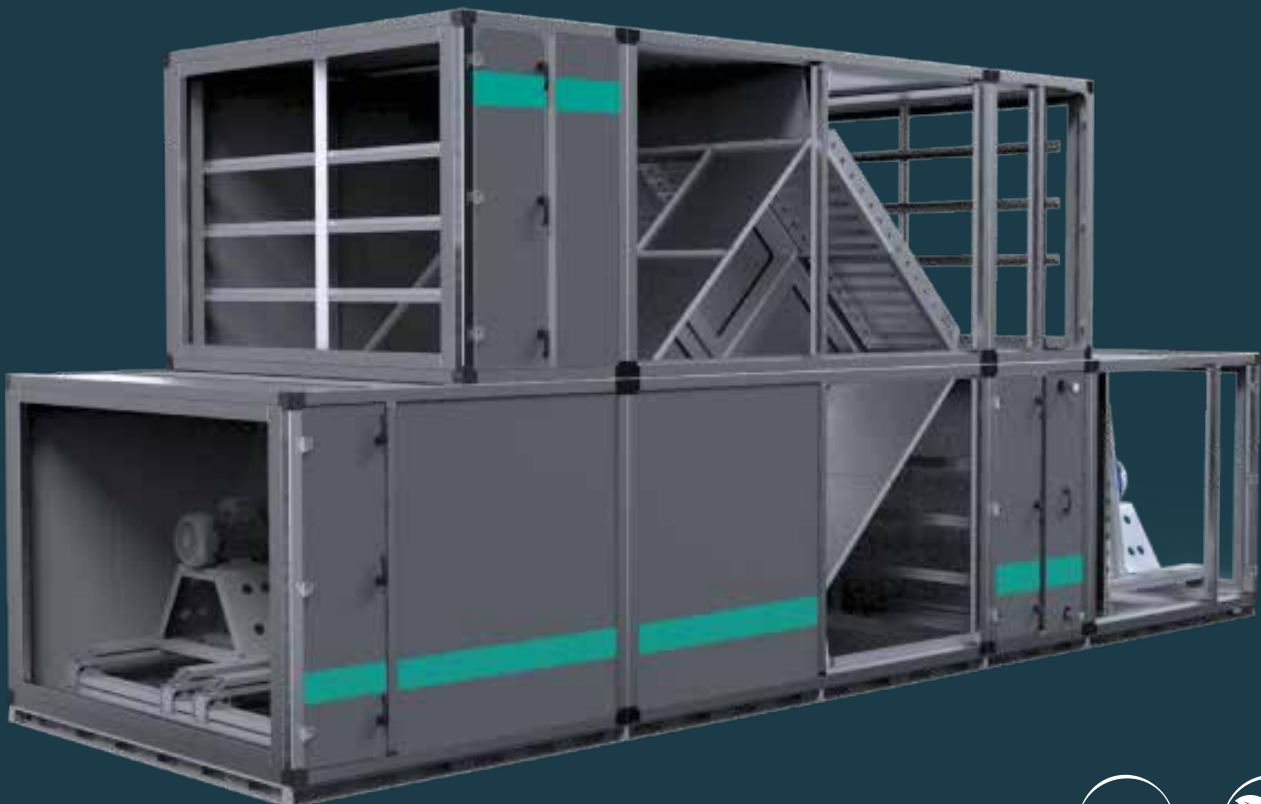


GlobalStar

Multifunctional air handling unit

CAPACITY: from 25 000 up to 120 000 m³/hour





AREA OF USAGE:

