# Product Overview





#### About us

Loads of Experience For more than 40 years Europair Italia has been offering throughout Italy products and solutions for Fire Safety, Heating, Ventilation, Air Conditioning, and with air diffusion systems characterized by a high level of technology and design to obtain the comfort and maximum quality of the air in the indoor environment.

Our great experience allows us to have an overall knowledge of all HVAC systems, both in terms of installation and start-up and maintenance; our Technical Office is constantly engaged in the search for solutions that allow you to better manage even these important activities.

This is why we have expanded our activities into Switzerland to share our products and knowledge with one of the most demanding markets in the world. Swiss precision and practicality is well renowned worldwide. Our team serving the Swiss market is customer focused with good knowledge of the market.



**Beat Henger**Board of Directors President

#### Commitment to our customers

Our objective is to bring most efficient and best valued products for Residential ventilation, Air diffusion, Air Handling Units, Fire and Smoke Furthermore Europair boasts strong partnerships with world market leaders in Marine and Offshore as well as comfort application through Italian consultants for prestigious buildings around the world. As indoor air climate is becoming more understood and demanded throughout European countries, our aim is to expand in Ventilation, Residential comfort control, Office and light commercial buildings, Fire safety, Hospitals and commercial centers within the next 5 years in key markets.

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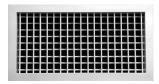


# **Air Terminal Devices**



#### Series GPD

Circular Air valves manufactured from sheet steel powder painted to RAL9016 for supply and return air.



#### Series 21-DVR

Single or double deflection grille for rectangular ducts, for supply or return air application. Manufactured in Galvanized sheet steel in galvanized finish, or it can be painted according to RAL on request. Opposed blade or Hit& Miss damper available as optional accessory. Screw mounting through front face as standard execution, other mountings available on request.



#### Series 31

Linear bar grilles for Floor or Wall installation, ideal for supply or return air application, available as standard with fixed bars without c0°, or with fixed bars with deflection 15°). Finished in anodized aluminum or painted to RAL color upon request. Opposed blade damper available as optional accessory. Screw mounting through front face as standard execution, other mountings available on request.



#### Series 21-DVC

Single or double deflection grille for circular ducts, for supply or return air application. Manufactured in Galvanized sheet steel in galvanized finish, or it can be painted according to RAL on request. Opposed blade or Hit& Miss damper available as optional accessory. Screw mounting through front face as standard execution.



#### Series 70

Linear slot diffuser, with adjustable directional blades by a wheel mechanism, available in fix sectional lengths or per length of 2m for linear installations. Slot corner sections available in 90° or other angles upon request. available from single to multi slots based on airflow required. Finished in anodized aluminum or painted in RAL color upon request. Plenum box manufactured in galvanized sheet steel available as optional accessory, with volume control damper at the inlet connection accessible from the room.



#### Series 54

Square perforated face diffuser, for supply and return application. Available in 5 sizes with inlet connection plenum of dia 100 to 250mm. Series 54 is available in 3 assemblies, perforated front face, mounting frame and mat black plenum incorporating adjustable deflectors. Manufactured in galvanized sheet steel painted white RAL9016 perforated front face, or RAL9005 black for the plenum and mounting frame. Galvanised steel sheet



## **Air Terminal Devices**



Series DFRF





# 6 . DED



Circular fixed blade swirl diffuser. Available with Flat (-C), Venturi (GR) or Perforated face (GR-PR). Manufactured from sheet steel, powder coated in white RAL 9016, other RAL colors are available upon request. Plenum boxes or reduction cones are available as optional accessories.

The plenum box incorporates in the inlet spigot an operated volume flow damper, accessible from the room, made of perforated sheet.

### Series DFR

Rectangular fixed or adjustable blade swirl diffuser. Available with various patterns or with Perforated face. Manufactured from sheet steel, powder coated in white RAL 9016, other RAL colors are available upon request. Plenum boxes are available as optional accessories. The plenum box incorporates in the inlet spigot an operated volume flow damper, accessible from the room, made of perforated sheet.















### Series DF & DG

Adjustable or thermo-adjustable diffusers for Heating and Cooling in various height installations. Manufactured from sheet steel, powder coated in white RAL 9016, other RAL colors are available upon request. Plenum boxes or reduction cones are available as optional accessories. The plenum box incorporates in the inlet spigot an operated volume flow damper, accessible from the room, made of perforated sheet.

#### Series DF

Adjustable or thermo-adjustable Jet diffusers for long throw Heating and Cooling in various height installations. Manufactured from sheet steel and aluminum, powder coated in white RAL 9016, other RAL colors are available upon request.



# **Air Terminal Devices**









#### Series DAFC & DFRE

Circular or Square Step swirl diffusers, with fixed blades and central mounting screw. Manufactured from galvanized sheet steel and painted in white color (RAL 9016) or in black color (RAL9005) as standard finish. Other RAL available upon request





#### Series DSA

Circular floor diffuser with swirl air supply, suitable for false floor installation. Diffuser slots are designed to ensure a swirl air supply with high levels of induction, achieving reduced air velocities and a moderate temperature gradient in the occupied zone. The diffuser may be used in rooms with a variable or constant air volume.







#### Series KPA & KRH

Plenum and diffusion element set for hygienic or clean-room application. Available in various sizes and allowing different types of diffuser type installations such as swirl, square linear, and perforated plate. For ceiling and wall installations. Plenum manufactured in galvanized sheet steel painted on the inside and outside in RAL 9010.

#### Series KTF

The filtration ceiling is an air diffusion component for high efficiency one-way airflow filtration, in compliance with all applicable hospital regulations. The KTF filtration ceiling adapts to operational risk blocks 3 and 4 as per S90-351. Complies with ISO 5 class for ambient air quality in operating theaters, as per EN-ISO-14644-1 and leak tests as per ISO 14644-3.



