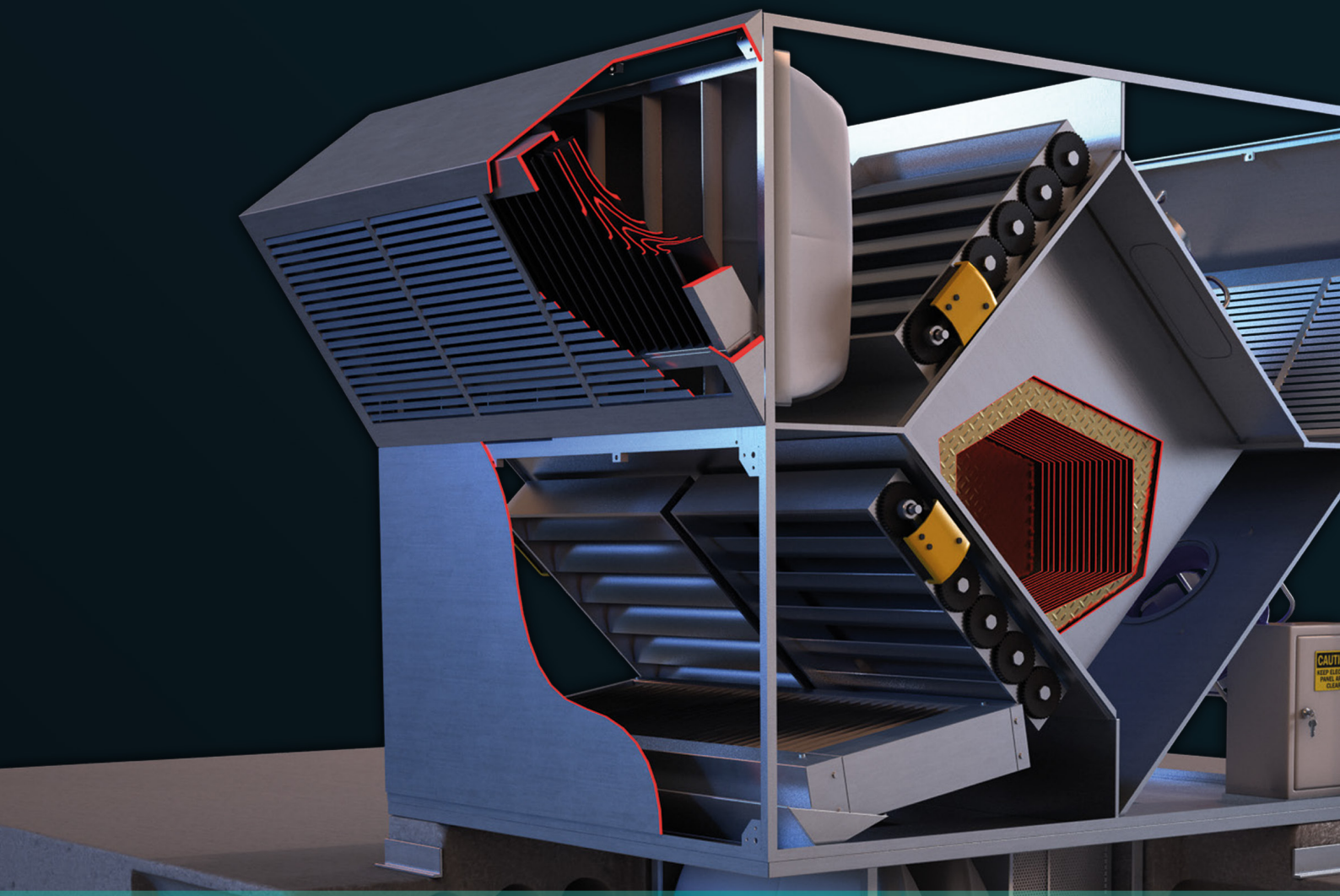
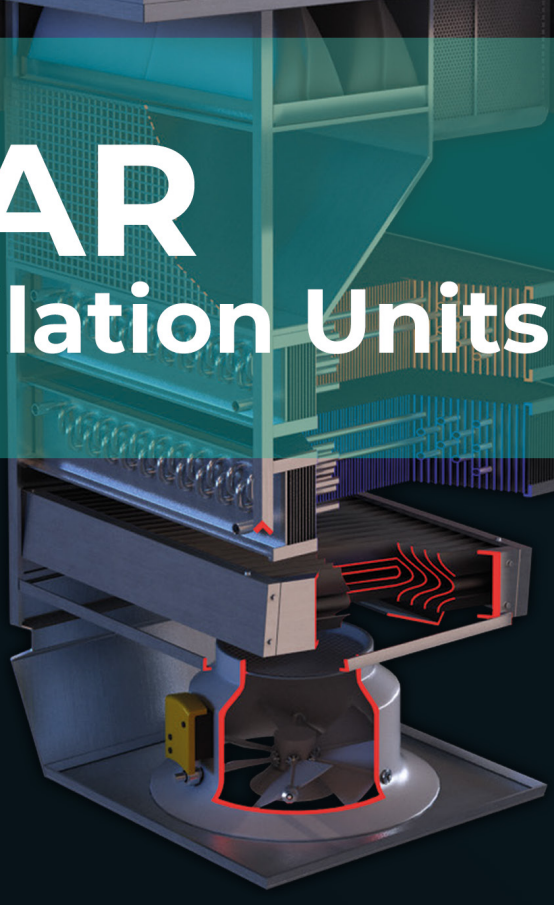
AEROSTAR

