We create a pleasant air
A Wide and Complete Range of Products

**Air Distribution Elements**
- Ventilation grilles and valves
- Ceiling circular and square diffusers
- Swirl and variable swirl diffusers
- Slot diffusers and duct diffusers
- Air displacement diffusers
- Jet nozzles

**Outside Air Units**
- Protection louveres
- Air towers

**Air Control Units**
- Overpressure dampers
- Volume control dampers
- Throttling, shut-off and non-return dampers
- Mechanical and electronic volume controllers

**Sound Attenuators**
- Square, circular and inter-room sound attenuators
- Acoustic louveres

**Fans**
- In-line rectangular fans

**Fire Dampers**
- Fire dampers and valves
- Smoke dampers

**Hepa Filter Units**
- Duct pre-filter units
- Hepa filter units (duct, wall and ceiling units)
- Supply air ceilings (perforated and textile version)

**Convector Units**
- Fan coil units Climmy 4
- Ceiling cassette units Climmy Comfort
- Floor convectors
- Radiator convectors

**Air Handling Units (1000 m³/h up to 100,000 m³/h)**
- Air handling units Klimair2
  - Indoor and outdoor units
  - Swimming pool air handling units
  - Hygienic grade air handling units
  - Positive pressure inflatable dome ventilation units
  - Air handling units Optima
  - Ceiling air handling units KSM
  - Air handling units CompAir

**Chillers**
- Air cooled liquid chillers
- Water cooled liquid chillers
- Split liquid chillers
- Compressor-condensing units
- Air cooled condensers
- Driers

**Ventilated Ceilings for Large Kitchens**
- Ventilated ceilings
- Jet stream extractors
- UV-Clean system

**Solar Collectors**

Software

for calculation

and product selection
We create comfortable, pleasant and healthy indoor air for all kinds of buildings and for all kinds of interiors.

High efficiency  
Aesthetics  
Economical operation  
Custom tailored solutions

Enjoy the perfect indoor climate.

feel the freshness energy warmth purity comfort
Product overview

1. Air handling units  
   - Page: 2-7

2. Cooling technique  
   - Page: 8-13

3. Air regulation units, Sound attenuators, Fans  
   - Page: 14-25

4. Air distribution components  
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5. Clean room technology  
   - Page: 42-47

6. Fire dampers  
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7. Convectors  
   - Page: 52-63

8. Solar systems  
   - Page: 64-67
Air handling units
Hidria air handling units are used for central air conditioning in office buildings, hotels, restaurants, theatres and sports facilities, hospitals, indoor swimming pools, industrial applications, clean rooms, and other buildings.

- Hidria air handling units support all basic air conditioning functions: heating, cooling, filtration, humidification, dehumidification, recuperation and regeneration.
- We manufacture 38 different sizes of air handling units with volume air flow of 500 m³/h to 100,000 m³/h.
- Hidria air handling units are distinguished by excellent thermal and sound insulation.
- They allow a customized selection of function elements with high utilisation rates.
- A modern construction enables dimensional adaptability.

**Types, Versions**

**Klimair 2**
- air handling unit, wall thickness 50 mm
- indoor version (KNN)
- outdoor version (KZN)
- swimming pool version (KBN)
- hygienic version (KHN)
- version for heating and ventilation of overpressure halls (KZNK)

**KSM**
- ceiling air handling units, wall thickness 15 mm

**Optima**
- air handling units, wall thickness 33 mm (indoor version)

**CompAir NEW 2008**
- it consists of efficient compact ventilation units
- standard equipment: frequency-regulated fans with a full bypass for summer mode ventilation without heat transfer.
- operation with a high-yield (90%) counterflow exchanger in a range of 500 to 4300 m³/h
- it is designed for indoor or outdoor installation
Hidria air handling units allow users to select an optimal system for heat or cold recuperation from waste air:
- plate recuperator system
- rotary recuperator system
- system with two heat exchangers connected to a tube circuit - strip recuperator
- heat tube system
- heat pump system

Adiabatic (evaporative) cooling with heat recovery efficiency of over 85%:
- a double plate recuperator system with high pressure humidification (transforms water into so-called cold vapour),
- external air is cooled by using only water, without the conventional chillers which use Freon and consume a lot of electrical energy,
- exhaust air is humidified to approximately 95% relative humidity,
- sensitive heat recovery utilisation rate amounts to a minimum of 80%,
- adiabatic (evaporative) cooling is entirely hygienically sound,
- we have acquired the required certificate of hygiene according to the VDI 6022 standard from the competent German institute.