### **Air Volume Control**



#### **KCRK**

- Circular Constant volume control damper
- Available Sizes: Ø80 to Ø250mm
- Air volume: 22 to 723 m<sup>3</sup>/h



#### **RCCK**

- Circular constant volume control damper
- Available Sizes: Ø80 to Ø400mm
- Air volume: 40 to 5000 m<sup>3</sup>/h
- Class C in accordance to EN1751



#### Silencers SZ & SCZB

Available in Circular and rectangular Manufactured from galvanized sheet steel With rubber gasket for tight connection on circular, and 30mm Metu connection for rectangular silencers incorporating acoustic mineral wool of 50 & 60 Kg/m3 with secondary cover protection to avoid surface erosion of the acoustic material Insertion loss tested in accordance to ISO 11691 Aerodynamic and pressure loss tested according to ISO 7244 Acoustic tested according to ISO 23741



### **RCQK**

- Rectangular constant volume control damper
- Available Sizes: 200x100 to 600x600mm
- Air volume: 170 to 11600 m³/h
- Class C in accordance to EN1751



#### ATI AS-S & SI

- Rectangular variable volume control damper
- Available Sizes: 200x100 to 1000x1000mm
- Air volume: 72 to 36000 m³/h
- Class 3/C in accordance to EN1751
- Operating pressure of up to 1000Pa
- Measuring accuracy: <5%</li>
- Available with compact controllers with 0-10V or with MP, Lon, Modbus, KNX communication



### ATLAS-R & RI

- Circular variable volume control damper
- Available Sizes: Ø80 to Ø630mm
- Air volume: 85 to 15000 m<sup>3</sup>/h
- Class 3/C in accordance to EN1751
- Operating pressure of up to 1000Pa
- Measuring accuracy: <5%
- Available with compact controllers with 0-10V or with MP, Lon, Modbus, KNX communication



# **Chilled Beams & Displacement Diffusers**



#### Series VKF & IHK

Chilled Beam, Cassettes, Room units and Vertical per miter units available in 2 or 4 pipe system with accessories and controls.

All water decentralized comfort units are designed as standard modules for T-Bar ceiling installation or plas-terboard false ceilings. Ideal for Offices, hotel rooms, shops and offices, these units contribute to lowering the energy consumption by utilizing high water and air temperature, thus reducing the chiller and Air handling

setpoints and reducing the footprint and size of the Chiller or Heat-pumps and air handling units needed.

Another contributing factor to comfort on decentralized units is by working wat higher induction ratio than normal air terminal devices, we achieve faster temperate reduction from supply to room air, faster reduction of air speeds in the occupied zone and work on lower air volumes to achieve the comfort needed.

The standard finish is RAL 9016 white, other RAL colors are available upon request.

On special request the units can be equipped with return air section, smoke and presence sensors, to function as multi-service units.

#### Series 90

Displacement diffusers are available in Circular, rectangular, semicircular or in wall installations. Circular duct industrial installation available for large heights in cooling or heating with and without actuator.

The diffusers include upper and lower covers and a perforated air distribution face plate. Connections can be made through the upper or lower cover. The units are manufactured from galvanised steel sheet incorporating aluminium sections.

Diffusers include an equalizing plate (painted in black) inside, as well as static pressure measurement to obtain the supply flow rate. The standard finish is RAL 9016 white, other RAL colors are available upon request.



# **External louvers**



#### GL<sub>20</sub>

Return grille in anodized extruded aluminum. Frame in anodized extruded aluminum. Fixed horizontal blades in anodized extruded aluminum. Distance between blades 20 mm. Optional accessories and executions:

Installation sub-frame in galvanized steel. Wire mesh 10x10x0,1mm. Filter frame.

Painted according to RAL



#### **GL50AEA**

External louver in anodized extruded aluminium. Frame in anodised extruded aluminium Anodised extruded aluminium blades with weather proof profile. Distance between blades 50mm. Optional accessories and executions: Installation sub-frame in galvanised steel, thickness 2,0 mm, L profile 25x35mm GLR 50AEA, with wire mesh 10x10x1,0mm Painted according to RAL



#### GH100AFA

External louver in anodized extruded aluminium. Frame in anodised extruded aluminium. Anodised extruded aluminium blades with water proof profile. Distance between blades 100 mm.

Optional accessories and executions: Installation sub-frame in galvanised steel, thickness 2,0 mm, L profile L profile 30 x 35 mm GHR 100AEA: with wire mesh 10x10x1,0mm. Painted according to RAL



#### GH1007

External louvre with distance between blades 100mm. Frame in galvanised steel, thickness 1,5 mm; Blades in galvanised steel, thickness 1,0 mm with waterproof profile;

Optional accessories and executions: Installation sub-frame in galvanised steel, thickness 2,0 mm, L profile L profile 30 x 35 mm GHR 100Z, with wire mesh 10x10x1,0mm GH 100X, in stainless steel AISI 304; Painted according to RAL



# **Volume Control Dampers**



#### **DLCZT**

- · Circular damper in galvanised steel
- Frame in galvanised steel, thickness and length see detailed schedule;
- Blade in galvanised steel, thickness see detailed schedule:
- Axes ø8 mm or 12 mm, see detailed schedule;
- Bearings in bronze if ø8 and nylon if ø12;
- · Lateral seal in special rubber on the blade;
- Acoustic data tested in accordance to EN ISO 3741;
- Leakage test in accordance to EN 1751.



#### **DLT101Z**

- Mu Itileaf damper in galvanised steel with distance between blades100 mm
- Frame in galvanised steel, thickness 1,0 mm;
- Aerofoil blades in galvanised steel, thickness 0,5+0,5 mm (0,6+0,6 mm for width over 1,0 m);
- Distance between blades 100 mm;
- External movement drive in galvanised steel;
- Bearings in nylon;
- Axes ø12 mm in galvanised steel;
- Lateral seal in flexible aluminium sheet;
- Pressure loss tested in accordance to ISO 7244;
- Acoustic data tested in accordance to UNI EN 25135



#### DLT-T201Z

- Shut-off damper in galvanised steel whit distance between blades 200 mm
- Frame in galvanised steel, thickness 1,5 mm;
- Aerofoil blades in galvanised steel, thickness 0,8+0,8 mm with special profile for seal;
- Distance between blades 200 mm;
- External movement drive in galvanised steel;
- Bearings in bronze;
- Axes ø18 mm in galvanised steel;
- Lateral seal in flexible stainless steel sheet and single seal for each blade;
- Pressure loss tested in accordance to ISO 7244;
- Acoustic data tested in accordance to UNI EN 25135;
- Leakage test in accordance to DIN 1946/4.
- Leakage test in accordance to EN 1751.



