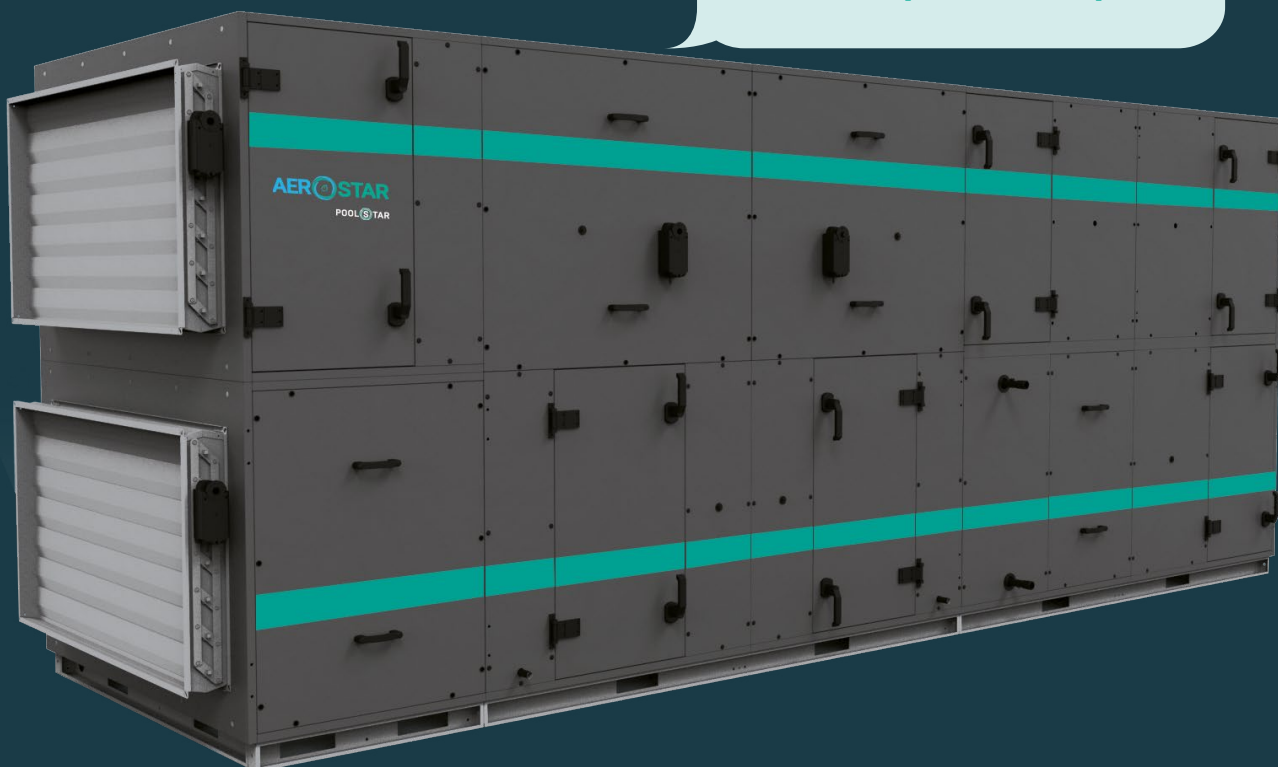


AER STAR

PoolStar

Equipment for dehumidification and ventilation of air in rooms with intensive moisture release

CAPACITY
3000 m³/h - 32000 m³/h



Solutions that work

Area of usage:

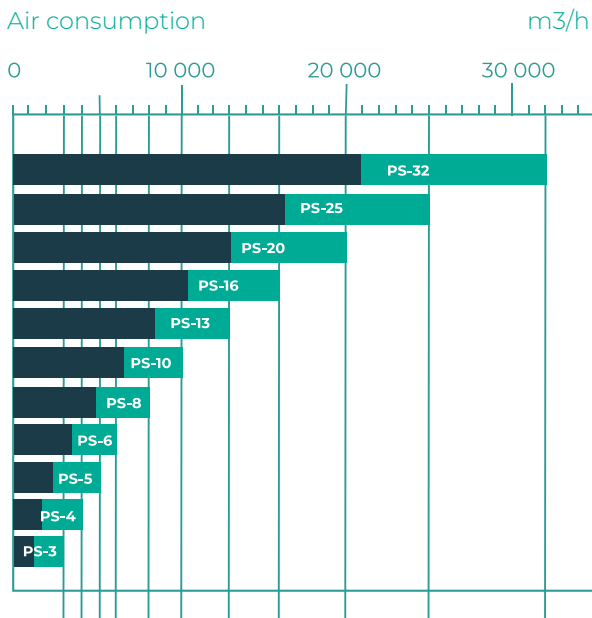
Are made in various modifications therefore are perfectly suitable for application in pools of all types and aqua parks.