Automatic controls:
- regulation equipment (temperature sensors, pressure sensors, motorised valves), electrical control cabinets, functional start-up,
- project planning and execution of central management systems.

Aircalc++ selection software:
In the process of air handling unit selection, we use Aircalc++ – multi-language selection software which is also an excellent tool for the planning of air conditioning systems as it makes calculations as well as produces sketches that can be exported into AutoCAD, textual descriptions, and thermodynamic process charts in the form of Mollier h-x diagram.
CHILLERS

Types, Capacity

Air cooled liquid chillers
- KVA for outdoor installation, cooling capacity from 5kW up to 1900 kW
- KVR for indoor installation, cooling capacity from 5kW up to 250 kW

Water cooled liquid chillers
- KVH for indoor installation, cooling capacity from 5kW up to 250 kW

Condenserless water chillers
- KUU with remote condenser for indoor installation, cooling capacity from 5 kW up to 1500 kW

Compressor-condensing units
- KKA for outdoor installation, cooling capacity from 5 kW up to 250 kW
- KKR for indoor installation, cooling capacity from 5 kW up to 250 kW

Hydronic module
- HM 50÷80
- HM 1500÷2500
AVK air-cooled condensers and AVL dry coolers are designed to treat the heat exhaust from air conditioning and cooling units, industrial premises and cooling chambers. The difference between the AVK and AVL units lies in the refrigeration media. The AVK’s refrigeration media is freon, while the AVL uses a fluid (a water-glycol mixture or oil and water).

**Characteristics**
- Treating heat exhaust from the air conditioning and cooling units
- Cooling power ranges from 10 kW to 850 kW
- External stand alone unit
- Installed axial fans for horizontal or vertical placement
- Serial or parallel placement of many ventilation fans

**Component parts**

**Housing**
- zinc-plated sheet steel or zinc-plated sheet steel painted according to RAL 7035
- legs for vertical or horizontal placement and lifting ears are included in the serial equipment

**Blade heat exchanger**
- standard piping package dimensions are 60 × 30mm or 28.5 × 33.3mm, with an alternative pipe placement
- copper pipes with an external diameter of 16mm or 12mm
- aluminum blades of 0.12mm can be or evenly or undulate
- connections are suitable for both vertical and horizontal placement

**Fans**
- sword-type blades produced by Al pressure casting
- ventilation fans allow 100 % rotation speed regulation, which helps contribute to better maintaining of noise regulation requirements
- fan housing is made of zinc-plated steel sheet and welded steel sheet for larger diameters
- ventilation fan diameters are: 350, 630, 800, 1000 and 1250mm; or according to customer requirements
- powered by three-phase electric motor with an external rotor
- IP 54 protection level
- variable ventilation fan rotation speed available according to pressure or temperature
Air regulation units, Sound attenuators, Fans
Protection louvres are installed in building fronts (in supply and exhaust air openings) as a protection against the direct ingress of rain, birds, bigger insects etc. They are suitable for all low pressure air-conditioning, heating and ventilation. They are made of galvanised steel or aluminium in numerous standard or special dimensions.

Supply air/exhaust air towers
Air towers are used for the supply and exhaust of air. Various construction types can be made of different materials and in different dimensions according to the customer’s request.

Overpressure dampers
Overpressure dampers are used to equalize the pressures between adjacent rooms and for automatic interruption of air supply or air exhaust. Steel (Types JNŽ) or aluminium (Types ANŽ) overpressure dampers can be produced.
Volume control dampers regulate the air flow volume in ventilating ducts and air conditioning devices. We produce several construction types with manual, motor or pneumatic regulation.

**THROTTLING, SHUT OFF AND NON RETURN DAMPERS, FLOW RATE CONTROLLERS**

They are used to control the air flow volume in ventilating ducts.
SOUND ATTENUATORS

Sound attenuators are designed to quiet fan and air-conditioning device noises in ventilation ducts, and to prevent propagation of noise between rooms.

