



CUSTOMISABLE VENTILATION AND FULL AIR-HANDLING UNITS

Blue Line



ABOUT US

HANSA Klimasysteme GmbH has been based in Strücklingen, in the municipality of Saterland, since 1961; Saterland is known for its Sater Frisian language, the smallest linguistic enclave in Germany. Our products speak for themselves.

For decades, we have been synonymous with technically sophisticated, high-quality air-conditioning systems. As a family-owned and managed company since 1971, we stand for continuity, stability, and long-term reliability.

The company

Ever since the company was founded, we have earned a reputation throughout Germany and far beyond for manufacturing ventilation units for schools, sports halls, swimming pools and hospitals, as well as for industrial and process engineering applications. Building on this expertise, we offer a comprehensive portfolio of air-handling units for a wide range of applications.

Our units are engineered to deliver high quality, functionality, reliability and energy-efficient operation. The actual energy performance depends on the specific unit configuration and the correspond-

ing technical documentation. Throughout our product development, we have secured numerous intellectual property rights through the European Patent Office, reflecting the innovative nature of our technologies.

As a member of the German AHU Manufacturers Association (RLT-Herstellerverband e.V.), we design and manufacture our units in strict accordance with the AHU guidelines, ensuring the highest standards of quality, operational safety, and regulatory compliance for both our customers and the operators of our equipment.

The team

We invest in the continuous development of our employees and train the next generation of skilled professionals. The HANSA team comprises experienced specialists in the field of ventilation unit manufacturing, with expertise spanning refrigeration technology, control engineering, and automation.

Our units are designed and manufactured in accordance with the quality management requirements of DIN EN ISO 9001:2015.

Our sales team consists of experienced experts who are committed to finding the right solution for you.

Our philosophy

Our goal is to meet our customers' climate control requirements as effectively as possible while helping to protect the environment. To achieve this, we offer systems that can be tailored to our customers' specific operating conditions using flexible manufacturing processes and state-of-the-art components while minimizing energy consumption. As the energy requirements of both the overall system and its individual modules can be reduced without compromising performance, both investment and energy costs are reduced.

been independently assessed. Product-related emissions have been calculated using market-based secondary emission factors. We have purchased carbon credits to offset the unavoidable greenhouse gas emissions resulting from our operational and product-related activities. This simultaneously achieves positive social and environmental effects. In accordance with the EmpCo EU Directive, the results of the sustainability assessment are presented transparently as a sustainability overview on our publicly accessible ImpactBoard web portal.

The carbonfootprint of our company, our production processes and the product-related emissions – from raw material extraction to the factory gate – has

Committed to climate protection – not just through our products



HANSA is a member of the AHU Manufacturers Association (Herstellerverband Raumlufttechnische Geräte e.V.).



BLUE LINE

Overview

Blue Line stands for highly customisable ventilation and full air-handling units that combine high energy efficiency with HANSA's renowned quality.

These units are configured to meet customer-specific requirements, within the limits of the applicable standards and guidelines, and are optimised for their intended application.





Blue Line HKG – our highly flexible all-rounders with heat recovery, also available as hygiene units or for data centre cooling. Nothing is impossible! You have the challenge – we have the

solution. We can integrate virtually any available component and feature required for air treatment into these units. Examples include:

Heat recovery:

- Counter-flow heat exchanger
- Cross-flow plate heat exchanger
- Double-plate heat exchanger
- Rotor
- Accubloc
- Run-around coil system

Controls:

- Control cabinet with HEC controller
- Control cabinet with Saia-DDC

Features:

- ATEX-compliant design
- Hygiene version
- Weatherproof

Refrigeration systems:

- Adiabatic spray humidification
- Integrated refrigeration system
- Integrated heat pump

Humidification:

- Honeycomb humidifier
- Steam humidifier
- Direct humidifier



ENERGY EFFICIENCY

Efficiency classes

As a member of the German AHU Manufacturers Association (RLT-Herstellerverband e.V.), we label the energy efficiency of all air-handling units with heat recovery using the A+, A and B energy efficiency classes. Classification is based on two key parameters:

- Air velocity
- Compliance with EU Regulation 1253/2014

For detailed classification criteria, please refer to the table opposite.



Air velocity class [m/s]

V1	≤ 1.6
V2	> 1.6 to 1.8
V3	> 1.8 to 2.0
V4	> 2.0 to 2.2
V5	> 2.2 to 2.5
V6	> 2.5 to 2.8
V7	> 2.8

Table:
Air velocity classes

Directive 2009/125/EC

The European Ecodesign Directive 2009/125/EC establishes minimum requirements for energy-related products (ErP). The aim of the Directive is to reduce CO₂ emissions and increase the

proportion of renewable energy. The Directive applies only within the European Economic Area and in Türkiye. Exports to countries outside the EU are not affected.

Criteria

Efficiency classes:



For detailed classification criteria, please refer to the 'Certification' guideline of the German AHU Manufacturers Association.

Air velocity classes for air-handling units:

- without air treatment V5 V6
- with air heating V4 V5
- with additional air treatment V2 V3

ErP2018

Temperature transfer efficiency η_t of the heat recovery system:

- Run-around coil system 0.68
- Rotor/plate heat exchanger 0.73

Eurovent

Since September 2020, our HKG range of air-handling units, based on the HKG modular system, has also been certified in accordance with Eurovent standards.



AirCalc



Our ventilation and air-conditioning units are designed entirely using our AirCalc design software. The software enables bespoke solutions without the limitations of predefined unit types. AirCalc is certified by TÜV Süd and Eurovent.



The headquarters of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in Berlin is a passive house project served by HANSA Accu air-handling units with highly efficient heat and humidity recovery.

STANDARDS & GUIDELINES

Certified quality

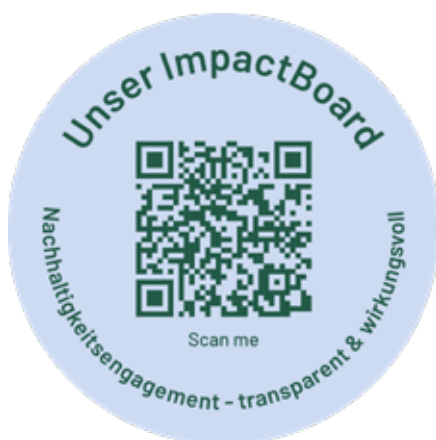
In addition to the European directives (e.g. the Machinery Directive (MRL), EMC, Low Voltage Directive (LVD) and ATEX) and the general principles governing the design and construction of air-handling units, particular attention is paid to the application-specific standards during

the design and manufacturing process. For more than 50 years, we have been manufacturing air-handling units for use in occupied spaces, hospitals, swimming pools, server rooms, kitchens and food retail premises.