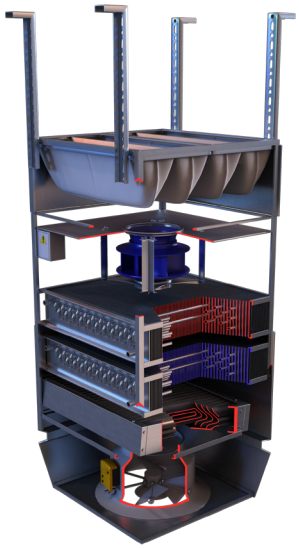


HIGHSTAR

Rooftop Ventilation Units



HighStar ventilation units



HighStar units are a decentralized solution capable of creating a full indoor microclimate or forming local zones as needed.

These engineering solutions are designed to improve energy efficiency, save space, and reduce installation and operating costs by utilizing a rooftop ventilation unit concept.

Applications **include** warehouses, industrial facilities, and other specialized spaces with high ceilings.

When designing a facility with the HighStar unit, you gain:

Space saving (as no additional room is required for ductwork or the unit itself).

Elimination of air stagnation zones.

Maintenance of proper local temperature zones by adjusting the airflow geometry in the Vortex Diffuser.

Support for the required air exchange rate.

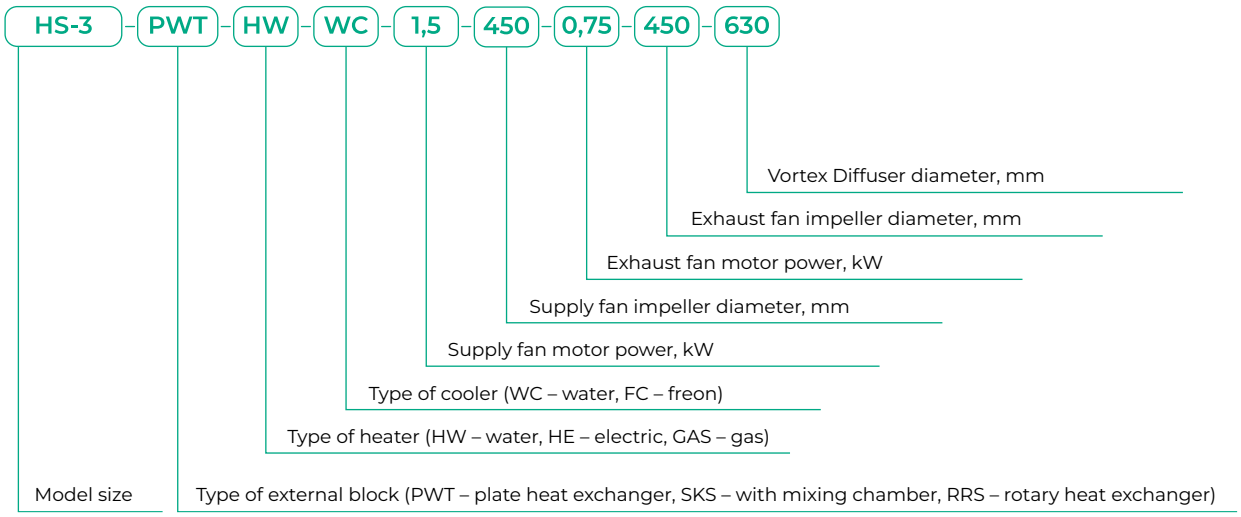
Reduced operating costs due to lower electricity consumption.

The ability to eliminate rooftop exhaust fans.