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

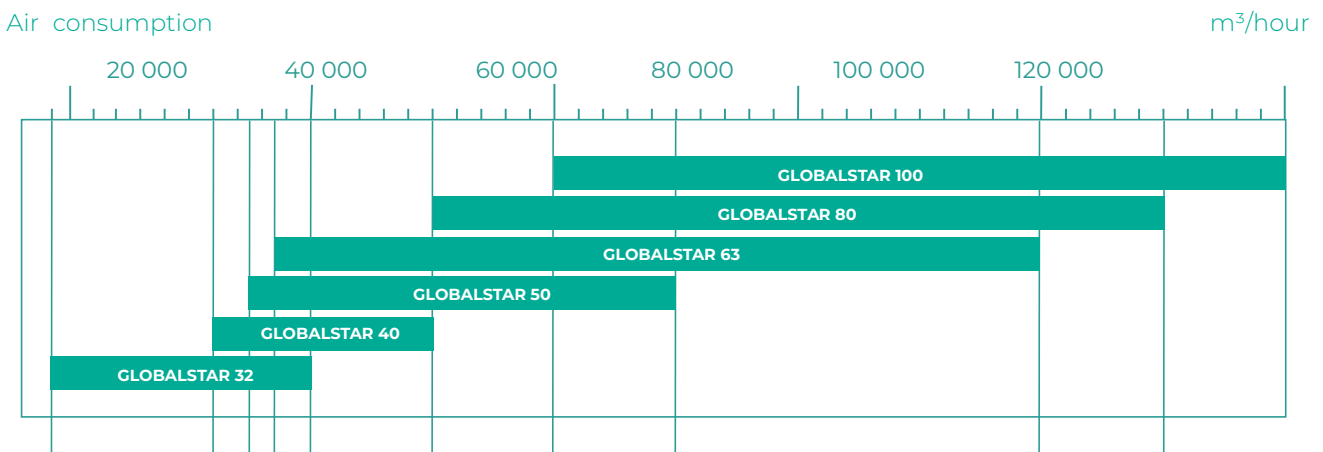
MODULAR DESIGN

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.



IMPELER

- ⊕ Welded steel construction;
- ⊕ 7 bent back blades;
- ⊕ Quality balancing G2.5

Static pressure up to 2500 Pa;
Static efficiency up to 73%;



IMPELER FOR EC-MOTOR

- ⊕ ZAmid – high-quality composite material;
- ⊕ 3D blades in the form of water drops;
- ⊕ airfoil blade;
- ⊕ low noise level.

Static pressure up to 2500 Pa;
Static efficiency up to 75%;
Air consumption: up to 25 000 m³/hour.

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: IE1, IE2, IE3.
Protection class: IP 55

Equipped with a frequency converter that enables quick reach of the set point.



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 ±15%.
Long service life: more than 80000 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.

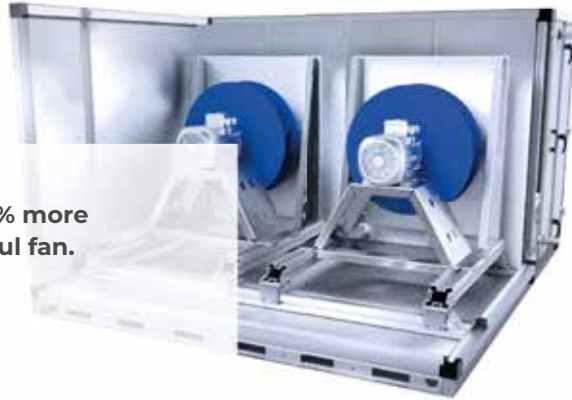




- ⊕ No service needed.
 - ⊕ The absence of the frequency converter saves installation space.
 - ⊕ Allows reduction of the fan capacity up to 10%.
 - ⊕ EC-motor optionally has MODBUS RTU protocol.
- | **Option.** Application of the **Flow Grid** technology: air flow rectifier.

DUAL FAN

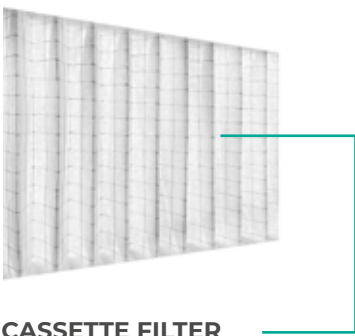
- ⊕ Dual fan system. This configuration **is 50% more reliable than a system with one powerful fan.**
- ⊕ Occupies less space.



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.
 Working environment temperature: up to 80°C.
 Humidity of the working environment: $\leq 100\%$.



POCKET FILER

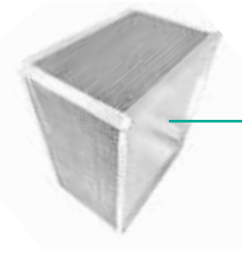
The pocket design **guarantees the increase of filtration area** and provides maximum efficiency. Made of a durable painted metal frame.