Carbon footprint and contribution to climate protection

In 2020, we calculated the carbon-footprint of both our company and our products. Based on these calculations, emission reduction opportunities are assessed and climate protection projects supported. Further information and supporting evidence are available via the ImpactBoard (see below).

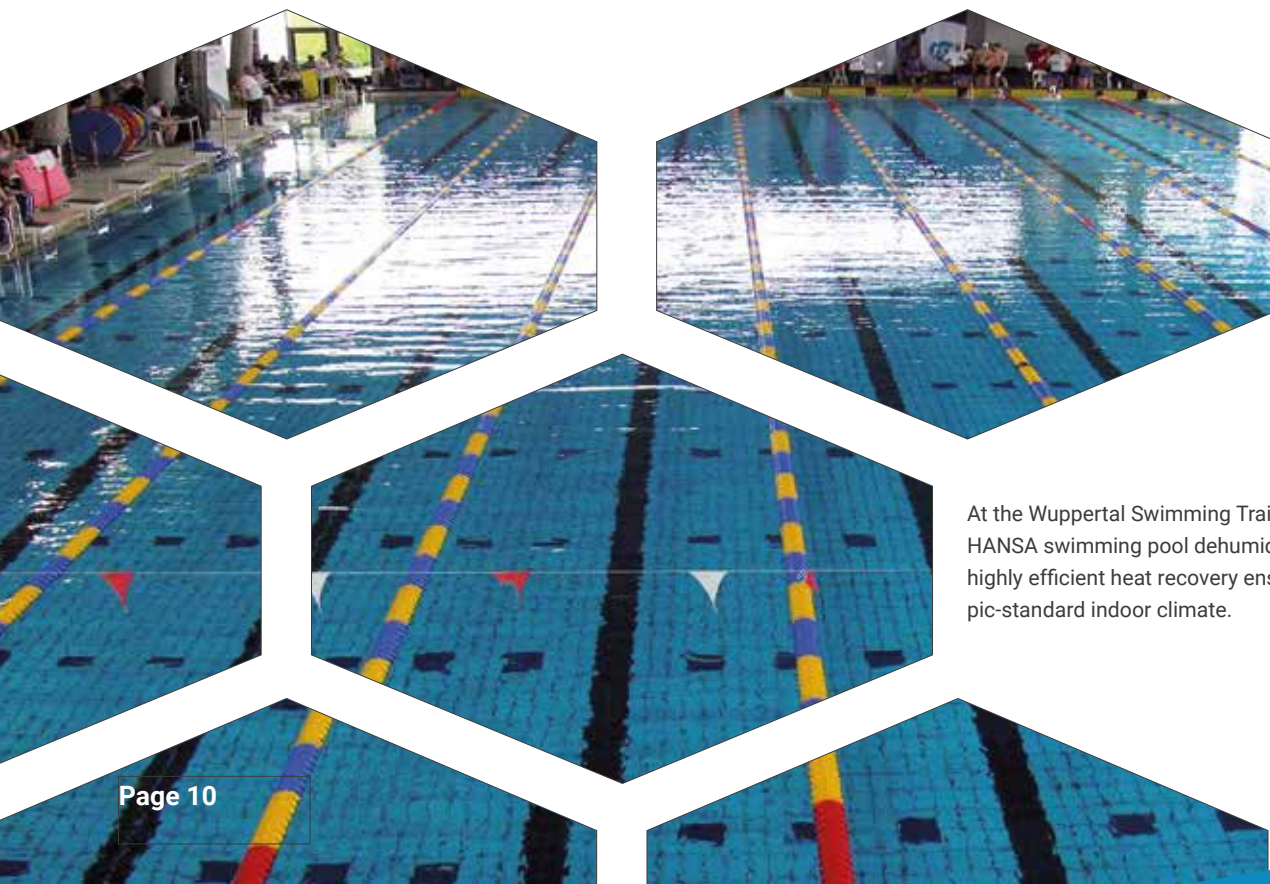
HANSA is a member of the Alliance for Development and Climate.



Testing

In addition to designing and manufacturing our units in-house in accordance with the applicable standards, we have them regularly inspected by independent testing bodies to verify compliance with all relevant standards. This has enabled us to build up extensive expertise, providing our customers with the commercial and technical assurance they require. This ensures legal certainty and the reliable operation of our units.

- We use TÜV Süd-certified design software and components to provide our customers with technically and economically optimised solutions through classification into AHU energy efficiency classes.
- Test reports confirm compliance with the applicable standards
- Our HKG range of air-handling units is Eurovent certified
- Our quality management system, which covers all company processes, demonstrates our commitment to being a reliable commercial and technical partner for our customers



At the Wuppertal Swimming Training Centre, HANSA swimming pool dehumidifiers with highly efficient heat recovery ensure an Olympic-standard indoor climate.

Hygiene equipment

With our **Blue Line Hy** units, we offer equipment optimised for the hospital sector, drawing on our many years of experience:

- A component layout that is easy to clean and disinfect, as confirmed by the relevant certificates
- Maintenance-friendly layout of the refrigeration systems and humidifiers outside the hygiene areas
- Storage and logging of operating data in accordance with applicable documentation requirements
- Remote management via our DDC management systems
- Certificates confirm compliance with, amongst others, the standards VDI 6022, ÖNORM H 6021, VDI 3803, DIN EN 13779, DIN 1946-4, SWKI 99-3 and ÖNORM H 6020

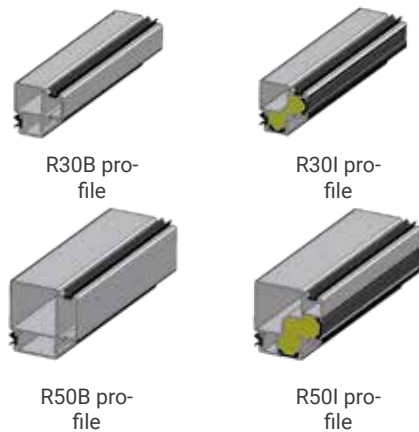


ENCLOSURES & MANUFACTURING STANDARDS

Profiles

Depending on the unit size and customer requirements, we use 30 mm or 50 mm aluminium frame profiles (R30 and R50), with an anodised finish available on request. Where required, these profiles are used in thermally broken and in-

ulated versions for each module (R30I and R50I). The profiles provide excellent thermal insulation and minimise thermal bridging, thereby reducing heat loss and the risk of condensation.



