

| Air Diffusion Components |  
| Terminal Units |  
| Fire and Smoke Prevention Equipment |  
| Critical Environments |  
| Fans |  
| Parking Garage Fans |  
| Air Handling Units |



[www.gmcair.com](http://www.gmcair.com)  
[www.gmcair.co.uk](http://www.gmcair.co.uk)  
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With its production and sales network, GMCAIR has become one of the best pioneer company in the heating, cooling and ventilation industry.



# Air Diffusion Components - GRD



# COMMERCIAL GRILLES, REGISTERS & DIFFUSERS

## GRILLES



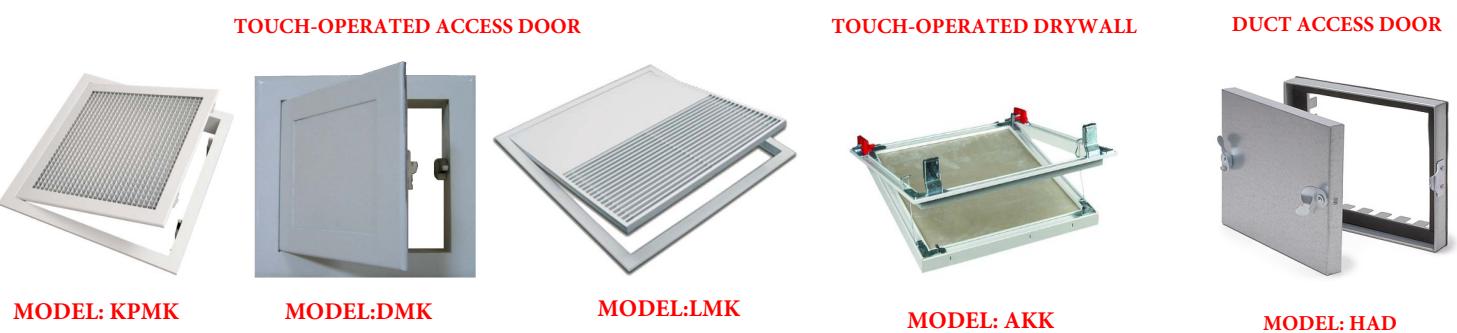
## DIFFUSER



## LOUVERS



## ACCESS PANEL DOORS



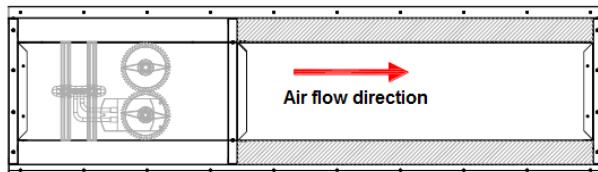
## DAMPERS



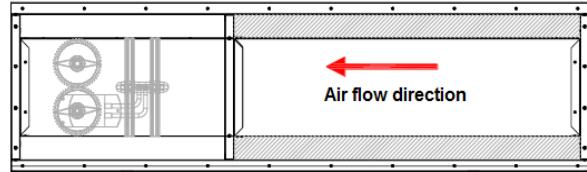
# Terminal Units

## VAVBOX- VARIABLE AIR VOLUME TERMINAL BOXES

### SUPPLY AIR



### RETURN AIR



- VAV terminal boxes for variable volume systems, to supply and extract air, in 7 nominal sizes 150 – 9.000 m<sup>3</sup>/h flow range
- The boxes contain an average differential pressure sensor for air flow measurement, a control damper and an integral sound attenuator for reducing airborne noise.
- The control damper blade with plastic seal when closed the control complies with the air tightness requirements of DIN EN 1751.

## VAV-VARIABLE AIR VOLUME DAMPER

### VAV-151 SQUARE DAMPERS



### VAV-251 CIRCULAR DAMPERS



Technical data for engine components measured value acquisition and control function the measured values are collected by two flow-compatible measuring sticks. Measuring openings are distributed over the measuring sticks according to the median line method. The pressure difference on the measuring rods is determined by a dynamic or static measuring sensor. From these measurement results, a mean value is formed giving a measured variable for the volume flow. The controller compares the actual value signal to the setpoint and sends a start signal to the electric actuator that adjusts with the controller deviation that is independent of pressure changes in the duct network.