Sound attenuators DZ-2 and DZ-3:
- **DZ-2** sound attenuators field of application is the attenuation of fan noise in ventilation and airconditioning installations. They provide very efficient attenuation in the 250 Hz octave band. K-2 splitters built in these attenuators consist of alternant layers of absorbing material and galvanised steel sheet membranes.
- **DZ-3** sound attenuators field of application comprises attenuation of industrial machinery noises and special applications in airconditioning systems. They provide very efficient attenuation in the 500 to 4000 Hz frequency range. K-3 splitters built in these attenuators have their entire surface made of absorbing material.

Round sound attenuators ODZ-1
- ODZ-1 round sound attenuators are applied in ventilation and air-conditioning systems for attenuation of fan noises. They are suitable for installation in either inlet or outlet pipes of axial fans, in inlet pipes of radial fans, or installation in circular cross-section ducts.

Round sound attenuators MDZ-1
- MDZ-1 round sound attenuators prevent propagation of noise between rooms through ventilation ducts.

SOUND ATTENUATING LOUVRES

Steel attenuating louvres JAR are designed to prevent ingress of outside noises into the building interior, or propagation of noises from the building into the environment, through supply or exhaust openings. In addition to their acoustic protection function, they also serve as conventional protection louvres.
IN-LINE RECTANGULAR FANS IRB / IRBS

IRB and IRBS are a compact series of centrifugal type exhaust and supply in-line duct fans for air conditioning systems. They are specifically designed for installation where space is limited and allow installation directly at any angle and any location along the duct system. Due to their silent operation, they can be used for direct air exhaust from the room or for air supply into the room.

CHARACTERISTICS
- Duct fans are designed in nine nominal connection dimensions.
- IRBS: sound isolated housing for all nominal dimensions.
- Nominal connection dimensions from 300 x 150 mm to 1000 x 500 mm
- Single phase fans from nominal dimension 300 x 150 mm to 600 x 350 mm
- Three phase fans in all nominal dimensions.
- Air flow up to 17,000 m³/h.
- Static pressure up to 1,250 Pa.
- Direct installation into air duct systems with housing connection flanges;
- Housing is entirely made of galvanized sheet steel;
- Motor with centrifugal backward curved impeller is mounted on a swing out door, enabling easy servicing access;
- Impellers with backward curved blades and high hydraulic efficiency;
- Efficient, quality and user-friendly regulation.
### DUCT VENTILATION SYSTEM

<table>
<thead>
<tr>
<th>Component</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepa Filter Unit KPF</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>Flow rate Controller ERP-2</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>Sound Attenuator DZ-2</td>
<td><img src="image3.png" alt="Image" /></td>
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<tr>
<td>Air Heater GV</td>
<td><img src="image4.png" alt="Image" /></td>
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<tr>
<td>Fire Damper PL-18</td>
<td><img src="image5.png" alt="Image" /></td>
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<tr>
<td>Protection Louvre AZR-3</td>
<td><img src="image6.png" alt="Image" /></td>
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<tr>
<td>Volume Control Damper RZ-2</td>
<td><img src="image7.png" alt="Image" /></td>
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<tr>
<td>Duct Fan IRBS</td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td>Throttling Damper DL</td>
<td><img src="image9.png" alt="Image" /></td>
</tr>
<tr>
<td>Variable Swirl Diffuser OD-11</td>
<td><img src="image10.png" alt="Image" /></td>
</tr>
</tbody>
</table>
Air distribution components
VENTILATING GRILLES AND VENTILATING VALVES

Aluminium ventilating grilles

AR-13 AR-14 AR-17 AR-18

AR-5 AR-6, 7 AR-8, 9

Steel ventilating grilles

JR-3 JR-4 JR-7 JR-8

Grilles with thermostatic regulation (aluminium, steel)

AR-18/TR JR-8/TR

Duct grilles - for circular and rectangular ducts

SK-2 SK-3 SK-4

Ceiling grilles (steel)

SR-1 SR-2 SR-3 SR-4

Ceiling grilles (aluminium)

SR-5 SR-6 SR-7 SR-8

Special grilles (Grease traps, Filter grilles, Linear grilles)

LM-2 .../PF .../T

Ventilating grilles and valves

PV-1 PV-2

VENTILATING GRILLES

Ventilating grilles are designed for all types of low-pressure air-conditioning, heating and ventilation systems with built in air flow and throw distance control as well as regulation of discharge angle. They can be used for both, supply air and exhaust air applications. The inlet angle of grilles with thermostat regulation is automatically adjusted according to the selected temperature mode for supplied air. This way, the direction of the supplied air is dynamically adjusted which increases the living comfort.