All profiles are fitted with double-lip EPDM rubber seals, offering:

- Resistance to ageing
- Resistance to alkalis and acids
- Resistance to disinfectants
- Suitability for heat disinfection
- Sealing on both the suction and discharge sides

Panels

The casing panels are manufactured in a double-skin construction from galvanised steel with an additional protective coating. The folded-edge design and assembly method eliminate sharp edges. We use A1-rated mineral wool for ther-

mal insulation. In addition to permanently fixed panels, removable panels and/or panel doors are fitted and secured with toggle clamps or quarter-turn latches.

Options:

- Available in a range of colours
- Corrosion protection class C5-H
- Stainless steel or aluminium construction

Safety measures:

- Toggle clamps with anti-rotation devices and captive screws
- Lockable lever handle
- Double-lever shut-off valve on the pressure side



With our in-house powder coating facility, we can fulfil a wide range of customer requirements and individual requests.



Powder coating

Thanks to our in-house powder coating facility, we are able to meet a wide range of customer requirements regarding colour schemes and corrosion protection

classes. We are also able to apply an antibacterial coating with our equipment.

Certified quality

It goes without saying that HANSA enclosures comply with the relevant directives and standards (e.g. the Machinery Directive, the ATEX Directive where applicable, and DIN EN 1886, etc.). Numerous expert reports confirm the flawless design and construction in this respect.

Technical data: *

Thermal transmittance T2
Thermal bridge factor TB1
Thermal bridging factor D2 (M)
Air leakage class at 700 Pa L1(M)
Applicable filter classes: G1–F9

* Enclosure with R50I-C profiles and thermally broken panels with rock wool insulation.

Test standard DIN EN 1866 (07/2009)

TESTREPORT PRÜFBERICHT		 Date: 2017-08-03 Our reference: 615464822p Document: 93380 Hansa Klima report V8.48.klm Order No.: 2184266	
No./Nr.	MB 933		
Test laboratory Prüfstelle	TÜV SÜD Industrie Service GmbH Center of Competence for Refrigeration and Air-Conditioning Dept. for Air-Conditioning and Ventilation		
Subject of test Prüfgegenstand	Model box / Musterbox Manufacturer / Hersteller: Hansa Ventilatoren- und Maschinenbau Neumann GmbH Model / Type: HKG-1213 Range name / Baureihe: - Order No. / Auftrags Nr.: - Test / Test: -		
Customer Auftraggeber	Hansa Ventilatoren- und Maschinenbau Neumann GmbH Stockweg 19 D-26683 Saterland		
Scope of order Auftragsumfang	Test according to DIN EN 1886 (07/2009) Prüfung nach DIN EN 1886 (07/2009)		
Date of delivery Eingangsdatum des Prüfgegenstandes	2017-07-20		
Period of test Zeitraum der Prüfung	2017-07-26 - 2017-08-01		
Place of test Prüfört	Olching Olching		
Experts Sachverständige	Igor Gagula Sebastian Rieger Finn Schülke		
Standard of test Prüfgrundlage	DIN EN 1886 (07/2009)		
Headquarters: Munich Trade Register Munich HRB 96 809 VAT ID No.: DE255612116 Information pursuant to Section 2(1) Gd. info (Germany) at www.tuv-sud.com/england			
Supervisory Board: Prof. Dr.-Ing. Axel Stephan (Chairman) Board of Management: Friedrich Neuenhofer (CEO) Dr. Ulrich Klotz, Thomas Kienz			
Telephone: +49 (0) 89 442 4401 400 Telex: +49 (0) 89 442 4401 500 E-mail: kundenservice@tuv-sud.de www.tuv-sud.de/de ITD			
TÜV SÜD Industrie Service GmbH Center of Competence for Refrigeration and Air-Conditioning Ruhrtalstraße 65 80339 München Germany			

COMPONENTS - FANS

Designs



EC fan module (ebm-papst) in the standard configuration with spider support (vibration-isolated mounting on the pressure bulkhead).

The choice of a suitable design depends, first and foremost, on the operating conditions. The following should be taken into account:

- the required airflow
- the required pressure
- the available space inside the unit

Nowadays, fans with open impellers and backward-curved blades are predominantly used. They are characterised by high efficiency and the ability to generate high pressure. Furthermore, they can be positioned on either the suction or discharge side of the installed components, as they produce lower dynamic pressure in the discharge area. Taken together, these features allow the flexible design of energy-efficient and low-noise air handling units.

Motors

The direct drive of the impellers has now largely replaced belt drive, resulting in a longer motor service life and reduced contamination inside the unit due to belt wear. Speed control is typically achieved by means of a frequency converter for three-phase motors or by means of a control signal for direct-current motors (EC motors). In both cases, the speed

can be set by the control system as required.

Direct current motors are used with power ratings of up to approximately 11 kW. Here, the benefits of the higher efficiency are particularly evident, and the external-rotor design presents no mechanical disadvantages.



Extendable fan module
(Ziehl-Abegg), coated
version.

Design

Certifications

As a general rule, fans do not perform any safety-related functions, unless they are specifically designed and certified for that purpose.

- The maximum permissible temperature of the air being conveyed is typically 40 °C. Special versions are available for higher temperatures and are therefore suitable for smoke extraction applications.
- ATEX-compliant units must be equipped with appropriately certified explosion-proof fan modules.

Materials

Fan modules can be manufactured from a variety of materials and with different coatings, which have a significant impact on their service life. Corrosion

Exposure to corrosive environments, such as swimming pool areas, can lead to imbalance and, in the worst case, blade failure.



Small pull-out fan module (Ziehl-Abegg).