## CAV-CONSTANT FLOW DAMPER

### CAV-253 CIRCULAR DAMPERS



### CAV-153 SQUARE DAMPERS

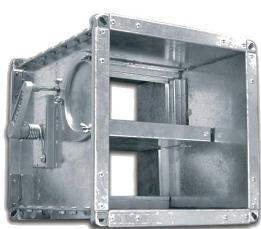


- Pressure sensor is made of aluminum, Chassis made of galvanized steel sheet
- Usable of providing fresh air in steady flow rate at ventilating systems.
- Capable to be used for both supply and return air ducts.
- Operated mechanically without any external power, maintaining a constant airflow rate corresponding to set value regardless of pressure variations in the duct.
- Based on request, chassis interior can be covered with heat and sound isolation.
- Has two models: Prismatic model (CAV-153) and Circular model (CAV-253)
- Operates at pressure levels between 50 and 1000 Pa and air velocity between 2,2 and 10m/s.

# Fire and Smoke Dampers

Fire and smoke dampers are vital parts of any fire safety ventilation system. Each building is divided into different fire zones and by using fire dampers to separate these zones from each other, the spread of fire from one zone to another is prevented. Gmair fire and smoke dampers are designed with the technology of a high quality and energy efficient. We have a wide range of products which fits the needs of almost every application.

Prismatic-Round Single Wing, Fusible Link Fire Damper



Dynamic-Static Fire Dampers - UL



Prismatic-Round Fire Damper with Motor



Prismatic-Round Smoke Dampers - UL



Smoke Evacuation Damper



Smoke Evacuation and Shaft Damper



Marine Off Shore Damper



TUNNEL DAMPERS



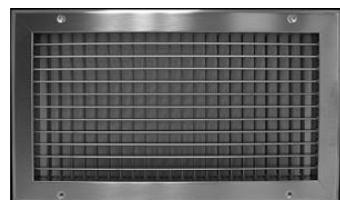
# Critical Environments

Poor indoor air quality in a critical environment can endanger both people's health and the validity of the processes in that area. The choice of air distribution strategy throughout critical environments has a direct and significant impact on performance, energy usage and the ongoing maintenance of the facility and must be selected with these factors in mind. These environments are also subject to ongoing upgrades to standards, advances in technology, and changes in methodology, and therefore must be flexible without sacrificing performance.

**HFB-Hepa Filter Box**



**Stainless Steel GRD**



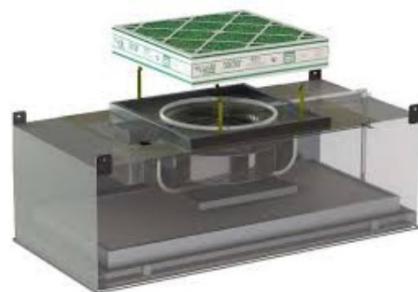
**Particulate Filtered Return Grille**



**HPL-Laminar Flow Diffusers**



**FFU-Fan Filter Unit**



**GLF-GLD Hospital Grade Laminar Flow in Operating Theaters**

**GLF-Vertical Filter Type**



**GLD-Horizontal Filter Type**



**Other Types**



# Fans

## Roof Fans

GMAIR roof type fans provide models to direct exhaust air horizontal and vertical. With optional high efficient EC motor, you can have high performance and efficiency in roof fans. It is suitable for warehouses, stores, workshops, factories and commercial buildings.



GRF-S



GRF-Y



GRF-V



GRF-E



GRF-A

## Kitchen Exhaust Duct Fans

Kitchen hood extractors are used in solutions of high efficiency engineering. With its special design its silent and ergonomic devices, fast and easy solutions can be made. Also, it offers application area an easiness with AC and EC engine options and alternatives.



GKF-C



GKF-R



GKF-Y

# Ex-Proof Fanlar

## Safe Fan Selection

Ex-proof fans meet the highest expectations when there is a risk of explosion because of working with chemicals substances, dangerous goods etc.



**GKX/ATEX** : Ex-Proof radyal duct fan

It is designed to blow potentially dangerous and explosive gases. Square duct type is in class of +H2 T3.



**GCDH/ATEX** : Ex-Proof roof fan

Flameprof is in T4 heat class. Galvanize steel body and its engine is out of air flow IIB class



**GFTX/ATEX** : Ex-Proof radyal snail fan

Forward curved, dense wing, single suction snail type.

Galvanized sheet steel body Ex-e IIA + H2 protection and T3 temperature class.



**TD/ATEX** : Ex-Proof radyal exhaust fan

TD-ATEX A series round duct type mixed flow ex-proof fan motors are 230 V, 50 Hz and their safety is increased with ex-proof feature..