#### **DLT201Z**

- Multileaf damper in galvanised steel with distance between blades 200 mm
- Frame in galvanised steel, thickness 1,5 mm;
- Aerofoil blades in galvanised steel, thickness 0,8+0,8 mm;
- Distance between blades 200 mm;
- External movement drive in galvanised steel;
- Bearings in nylon;
- Axes ø12 mm in galvanised steel;
- Lateral seal in flexible aluminium sheet;
- Pressure loss tested in accordance to ISO 7244;
- Acoustic data tested in accordance to UNI EN 25135



# **Residential Ventilation**



#### **AURA**

It is a unit for decentralized Mechanical Ventilation with heat recovery that does not require the construction of an air distribution ducting system and diffusers. The unit uses a regene- rative heat exchanger (ceramic exchanger).

There are two flow sizes: size 1 with a nominal capacity MAX 24 m³/h, size 2 with a nominal capacity MAX 50 m³/h. The operation mode can be ANALOG or ELECTRONIC. AURA 2 is included in the list of Agency for Energy ClimateHouse/KlimaHaus® of ventilation equipment.



#### Micro Rev

- Nominal air volume: 200m³/h at 150Pa
- Self-supporting casing made up of grey plasticized sheet sandwich panels with injected polyurethane foam insulation core, thickness 25 mm and density 42 kg/m³
- · High efficiency aluminum heat exchanger
- Automatic defrosting
- High efficiency EC plug fans
- ePM10 50% (G4) exhaust air / ePM170% (F7) fresh air
- Dirty filters alert: by differential pressure switches



#### Micro V

- Nominal air volume: 220m³/h at 150Pa
- Self-supporting casing made up of white lacquered sheet sandwich panels, 10 mm-tick polyethylene insulation sheet and 2 mm-tick sound proofing and heat insulating sheet
- Vertical: wall installation
- Hidden inside the kitchen furniture
- High efficiency aluminium counterflow heat exchanger, Eurovent certified
- · Automatic defrosting
- High efficiency EC plug fans



#### **REVERSUS**

- Available in 3 sizes:
  - Nominal air volume: 305 at 150Pa
    Nominal air volume: 435 at 150Pa
  - Nominal air volume: 575 at 150Pa
- Self-supporting casing made up of grey plasticized sheet sandwich panels with injected polyurethane foam insulation core, thickness 25 mm and density 42 kg/m³
- Inside, REVERSUS 1 and 2 is in expanded polypropylene (material that ensures a high level of thermal insulation between air flows) while the interior of REVERSUS 3 is made in Aluzinc
- Vertical: wall installation
- Can be configured on site (air ducts)
- High efficiency PP counterflow heat exchanger



# **Residential Ventilation**



#### **UVD**

- Nominal air volume: 615m³/h at 200Pa
- Energy CLASS A
- Self-supporting casing made up of sandwich panels with injected polyurethane foam insulation for, external structure and internal parts made in Aluzinc thickness 36 mm and density 42 kg/m3
- Vertical: Wall
- Attacks on the top
- Counter-flow, high efficiency, aluminum, Eurovent certified



#### **UVX**

- Available in 6 sizes
- Nominal air volumes of 765 to 6600 m³/h at 250Pa
- Profiled extruded aluminum frame and 45 mm thick
- sandwich panels, insulated in polyurethane foam. The panels and inner parts are manufactured in Aluzinc, On floor, indoor
- High efficiency aluminum counterflow heat exchanger, Eurovent certified
- Automatic defrosting
- Electronic backward blade ventilators
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



#### **UVX-TOP**

- Available in 6 sizes
- Nominal air volumes of 765 to 6600 m<sup>3</sup>/h at 250Pa
- Profiled extruded aluminum frame and 45 mm thick sandwich panels,
- Insulated in polyurethane foam. The panels and inner parts are manufactured in Aluzinc
- On floor, indoor, High efficiency aluminum counterflow heat exchanger, Eurovent certified
- Automatic defrosting
- Electronic backward blade ventilators
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



# **Residential Ventilation**



#### **UVR**

- Available in 6 sizes
- Nominal air volumes of 765 to 6600 m³/h at 250Pa
- Range: 6 models, airflow: from 600 to 7000 m<sup>3</sup>/h
- Profiled extruded aluminum frame and 45 mm thick sandwich panels, insulated in polyurethane foam.
   The panels and inner parts are manufactured in Aluzinc, On floor, indoor
- High efficiency aluminum wheel heat exchanger, Eurovent certified
- · Automatic defrosting
- Electronic backward blade ventilators
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



#### **UVR-TOP**

- Available in 6 sizes
- Nominal air volumes of 765 to 6600 m³/h at 250Pa
- Profiled extruded aluminum frame and 45 mm thick sandwich panels,
- insulated in polyurethane foam. The panels and inner parts are manufactured in Aluzinc
- On floor, indoor, High efficiency aluminum wheel heat exchanger, Eurovent certified
- Automatic defrosting
- Electronic backward blade ventilators
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



# **Compact Counter-Flow Units**



### HRE-TOP EC

- Available in 4 sizes
- Nominal air volumes of 800 to 5350m<sup>3</sup>/h at 250Pa
- Casing made up of sandwich panels (internal and external parts made of Aluzinc®) with injected polyurethane foam insulation core, thickness 36 mm and density 42 kg/m³
- Frame made up of extruded aluminum profile
- Horizontal: floor installation
- High efficiency aluminium counterflow heat exchanger, Eurovent certified
- Automatic defrosting
- High efficiency EC plug fans
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



### CRHE-V

- Available in 4 sizes
- Nominal air volumes of 520 to 2025m<sup>3</sup>/h at 250Pa
- Casing made up of sandwich panels (internal and external parts made of Aluzinc®) with injected polyurethane foam insulation core, density 42 kg/m³
- CRHE-V 36 mm-tick -Frame made up of extruded aluminum profiles
- INSTALLATION: Vertical
- · High efficiency aluminium counterflow heat
- Automatic defrosting
- High efficiency EC plug fans
- ePM10 50% (M5) exhaust air / ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