Unit PS-32 is made in frame case



Standard model range is presented with 11 standard sizes:



- Minimum air consumption
- Maximum air consumption

Advantages



Protection from corrosion, mould and fungus

Prevents formation of condensate, corrosion, mould and fungus, prevents the destruction of load-bearing structures.



Double energy efficiency

Is provided by joint work of the plate recuperator and the heat pump.



High-quality steel coated with anti-corrosion powder paint

The environment in which POOLSTAR operates is aggressive because chlorine is used in swimming pools. In addition, there is constant contact with humid air. For additional protection against corrosion, all interior panels are made of high-quality steel coated with anti-corrosion powder paint.



Energy Saving mode of operation

PoolStar units are equipped with a set of automation that can be easily integrated into a single management and scheduling system of the facility. Depending on the thermophysical characteristics of the room, automation system selects the optimal energy saving mode of equipment operation for proper ventilation and dehumidification.

BASIC CONFIGURATION

EPOXIDIZED WATER HEATER

During operation in winter the epoxy aluminium-copper water heat-exchanger is put into operation. In full recovery mode the fast heating of the pool room is provided after stand-by or night mode operation.

POCKET FILTER

The cleaner the air is, the higher the heat-exchange coefficient is and, as a consequence, the efficiency of the whole unit.

Purity class - ISO 16890: ePM10 60%, ePM2,5 75%, ePM1 80%

Operating medium temperature: up to 80°C.



HIGHLY EFFICIENT HEAT-EXCHANGER OF "FREON-WATER" TYPE

Is the optimal solution for the air heating and cooling systems. The heat-exchanger has two circuits: water from the pool circulates in one circuit, hot gas circulates through another circuit, and after gas condensation it transfers heat to a water stream.

- compact;
- minimum internal volumes;
- high working pressure;
- self-cleaning of working surfaces;
- has low resistance.

RECUPERATOR WITH EPOXY COATING

The recuperation system allows reusing of the energy of the exhaust air from the room to heat and cool the air from the outside. The use of recuperator gives an opportunity to reduce the total energy consumption by 60% that is especially important considering the rapid increases of the prices for the energy sources.

- Corrosion-resistant aluminium foil coated with epoxy resin for aggressive environments.
- Strong connection of plates due to double folding.
- Pressure stability due to five-fold thickness of the material.
- The distance between the plates of 6.5 mm increases the drying efficiency.
- This design avoids pressure losses without performance reduction.
- Efficiency: up to 85%, depending on the size and operating parameters.

HEAT PUMP

Allows using the electrical and thermal energy for drying and heating with top efficiency. The pump does not require a remote compressor-condenser unit, which reduces the cost of installation work. The heat pump section dries and maintains the air temperature in the specified range.

- ecological refrigerant R410A;
- high efficiency;
- individual automation.





DOES NOT REQUIRE
ADDITIONAL LABOR
COSTS OF THE SERVICE
PERSONNEL

Additional options

- For rooms with limited space, it is possible to perform an energy-efficient supply and exhaust system with a heat pump and without a plate recuperator, as well as a supply unit with a heat pump and a mixing chamber.
- Can be equipped with an electric heater
- Painting in any colour of the RAL palette.