**HDT/ATEX** : Ex-Proof axial exhaust fan

Conforms to ATEX directives.

Flameprof T5 is in Temperature Class, Engine Class: II 2G EEex-d IIB T5



**AXD/ATEX** : Ex-Proof axial exhaust fan

T3 and T4 temperature class

Self-flanged cylindrical, hot dip galvanized body IIB and IIC class Atex.



**AXD/ATEX-MOB** : Ex-Proof axial mobile fan

Possibility to use as a fan or aspirator Increased hose length, IIC

Atex and IP: 66 protection class



# Axial Fans



**HXBH-HXTR**  
Sickle blade wall type axial fan



**HXM**  
Silent wall type axial fan



**G6PA**  
Wall type axial fan with  
plastic impellers

## GREENHOUSE AND DAIRY AND POULTRY SERIES FANS



**GSF** CIRCULATION  
FAN



**GHF**  
Greenhouse Fans



**GMF**  
Dairy and Poultry Fans

## DUCT TYPE AXIAL FANS

Its cylindrical body is made of corrosion-resistant hot-dip galvanized steel sheet and the blades with adjustable angles are made of aluminum die-casting. The fans can be produced in short or long body according to the request and can be supplied with terminal box or a maintenance cover. The series has 13 different models offering flow rates between 2,000-350,000 m<sup>3</sup>/h and diameters between Ø400 – 1600 mm. In addition, fans can be produced in thousands of different versions due to the customizability of blade angles, body sizes, terminal and maintenance cover option.



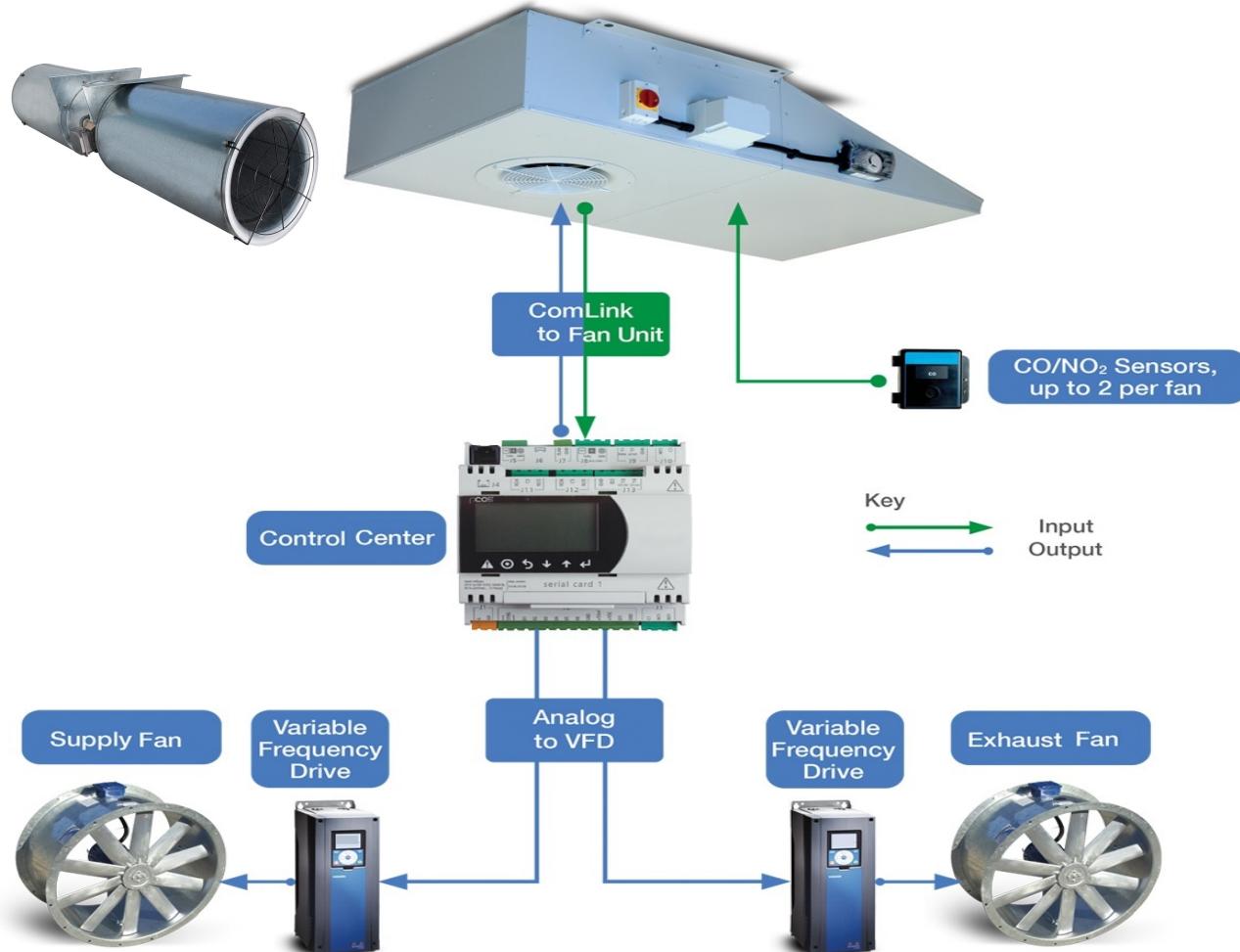
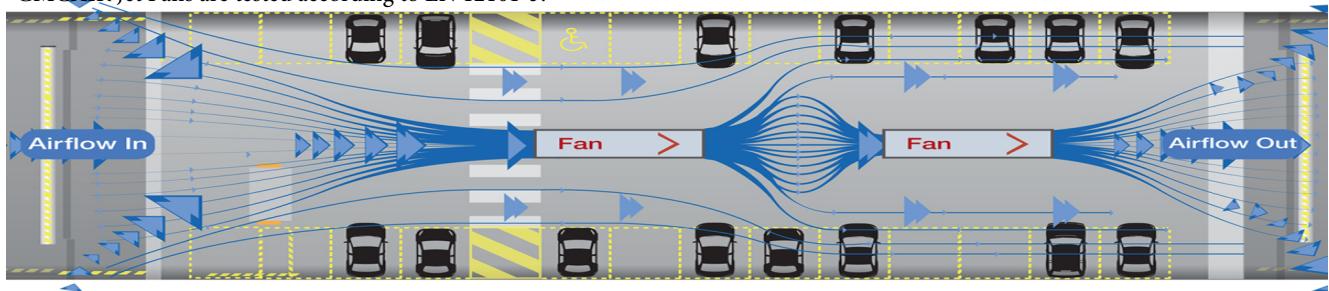
# Smoke Exhaust Fans

