SUSTAINABLE SOLUTIONS FOR YOUR COMFORT

AirHC1000

Compact, High-Efficiency Duct Air Heater/Cooler with Circular Connections

NEW

Technical Information

INTERNATIONAL 2026

Valid from 1st of January 2026

Product Description

Product Description:

The **AirHC1000** is a highly efficient and compact EPP insulated duct air post-heater/cooler designed for air handling systems with an airflow of up to **1000 m³/h (588 CFM)**. The unit is suitable for use both with ventilation recovery units and standalone ventilation systems. Thanks to its advanced insulation and high performance, the AirHC1000 ensures reliable operation even under extreme weather conditions **(down to -30°C / -22°F)** and high efficient cooling from +35°C/95°F. Two compartments for filters provides high quality air filtration possibilities.

Possible Applications of AirHC1000

AirHC1000 is developed for versatile use in various air handling and ventilation solutions, thanks to its high efficiency, broad temperature range, and robust construction. Here are the most common and innovative applications for this product:

1. Residential and Multi-Apartment Buildings

- Supplementary heating and cooling for supply air in apartments, private houses, and townhouses.
- Can be integrated with centralized HVAC systems or serve as an individual solution for single homes, offering optimal comfort in every season, even in severe winter conditions (down to -30°C / -22°F).

2. Commercial and Office Spaces

- Ensures precise indoor climate control in offices, shops, conference centers, banks, and public buildings.
- Particularly valuable where energy performance, air cleanliness, and silent operation are required, for example, in co-working spaces, meeting rooms, and banks.
- Can be included in retrofit projects to modernize existing systems.

3. Educational Institutions & Healthcare Facilities

- Ideal for schools, kindergartens, universities, hospitals, and clinics, where air quality is crucial for health and productivity.
- The possibility to use advanced air filters provides enhanced protection against dust, pollen, and pathogens.

4. Sports, Wellness & Recreational Centers

- Used for maintaining optimal air temperature and humidity in sports halls, fitness gyms, swimming pools, and SPA complexes.
- Smooth heating/cooling helps to create a stable and comfortable environment for users.

Product Description

5. Restaurants, Cafés & Hospitality Sector

- Ensures comfortable dining and lodging conditions in restaurants, cafés, hotels, and similar hospitality venues.
- Quiet operation and precise temperature control enhance guest experience.

6. Industrial and Manufacturing Facilities

- Suitable for the ventilation of production halls, clean rooms, warehouses, and technical spaces.
- Cooling and heating of large volumes, as well as protection of equipment and finished products against temperature fluctuations.

7. Server Rooms & Data Centers

- Maintaining critical microclimate for sensitive electronic equipment.
- Combined heating/cooling guarantees uninterrupted operation of servers and IT infrastructure, even in harsh conditions.

8. Indoor Farming / Vertical Farming / Greenhouses

- Special mention: AirHC1000 is perfectly suitable for controlled environment agriculture, such as indoor/vertical farming and greenhouses.
- Provides precise air temperature and humidity management for plant growth, supporting year-round crop cycles.
- Efficient integration with CO_2 enrichment, dehumidification, and lighting control for maximized plant health and yield.
- Compatible with water/glycol cooling systems often used in large-scale horticultural HVAC infrastructure.

9. Laboratories & Research Facilities

- Creates and maintains stable indoor conditions for testing, experiments, and sensitive storage.

10. Museums, Archives, & Art Galleries

- Ensures microclimate needed to preserve artwork, historical items, and documents, preventing damage from temperature and humidity variations.

11. Custom Ventilation Solutions

- Due to flexible integration options (no built-in controls), AirHC1000 easily adapts to tailor-made ventilation and air handling systems designed by engineering teams for specific client or project needs.