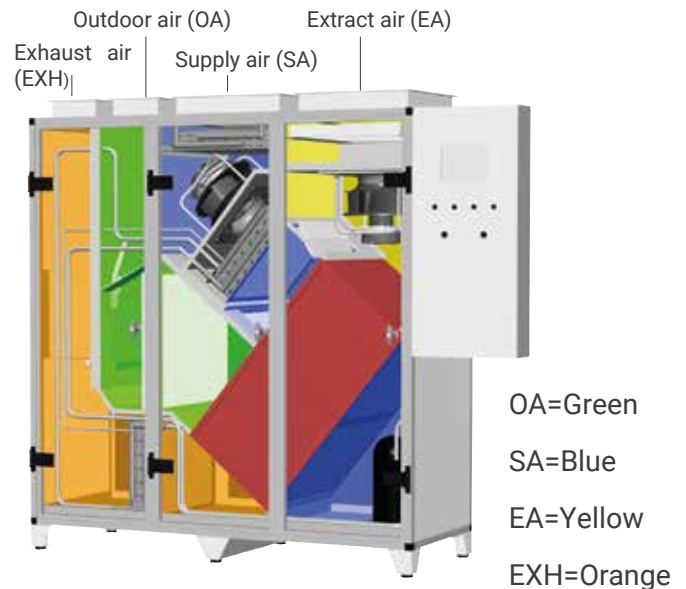
Installation configurations

Smaller fan modules are mounted entirely onto the pressure bulkhead, including vibration isolation (Fig. p. 14). This facilitates cleaning and significantly reduces costs. Medium-sized modules are designed as pull-out units (Fig. p. 15). In this configuration, the vibration-isolated module is mounted on a rigid guide rail. Very large fan modules are mounted on a fixed steel section with vibration damping.



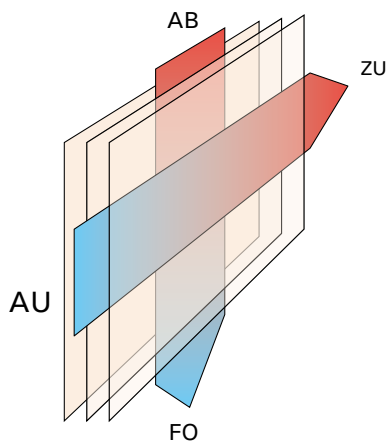
COMPONENTS - HEAT RECOVERY

Heat recovery is a key feature of our Blue Line units. All common, commercially available heat recovery systems can be integrated, ensuring a high level of energy efficiency while meeting, as a minimum, the applicable statutory requirements.



Cross-flow double-plate heat exchanger (red) in the HKG-P-iK compact air-handling unit. The different air streams are identified by standard colour coding throughout the unit.

Plate heat exchanger



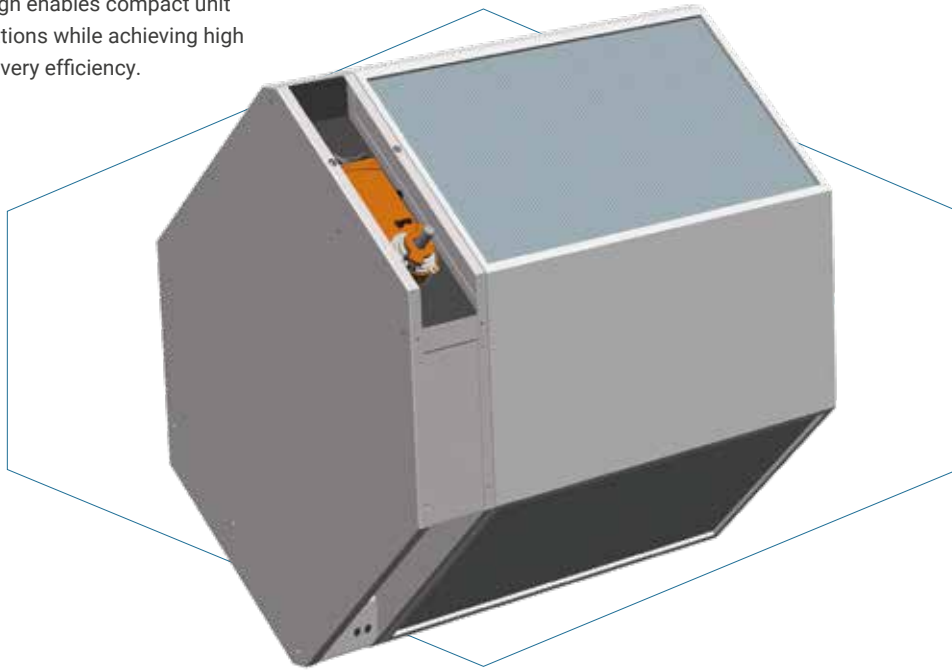
In a plate heat exchanger – in this case a cross-flow type – the extract air and outdoor air streams are directed past one another in separate layers, separated by plates.

Recuperators are typically designed as cross-flow or cross-counter-flow heat exchangers and are implemented as plate heat exchangers (PHE) or double-plate heat exchangers (DPHE).

As static systems, these heat recovery units present no particular operational issues under design conditions. They also ensure effective separation of the air streams.

Counter-flow heat exchanger with bypass damper.

This design enables compact unit configurations while achieving high heat recovery efficiency.



Depending on requirements, we also install plate heat exchangers with enhanced corrosion protection or coatings, for example when using adiabatic cooling via spray humidification.

Counter-flow heat exchangers (Fig. above) are also available (GS heat exchangers). These units are characterised by high heat recovery efficiency while requiring only a small installation space. A special variant is the plate heat exchanger designed as an enthalpy exchanger, incorporating moisture-permeable materials.

Rotor

The rotor is a regenerative heat exchanger that provides excellent heat recovery and (with a hygroscopic coating or through condensation) moisture recovery. It is ideally suited to applications involving high air volume flows and air that is free from toxic substances. Rotors are used in our successful Blue Line eco-R range of units, which covers a wide range of capacities and is supplied ready for connection, complete with a control system.



Rotary heat exchangers are primarily used in applications with high air volume flows.

For units with high air flow rates, they are assembled for the factory test run and then dismantled again for transport.

Accubloc

Compact ventilation units with highly efficient regenerative heat recovery can be implemented using the Accubloc (top right, Fig.). Two separate heat storage units absorb energy and moisture from the extract air stream and transfer them to the supply air stream. A particularly fast-acting damper drive ensures that air leakage is kept to a minimum.