Fire safety ventilation is based on a system approach that integrates smoke exhaust fans and pressure difference. In engineering processes, customized solutions are designed with a high level of safety and energy efficiency. The differential pressure system creates super-atmospheric pressure by supplying fresh air to prevent smoke from entering the space. When used in conjunction with smoke exhaust fans, the system actively pushes the smoke to the fans so that the smoke is quickly and effectively evacuated from the room. Smoke exhaust fans have been tested according to EN 12101-3



# Parking Garage Jet Fans and Control Systems

GMCAIR Jet Fans are tested according to EN 12101-3.



In addition to the smoke control of jet fan systems, the speed of the smoke evacuation is also prominent. These systems, which aim to contain the smoke generated during the fire in a certain area, are designed to provide the weather conditions that will enable people to survive during their escape and then the fire brigade arriving at the scene to reach the fire point under suitable conditions. The basic logic in the jet fan system is that the jet fans create momentum when necessary and direct the smoke to the exhausted openings (shafts). This system provides great advantages in terms of uniform distribution and exhaust of clean air in the entire closed area. The jet fan system consists of main exhaust fans, exhaust shafts, fresh air fans, jet fans, CO detector system, smoke or heat detector system, smoke dampers, fresh air dampers and main control panels.

While still in the planning phase, our customers are supported through CFD analysis (Computational Fluid Dynamics).



GMCAIR automation control systems provide fan control for general ventilation and smoke exhaust in parking garages.



# Air Handling Units

## The Peak Point of Air Conditioning

GMCAIR air handling units; It conditions and circulates the air required for heating, cooling and ventilation systems.

### PLANT TYPES

- \* INDUSTRIAL AND COMFORT TYPE AIR CONDITIONING UNITS
- \* HYGIENIC TYPE AIR HANDLING UNITS
- \* DX-VRF, PACKAGE AUTOMATED AIR HANDLING UNITS
- \* PACKAGE TYPE PROCESS DEHUMIDIFYING AIR HANDLING

Complementary products, air diffusion components, fire dampers, sensitive air conditioners, fan coil units, rooftop air conditioners, air curtains, fan heaters are also produced in our factories.