Product Description

Summary:

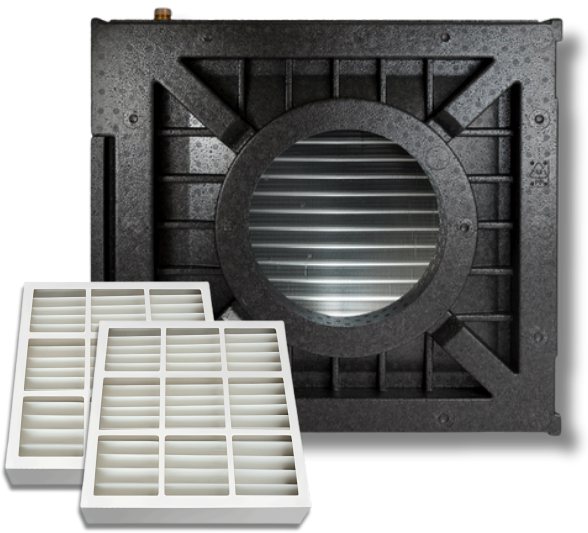
AirHC1000 is an all-round solution for new builds, retrofits, and special projects wherever energy-efficient, precisely controlled air heating or cooling is required in a ducted air system. Its reliability in harsh climates, compatibility with clean energy solutions and advanced filtration, and universal connectivity make it a futureproof choice for any modern environment, including high-tech and green sectors like indoor farming.

Technical Specifications:

- **Maximum airflow:** up to 1000 m³/h (588 CFM)
- **Duct connection:** DN250 (Ø250 mm / 9.84 in round duct connection)
- **Heating capacity:** up to 19 kW
- **Cooling capacity:** up to 9 kW
- **Heat transfer medium:** water or glycol solution (antifreeze)
- **Operating temperature range:** -30°C to +60°C (-22°F to +140°F)
- **Insulation:** high-efficiency EPP (expanded polypropylene), does not rust, does not require additional insulation
- **Air filtration option:** two compartments for filters
- **Casing material:** moisture-resistant, durable EPP
- **Heat exchanger:** biologically safe heat exchanger for water/glycol/antifreeze
- **Condensation connection:** below the unit, threaded connection 5/4"/Ø63
- **Weight:** 8kg /17.63lbs
- **Compact, quiet, and easy to install**
- **Compatible with various ventilation systems, including both recovery and standalone systems**

Advantages:

- High energy efficiency, minimal heat loss
- Reliable operation across a wide climatic range (down to -30°C / -22°F and cooling from +35°C/95°F)
- Option for **air filter integration** – enhanced air cleanliness
- Quiet, lightweight, and easy to maintain
- Universal applicability for various types of premises and any ventilation solution
- No additional insulation required



Flexible Integration – With or Without Heat Recovery Units

Flexible Integration – With or Without Heat Recovery Units

The AirHC1000 post-heater/cooler is designed for maximum flexibility and can be efficiently integrated both downstream of a heat recovery (HRV/ERV) unit or used independently on supply air duct alongside fan.

With Heat Recovery Unit:

- When installed after a ventilation heat recovery unit, AirHC1000 serves as a “post-heater” or cooler. It ensures the supply air temperature reaches the desired comfort level, regardless of the efficiency of the heat exchanger in the HRV. This is especially important during extreme outdoor temperatures, or when additional cooling is needed in summer.

Without Heat Recovery Unit:

- The unit can also be used in ventilation systems without heat recovery. In this case, AirHC1000 provides all supply air heating or cooling, ensuring comfortable indoor climate all year round.

Operation in Cold Climates – Why Use Glycol?

Important: In regions where winter temperatures regularly fall below 0°C (32°F) and no heat recovery unit installed, it is essential to use a glycol solution (antifreeze) as the heat transfer medium in the AirHC1000 unit. Glycol protects the internal heat exchanger from freezing and subsequent damage, ensuring:

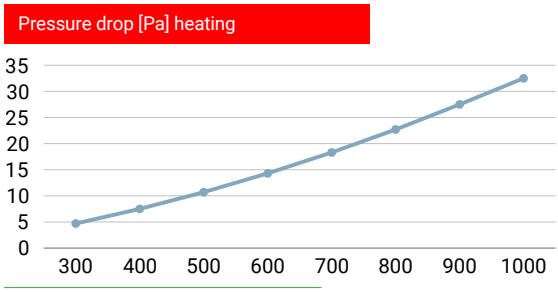
- Safe, reliable operation even in prolonged frost or during ventilation shutdowns.
- Extended equipment lifetime and reduced maintenance risks.