# **Dehumidification and integrated Heat-Pump Units**



#### DEH

- Available in 2 dimensions
  - DEH-1 with air volume: 300-150 m<sup>3</sup>/h
  - ▶ DEH-2 with air volume: 500-250 m³/h
- · Horizontal: suspended ceiling installation
- High efficiency EC plug fans
- High efficiency PP counterflow heat exchanger
- Automatic defrosting
- R410A hermetic gas compressor
- Contact for dehumidification start/stop (by external management system)
- Internal R.H. probe, for dehumidification management, switched off by panel
- Integration sensitive power control summer and winter
- Self-supporting structure made in Aluzinc® (internal and external parts) up and down in single insulated sheet, side in double panels thickness 22 mm and density 42 kg/m³



#### HRU-EC

- Available in 5 sizes with airflow: from 500 to 5.000 m<sup>3</sup>/h
- Casing made up of double panels (internal and external parts made of Aluzinc) with injected polyurethane foam insulation core, thickness 36 mm and density 42 kg/m³
- Frame made up of extruded aluminium profiles
- Horizontal: ceiling or floor installation
- Cross-flow aluminium heat exchanger, Eurovent certified, Anti-frosting strategy
- ePM10 50% (M5) exhaust air / ePM2,5 70% (F7) fresh air. Dirty filters alert: by differential pressure switches
- Rotative or scroll compressor with inverter
- Refrigerant: R410A



#### **DEH-V**

- Available in 2 dimensions
  - ▶ DEH-V 1 with air volume: 300-150 m³/h
  - ▶ DEH-V 2 with air volume: 500-250 m³/h
- · Vertical installation on the floor or wall
- High efficiency EC plug fans
- High efficiency PP counterflow heat exchanger
- · Automatic defrosting
- R410A hermetic gas compressor
- LCD remote terminal. The control allows:
  - Select the fan speed
  - Enable or disable the relative humidity probe
  - Configure a digital input for start and stop dehumidification
  - Manage summer and winter thermal integration
  - Configure the defrost management of the heat exchanger
  - External double-paneled plastofilmed structure insulated
- Sandwich with polyurethane foam (25 mm thick)
- Aluzinc construction inside (internally isolated)



#### **HRU-EX**

- Available in 5 sizes with airflow: from 500 to 5.000 m<sup>3</sup>/h
- Casing made up of double panels (internal and external parts made of Aluzinc) with injected polyurethane foam insulation core, thickness 36 mm and density 42 kg/m³
- Frame made up of extruded aluminium profiles
- Horizontal: ceiling or floor installation
- Cross-flow aluminium heat exchanger, Eurovent certified, Anti-frosting strategy
- ePM10 50% (M5) exhaust air / ePM2,5 70% (F7) fresh air. Dirty filters alert: by differential pressure switches
- Rotative or scroll compressor with inverter
- Refrigirant: R410A



# **Horizontal Counter-Flow Units**



#### **FLAT**

- Available in 2 sizes
  - Nominal capacity: 125 and 195 m³/h at 150Pa
- Self-supporting casing made up of sandwich panels with injected polyurethane foam insulation core, thickness 22 mm and density 42 kg/m³; external frame and internal parts made of Aluzinc®.
- Horizontal: suspended ceiling or floor installation
- Vertical: wall installation (vertical ducts)
- Triple condensate drain
- High efficiency aluminium counterflow heat exchanger, Eurovent certified
- · Automatic defrosting
- High efficiency EC plug fans
- ePM10 50% (G4) exhaust air/ ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



#### **HRE-RES**

- Available in 2 sizes
  - Nominal capacity: 300 and 400 m<sup>3</sup>/h at 150Pa
- Self-supporting casing made up of sandwich panels with injected polyurethane foam insulation core, thickness 25 mm and density 42 kg/m³; external frame and internal parts made of Aluzinc®
- Horizontal: suspended ceiling or floor installation
- High efficiency aluminium counterflow heat exchanger, Eurovent certified
- · Automatic defrosting
- High efficiency aluminium counterflow heat exchanger, Eurovent certified
- Automatic defrosting
- ePM10 50% (M5) exhaust air/e PM2,5 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



#### CRHE-H

- RANGE: 4 models airflow from 700 to 3,000 m<sup>3</sup>/h
- Casing made up of sandwich panels (internal and external parts made of Aluzinc®) with injected polyurethane foam insulation core, density 42 kg/m³
- CRHE-H 25 mm-tick -Frame made up of extruded aluminum profiles horizontal
- · High efficiency aluminum counter-flow heat
- Automatic defrosting
- High efficiency EC plug fans
- ePM10 50% (M5) exhaust air/ ePM1 70% (F7) fresh air
- Dirty filters alert: by differential pressure switches



# **Accessories for Residential Ventilation**



#### Aletta

Single or double slot diffusers in lengths of 400, 600 and 800mm. Painted to RAL9016 as standard and also available in Anodized Satin Finish. diffuser incorporated spring clips on each end to simplify the installation on site. The diffuser deflectors are White for the White diffuser and Black for the Anodized satin finish diffuser. The deflectors are adjustable for comfort setting.



#### **DORA**

Linear bar grille in lengths of 400, 600 and 800mm with height of 50mm. Painted to RAL9016 as standard and also available in Anodized Satin Finish. diffuser incorporated spring clips on each end to simplify the installation on site.



#### **ELIN**

Perforated faces diffuser for supply or return air application. Available in 2 lengths; 275x145 and 560x145mm Perforated grille section has Ø5mm perforation with 50% free area. Painted to RAL9016 as standard, Other colors available on request Perforated grille incorporated spring clips to simplify the installation and maintenance on site.



#### JIRI

Perforated faces diffuser for supply or return air application. Available in 2 lengths; 275x145 and 560x145mm Perforated grille section has Ø3.5mm perforation with 50% free area. Painted to RAL9016 as standard, Other colors available on request Perforated grille incorporated spring clips to simplify the installation and maintenance on site.



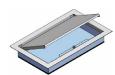
#### **TERI**

Circular Perforated faces diffuser for supply or return air application. Ø125mm connection with 150mm front face. Perforated grille section has Ø5mm perforation with 50% free area. Painted to RAL9016 as standard, Other colors available on request Perforated grille incorporated spring clips to simplify the installation and maintenance on site.