The Accubloc system uses two thermal storage units that alternately store and release thermal energy.

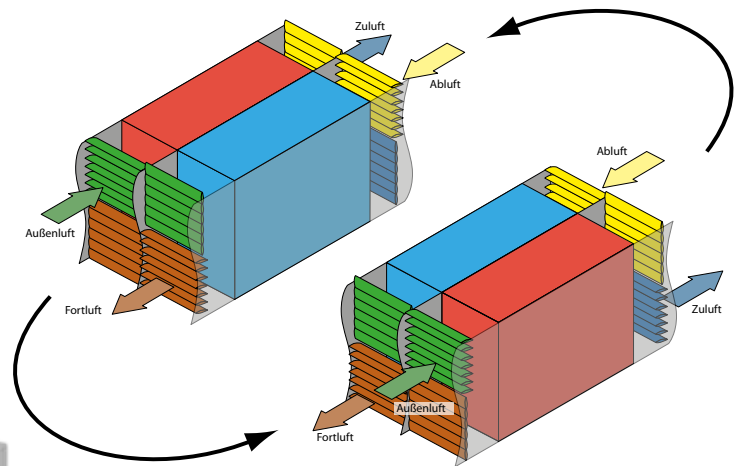
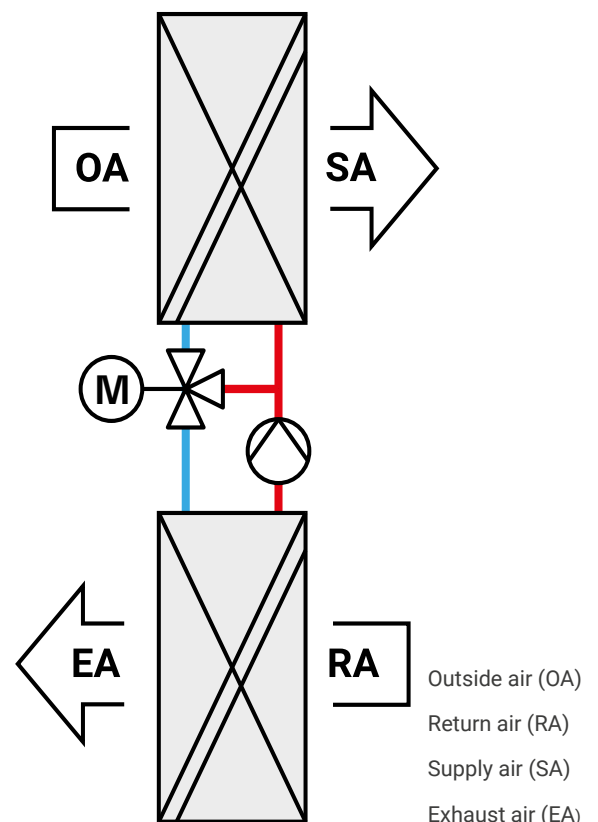


Fig. left: The HANSA *etaHydro*® hydraulic station is available with a control system and in a redundant configuration.

Run-around coil system (RAC)

Where separate ventilation units are installed for supply and extract air, or where the air ducts need to be separated, heat recovery can be achieved using a run-around coil systems (RAC). A brine solution acts as the heat transfer medium, absorbing or releasing thermal energy via air-to-brine heat exchangers.

By design, the RAC system is unaffected by pressure differences between the air ducts and ensures complete separation of the extract and supply air streams. As a result, a RAC system must be used for extract air of category ETA-4.



COMPONENTS - COOLING

Adiabatic cooling systems

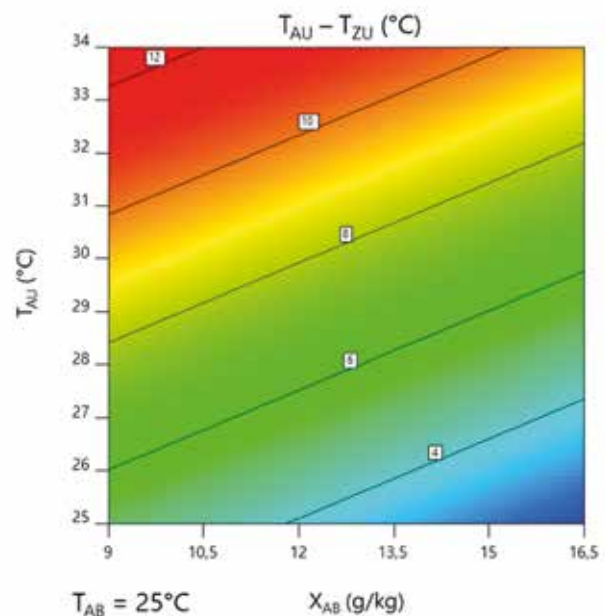
HANSA offers an in-house developed adiabatic cooling system (Blue Line DPT-ASB+).



When cooling is required, finely atomised water is sprayed onto a double-plate heat exchanger on the extract air side. The extract air is cooled by adiabatic humidification, with the heat required to evapo-

rate the remaining water being extracted from the heat exchanger. The HANSA ASB system has no moving parts and is therefore virtually maintenance-free. The outside air can be cooled by up to 12 K, making it possible in most cases to achieve the recommended temperature difference of 6 K between the outdoor air and the room. As no moisture is introduced directly into the supply air, the absolute humidity of the supply air is not increased.

HANSA has carried out extensive research and optimisation work on the Blue Line DPT-ASB+ system. One outcome is the contour plot shown below, which illustrates the cooling potential of outdoor air used as supply air at an extract air temperature of 25 °C and different extract air humidity levels. As expected, the cooling effect decreases significantly at high humidity levels because the extract air can absorb hardly any additional moisture. Under low-humidity conditions, a temperature reduction of up to 12 K can be achieved.



Mechanical refrigeration

Mechanical refrigeration systems are an essential component of full-featured air-handling units. They are used to cool and dehumidify the supply air or conditioned air and are therefore essential for maintaining a specified indoor climate.