Filter material: polyester / micro-fibreglass.
 Filtration class acc. to ISO 16890: Coarse. ePM10. ePM2.5. ePM1
 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.

The usage of recuperator gives an opportunity **to reduce the total energy consumption by 80%**, which is especially important considering the rapid increases of energy prices.



ROTOR RECUPERATOR

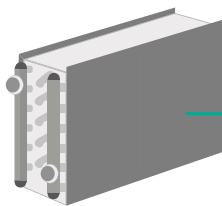
In rotary recuperators, heat transfer from the exhaust air to the supply air is carried out by means of a movable matrix with different types of coatings. The matrix of the rotary recuperator consists of two layers of aluminium foil, smooth and corrugated, alternately applied to each other. The recuperation 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.

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



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.

Usage in systems where NON-mixing of air streams is of high priority.

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 aluminium foil coated with epoxide resin.
- ⊕ 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: up to 25 000 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.

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.

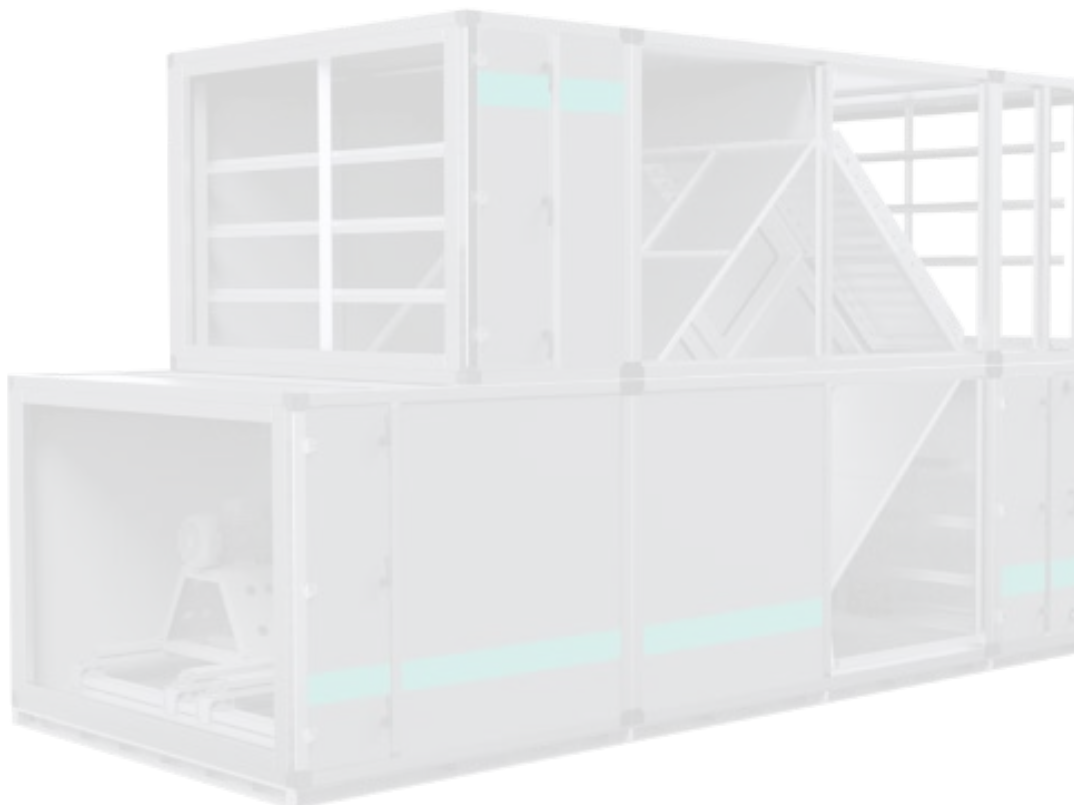
Slats: Al OR Alepoxy

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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Makes it simple at any time and from anywhere in the world:

- ⊕ control the parameter of equipment operation
- ⊕ manage the settings
- ⊕ receive notifications of emergencies
- ⊕ consult customer service of AEROSTAR



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FOR IOS DEVICES

individual settings

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individual schedule

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