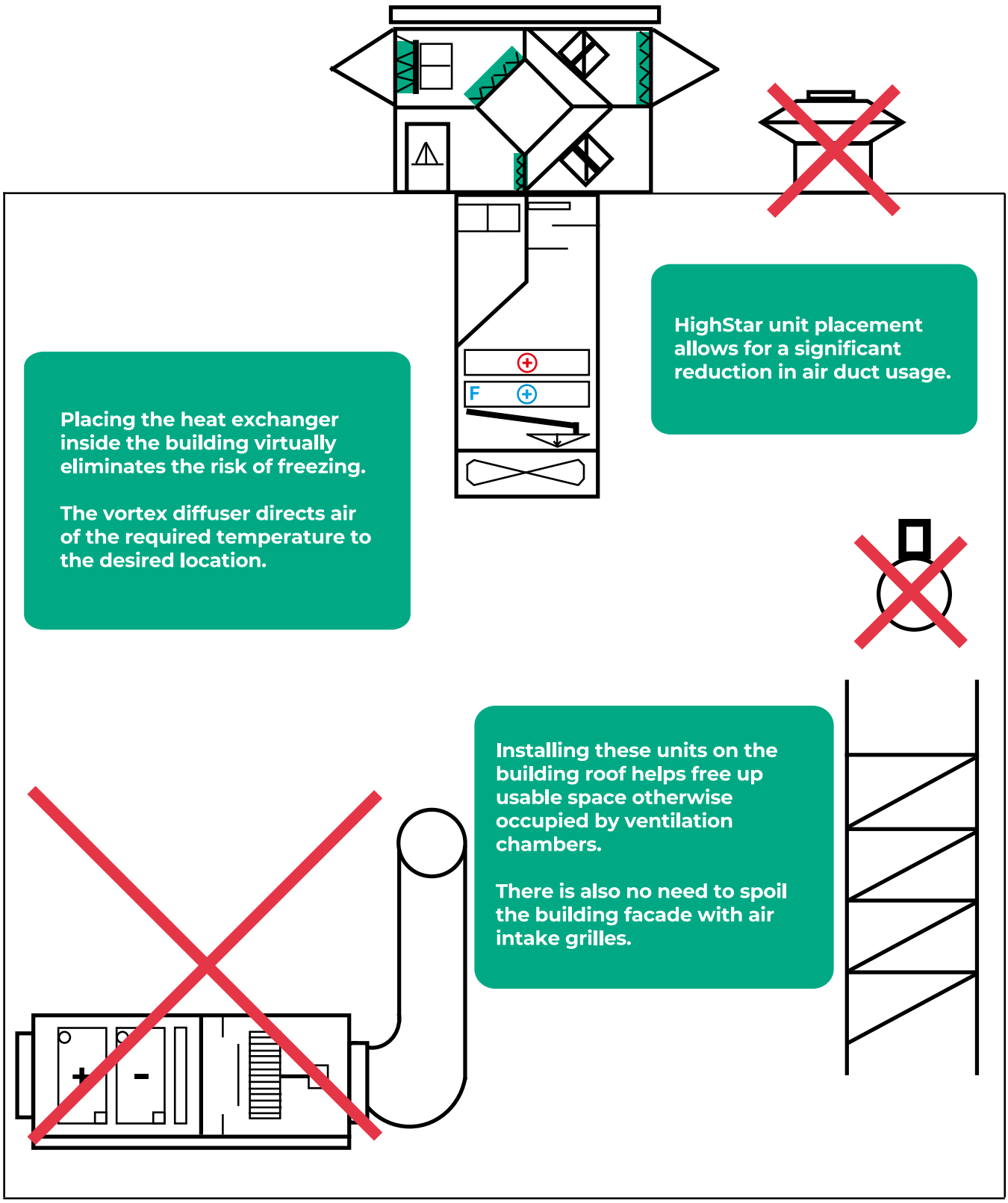
HighStar units are classified by size and can optionally be equipped with:

- Vortex Diffuser
- Water Heater
- Water cooler
- Evaporator
- Water Heater and evaporator
- Heat exchanger (Plate or Rotary)
- Gas Heater
- Heat Pump

HS Model Code Definition — HighStar



HighStar allows for the elimination of rooftop air conditioners.



Placing the heat exchanger inside the building virtually eliminates the risk of freezing.

The vortex diffuser directs air of the required temperature to the desired location.

HighStar unit placement allows for a significant reduction in air duct usage.

Installing these units on the building roof helps free up usable space otherwise occupied by ventilation chambers.

There is also no need to spoil the building facade with air intake grilles.

HIGHSTAR Unit Sizes

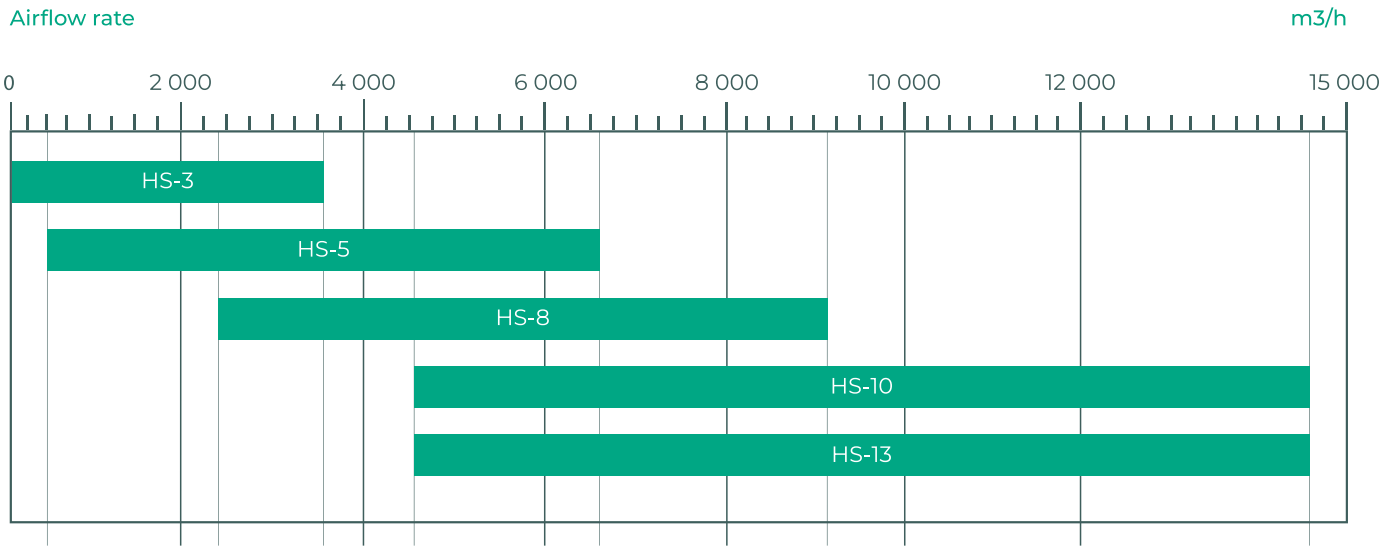
HighStar (HS) — a supply recirculation unit for heating and cooling high-ceiling spaces.