#### **PASI**

Perforated faces diffuser for supply or return air application. Ø125mm connection with 160x160mm front face. Perforated grille section has Ø5mm perforation with 50% free area. Painted to RAL9016 as standard, Other colors available on request Perforated grille incorporated spring clips to simplify the installation and maintenance on site.



#### LEX

Access door diffuser constructed for TECI and ZENA multi-outlet plenum boxes. Diffuser incorporates a magnatic door to access the 4 screws connecting to the multi-outlet plenum. Manufactured in sheet steel, painted RAL9016. Available in other face finishes and colors on request.



# **Accessories for Residential Ventilation**



#### CONDA

Semi-rigid flexible duct available in Ø90 in blue color as standard (50M rolls). Available also in Red or Ø75 and Ø110mm on request.



#### **CROSS**

Duct cross manufactured in galvanized sheet steel available as standard with connections of Ø90mm. (other dimensions available on request)



#### **AK-PASI**

Circular plenum box constructed specifically for the TERI, PASI and GPD air valves. Incorporating connection of Ø90mm as standard for the CONDA flexible ducts.



#### **AK-ALETA**

Rectangular plenum boxes constructed to fit Aleta slot diffusers. Manufactured from galvanized sheet steel with single inlet of Ø 90mm. Available in lengths of 400, 600 and 800mm for single and double sot linear diffusers. (other inlet connections available on demand)



#### **AK-DORA**

Rectangular plenum boxes constructed to fit DORA linear bar grilles. Manufactured from galvanized sheet steel with single inlet of Ø 90mm. Available in lengths of 400, 600 and 800mm. (other inlet connections available on demand)



#### **AK-FIIN**

Rectangular plenum boxes constructed to fit ELIN perforated diffuser. Manufactured from galvanized sheet steel with single inlet of  $\emptyset$  90mm. Available in 2 sizes of 275x145 and 560x145mm. (other inlet connections available on demand)



#### **TECI**

Multi-Outlet plenum for supply or return air application. Manufactured in galvanized sheet steel. Available inlets of Ø160mm as standard (and Ø125 on request) with 8x outlet diameters of Ø90 (also available in Ø75 and Ø110mm on request). As standard has connection in bottom for Lex inspection opening.

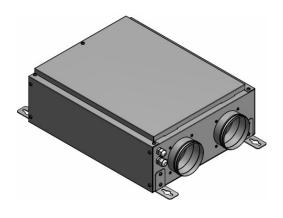


#### 7FNA

Multi-Outlet plenum for supply and return air application. Manufactured in galvanized sheet steel. Available dual inlets of Ø125 and Ø160mm with 5x outlet diameters of Ø90 (also available in Ø75 and Ø110mm). As standard has connection in bottom for Lex inspection opening.



# **Accessories for Residential Ventilation**



#### ATLAS-HE-C

Compact residential VAV unit comprising of supply and return VAV or CAV units. Controller which allowed a 230-24V supply unit for the VAV units work as plug & Play on site to facilitate the installation and commissioning.

Each VAV or CAV unit is removable for inspection and cleaning. Available in 3 dimensions as standard, Ø100, Ø125 and Ø160mm. Width of the units are design specifically to fit into 600mm width cupboards. As standard, the VAV units are equipped with Belimo CM-MP, other controllers are available on demand per project.



#### **ATLAS-HE**

Compact residential VAV unit comprising of supply and return VAV or CAV units. Controller which allowed a 230-24V supply unit for the VAV units work as plug & Play on site to facilitate the installation and commissioning.

Each VAV or CAV unit is removable for inspection and cleaning. Available in 3 dimensions as standard, Ø100, Ø125 and Ø160mm. ATLAS-HE units incorporate silencer section to reduce undesired regenerated duct sound levels.

Width of the units are design specifically to fit into 600mm width cupboards. As standard, the VAV units are equipped with Belimo CM-MP, other controllers are available on demand per project.

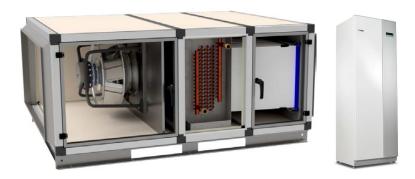


# **Heat Recovery Extract Units**



## GreenMaster HP Compact

- A compact solution where the exhaust air ventilation section and the heat pump section are combined in a
  factory- assembled unit and the brine pipes are pre-connected inside the unit. GreenMaster HP Compact is ideal
  where there is sufficient height and enough space to install everything together.
- High temperature range:
  - Output water temperature 65°C.
  - Return temperature 58°C.
- Air flow 720–7900 m3/h in 4 compact size solution
- Easy to remove the cooling module.
- Fire damper prevents flue gases entering the entire unit.



# GreenMaster C-F with separate

- A Decentralize-Extract Heat-Pump solution where the exhaust air ventilation section and the heat pump section are seperated to achieve higher efficiency, smaller foot print and larger volumes. GreenMaster C-F is ideal where there is sufficient height and enough space to install everything together.
- High temperature range:
  - Output water temperature 65°C.
  - Return temperature 58°C.
- Air flow 1500-61000 m3/h in 12 Decentralize-Extract Heat-Pump solution
- Easy to remove the cooling module.
- Fire damper prevents flue gases entering the entire unit.



# **Air Handling Units**



#### **AHU**

Available in 55 main sizes that can be customized, with air flow rates from 500 to 200.000 m<sup>3</sup>/h and a pressure range up to 3.000 Pa.

Frame made with heavy duty extruded anticorodal aluminum alloy profiles having 40x40 or 60x60 mm

sections. Profiles can be anodized for installation in corrosive environments.

Standard panel with 30, 46, 60 and 80mm thickness and internal insulation made of heat-injected polyurethane foam with a density of 45/50 kg/m³ or oriented mineral wool fibers with density of 100 kg/m³.

Thermal break profiles and panels to reach transmittance class and thermal break T2-TB2 and T1-TB1 in compliace with EN 1886:2008. Leakage class L1 upon request.

Units can be assembled directly on site. Maximum flexibility in construction of customized units with any type of non-standard layouts, materials, and accessories.In particular, we can produce upon request:

Units up to 500.000 m<sup>3</sup>/h

Total pressure up to 40.000 Pa.