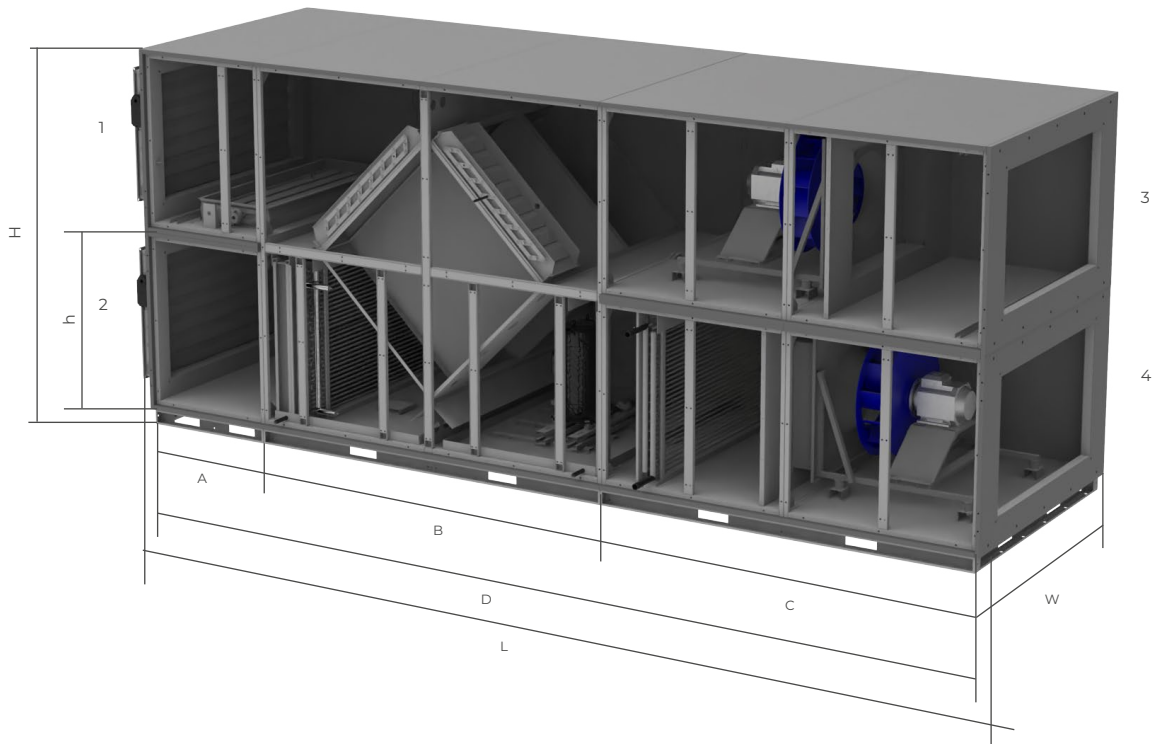
AUTOMATIC MODE

Provides an energy-efficient method of drying depending on the air humidity in the room and the climatic parameters of the outside air.

TECHNICAL FEATURES

TYPE	AIR CONSUMPTION, M ³ /H	MAXIMUM EXTERNAL STATIC PRESSURE, PA	AMOUNT OF MOISTURE REMOVED, KG/H (Air parameters: Outside: T=22°C, φ = 80%. Exhaust: T=30°C, φ = 60%)		ELECTRIC POWER CONSUMPTION, KW*
			MAIN MODE (WINTER, MIXING OF FRESH AIR)	ACTIVE DRYING	
PoolStar-3	3 000	800	28,6	6	6,5
PoolStar-4	4 000	800	39,6	10,1	9,9
PoolStar-5	5 000	800	65,2	12,4	11,5
PoolStar-6	6 000	600	88,4	17,2	13,3
PoolStar-8	8 000	650	131,4	22,9	18,1
PoolStar-10	10 000	400	171,5	25,3	18,9
PoolStar-13	13 000	650	230,7	36,6	30,2
PoolStar-16	16 000	550	181,9	50,5	35,7
PoolStar-20	20 000	500	221	55,7	43
PoolStar-25	25 000	500	282,1	75,6	53
PoolStar-32	32 000	450	449,9	78,7	66,3

*In main mode while using EC fans, not taking into account automation consumption.