HANSA offers:

- In-house design and installation of cooling systems
- Various control concepts, including energy-efficient speed-controlled refrigeration compressors (HANSA *etaCool*)
- Integration into external refrigeration systems
- Top-quality components and flawless cooling system assembly
- Refrigerants tailored to requirements



(Fig. on the right, third from the top) PETER / LACKE is a medium-sized group of companies with more than 100 years of cross-sector experience in the development and production of high-quality coating systems for the automotive, electronics, lifestyle and glass industries. The company invested 24 million euros in its Hiddenhausen site and constructed two new buildings, which became operational in 2020. HANSA supplied three highly efficient air-handling units for the buildings.

HANSA is a member of the Bremen-Oldenburg Guild of Refrigeration and Air-Conditioning Engineers.

The laboratory areas of the wastewater treatment plant are air-conditioned using HANSA Blue Line ASB units.





Over many years, numerous buildings on the Harvard University campus (Cambridge, Massachusetts) have been fitted with HANSA ventilation and air-conditioning units.

Refrigeration technology *etaCool*

We use the term *etaCool* to describe refrigeration circuits that are fully integrated into our ventilation units and equipped with highly efficient control systems (*eta* is the Greek letter used to denote efficiency).

These include:

- Inverter-controlled refrigeration compressors
- Refrigeration systems with digital scroll technology

Speed-controlled operation adjusts the cooling capacity to match demand, thereby supporting energy-efficient operation under part-load conditions. This demand-based, stepless control system enables extremely energy-efficient operation with maximum efficiency. This

prevents costly start-stop operation and helps extend the service life of the air-conditioning unit. Depending on the system design, high efficiency can be achieved under part-load conditions.

Heat pump operation

Depending on requirements, a refrigeration system integrated into the ventilation unit can operate as a heat pump, providing an efficient source of heat. The combination of efficient heat recovery and a heat pump controlled by *etaCool* provides highly efficient heat generation during the transitional seasons of spring and autumn in Central and Northern Europe. Additional heating is only required during periods of very low winter temper-

atures to cover peak heating demand. We can also design reversible refrigeration circuits. This enables the refrigeration system to provide cooling in summer and heat pump operation in winter simply by switching operating modes. In swimming pool dehumidification systems (see also our Swimming Pools catalogue), the heat pump provides an efficient means of reheating.



Grand Hotel Bellevue, Gstaad.
Swimming pool dehumidification unit with highly efficient heat recovery and a heat pump.

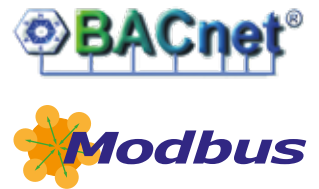


Schöneberg Municipal Swimming Pool, Berlin. Weatherproof swimming pool dehumidification unit with heat pump.



Pool Line rooftop unit with control cabinet, Strandvägen, Stockholm.

COMPONENTS - CONTROL ENGINEERING



Our electrical engineering department has decades of experience in the control of HVAC systems. We use a variety of control systems to meet our customers' specific needs and requirements in the best possible way.

The control concept is determined by the components used and their interaction, the application requirements (e.g. swimming pools, hospitals or commercial kitchens) and the operating conditions (e.g. the geographical location). Ideally, a detailed assessment should be carried out during the quotation stage. If this is not possible, sufficient flexibility should be provided to allow parameters and control algorithms to be adjusted even after the system has been commissioned. Handheld terminals, LCD panels, web panels or the connection of a standard PC via Ethernet (LAN or the Inter-

net) provide access to the system. The level of access is precisely defined according to the user's role. To achieve this, we implement different user levels, each protected by a password. Remote access via *etaConnect* is highly recommended (see pp. 26 and 27). This approach enables our team at the main plant to provide cost-effective remote maintenance, allowing many service tasks to be carried out without the need for on-site visits.

If required, we can integrate our technology into your building management system. Typically, the required interface will be based on the BACnet, Modbus or Saia S-BUS protocols. We can, of course, supply these and other industry standards.