Thanks to its high performance and efficient air distribution, the unit covers a large area.

A tailored solution for large spaces is provided by five unit size options, various types of water/electric heaters, and water/freon-based cooling systems.

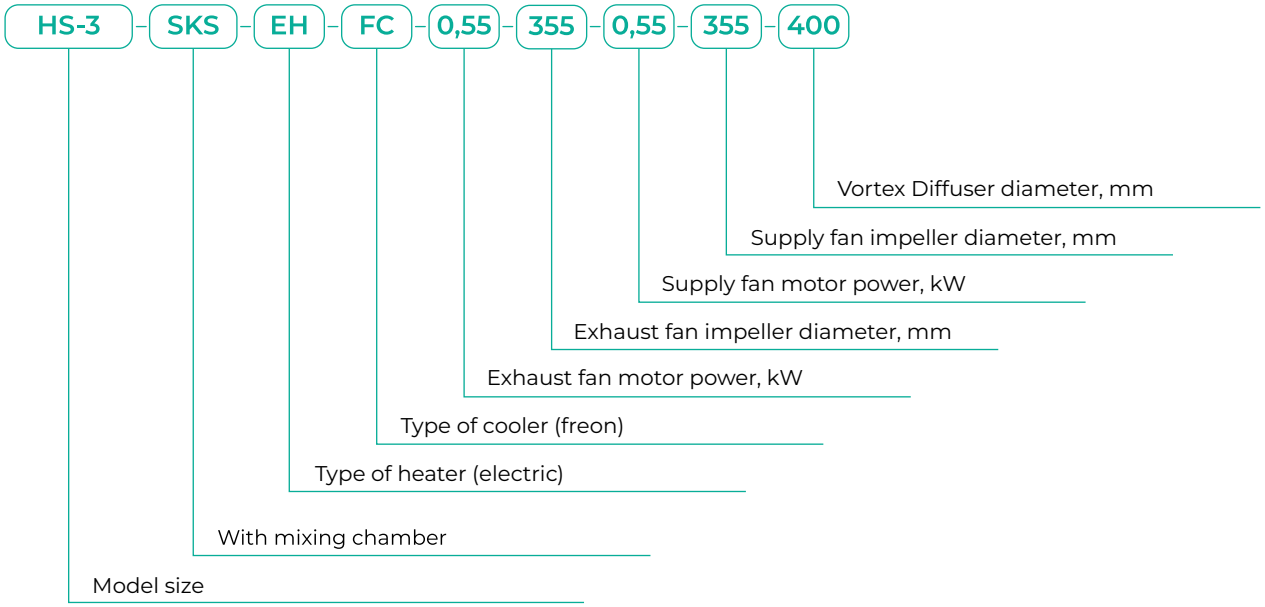
Functional features:

- Supply air heating/cooling
- Recirculation
- Air distribution via vortex diffuser
- Air filtration