DIMENSIONS OF THE UNIT

TYPE	DIMENSIONS OF THE UNIT, MM								CONNECTION DIMENSIONS, MM			
	A	B	C	D	h	H	W	L	1	2	3	4
PS-3	700	1300	1429	3429	550	1185	900	3900	600/350			
PS-4	729	1458	1458	3645	600	1285	1000	4125	700/400			
PS-5	729	1589	1589	3907	700	1485	1100	4387	800/500			
PS-6	729	1700	1663	4092	700	1485	1200	4572	900/500			
PS-8	729	2000	1663	4392	800	1685	1300	4872	1000/500			
PS-10	729	2000	1663	4392	900	1885	1400	4872	1150/600			
PS-13	729	2300	2073	5102	1000	2085	1550	5582	1300/700			
PS-16	729	2905	2073	5707	1100	2285	1700	6187	1400/800			
PS-20	729	3069	2204	6002	1250	2585	1900	6482	1600/1000			
PS-25	729	3200	2523	6452	1400	2885	2050	6932	1750/1100			

OPERATION MODES OF THE UNIT

The built-in automation allows to adjust the unit to optimum operating modes: the main mode «winter», «winter min», «active drying», «fast heating», «summer», «summer +», «summer ++» (additional option), thanks to which it significantly saves the electric power.



Winter (main mode)

Main mode for winter time when there are people in the room.

Moisture is removed and fresh heated air is supplied to the pool.

By default:

Fans work at 100%

Admixing of fresh air – 30%

Heat pump works



Winter min

Is applied when the pool is not used, water surface is covered or there is no water inside the pool.

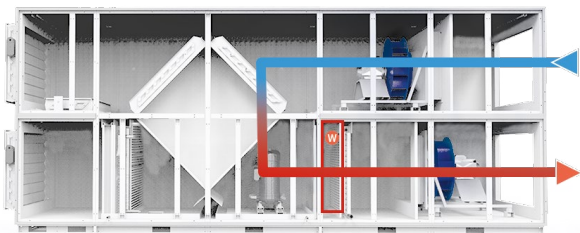
Fresh air is supplied to the room for a minimum number of people (service personnel).

By default:

Fans work at 80%

Recirculation – 80%

Admixing of fresh air – 20%



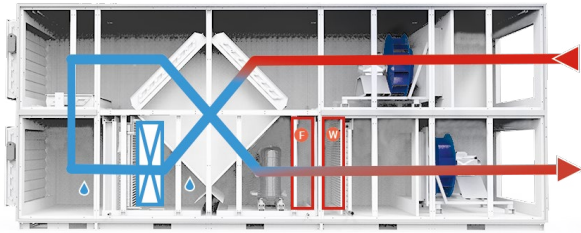
Fast heating

Designed for conditions when there are no people in the pool premise and no moisture release, water surface is covered or there is no water inside the pool.

By default:

Water heater works in a stand-by mode.

Admixing of fresh air – 0%.



Active drying

Is used when there are no people in the pool, but there is an active release of moisture.

The unit operates in stand-by mode, maintaining certain humidity due to the operation of the heat pump.

By default:

Recirculation – 100%

Admixing of fresh air – 0%

Heat pump works.



Summer

The mode in which ventilation of the pool premise is performed with the help of fresh warm air.

Maintains the set moisture level. This is achieved by removing moist air and supplying warm dry air.

By default:

- Fans work at 100%.
- Fresh air – 100%
- Heat pump doesn't work.

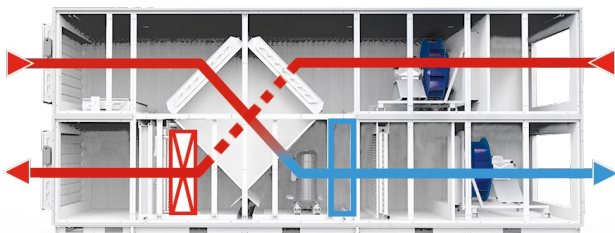


Summer+

The mode is similar to the Summer mode, except that the supply air is not heated on the recuperator but goes through the bypass.

By default:

- Fans work at 100%.
- Fresh air – 100%



Summer ++ (extra option)

The unit works as a general forced ventilation system. The mode is relevant in the warm season with high humidity of outside air.

The supply air passes through the recuperator, while the heat pump is turned on the reverse mode, removing excess heat from the supply air.

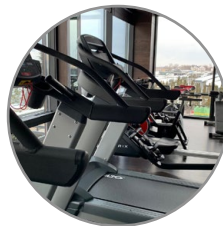
By default:

- Fans work at 100%.
- Admixing of fresh air – 100%

REALISED PROJECTS



Cottage community "Green Hills",
Vita-Poshtova village



Sport Complex,
Zoloche village



Fitness centre "Vertical",
Odessa



WISH AQUA&SPA RESORT,
Vyshenky village



Sports and wellness centre,
Vyshenky village

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