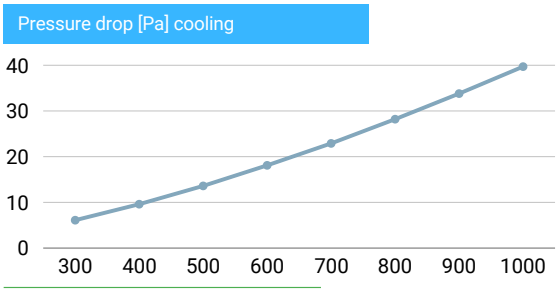
In moderate or warm climates, plain water can also be used as the heat carrier. However, for maximum safety, especially in areas subject to sudden temperature changes or for seasonal homes with prolonged absence, glycol is always recommended for freeze protection.

Performance data

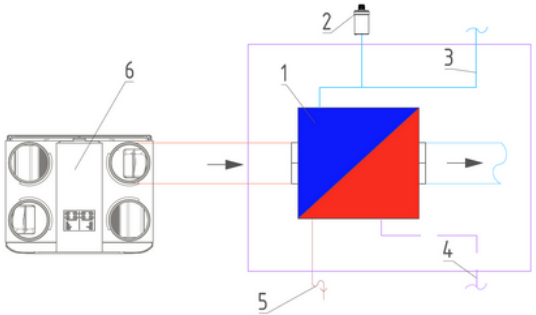
Performance data for the system **with** heat recovery ventilation unit

Inlet air condition into AirHC1000		Heating				Cooling				
	T in	+18°C/65°F				+25°C/77°F				
	RH%	40%				55%				
Media flow	kg/h	1000				1000				
Total Fluid PD	[kPa]	38.9				46.5				
Water/glycol temp IN	°C/°F	55°C/ 131°F				7°C/45°F				
Air flow [m³/h]	Total [kW]	T out °C	RH out %	PD [Pa]	Cond [l/h]	Total [kW]	T out °C	RH out %	PD [Pa]	Cond [l/h]
300 m³/h /176.57 CFM	3,35	50,9	6,4	4,7	-	2,4	9,7	96,8	6,1	1,53
400 m³/h / 235.43 CFM	4,23	49,2	7	7,5	-	2,93	10,8	95,4	9,6	1,90
500 m³/h / 294.28 CFM	5,03	47,7	7,5	10,7	-	3,38	11,7	94	13,6	2,23
600 m³/h / 353.14 CFM	5,76	46,3	8,1	14,3	-	3,75	12,4	92,8	18,1	2,52
700 m³/h / 412,00 CFM	6,42	45,1	8,6	18,3	-	4,07	13,1	91,6	22,9	2,78
800 m³/h / 470.86 CFM	7,03	44	5	22,7	-	4,35	13,7	90,6	28,2	3,02
900 m³/h /529.72 CFM	7,6	42,9	5,3	27,5	-	4,59	14,2	89,6	33,8	3,25
1 000 m³/h / 588.57 CFM	8,12	42	5,6	32,5	-	4,8	14,6	88,8	39,7	3,46





Schematics



Legend:

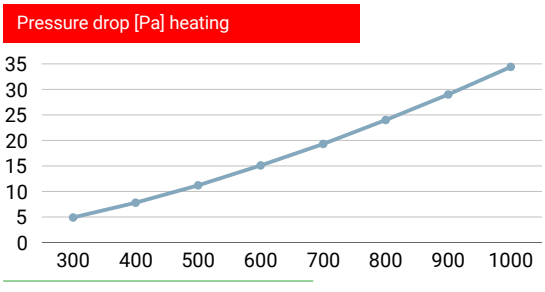
1. AirHC1000 unit
2. Air release valve
3. Media supply
4. Media return
5. Condensation connection
6. Heat recovery unit.