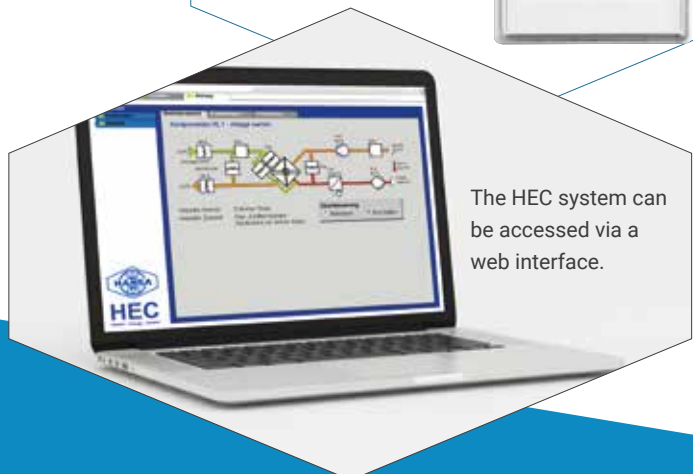


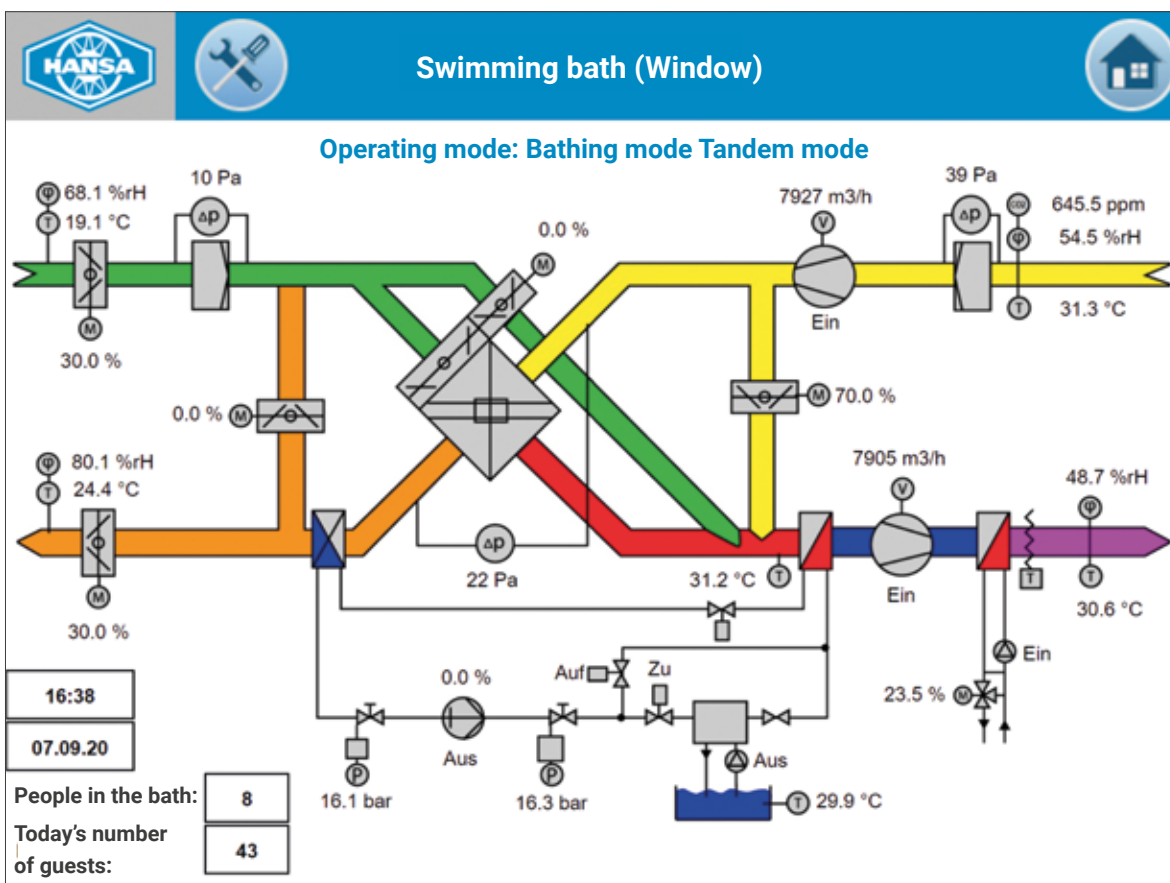
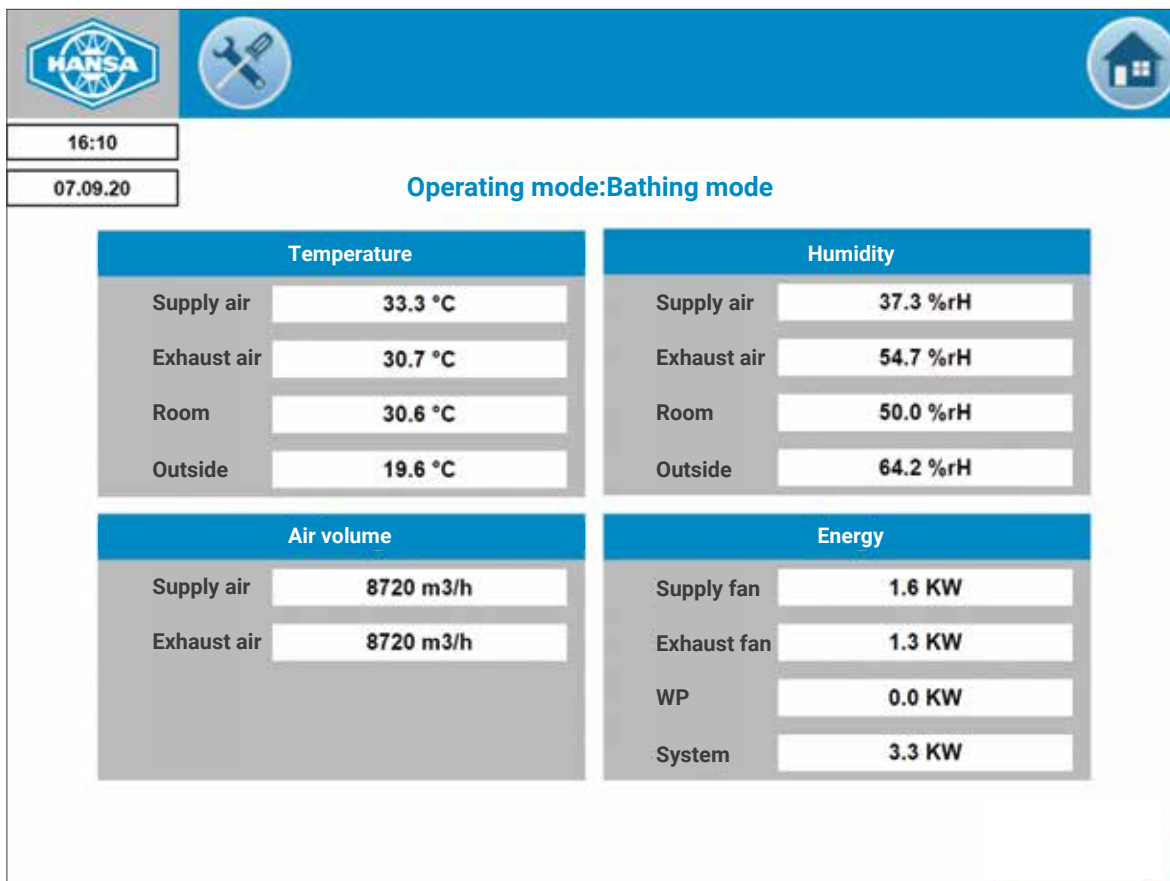
Control cabinet with
Saia-Burgess DDC.

Touchscreen
control panel for
the DDC module
of the HEC control
system.



The HEC system can
be accessed via a
web interface.





Our system visualisation is implemented in HTML5 and can therefore be displayed in high quality on all web-enabled devices.

Simply use your web browser to monitor and control your systems from anywhere.



etaConnect **WE'LL STAY CONNECTED...**



etaConnect is our secure remote access solution for air-handling units equipped with integrated control systems. We provide a secure portal that allows either

our service team to access the system in the event of a fault or you, as the customer, to access your system - wherever you are.