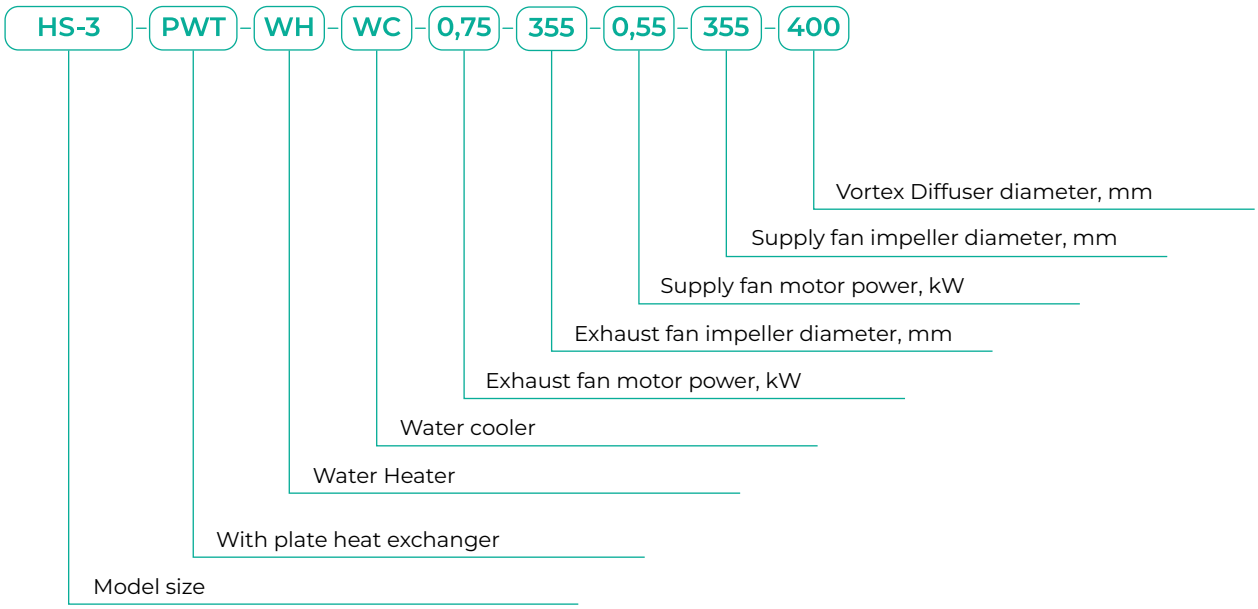
HS-SKS is a supply and exhaust ventilation unit equipped with a mixing chamber, used for heating and cooling spaces with high ceilings. It is available in 5 sizes.

The system can be configured to deliver a specific amount of fresh air: exactly as much as is needed to maintain the indoor temperature without additional heating. This unit operates on the principle of mixing a portion of the exhaust air with the supply air — specifically, ensuring that over 40% of the total air supply consists of fresh air. Therefore, installing a unit with heat recovery is a more economical solution.



HS-PWT is a supply and exhaust unit with heat recovery from exhaust air, designed for heating and cooling spaces with high ceilings depending on seasonal needs.

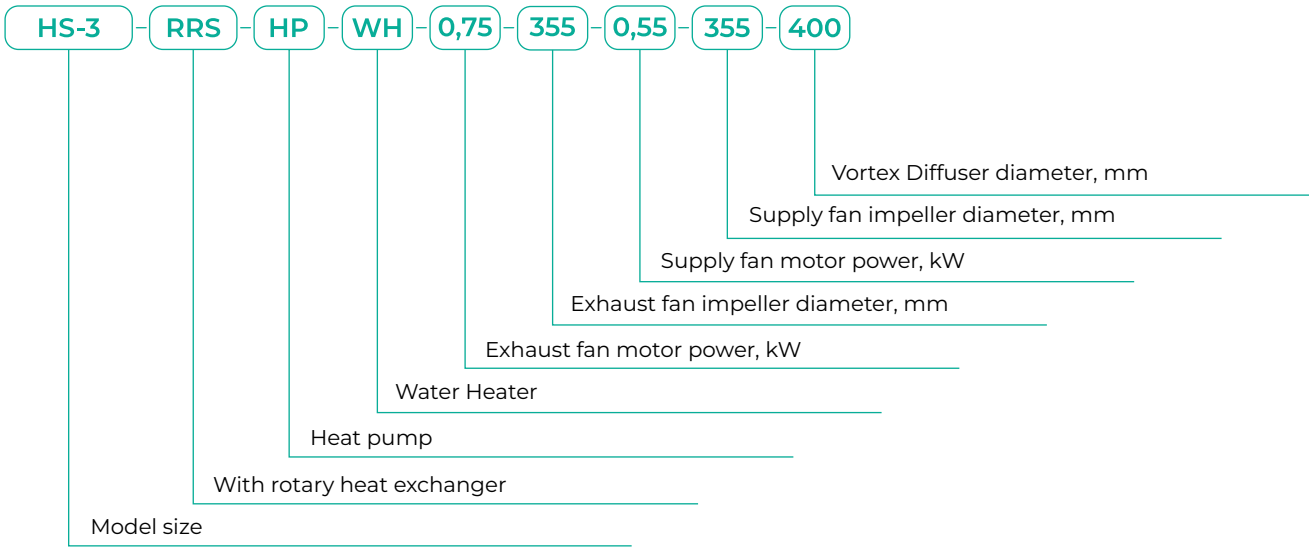
HS-PWT supplies fresh air and maintains the required temperature using the principle of heat recovery through a heat exchanger