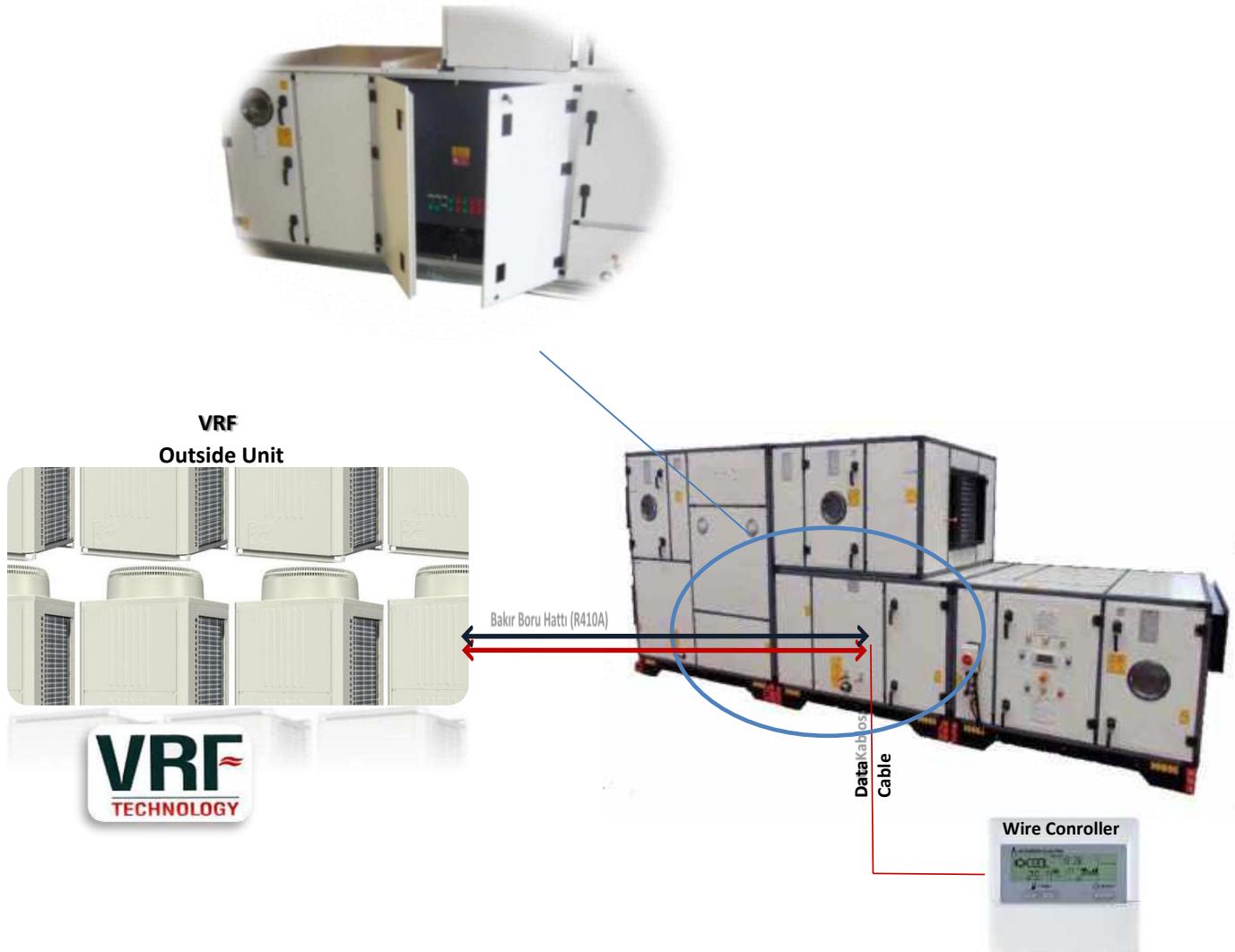
### GENERAL FEATURES



- Modular frame structure made of RAL 7015 Electro Static Painted Aluminum Profile,
- RAL 9002 Oven Painted 1.0 mm thick Outer Panel sheet,
- Galvanized coated 0.85 - 1.0 mm thick Inner Panel sheet,
- Rock Wool insulated double wall panels with 50 mm thickness and 70 kg / m<sup>3</sup> density, - 150 mm height plinth base as standard,
- The Drainage Pan under the Cooling Coil is made of K304 quality stainless steel,  
(With collective siphon)
- Drop eliminator, RAL 7015 Electro Static Painted Alm. made of profile,
- Fans are PLUG type, mounted directly coupled to the motor shaft  
(controlled by frequency inverter) or Belt Pulley Driven Centrifugal Imported Fans.
- Device service doors are hinged, lockable arm, sight glass, lighting lamp,
- Device DDC & MCC Panel is built into the device, all cabling and automatic control equipment can be mounted on the device.  
(Optional) -When required, roof sheet can be applied to the devices that will work outdoors.

# VRF&DX/AHU

## Package Type Automated Air Handling Units



**The technology that assemble VRF and Air Conditioning** 



**The right solution for the synchronous operation of VRF or Condensing Unit and Air Handling Unit, internal automation package supported by vrf / dx AHU software (with alternative options)**

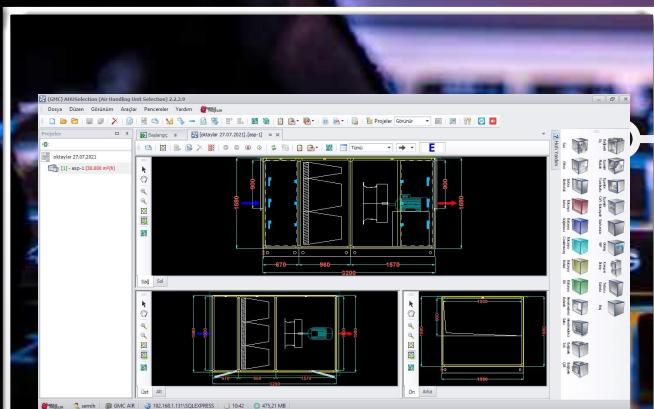


