

ZHK INOVA

The unbeatable casing system

Freely configurable air handling units



euroclima®
We care for better air



Euroclima participates in the EPC programme for Air Handling Units (AHU) and Fan Coil Units (FCU); Check ongoing validity of certificate: www.eurovent-certification.com

OUR CERTIFICATIONS

QUALITY STANDARDS

Euroclima Air Handling Units will be checked and certified according to well-known guidelines.

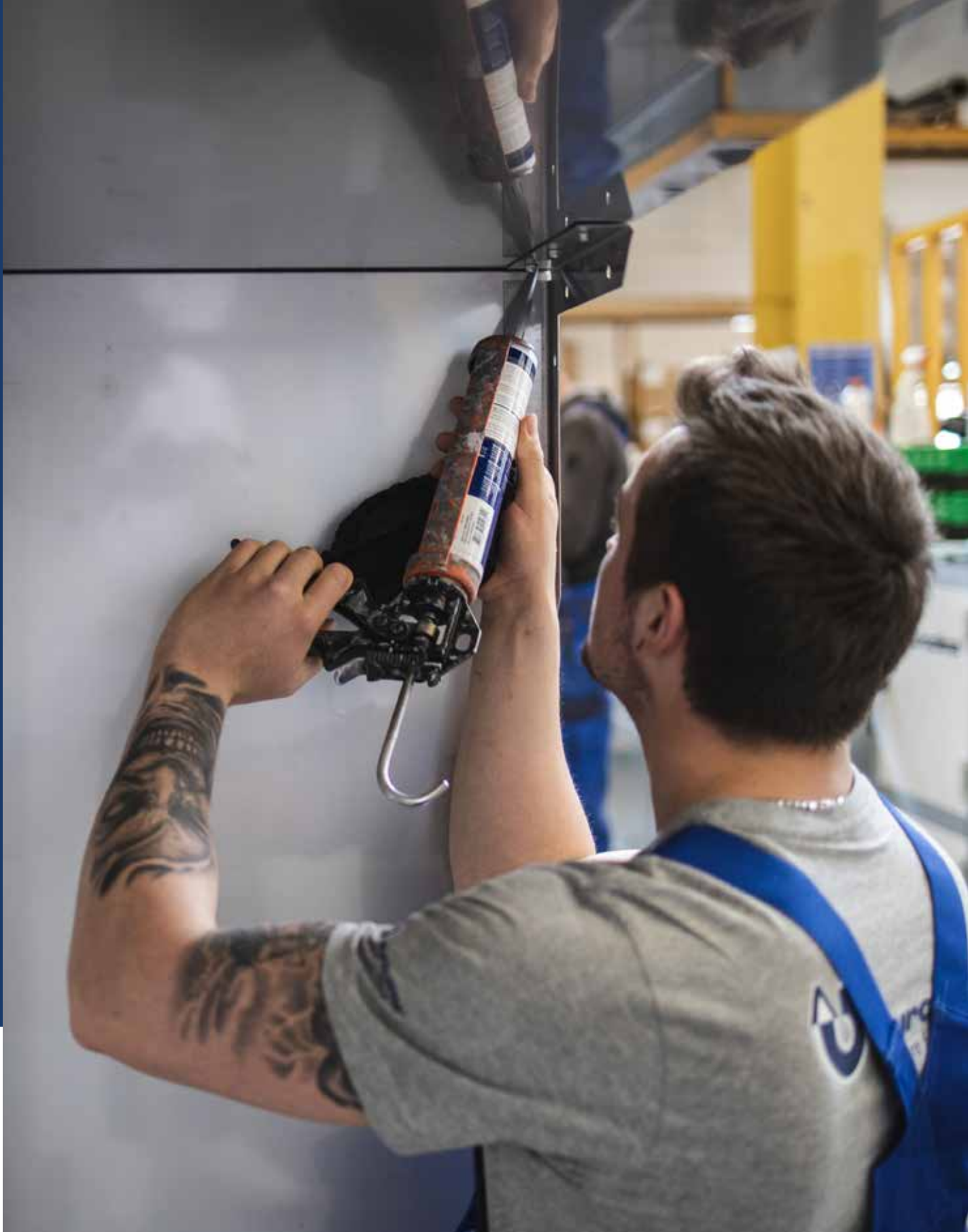
Our Air Handling Units are inspected and certified according to **well-known guidelines**. The specified equipment data is guaranteed by various certifications. This applies both to the components used and to the **mechanical properties** of the casing. Our equipment is tested for the **casing properties according to EN 1886 and is Eurovent certified**.