Aluminium grilles AR, SR-5 ...8
Aluminium grilles are made of extruded Al sections anodised in natural aluminium colour. Upon customer’s request they can be anodised in other colours or powder painted.

Steel grilles JR, SK, SR-1...4
Steel grilles are made of sheet steel and powder painted in RAL 9010. Upon customer’s request they can be made of galvanised or stainless steel, respectively. Other RAL colours are possible upon request.

VENTILATING VALVES

Ventilating valves are designed to extract air from sanitary rooms and other premises and can be also used in low pressure air-conditioning systems with air flow control.

Steel ventilating valves PV-1, PV-2
Steel ventilating valves are made of sheet steel and coloured with powder coating in RAL 9010.
Upon customer’s request other RAL colours are possible.
CIRCULAR DIFFUSERS

Circular diffusers can be used for supply or extract air. Due to high induction (mixing of supply and room air) they are suitable for larger temperature differentials between the supply and room air. Diffusers have high capacity and low sound power level.

Steel circular diffusers OD-1, OD-2:
They consist of sheet steel, powder coated in RAL 9010. Upon customer’s request, they can be coloured in any RAL colour.

Aluminium circular diffuser OD-3N:
Diffuser rings are made of sheet aluminium and regulation mechanism consist of steel. Diffuser is powder coated in RAL 9010. Upon customer’s request, they can be coloured in any RAL colour.

SQUARE DIFFUSERS

Square diffusers are designed for supply and extract air. Due to high induction (mixing of supply and room air) they are suitable for larger temperature differentials between the supply and room air. Diffusers have high capacity and low sound power level.

Steel square diffusers KD-1, KD-2, KD-6, KD-7, KD-12, KD-15, KD-16:
They consist of sheet steel, powder coated in RAL 9010. Upon customer’s request, they can be coloured in any RAL colour. Plenum box is made of galvanised sheet steel.
SWIRL DIFFUSERS

Application:
Swirl diffusers are designed for air-conditioning of room with floor to ceiling heights from 2,6 to 4m and temperature difference between supply and room air of +10K to -10K. Due to the rotary swirling motion of the air discharge, induction of room air occurs very quickly. Swirl diffusers are suitable both for comfort as well as industrial airconditioning.

Description:
Swirl diffusers consist of plenum box made of galvanised sheet steel and diffuser face. Diffuser face is made of sheet steel powder painted in RAL 9010 or any RAL colour upon customer’s request.

Swirl diffusers
OD-4  OD-5

OD-7

OD-8  OD-9

Software Klima ADE

OD-8/TR
According to the temperature profile, OD-8/TR automatically adjusts the inlet air flow. The swirl effect is used in the cooling mode, while the vertical air flow is in effect during heating. During transition periods, the diffuser automatically adjusts the optimum discharge angle which contributes to increased comfort level in the room.
VARIABLE SWIRL DIFFUSERS

Application:
Variable diffusers are designed for rooms with changing thermal loads which require different conditioning (heating, cooling). They are suitable for rooms with floor to ceiling height of up to 10 m and recommended temperature difference between supply and room air +10K and -10K. Required conditioning is achieved by the means of manual or power driven blades adjusting. Variable diffusers are suitable for both comfort and industrial conditioning.

Description:
Variable diffusers consist of plenum box made of galvanised sheet steel and diffuser. Diffusers are made of sheet steel or sheet aluminium (OD-11) and powder painted in RAL 9010 or any RAL colour upon customer’s request.

OD-11V/TR
At OD-11V/TR diffuser, centrally adjustable blades can be adjusted automatically with the thermostat regulation. Thermostat perceives temperature of the supply air and automatically adjusts the blades angle.
Slot diffusers are designed for air supply in rooms with floor to ceiling heights of 2.5 to 4 m. They are suitable for supplying either cold or warm air, in particular in applications where air conditioning comfort demands are stringent. Due to their high induction rate and rapid decrease of temperature difference, these diffusers are also suitable for variable systems.

**Description:**
Diffuser face plate is made of anodized aluminium sections with built-in cylindrical deflectors made of recycled plastics. Deflectors allow continuous adjustment of discharged air direction within the 360° range. The diffuser plenum box is made of galvanised sheet steel and has a flow rate control damper built in its inlet spigot, to allow fine adjustment of the desired air flow rate.

