

ZHK FLAT

Customized flat unit



euroclima®
We care for better air



WE CARE FOR
BETTER AIR



THE COMPANY

Since 1963 Euroclima has been a market leader in the production and worldwide distribution of climate control units and fan convectors.

We develop, produce and market **high quality climate control and ventilation products** for all areas. From simple, convenient applications to solutions in hygiene and air processing plants. Euroclima is an international industrial business working across **5 production sites in Italy, Austria, India and the United Arab Emirates and with over 40,000m² of production sites**. Our core competencies are the production and the worldwide distribution of customized air handling units and fan coil units.

We strive to exceed our clients' expectations through innovation, quality and a comprehensive service. Euroclima currently employs **over 450 members of staff** in addition to a widespread **distribution network** with sales and service branches in the whole of **Europe, Asia, the Middle East, North Africa and Australia**. Cooperation with partners in various countries enables us to cover an extensive market whilst providing optimal customer service.



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

PROVEN QUALITY

Euroclima air handling units will be checked and certified according to well-known guidelines.

The specified unit data are guaranteed by **different certifications**. This applies both to the components used and to the mechanical characteristics of the casing.

Our units are **tested for the casing characteristics according to EN 1886 by TÜV Süd**. For medical and special hygienic applications, where the air cleanliness in the critical zones is essential, Euroclima has developed innovative and unique options to comply with highly demanding regulations such as the **VDI 6022, the DIN 1946-4, the SWKI 99-3, the ÖNORM H 6020 or the HTM 03-01 NHS**. Also, units to be installed in hazardous areas, can be certified according to the **ATEX directive 2014/34/EU**.

The **European regulation EU No. 1253/2014** is implementing the Ecodesign requirements from the European directive 2009/125/EG for non-residential ventilation units. Euroclima Air Handling units can be selected to this standards.

In addition to the **quality management certification ISO 14001:2015, ISO 45001:2018 and ISO 9001:2015** Euroclima has a policy to continuously improve its administrative and manufacturing processes to provide products with top quality and reliability for the satisfaction of our customers. Because every project is unique, every country has its own laws and regulations, every building its own constraints, Euroclima participate to a number of international certification programs, related to quality, performances, hygiene or energy consumption.

Our units are marked with the **CE symbol** according to EU-regulation 765/2008. With this marking, the manufacturer declares that the product complies with all applicable regulations of the European Union and that the corresponding conformity assessment procedures have been carried out.





CUSTOMIZED **FLAT UNIT**



FLAT UNIT FOR CEILING INSTALLATION

with the features of a large air handling unit.

The ZHK FLAT series is characterized by **enormous flexibility** and is the optimal design **for smallest space requirements**.

Based on our Eurovent certified series ZHK we can offer ZHK FLAT units with a total **height of 405 mm or 457,5 mm**. Units are customized and thus flexible in application. With Euroclima ZHK FLAT units you can realize air treatment process which normally can be achieved only with big Air Handling Units. **The frameless construction will be supplied in T2/TB2.**

Using our selection software Aircalc++ you can select different units, sized exactly for the required side conditions. **No over or under sizing of coils , fans, is necessary.** By using **plug fans with EC technology** and plate heat exchangers even units with **low energy consumption**. 50 mm panel's grant best sound data and lowest thermal transmittance. **Simple maintenance** and high stiffness is granted.

Units **can be supplied optional with controls.**



ZHK FLAT

INDOOR AIR TREATMENT



PERFECT ADAPTED TO YOUR NEEDS

We offer customized solutions.

Against a background of rising energy prices, the building shell is being increasingly insulated and sealed. Consequently, in new purposebuilt buildings the heat transmission load is often well below that of the ventilation heat requirement. **Energy-saving air handling optimised to particular requirements is thus one of the most important planning functions in building technology.** The running costs of the building are largely determined by this factor. At the same time, the user's sensitivity to air quality is increasing and importance is placed on avoiding the harmful effects of buildings on people (key word: sick building syndrome).