Our Air Handling Units are also tested according to the demanding regulations of **VDI 6022, DIN 1946-4, SWKI 99-3, ÖNORM H 6020 or HTM 03-01 NHS**.

In addition, equipment can be built for potentially explosive areas, which are designed according to the strict specifications and certified according to the **ATEX Directive 2014/34/EU**.

The **Ecodesign Directive 2009/125/EC** serves to define requirements for the environmental friendliness of energy-related products (ErP). Euroclima Air Handling Units are designed according to these standards. In addition to our ISO certification **ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018**, Euroclima pursues a policy of continuous improvement of administration and production processes.





ZHK INOVA
PERFEKTLY ADAPTED



U1/TB2 AS STANDARD

We offer customized solutions.

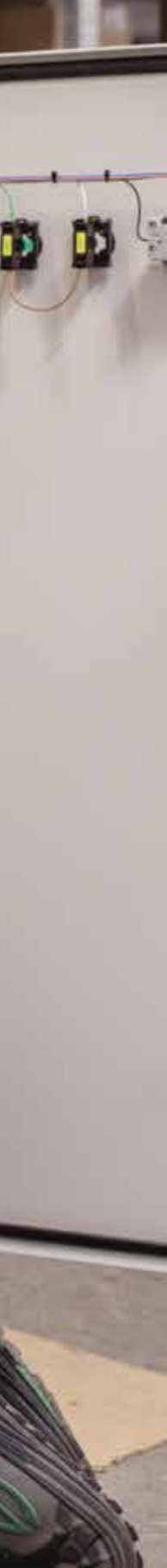
The ZHK INOVA unit series is characterised by **enormous flexibility**. The basis for this is the **ZHK INOVA** casing, which meets the Eurovent-certified standard **U1/TB2**. We are able to adapt our Air Handling Units **to your needs**.

We provide freely **configurable unit systems** and can rely on a wide range of **high-quality components**. The unit sizes and shapes can be perfectly adapted to the general conditions on site.

- » 50 mm double-walled casing
- » Sheet thicknesses : up to 1.5 mm sheet metal
- » Non-flammable mineral wool with a density up to 150 kg/m³
- » Volume flows of up to 250,000 m³/h can be realised



OUR
COMPLETE SOLUTIONS



CONTROL & REFRIGERATING

Heating and cooling from a single source.

Our Air Handling Units are available with **factory-mounted control**, including the corresponding protective functions. The **freely programmable control** and the control of the peripheral units such as the temperature and humidity sensor, pressure switches, damper actuators, valves, etc. are part of our scope of delivery. The unit is tested by **factory pre-commissioning**, which results in high reliability, time savings and trouble-free commissioning for our customers.

Our ETA MATIC software is perfectly matched to the control types to be executed. With the optional "**Climatix IC Cloud**" package, you get cloud access to the unit. With this access, our customers can access the unit from all over the world, at any time and from any smartphone, tablet, PC, etc. with internet access.

The Euroclima **ZHK INOVA series** are available with **built in cooling**.

We offer a **compression refrigeration system** complete with all components and corresponding control. For smaller units that are designed as a monoblock, the refrigeration circuit is completely evacuated, subjected to a pressure test and then supplied filled with refrigerant. For larger units delivered in sections, **we handle the commissioning on-site**.

To ensure seamless support for the customer, we have a **service team with refrigeration technicians** who have all the necessary certificates and training certificates to meet the legal requirements for operation of compression refrigeration systems. Our units are available with **simple or with reversible cooling circuit**, installed in the exhaust and supply air flow of the unit.

ZHK INOVA

Gladly we insert also special components.