**Panel design slot diffusers**
A panel design slot diffuser consists of a face plate and a plenum box. Cylindrical air deflectors, equal to those in LD-13 and LD-14 diffusers, are installed in the slots, to allow continuous adjustment of discharged air direction within the 360° range. On order, diverse plate designs and slot patterns are available.

**Round duct diffusers**
Round duct diffusers can be installed at various locations within the duct network. They are suitable for supplying either cold or warm air.

**Description:**
They are made of galvanised tubes with slots equipped with cylindrical air deflectors equal to those in the LD-13 slot diffuser, to allow adjustment of air direction and flow rate. As standard, the tube and cylindrical deflectors are in RAL 9010 white colour.
Air displacement units are suitable for both industrial and comfort air conditioning applications. They are suitable for rooms characterised by high heat loads or heavy air pollution. Air displacement units supply air at large flow rates (up to 10,000 m³/h), at low air velocities (in the range from 0.1 to 0.3 m/s). The air so supplied forms a so called «fresh air pool» in the occupied zone. Air is lifted in convection currents from heat sources to the ceiling layer, from which it is extracted from the room. In this way, even temperature field is maintained in the room, free of draught.

**Types:**
SD-1: corner
SD-2: semi-cylindrical
SD-3: cylindrical
SD-6: rectangular
Supply air nozzles VŠ-1

Supply air nozzles are designed to supply air into rooms in applications requiring large throw distances and low noise levels. They are suitable for supplying either cold or warm air. They are made of anodised sheet aluminium. On request, they can be powder painted in any of the RAL scale colours. Air supply nozzles are supplied either as single components or assembled into blocks, which considerably increase throw distance.

Supply air nozzles VŠ-1

VŠ-1 supply air nozzles are of a fixed construction. They are supplied either as single components or assembled into blocks.

Supply air nozzles VŠ-4

VŠ-4 supply air nozzles are adjustable. The air jet direction can be adjusted either manually or by means of a motor drive, within a ±30° range.

Supply air nozzles VŠ-5

VŠ-5 supply air nozzles can be adjusted in the same way as VŠ-4. Supply air nozzle is integrated into the housig and does not protrude into the room.
Clean room technology
DUCT PRE-FILTER UNITS
Duct pre-filter units KPF are designed to clean the air in air-conditioning and ventilating systems. Built-in filters are of F5 to F7 class. Various types of duct housings enable the air filtration with air flow from 3,400 m³/h up to 20,400 m³/h.

HEPA-FILTER UNITS
Duct HEPA filter units AKF are constructed for installation in duct system. Built-in filters of H10 to H13 class remove up to 85 % particles of 0.3 µm (filters H10) or up to 99.95 % particles of 0.3 µm (filters H13).

Wall HEPA filter units (AFH) and ceiling HEPA filter units (AFV-8) are used in both, supply and exhaust air ventilation and airconditioning installations, which require maximal cleanliness of the air. Built-in Hepa filters are of H10 to H14 class. They filter and remove particles with a diameter of 0.3 µm in different levels: from 85 % (filters H10) up to 99.995 % (filters H14).

Ceiling HEPA filter units type AFV-8 G has a special washer frame for attachment the filter via gel gasket. AFV-8 G version guarantee absolute sit tightness for the filters up to class U16, which remove 99,99995 % of particles with diameter of 0.12 µm.

SUPPLY CEILINGS
Supply ceilings with built-in HEPA filters of H10 to H14 class, are used for clean rooms where air cleanliness as well as intensive airenexchange is required. They are constructed to be built in false ceilings of operation rooms, intensive care premises and other clean rooms.