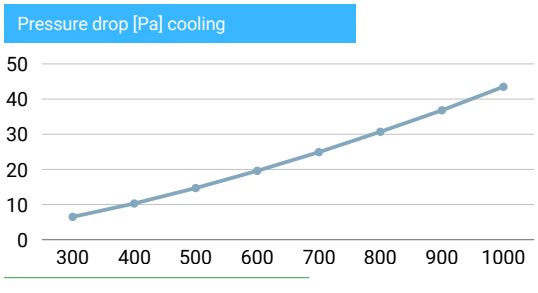
· Subject to change without notice ·

Performance data

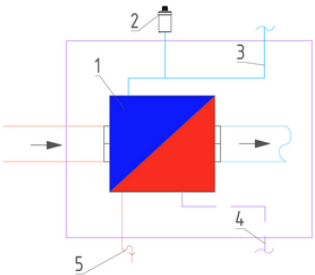
Performance data for the system **without** heat recovery ventilation unit

Inlet air condition into AirHC1000		Heating				Cooling				
	T in	-30°C/-22°F				+35°C/95°F				
	RH%	22%				55%				
Media flow	kg/h	1000				1000				
Total Fluid PD	[kPa]	43.4				46.5				
Glycol temp IN	°C/°F	55°C/ 131°F				7°C/45°F (water)				
Air flow [m³/h]	Total [kW]	T out °C	RH out %	PD [Pa]	Cond [l/h]	Total [kW]	T out °C	RH out %	PD [Pa]	Cond [l/h]
300 m³/h /176.57 CFM	8,59	40,7	0,1	4,9	-	4,8	11,8	99,4	6,5	2,26
400 m³/h / 235.43 CFM	10,67	35,9	0,2	7,8	-	5,85	13,7	98,2	10,3	2,78
500 m³/h / 294.28 CFM	12,48	31,7	0,2	11,2	-	6,71	15,3	96,7	14,7	3,21
600 m³/h / 353.14 CFM	14.08	28	0,3	15,1	-	7,43	16,6	95,3	19,6	3,6
700 m³/h / 412 CFM	15,52	24,8	0,3	19,3	-	8,03	17,8	94	24,9	3,93
800 m³/h / 470.86 CFM	16,81	21,9	0,4	24	-	8,54	18,8	92,7	30,7	4,23
900 m³/h /529.72 CFM	17,99	19,4	0,5	29	-	8,99	19,6	91,6	36,8	4,52
1 000 m³/h / 588.57 CFM	19.06	17,1	0,5	34,4	-	9,38	20,4	90,5	43,5	4,78





Schematics



Legend:

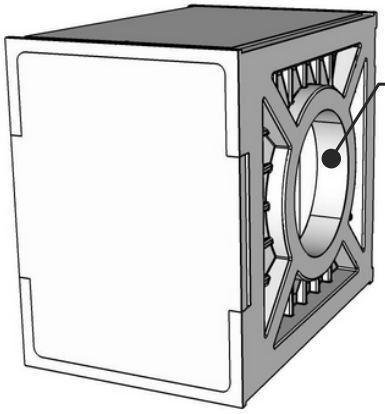
1. AirHC1000 unit
2. Air release valve
3. Media supply
4. Media return
5. Condensation connection

Performance calculations for specific locations are provided upon request.

· Subject to change without notice ·

Performance data

Dimensions:

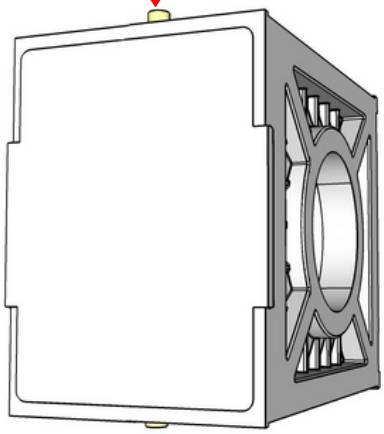


DN 250

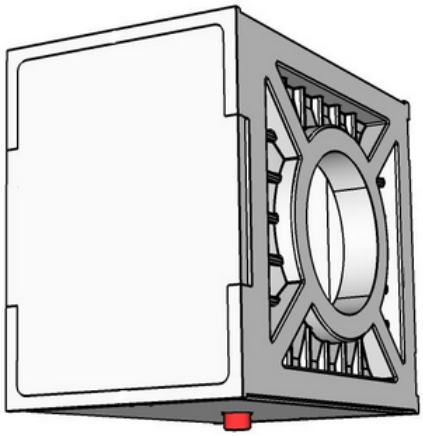
Height_____ 530 mm
Width _____ 390 mm
Depth _____ 590 mm

Weight: 8 kg / 17.63lbs

Media supply 3/4" connection



Media return 3/4" connection



Siphon connection

Contacts

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