SMART DETAILED SOLUTIONS

Fan sections

- » Radial fan with belt drive
- » Plug fan
- » Plug fan with external runner engine
- » EFC three phase motor, conform to IEC standard, single speed or two speed
- » Measuring device for air volume (analogue or digital)
- » Repair switch
- » Belt guard protection or grid for inspection door

Heater- Cooling section

- » Heating coil water / glycol
- » Condenser coil
- » Steam coil / Electric heater
- » Cooling coil water / glycol
- » Direct expansion coil

Humidifier section

- » Steam humidifier
- » Electrode steam generator
- » Resistance steam generator
- » Gas fired steam generator
- » Steam distribution systems for available on site steam
- » Adiabatic humidifier systems
- » High pressure atomisation
- » Hybrid air humidifier
- » Air washer
- » Contact pad evaporation humidifiers
- » Ultrasonic humidifiers

Energy recovery section

- » Plate heat exchangers with efficiencies up to 90% (cross flow, counter flow)
- » Heat wheel RT: condensation wheel, enthalpy wheel, sorption wheel
- » Heat pipe
- » Energy recovery for special applications with glass tube or stainless steel tube exchanger
- » SPC-System
- » Accumulator

Filter sections

- » Panel filter G2-G4, F5
- » V-bank filter G2-G4, F5
- » Bag filter G4-F9
- » Compact filter M5-F9
- » Absolute filter H10-H14
- » Activated carbon filter
- » Filter Safe® (Euroclima filter frame for absolut filter)

Control unit

- » Connections for mains supply / external inputs
- » Main switch for cutting the power supply
- » Fuses / over current protect.
- » Programmable RAM controls with alphanumeric, display and one-button navigation
- » PGU interface
- » Menu levels: manual/emergency
- » Climatix IC Cloud remote access

Silencer sections

- » Attenuation at 250 Hz from 14 to 40 dB depending on splitter length
- » Standard VDI 6022 conform

ZHK INOVA

TECHNICAL DESCRIPTION

The ZHK INOVA unit series is a frameless, modular panel construction with an integrated base frame made of galvanized sheet steel and continuous aluminum profiles along the top edges of the unit. The construction consists of a double-walled casing panel with a thickness of 50 mm, composed of an inner cover and a removable outer cover. These are thermally separated by PVC plug-in profiles. Non-combustible mineral wool is used for unit insulation (fire protection class 0 according to ISO II 82.2 and A1 according to DIN 4102), which provides excellent sound and thermal insulation properties. Optionally, different insulation materials with densities of up to 150 kg/m³ are available. We use sheet metal up to 1.5 mm thick for the panels.

The units can be made of galvanized sheet metal, powder-coated or PVC-coated, stainless steel AISI 304 or stainless steel AISI 316 in order to cope with the most varied of applications.

Our Air Handling Units are equipped with spacious inspection and maintenance doors in panel thickness. The door leaves are thermally separated between the inside and outside by plastic frames. We use adjustable hinges made of die-cast zinc for fastening the door leaves. Alternatively, we can also use clamping brackets for inspection accesses, which are opened less frequently. All door handles are equipped with locks.

All materials used have been tested by an autonomous testing institute for the requirements of VDI 6022 and found to be good.

Certified data (MB ZHK INOVA) conform to EN 1886:

- » Casing strength: class **D1 (M)**
- » Casing leakage at ± 400 Pa: class **L1 (M)**
- » Filter bypass leakage: class **F9 (M)**
- » Thermal transmittance: class **T2**
- » Thermal bridging factor: class **TB2** (to achieve factor TB1, please select our ZHK VISION series)

» **Proven sound insulation of ZHK casing**

The sound insulation of our panels is regularly tested and confirmed by independent laboratories. The tests are conducted according to the standards EN 1886 and EN ISO 3744. The following sound insulation values have been certified for the casing construction ZHK INOVA:

Frq. Hz	125	250	500	1000	2000	4000	8000
Octave Band (dB) Modelbox test 2018	15	23	31	33	35	36	45

These data demonstrate that the construction of our casing achieves excellent sound insulation values. For detailed information on the test methods, please feel free to contact us.

- » Performance data certified in compliance with DIN EN 13053

Special materials

- » Stainless steel AISI 304 & AISI 316
- » Powder coating
- » AMC coating (antimicrobial powder coating)

Weatherproof version

- » Weatherproof roof with drip nose in inclined and flat design
- » Sealing of the panels and large watertight service doors

Hygienic version (in addition to standard)

- » All components are removable
- » Floor panel made as a tub in 3-fold inclined design
- » Panel joints on the inside with permanently elastic, fungicidal sealing compound, seamlessly and steam-tight puttied
- » Manufactured in accordance with DIN 1946-4 / VDI6022 / SWKI / ÖNORM...

ATEX

In compliance with ATEX directive 2014/34 EU.

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