FLUFF SEPARATOR AND FILTER GRILLES
Fluff separators LN and Filter grilles FR are applied in air exhaust from clean rooms. They are designed for wall mounting.
<table>
<thead>
<tr>
<th>Clean Room Components</th>
<th>Model/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shut off Damper ZL-2</td>
<td></td>
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<tr>
<td>Hepa Filter Unit AFV-8</td>
<td></td>
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<tr>
<td>Supply Air Ceiling - textile version DSS</td>
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<tr>
<td>Fire Damper PL</td>
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<tr>
<td>Volume Control Damper RŽ</td>
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<tr>
<td>Duct Fan IRB</td>
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<tr>
<td>Flow rate Controller ERP</td>
<td></td>
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<tr>
<td>Filter Grille FR</td>
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<tr>
<td>Fluff Separator LN</td>
<td></td>
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<tr>
<td>Duct Hepa Filter Unit AKF</td>
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<tr>
<td>Flow rate Controller MRP</td>
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<tr>
<td>Protection Louvre AZR</td>
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<tr>
<td>Supply Air Nozzle VS-5</td>
<td></td>
</tr>
<tr>
<td>Hygienic grade Air Handling Unit</td>
<td></td>
</tr>
</tbody>
</table>

**CLEAN ROOM**

![Diagram of clean room components and flow paths](image-url)
Fire dampers
FIRE DAMPERS
Fire dampers are installed in rectangular or circular ventilation ducts, at passages of fire compartments. In case of fire, fire dampers close automatically, thus preventing fire from spreading through the ventilation ducts. Fire resistance is 30, 60, 90 or 120 minutes.

Types according to the release mechanism type:
- basic type with fusible link release
- motorized type with electric actuator

FIRE PROTECTION VALVES
Fire protection valves are used to prevent fire from spreading from bathrooms, kitchens. They are installed at the beginning of ventilating ducts, directly into the walls or ceilings. Release mechanism triggers at 70 °C. Fire protection valves have two functions:
- they are the part of fire protection wall with fire resistance 90 min
- they are used for aeration (both, air supply and exhaust) with a possibility of air flow regulation

SMOKE DAMPERS
Smoke dampers open automatically in case of fire and thus enable the exhaust of smoke and heat. Fire resistance is 30, 60, 90 or 120 minutes.

Types according to the release mechanism type:
- basic mechanical type with fusible link
- solenoid type
- motorized type with electric actuator
Conectors
Fan Coils

Application and operation
Fan coils are devices designed for room air-conditioning purposes; their functions include heating, cooling, room ventilation and, to a certain degree, air drying. They are suitable for a variety of applications: business premises, schools, restaurants, galleries, hotel rooms, shops, etc. Their operation involves forced fan driven convection of air through a heat exchanger.

Types, designs, sizes
Our production program includes a broad range of types and designs:
- for two-pipe and four-pipe systems,
- visible designs (parapet, wall or ceiling mounting),
- flush designs (wall or ceiling mounting),
- air circulation operation and room/fresh air mixing operation,
- all designs in six sizes (100 to 600).

Characteristics of fan coil CLIMMY 4
- high cooling and heating capacities:
  cooling capacities from 1.5 kW to 7.6 kW and heating capacities from 1.8 kW to 10.6 kW, (EUROVENT conditions)
- centrifugal fan with 5 speeds,
- control with different thermostats and a range of accessories,
- front metal housing painted in standard RAL 9010; other RAL scale colours are available on request,
- discharge grille with control louvres made of anti-static ABS material,
- adjustable deflectors in discharge grille for setting direction of discharged air flow (visible design only),
- easy filter replacement,
- dismountable discharge grille and both sides,
- easy installation and maintenance,
- advanced industrial design and attractive appearance (designed by Marjan Žitnik, Slovenia).

Software Klima C4 (Climmy 4)
- calculation of cooling and heating capacities for different temperature regimes and water flow rates;
- calculation is available for cooling, heating mode and combined cooling and heating mode, depending on the customer’s operational mode specifications;
- operational mode can be specified in both ways: water inlet and outlet temperature, water inlet temperature and mass flow rate;
- with flush design models, the package allows the viewing of fan performances as a function of external static pressure at the fan coil discharge;
- following the calculation, the package presents the results of all six fan coil sizes according to the specified operational mode and conditions;
- the calculation results, complete with the drawing, dimensions and ordering key for the selected fan coil are available in the printout form.
Ceiling Cassette Unit Climmy Comfort 2

CLIMMY COMFORT 2

Application and operation
Ceiling cassette units are devices designed for room air-conditioning purposes; their functions include heating, cooling, room ventilation and, to a certain degree, air drying. They are suitable for a variety of applications: business premises, schools, restaurants, galleries, hotel rooms, shops, etc. Their operation involves forced fan driven convection of air through a heat exchanger.