Most of the persons spend 90 % of the time indoor. Consequently the quality of the modern room climate is essential for the living comfort. It must provide for a healthy, germ-free air and a pleasant room climate, which promote our well-being and our efficiency. Since the eighties the so called Sick Building Syndrom (SBS) is intensively analysed, frequent evidence of physical imbalance affect negatively the health. Fundamentally these are the main hygienic risks:

- » toxic parts in the air
- » allergic symptoms
- » noise, light, smell, humidity,
- » temperature
- » infections

Euroclima units set new standards of ventilation technology and air-conditioning.

Features of the units include innovative technological design, reduced operating costs and compact dimensions. The units meet all hygiene requests.

ZHK FLAT

Gladly we insert also special components.



SMART DETAILED SOLUTIONS



Fan sections

- » Plug fans with EC technology
- » Measuring device for air volume
- » Maintenance switch

Filter sections

- » panel filter, bag filter
- » in different materials
- » filter holding frame

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
- » Modem modules: advanced telecommunication (diagnosis, parameter download,...)

Silencer sections

- » Euroclima sound attenuator in different length with different materials
- » Attenuation at 250 Hz from 14 to 40 dB depending on splitter length
- » Sound attenuation off silencers, data referring to ISO 7235 / DIN 45646

Connection fitting

- » Flexible canvas or sound proof connecting piece
- » Available in different materials

Damper

- » Euroclima airwall damper made of airfoil blades with different leakage classes
- » Available in different materials

Plate heat exchanger

- » With/without Bypass

Coil loop system

- » Coils available in different materials

Drain pans

- » Flat drain pan available in different materials

Chilled water coils/ Warm water coil/dx coil and condenser coil

- » available in different materials

ZHK FLAT

TECHNICAL SPECIFICATION

Casing

The unit casing is based on the Eurovent certified ZHK design. Self-supporting, frameless, modular panel construction and continuous aluminum profiles. The construction consists of a double-shell housing panel with a thickness of 50 mm, consisting of an inner cover and a removable outer cover, which are thermally separated by PVC plug-in profiles. Non-flammable mineral wool (fire protection class 0 according to ISO II 82.2 and A1 according to DIN 4102), which is ideal for sound and heat insulation, is used for device insulation.

Casing data certified according to EN 1886 (MB ZHK INOVA)

- » Casing strength: class D1
- » Casing air leakage at -400 Pa: class L1
- » Casing air leakage at +400 Pa: class L1
- » Thermal transmittance: class T2
- » Thermal bridging factor: class TB2

Panel execution

Inner skin: optionally with galvanized sheet steel plastic-coated as corrosion protection or V2A. Outer skin: galvanized sheet steel with PVC coating, the additional plastic coating serves as optimal protection against corrosion and a visual design element. Coating Type A47SME, color white, coating thickness approx. 130 µm. Guides made of steel or alternatively in V2A. Large service doors in panel wall thickness, with aluminum door frames. Door leaf design same as panel design; adjustable hinges; special rubber seal with welded corners.

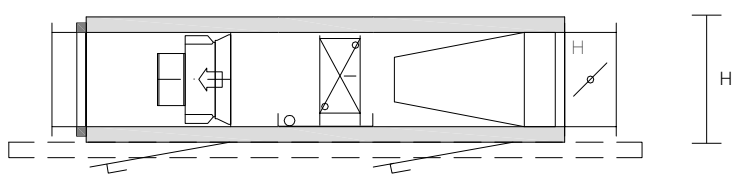
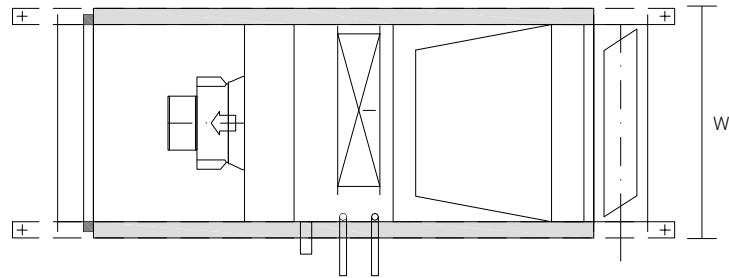
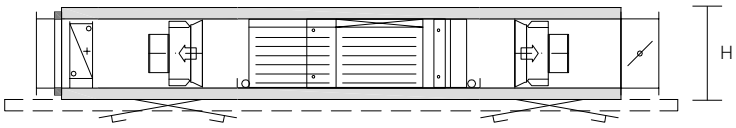
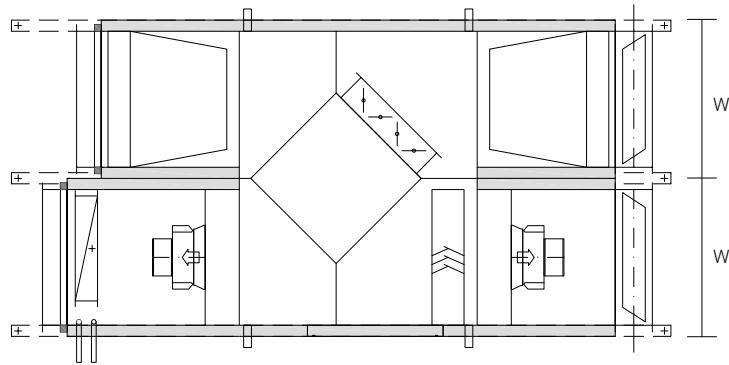
Special materials