#### **FCU**

Eurovent certified units, available in 55 main sizes that can be customized, with air flow rates from 500 to 200.000 m<sup>3</sup>/h and a pressure range up to 3.000 Pa.

SAMP follows the Eurovent certification program which makes every year controls of the selection software and certifies the performances of the units produced.

SAMP has two certified Model Boxes with extruded high resistance aluminum alloy profiles with 60x60 mm section. Profiles are with thermal break reaching transmittance class and thermal break T2-TB2 according to EN 1886:2008.

Panels are 60 mm thick with internal insulation in heat-injected polyurethane foam with a density of 45/50 kg/m³ or oriented mineral wool fibers with density of 100 kg/m³.

The unit frame, made with special profile/panel coupling systems, guarantees leakage class L2 and mechanical strength D1 according to EN 1886:2008.

If you want to know more about it, look for SAMP on Eurovent website: www.eurovent-certification.com



# **Air Handling Units**



#### **EVO**

Available in 55 standard sizes with air flow rates from 500 to 200.000 m<sup>3</sup>/h and a pressure range up to 3.000 Pa.

Units complete of:

- Power and control panel
- Electrical system installed and completely wired on the unit
- Integrated control system that can be fully interfaced with any BMS supervision system
- Control and management instruments completely installed and wired on the machine
- Making of three-way valve groups

The units can be integrated with chillers or multipurpose units for flow rates up to 30.000 m³/h for plug&play units ready for installation and use.

The unit features and the operating logics can be customized, going beyond the standard



#### **HOR**

The air handling units AHU-HOR are specifically designed for the control of the room temperature required in operating theatres, such as fresh air change, temperature and humidity control, filtration and pressure control.

Available in 5 standard sizes, from 2.000 to 11.500 m<sup>3</sup>/h. They can be in two versions, BASIC and RECOVERY.

**BASIC:** with extraction fan, double stage of filtration on supply air, cooling and dehumidification, heating, humidification by steam from the network or self-produced.

**RECOVERY:** with extraction fan, double stage of filtration on supply air, cooling and dehumidification, heating, humidification by steam from the network or self-produced and air to water heat recovery system, complete with all accessories. The units are complying with the regulation 1253/2014.

All units are made in one single piece, complete with power and control panel, with all components electrically and hydraulically connected, providing to the customer a complete plug&play system. All air handling units AHU-HOR are designed and built to eliminate any chemical or bacterial contamination inside the units.

We can offer also Active Air Sanitisation Systems with the patented technology of photocatalysis, installed directly on the units.



# **Air Handling Units**



**Piscine** 

The AHU-POOL series of units have been specifically designed to control temperature, humidity and for energy recovery and air renewal in public and private swimming pools and SPAs.

Available in 9 different standard sizes from 2.000 to 30.000 m<sup>3</sup>/h.

Technical features and materials of these units have been specifically studied and designed for the specific installation.

Each size is available in 3 different versions:

**BASIC and BASIC COMPACT:** with high efficiency air-air heat exchanger and externally supplied hot water heating coil.

**RECOVERY:** as Basic but with an added refrigerating section with a heating function on supply air and/or pool water and room cooling and dehumidification in recirculation mode.

RECOVERY PLUS: dehumidification of the fresh air supplied with thermodynamic cycle is also provided



#### SAD/DSI

Adsorption Dehumidifiers with low energy consumption to reach very low dew points in any operating conditions thanks to a rotor made of hygroscopic fiber with

diameter  $\geq$  6 micron, and thus not inhalable by human beings.

This guarantees the performance being totally safe to the final users.

All units are complete of power and control panel and system, for a result guaranteed in time. Plug & Play SAD series: from 150 m<sup>3</sup>/h to 9000 m<sup>3</sup>/h.

Plug & Play customized DSI & DSI PLUS series: customized units with air flows up to 50.000 m³/h and more. All units are available with Aluzinc or Stainless steel panels and are thermally insulated.

All models can be implemented with accessories such as special filters, cooling coils, heating coils, specifically designed customized control logics etc. Regeneration heaters can be electric, gas or steam.



# **Air Curtains**



# Premium air curtain systems in cassette construction

NHS offers premium air curtain systems in cassette construction for optimum ease of use. Due to its trendy and flat design (only 26 cm), this air curtain system is suitable for flush-mounted installation in false ceilings, even if only a small amount of space is available. The cassette construction of the Premium Air Curtain System is a solution for entrances where the device should be mounted as inconspicuously as possible. In addition to the premium air curtain system in cassette construction especially for false ceilings, we also have a premium series for visual assembly.



#### Premium GVP

For visible mounting or for installation in false ceilings, flush with the ceiling, with visible underside and air intake from underneath.



#### Premium BVP

Recessed installation with spigot above the false ceiling. Visible are only the necessary Air inlet and outlet openings and air intake done from below.



#### Premium V

Vertical (standing) air curtain system for visible installation, with air intake from front and rear.



### **Roof Fans**



#### **ROOF-AM**

ROOF-AM ROOF-AM line is designed to extract large volumes of air in roof installations, without long ducts. For instance: ventilation of industrial buildings (factories, warehouses etc.), stock farms and electrical equipment etc. This line consists of 8 sizes with impeller from 450 up to 1000 mm. This line consists of 8 sizes with impeller from 450 up to 1000 mm. Temperature of conveyed air: -20°C / +50°C



#### **ROOF-CM**

ROOF-CM ROOF-CM line has been designed for roofing installations, for director ducted exhaust in civilian, commercial and industrial buildings as: offices, restaurants, hotels, shopping centers, warehouses, industrial plants, engine rooms etc. This line consists of 8 sizes with impeller diameter from 310 up to 800 mm, and 4, 6, 8 pole motors This line consists of 8 sizes with impeller diameter from 310 up to 800 mm, and 4, 6, 8 pole motors. Temperature conveyed air: -20°C / +80°C.