Types, designs, sizes
Our production program includes a broad range of types and designs:
- for two-pipe and four-pipe systems,
- two designs (nozzles, aluminium blades),
- inlet for pre-conditioned air,
- all designs in four sizes (600/1, 900/2, 1200/2, 1200/3).

Characteristics of CLIMMY COMFORT 2
- high heating and cooling capacities: cooling capacities from 0.6 kW to 5.5 kW and heating capacities from 1 kW to 8.0 kW, (EUROVENT conditions)
- electric heater: 1.5 to 2.0 kW,
- centrifugal fan with 5 speeds,
- control with different thermostats and a range of accessories,
- diffusers may be fitted with nozzles or aluminium blades,
- shape and dimensions suitable for installation in suspended ceiling,
- easy filter replacement,
- easy installation and maintenance.

Software Klima CC2
(Climmy Comfort 2)
- calculation of cooling and heating capacities for different temperature regimes and water flow rates;
- calculation is available for cooling, heating mode and combined cooling and heating mode, depending on the customer’s operational mode specifications;
- operational mode can be specified in both ways: water inlet and outlet temperature, water inlet temperature and water flow rate;
- with flush design models, the package allows the viewing of fan performances as a function of external static pressure at the fan coil discharge;
- following the calculation, the package presents the results of all six fan coil sizes according to the specified operational mode and conditions;
- the calculation results, complete with the drawing, dimensions and ordering key for the selected fan coil are available in the printout form.
RADIATOR CONVECTORS

Application and operation
Radiator convectors are modern heating bodies designed for heating of business and shopping premises, car showrooms, hotel lobbies and other rooms. They serve either as primary heating bodies or secondary heating bodies, combined with primary heating bodies of other types (fan coils, air conditioning devices, etc.) They are particularly suitable for application in all rooms with envelope walls exposed to low exterior temperatures (large windows or glass walls, cold walls).

Types, Designs, Sizes
Our production program includes a broad range of types and designs:
- for two-pipe systems only,
- free-standing design (mounting on the floor),
- wall design (wall mounting),
- 240 standard dimensions (20 lengths, 3 depths, 4 heights).

Characteristics of radiator convector
- high heating capacities from 0.2 kW to 7.2 kW,
- silent operation (natural convection),
- control with thermostat valve,
- housing painted in standard RAL 9010; other RAL scale colours are available on request,
- discharge grille made from perforated plate or fixed longitudinal grille,
- dismountable discharge grille and front housing (when already installed),
- easy installation and maintenance,
- advanced industrial design and attractive appearance.

Software KLIMA RK
- calculation of heating capacity for different temperature modes and water flow rates,
- calculation is available for heating modes, depending on the customer’s operational mode specifications,
- operational mode can be specified in both ways: temperature mode and the water inlet temperature with mass flow rate mode,
- following the calculation, the package presents the results of requested or recommended sizes according to the specified operational mode;
- the calculation results, complete with the drawing, dimensions and ordering key for the selected radiator convector are available in the printout form.
**FLOOR CONVECTORS**

**Application:**
Floor convectors are modern heating bodies designed for primary heating, as well as for secondary heating, combined with other primary heating bodies (radiators, floor heating, fan convectors, air conditioning devices, etc.). They are suitable for the heating of rooms with large glazing surfaces: car showrooms, winter gardens, apartments, business, shopping and similar premises. In addition to their heating function, their further important functions are the prevention of condensation build-up on glazing, and fending-off inlet of cold air into the room.

**Natural Convection Floor Convectors TK**
Natural convection floor convectors principle of operation is natural air convection. They are designed for secondary room heating. Their heating capacities range from 0.09 kW to 3.7 kW, depending on the convector size. They are distinguished for their silent operation.

**Forced Convection Floor Convectors TKV**
TKV floor convectors principle of operation is forced convection, i.e. natural air circulation is boosted by means of a fan. They are suitable both for primary and secondary heating of rooms, in applications requiring higher heating capacities. The heating capacity is a function of the convector size, and ranges from 0.13 kW to 10.5 kW.

**Floor convector for humid conditions with forced or natural convection TKV-S/TK-S**
TKV-S/TK-S floor convectors operate with forced TKV-S or natural TK-S convection. They are particularly suitable for heating of areas with increased level of humidity such as swimming pools or similar. At the forced convection version, the low voltage (12V) ventilation fan is installed due to security reasons. Due to increased level of humidity, condensation collection tray is installed. Heating power range is between 0.13 kW and 4.3 kW and depends on convection type and the size of the convector.