- » stainless steel
- » peraluman
- » epoxy coating

ZHK FLAT			Coil face velocity (m/s)							
Size	W	H	2	2,5	2,75	3	3,5	4	4,5	5
Type	mm	mm	Air volume (m³/h)							
6/3	710	405	760	950	1050	1140	1330	1520	1720	1900
6/4,5	710	557,5	1140	1430	1570	1715	2000	2290	2580	2860
9/3	1015	405	1290	1610	1770	1930	2260	2580	2900	3220
9/4,5	1015	557,5	1920	2401	2640	2880	3360	3840	4320	4800
12/3	1320	405	1810	2260	2490	2710	3160	3620	4070	4520
12/4,5	1320	557,5	2710	3390	3730	4070	4750	5420	6100	6780

Dimensions can change depending on installed components and complexity of the units.
 Errors excepted we reserve the right of technical modifications relating product improvement without notice.

Samples:





JABER AL AHMED AL JABER AL SABAH HOSPITAL KUWAIT



HOLY HARAM MOSQUE MEKKAH - SAUDI ARABIA



CRUISERS, FERRIES, YACHTS, TANKER - WORLDWIDE



PARCO DELLA MUSICA - ITALY



HILTI INNOVATION CENTER - LIECHTENSTEIN



INFINEON



LOCKER - AUSTRIA



KASHAGAN ÖLPLATTFORM - KASACHSTAN

WORLDWIDE FLAGSHIP PROJECTS



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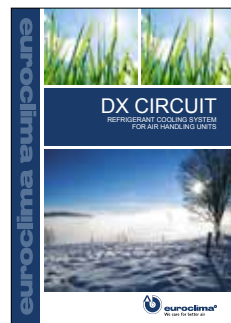
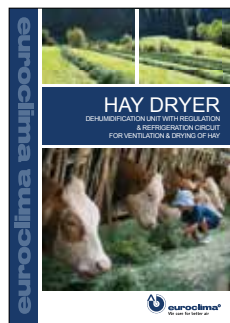
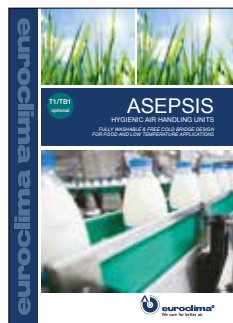
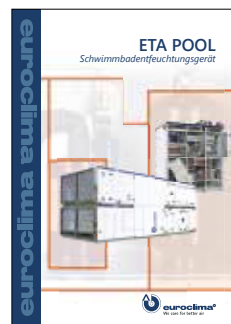
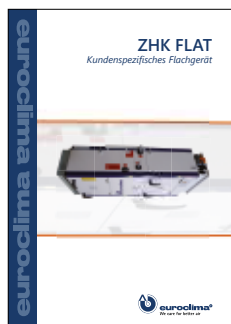
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Euroclima product catalogues



Euroclima July 2022
Due to its commitment of continuous product development and improvement, Euroclima reserves the right to change specifications without notice.



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