#### **ROOF-AVS**

ROOF-AVS line is designed to extract large volumes of air, in roof installations. For instance: ventilation of big industrial plants, hangars, power plants etc. It consists of an outer casing, containing the gravity shutter, below which a RING fan shall be fixed. The shutter opens thanks to the airflow generated by the fan and closes by gravity, preventing rain and wind entrance from outside and the dispersion of heat from inside. This line consists of 6 sizes with impeller diameter from 560 up to 1000 mm This line consists of 6 sizes with impeller diameter from 560 up to 1000 mm



#### **ROOF-CMV**

ROOF-CMV ROOF-CMV range is the vertical discharge version of the classic ROOF-CM. The fluids exhausted upward reduce the problems of disturbing noise and smells propagating to the neighboring houses located in horizontal position in the respect of the fan. The choice of materials including the outer conveyor in ABS and the cap in galvanized steel sheet make of the ROOF-CMV a robust, reliable and weatherproof product. These attributes are not common in the panorama of the vertical discharge roof fans. This line consists of 6 sizes with impeller diameter from 400 up to710 mm, and 4, 6, 8 pole motors. Temperature of conveyed air: -20°C/+40°C.



#### **PLASTIC**

CORROSION PROOF CENTRIFUGAL FANS These single inlet centrifugal fans with backward curved blade impellers, thanks to their construction completely made in plastic material are used in chemical or galvanic industries or whenever there is the necessity to exhaust corrosive The series is constituted by 10 sizes with impeller diameter from 200 to 630 mm. Download document This line consists of 10 sizes with impeller diameter from 200 to 630 mm.



### **Car Park Fans**



#### **JP-CENTRY**

JP-CENTRY Impulse fans JP-CENTRY are used in the forced ventilation of car parks, to remove the most common pollutions (ex. CO) and in case of emergency (fire), it activates to prevent and restrict the damages to people and objects: creating escape routes from toxic smokes, preventing the propagation in the adjacent zones etc. Download document This line is suitable to S1 service (continuous operation) at the temperature of 40°C and S2 service in case of emergency (fire) at the temperature of 300°C for 120 minutes (F300/120).



#### **IP-CENTRY**

JP-DUCT Impulse fans JP-DUCT are used in the forced ventilation of car parks, to remove the most common pollutions (ex. CO) and in case of emergency(fire), it activates to prevent and restrict the damages to people and objects: creating escape routes from toxic smokes, preventing the propagation in the adjacent zones etc. This line is suitable to S1 service (continuous operation) at the temperature of 40°C and S2 service in case of emergency (fire) at the temperature of:

- 200°C for 120 minutes (F200/120)
- 300°C for 60 minutes (F300/60) tested as 300°C/120
- 400°C for 120 minutes (F400/120)

This line consists of 3 sizes, impeller diameter: from 315 mm to 400 mm Motors are 2 poles single speed, 2/4 poles double polarity tapped winding. Available versions:

- Uni directional (JP-DUCT/U )
- Reversible airflow (JP-DUCT/R)

standard for operation S1 up to +40°C - Smoke exhaust operation S2



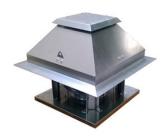
#### **DUCT-MHT**

The fans of the DUCT-M HT line have been designed to be employed in all the plants where it is prescribed the necessity to guarantee the smoke extraction in environments as car parks, commercial centers, hospitals, theatres, museums, buildings etc. DUCT-M HT fans have been designed and manufactured according to the European Directive EN 12101-3 obtaining the certification from an authorized autonomous certification body. This line is suitable to work in continuous at the temperature of 40°C and in case of emergency (fire) at the temperature of:

- 200°C for 120 minutes (F200/120)
- 300°C for 60 minutes (F300/60) or for 120 minute (F300/120)
- 400°C for 120 minutes (F400/120)
- This concept of double operation is exactly translated by the term "dual purpose" introduced in the specific by the EN 12101-3 norm
- This line consists of 11 sizes with impeller diameter from 400 up to 1250 mm.
- Casing in epoxy painted steel sheet.
- Impeller with high efficiency airfoil blades, variable pitch angle in still position, incast aluminum. Balancing according UNI ISO 1940 norm.



### **Smoke Extract Fans**



#### **ROOF-CM HT**

ROOF-CM-HT ROOF-CM-HT are destined to the plants requiring the evacuation of fire smokes, in environments like underground car parks, shopping malls, hospitals, schools, theatres, museums, etc. This series is designed and manufactured according

To the European directive EN 12101-3 obtaining the certification by an Autonomous Qualified Certification Institute. ROOF-CMV-HT fans are suitable to convey clean air and non-dusty smokes up to the maximum temperature of 60°C in continuous service

and in case of fire emergency at the temperature of 400°C for 120 minutes (F400 This line consists of 7 sizes with impeller diameter from 400 up to 800 mm, and 4, 6, 8 pole motors.



#### **ROOF-HP**

The vertical discharge roof fan line ROOF-HP are destined to the plants requiring the evacuation of fire smokes, in environments like underground car parks, shopping malls, hospitals, schools, theaters, museums, etc. This series is designed and manufactured according to the European directive EN 12101-3 certified by an Autonomous Qualified Certification Institute. ROOF-HP fans are suitable to convey clean air and non-dusty smokes up to the maximum temperature of 200°C in continuous service and in case of fire emergency at the temperature of 400°C for 120 minutes (F400) or 600°C for 120 minutes (F600).

This line consists of 9 sizes with impeller diameter from 400 up to 1000 mm.



#### **BOX-HT**

The BOX-HT lines are destined to plants requiring the evacuation of fire smokes in environments like underground car parks, shopping malls, hospitals, schools, theatres, museums, etc.

This series is designed and manufactured according to the European directive EN 12101-3 obtaining the certification by an Autonomous Qualified Certification Institute.

- BOX-HT are suitable to convey clean air and non-dusty smokes up to the maximum Temperature of 200°C in continuous service or in case of fire emergency at the Temperature of 400°C for 120 minutes (F400).
- The line consists of 6 sizes with impeller from 250 mm to 500 mm
- Conveyed air: max 200°C in S1 service.
- 400°C for 120 min in S2 service (fire emergency).