Highlight

Every unit equipped with one of our (DDC) control systems is fitted with an LTE modem as standard. Data protection and data security are just as important to us as they are to our customers. That is why we ensure that access to the unit is only possible when explicitly authorised by the operator. Our modem is completely switched off during normal operation, so that neither we nor anyone else can

remotely access the unit or, where applicable, the connected network. When the modem is activated, it is completely isolated from the rest of the network. This ensures a very high level of security for remote access.

etaConnect Modules

etaConnect

etaConnectPlus

Customer Access: VPN and Web Proxy



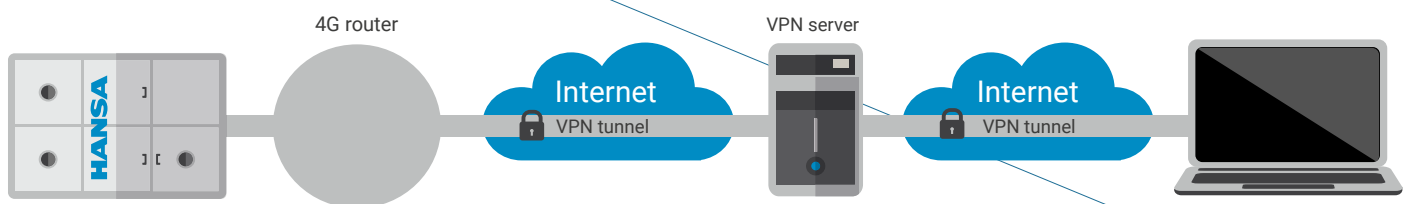
Android / iOS app



Data logging



Alarm management

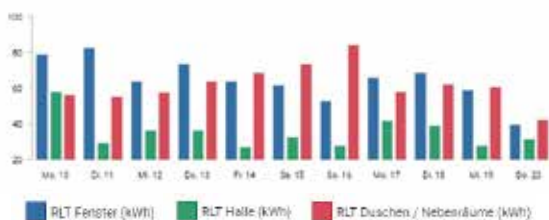


Data is transmitted securely via routers and VPN servers

Your benefits

- Rapid response to alarms and faults
- Increased overall system efficiency
- Improved maintenance efficiency
- Reduced maintenance costs
- Online control system updates, e.g. security updates
- Custom dashboards
- Integration of additional system components (heating, CHP units, etc.)

Energie Elektr. pro Tag (kWh)



Energie-Wärme RLT Fenster

175.270 kWh

Energie-Elektrisch RLT Fenster

131.550 kWh

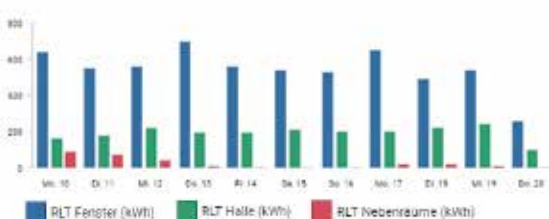
Energie-Wärme RLT Halle

11.180 kWh

Energie-Elektrisch RLT Halle

1.680 kWh

Energie Wärme pro Tag (kWh)



Energie-Wärme RLT Nebenräume

980 kWh

Energie-Elektrisch RLT Nebenräume

2.480 kWh

MORE PRODUCTS

Slim Line

Highly efficient, compact units manufactured in large quantities for cooling spaces with high thermal loads. Compared with recirculation or split-system units, these units can deliver significant energy savings in specific applications. Actual savings depend on the individual operating conditions.



Free Line

Our Free Line units are fully customisable air-conditioning units designed for the free cooling of server rooms and, more generally, for the dissipation of process heat. They can be perfectly adapted to a range of applications.



ReCool Line

Recirculating air cooling units for removing excess heat from spaces with high thermal loads – whatever the operating conditions. Put your trust in HANSA, the climate specialist, and choose the recirculating air cooling unit that best meets your requirements.



Pool Line

Swimming pool dehumidifiers are designed to provide comfort, protect the building, and operate efficiently. Their durable, energy-efficient design helps to reduce operating costs while meeting the specific requirements of each project.



Compact Line

The modular design of this product range enables cost-effective manufacturing while providing maximum flexibility and versatility. High quality standards and cost-effective operation are guaranteed.



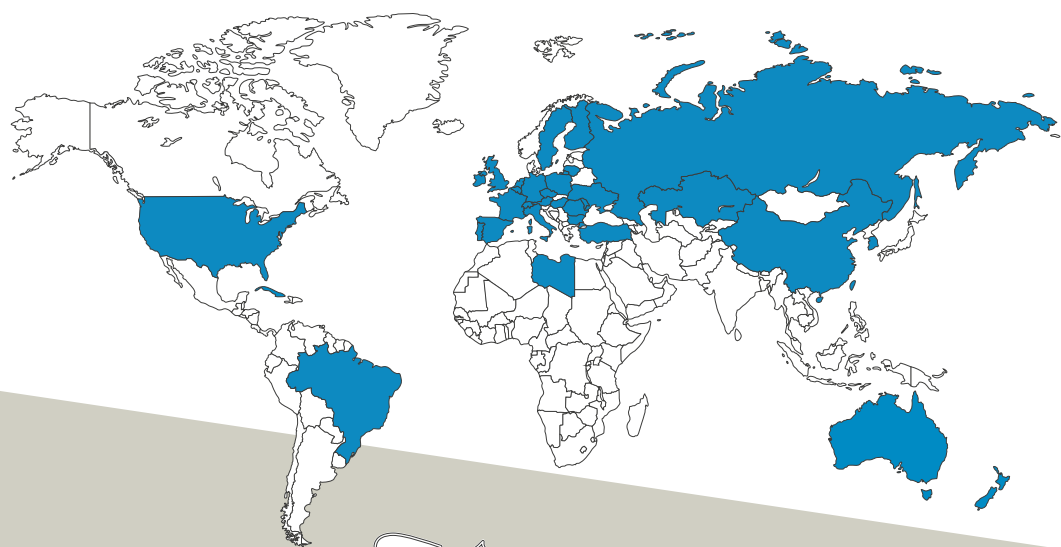
Specialised units

Our range of specialised units includes the LF-HY (food hygiene) and Hygro Line (recirculating air dehumidification) product series. More detailed information about all our products is available on our website.





Our units around the world



* Errors, omissions and misprints excepted.

Last updated June 2026 – subject to design modifications



HANSA Klimasysteme GmbH

Stockweg 19
26683 Saterland / Strücklingen, Germany
Tel.: +49 (0)4498 89-0
Email: info@hansa-klima.de

Responsible for the content:
Dr.-Ing. Matthias Lamping
Managing Director:
Carsten Fenne, Jan Neumann

Tax ID No.: DE 117 377 203
Oldenburg Register Court
HRB 151863



hansa-klima.de