**Cooling and Heating Floor Convectors TKH**
In summer, the TKH floor convector draws in warm air from the areas around windows or hot walls, cools it in the heat exchanger, and feeds it back into the room. This reduces heat gains due to heat room envelope surfaces. In the cooling process, a part of moisture is extracted from the air; this dehumidification also contributes to thermal comfort. The TKH total cooling capacity range is 0.4 kW to 1.7 kW. In winter, the TKH floor convector is applied for heating like any other floor convector: it heats cold air from the window area and returns it into the room. The TKH heating capacity range is 0.9 kW to 4.2 kW.

**SOFTWARE KLIMA TK**
The package allows the selection of a standard heating floor convector (TK, TKV and TKH types) either according to a specified convector length or a specified thermal capacity. Upon the entry of basic parameters, the package lists the corresponding convector types with all available accessories. The convector type listing is a ready-to-use ordering key. The final calculation can be printed, to document the calculation results along with all input parameters and technical characteristics.
Application and operation
Air heaters are devices used for heating, cooling, ventilation and filtration in various facilities such as production halls, workshops, hangars, warehouses, garages and similar spaces. They function on the principle of forced air circulation over a heat exchanger by means of an axial fan.

Models, designs and sizes
We manufacture a wide range of models for two-pipe systems:
- model for the circulation of (internal) air only,
- model for mixing circulation and external (fresh) air,
- model for external air only,
- all models are manufactured in five sizes: 140, 250, 400, 650 and 1000,
- heat exchangers with a 2- and 3-row water heater, a 2-row steam heater, a 4-row heater/cooler and a 6-row cooler are built in.

The main advantages of the UniKal industrial heater
- high heating and cooling powers: a heating power of 5kW to 140 kW and a cooling power of 3,5 kw to 45 kW,
- one-phase and three-phase axial fans,
- regulation using various regulators and switches,
- the heat exchangers are made of aluminium pressed lamellas on mechanically expanded pipes, which ensures good contact between the pipes and the lamellas to provide an efficient heat transfer,
- the housing is painted with the standard RAL 9006; if the customer chooses, another RAL chart colour can be used,
- individually adjustable blades are made of anodised aluminium,
- easy filter replacement
Solar systems
Solar collectors are used for heating sanitary water, water in indoor and outdoor swimming pools, in greenhouses, for drying agricultural products, timber and the like as well as for low-temperature building heating (floor warming) or for combined heating with other energy sources (classical heating systems, heat pumps).

A solar heating set
- solar energy collector
- support structure for roof mounting
- thermal reservoir (heat storage tank)
- control elements
- pump unit
- expansion reservoir

Collector types
We manufacture two types of solar collectors:
- SI-SOL 2.0-TI
- SI-SOL 1.4-TI
They are both built from the same high quality materials and differ only in size of absorption area 1.4 m² and 2 m².

Characteristics
- high quality of materials
- high efficiency
- excellent efficiency due to TINOX coating
- modular construction in bigger units
- suitable for horizontal and vertical mounting
- attest, certificates and recognitions of foreign and home institutes: SPF, ITW, LOS and ZMRK
- favorable proportion between price and quality
- long life expectancy - over 25 years
- warranty for 5 years

Software
The sIMPly application is designed for basic sizing of the solar collector sanitary water heating systems and for cost estimation.
Academy of Knowledge

- creating new innovative products and solutions to suit customer needs
- demonstrating the product operation and modelling of required solutions
- expanding the knowledge and education for all HVAC system operating levels
- linking with universities, companies, domestic and foreign research institutions
- active membership in international professional organizations (REHVA, EUROVENT, IRR, ASHRAE) and national HVAC associations (SITHOK and SDHK Slovenia, AVOK Russia, SPW Poland, and others)

Slovenian Klima Forum

- an annual forum with international participation including lecturers and an audience
- dealing with the latest findings, guidelines, challenges, and dilemmas of the global and european HVAC industry
Innovative solutions

Flexibility

Reliability

• Individual creativity within team work
• Creating innovative products and solutions
• Tested and guaranteed quality and functionality

R & D center for HVAC – with modern laboratories for measurements and testings.
Hidria IMP Klima Group

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5 companies
10 sales divisions and representatives abroad
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