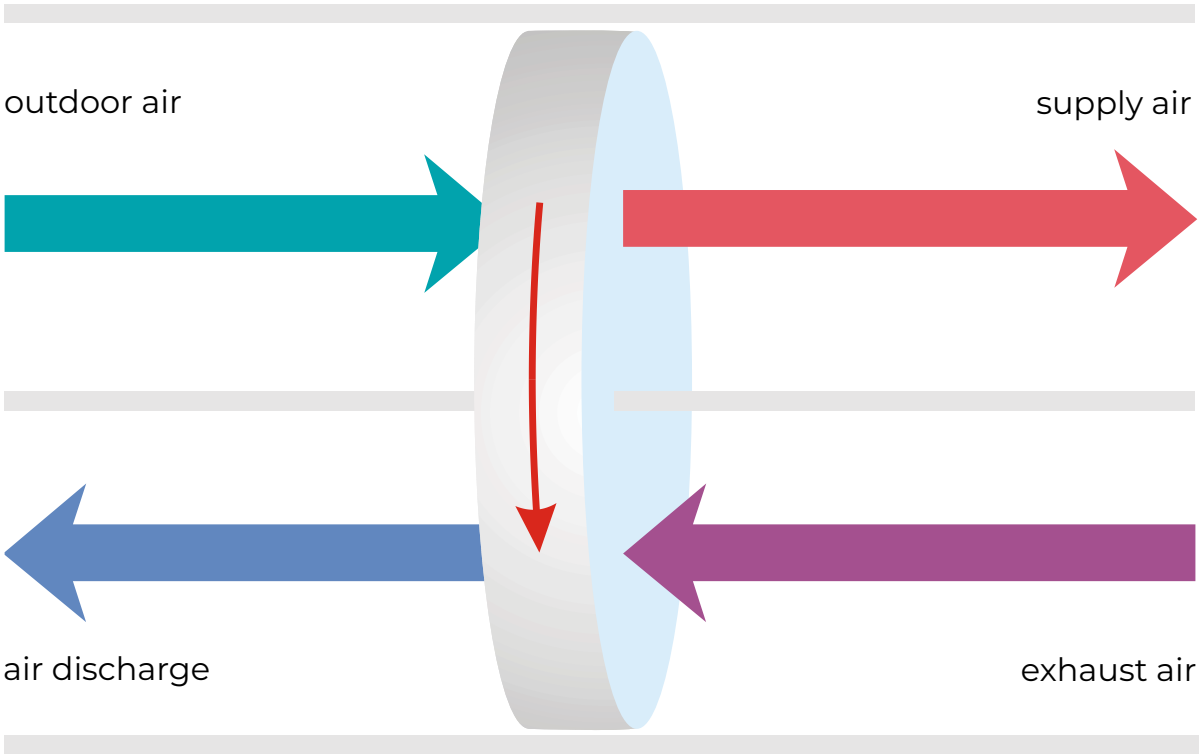
HIGHSTAR Unit Sizes

HS-RRS is a supply and exhaust ventilation unit using a rotary heat exchanger designed to heat the supply air via a built-in heat exchanger, and, if necessary, using an air mixing mode in the empty section.

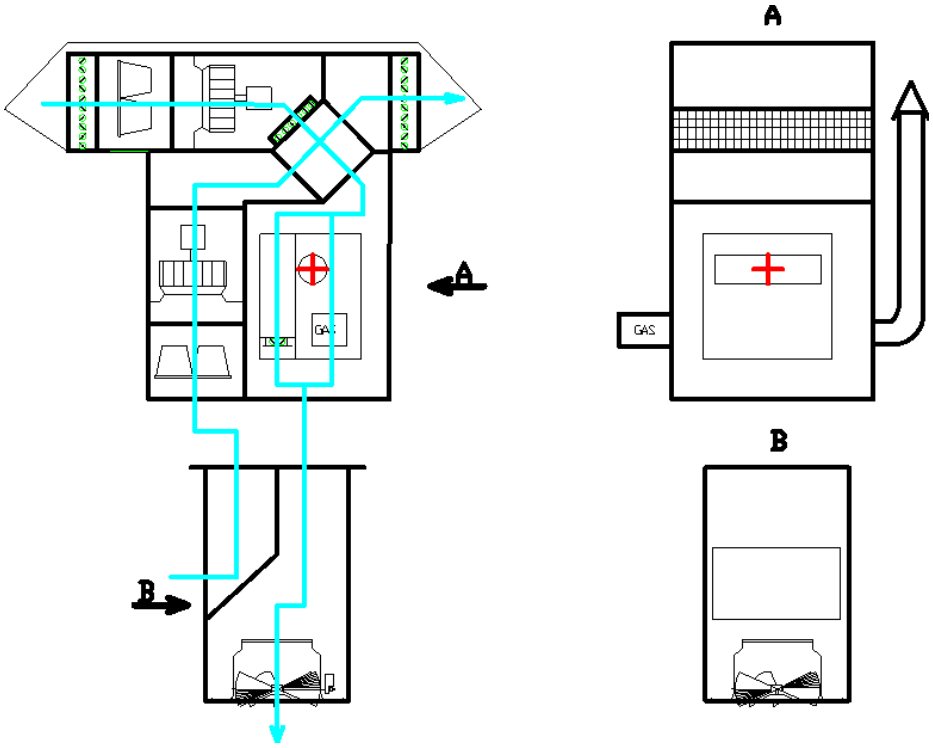
Modifications of the HS-RRS-HP unit include a heat pump element for heating and cooling the air supplied to the room.