### **Duct Fans**





- Available in 7 dimensions, Ø100 to Ø315mm
- Sheet steel casing
- External terminal box
- Easy rapid installation
- Support bracket included
- 3-Speed motors with durable ball bearings and IP44 protection
- Single-phase 220/240V-50/60Hz.
- Operating temperature -25°C to +60°C



#### **NEOLINEO/EW**

- Available in 7 dimensions, Ø100 to Ø315mm
- Casing made of self-extinguishing V0 plastic material.
- External terminal box with variable position.
- Easy. rapid installation.
- E.C. Technology motors with durable ball bearings.
- IP44 protection.
- Two-speeds selectable with a switch.
- Each speed can be adjusted by a power meter in the terminal box. Model 315 adjustable using 0-10 V external signal.
- Single-phase 220-240 V 50/60Hz.
- Operating temperature: Models 100. 125 and 150: -10°C +60°C. Models 200.250 and 315: -10°C +50°C.



#### **SVE**

- Available in 10 dimensions, Ø100 to Ø400mm
- Acoustic wrapping coated with acoustic absorbent material.
- Impeller with jet impeller blades except models 100-125-150- 160-200/H. with multi-blade impeller.
- Standardized suction and discharge flanges allowing for easy installation in ducts.
- Fitted with a folding inspection cover. except models 100-125-150/L-160/L
- Support feet built into the box. for easy installation.
- Linear airflow direction.
- External rotor motors with built-in thermal protector. class F. with ball bearings,
- IP54 protection.
- Adjustable. single-phase 230V 50Hz/60Hz.
- Maximum temperature of air to be carried: +50°C.



#### **Duct Fans**



#### SVE/PLUS & SVE/PLUS/EW

- Available in 10 dimensions, Ø100 to Ø400mm
- Acoustic wrapping coated with acoustic absorbent material.
- Impeller with jet impeller blades except models 100-125-150- 160-200/H. with multi-blade impeller.
- Standardized suction and discharge flanges allowing for easy installation in ducts.
- Fitted with a folding inspection cover. except models 100-125-150/L-160/L
- Support feet built into the box. for easy installation.
- Linear airflow direction.
- External rotor motors with built-in thermal protector. class F. with ball bearings.
- IP54 protection.
- Adjustable. single-phase 230V 50Hz/60Hz. Maximum temperature of air to be carried: +50°C.



#### CL

- Available in 8 dimensions, 400x200 to 1000x500
- Galvanized sheet steel casing.
- Impeller with forward reaction blades made of galvanized sheet steel.
- Class F external motors with ball bearings.
- IP55 protection in junction box.
- Single-phase 230V-50Hz and three-phase 230/400V-50Hz.
- Operating temperature: -20°C +40°C.
- Built-in thermal contact protection.



#### **CL/PLUS**

- Available in 7 dimensions, 500x250 to 1000x600
- Galvanized sheet steel casing.
- Impeller with forward reaction blades made of galvanized sheet steel.
- External junction box made of V0 fireproof material and with IP55 protection.
- Class F external motors with ball bearings and IP54 protection.
- Single-phase 230V-50Hz and three-phase 230/400V-50Hz.
- Operating temperature: -20°C +50°C



### **Duct Fans**



#### SVE/PLUS/EW/CPC

Low-noise, in-line duct fans for automatic operation mounted inside a 40 mm acoustic-absorbent insulated casing with constant pressure controller.

- Available in 9 dimensions, Ø100 to Ø400mm
- Acoustic casing coated with acoustic-absorbent material.
- All models fitted with a jet impeller.
- Standardized suction and discharge flanges allowing for easy installation in ducts.
- Fitted with a folding inspection cover.
- Support feet built into the box. for easy installation.
- Linear airflow direction.
- Single-phase 200-240V-50/60Hz. IP54 protection.
  - Except model SVE/PLUS/EW-400/H. 200/277V-50/60Hz. IP55 protection.
- Maximum temperature of air to be carried: -25°C +60°C.
  - Except model SVE/PLUS/EW-200/H. -25°C +45°C.
- High efficiency external E.C. Technology motors

#### **CPC Control:**

- Equipment per-configured in constant pressure mode with 100 Pa setpoint.
- Possibility of adjustment to other pressures.
- Possibility of working with a constant flow rate. Except models 100.125.150 and 160.
- Plug&Play system for easy installation.
- Programming range from 0 to 2500 Pa.
- On-off switch with built-in safety locking system.
- 230 V AC single-phase and 380 V AC three-phase power versions.
- IP55 protection.



#### **FAR-EC**

- Available in 10 sizes with airflows of
  - 350m<sup>3</sup>/h at 100Pa to 16000m3/h at 200Pa
- Centrifugal (backward blades) EC plug fans
- Casing made up of sandwich panels (internal and external parts made of Aluzinc®) with injected polyurethane foam insulation core, thickness 25 mm and density 42 kg/m³
- Frame manufactured from extruded aluminum profiles
- Removable panels to suit the installation
- Available a wide range of accessories such as circular, flexible connection, outdoor Kit, COP, CO<sub>2</sub> Kit and speed control.



# Fire dampers



#### **BDK**

 Circular tire cartridge dampers are approved with respect to RPC305, according to EN 15650 and according to testing standard UNE-EN 1366-2. The round end dampers are installed inside the round ducts in the wall pass-through to prevent fire propagation.

Available in 6 sizes, Ø 100 to Ø 200 mm

- BDK-60: Circular cartridge fire dampers with 60 min fire integrity and isolation and smoke seal. El 60 (ve i↔ o) S, according to EN 13501-3.
- BDK-120: Circular cartridge fire dampers with 120 min fire integrity and isolation and smoke seal. El 120 (ve i↔ o) S, according to EN 13501-3.



#### **SCFC**

Circular fire dampers, model SCFC-PD and GD, S/ UNE-EN 1366-2:2000 EI-120 (ve ho  $i\leftrightarrow o$ ). Fire resistance 2 hours. Rectangular fire damper class EI-120.

Dimensions from Ø100 to Ø630 mm. Installation:

- In the massive wall or ceiling/floor in Wet installation using mortar.
- In the light or Flexible wall using plasterboards



#### **SCFR**

• Rectangular fire damper, model SCFR-PD and GD, S/ UNE-EN 1366-2:2000 EI-120 (ve ho i↔ o) . Fire resistence 2 hours. Rectangular fire damper class EI-120.

Dimensions from 200 x 100 to 1500 x 800 mm. Installation:

- In the massive wall or ceiling/floor in Wet installation using mortar.
- In the light or Flexible wall using plasterboards.



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