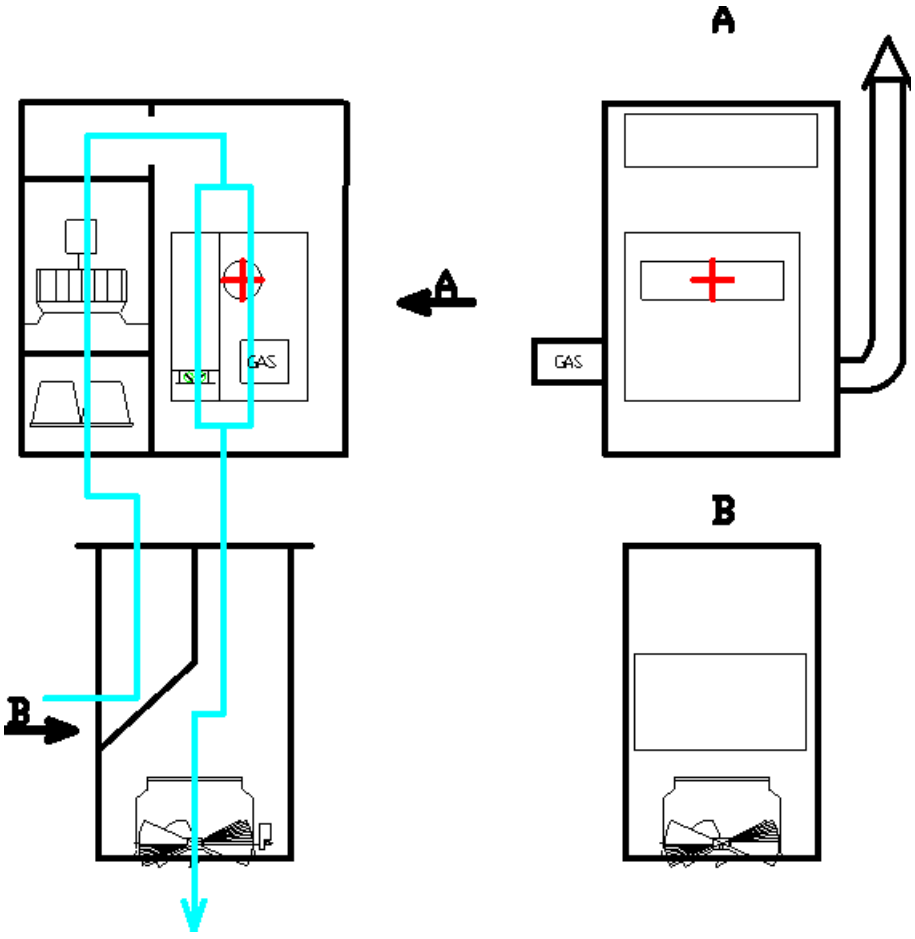
Operating principle of the rotor



HS-GAS — a modification of the HighStar unit that features a built-in gas heater to heat the air supplied to the room.



The air heated by the gas burner is drawn from outside and does not require a boiler room or hot water distribution network.



Technical Specifications

HighStar units implement a technology that allows control of the supply airflow dispersion by adjusting the position of the diffuser blades.

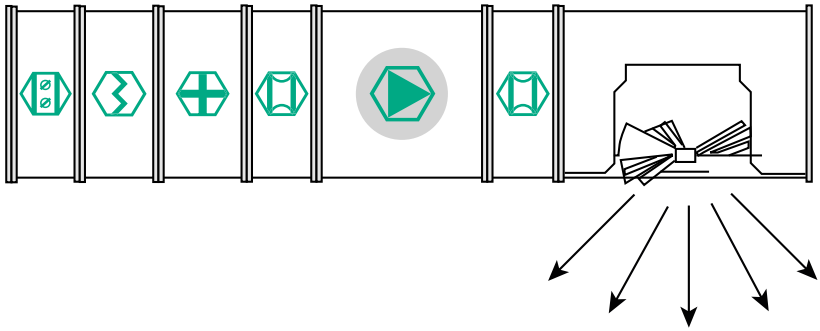
Technical Specifications of the Vortex Diffuser

Model SWR	m³/h	Vertical jet length Vt=0.2 (m/s)	dB
315 (HS3)	3000	10,698	20-62
400 (HS5)	5000	11,058	20-62
500 (HS8)	8000	11,323	20-62
630 (HS10)	10000	8,915	20-62
630 (HS13)	13000	11,590	20-62

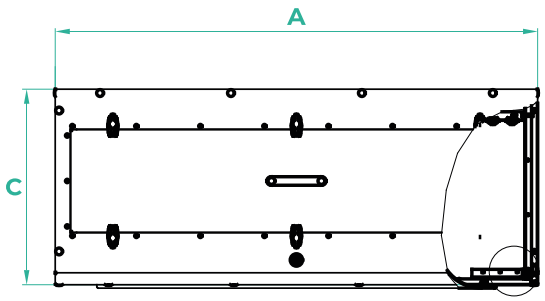
Overall Dimensions of the Vortex Diffuser

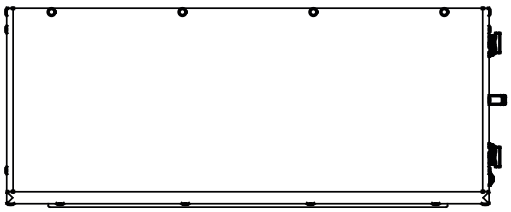
Model SWR	A (mm)	B (mm)	C (mm)	Diameter
315 (HS3)	720	720	298	398
400 (HS5)	880	880	328	465
500 (HS8)	1050	1050	378	565
630 (HS10)	1130	1130	458	656
630 (HS13)	1290	1290	458	656

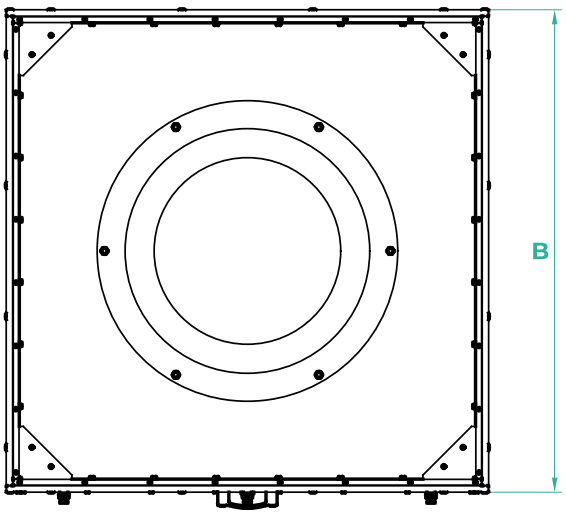
HS-SWR

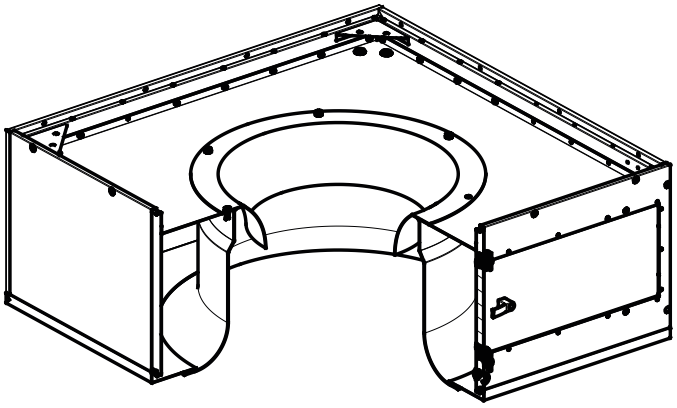


OVERALL DIMENSIONS



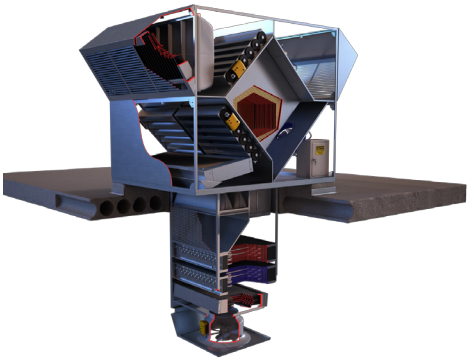


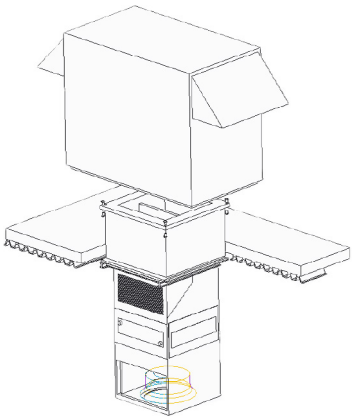


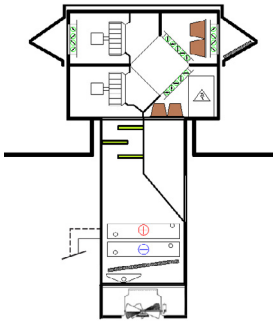


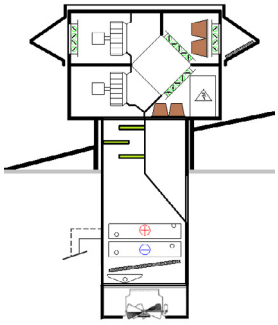
Model size	HighStar-3	HighStar-5	HighStar-8	HighStar-10	HighStar-13
Airflow rate, m³/h	up to 3500	up to 6500	up to 9000	up to 15000	up to 15000
Cassette filter	G4 655x285x48	G4 815x365x48	G4 985x450x48	G4 1065x490x48	G4 610x570x48
Air damper	470x200	630x270	800x355	880x395	1040x475
Motor type	AC/EC				
Fan power, kW	1,1	3,0	3,0	4,0	5,5
Impeller diameter, mm	350	450	560	630	630
Air throw distance, m	up to 7,7	up to 8,7	up to 18,2	up to 23,6	up to 25
Vortex diffuser diameter, mm	398	465	565	630	630

The units are mounted to the installation site using mounting sleeves, I-beams, and support beams.









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