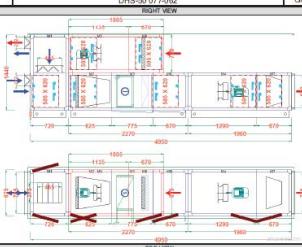
**EVAPORATOR, which is selected in detail and adapted to VRF Expansions**

**Distributors of the DX Coils selected by our company are produced by us SPECIALLY suitable for VRF and Heat-Pump operation, and trouble-free operation is obtained from the coil. This ensures that the refrigerant gas distribution is at a perfect level.**

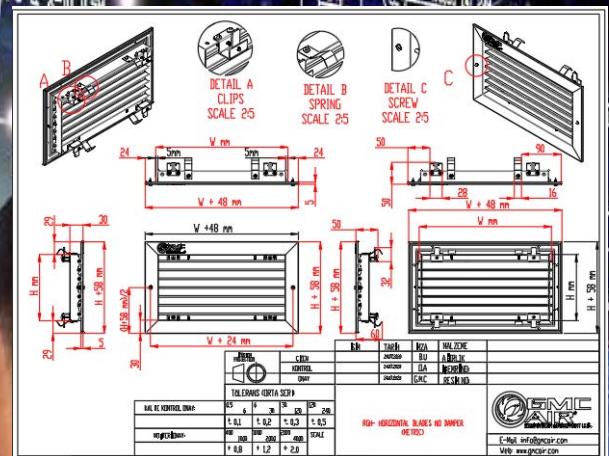
# Selection Programs

GMCAIR helps its customer by using essential programs in order to meet their needs of heating, cooling and ventilation systems and making them to decide rapidly and correctly



TECHNICAL DATA								
Date	12.04.2021							
Rev. Date	12.04.2021							
Project ID	9432							
Project Name	BURSA HİFESİNİK DESS							
AHU Name	KS1-11 (GTY)							
AHU Model	DHS-50 077-0762							
RIGHT VIEW								
								
This units illustrated are for visual purposes only. It may differ from the manufacturing drawings.								
GENERAL SPECIFICATIONS								
Flow	Return Air Flow	Dimensions mm						
200 m³/h	200 m³/h	W 1.200 x L 3.000 x H 1.200						
20.45 m/s	Return Air Velocity	Insulation Material						
1.45 m/s	1.45 m/s	50 mm Rockwool 70 kg/m³						
20.45 m/s	Max Density	Total Weight						
1.45 m/s	0.8 mm Galvanized Sheet Material	819 kg						
20.45 m/s	0.8 mm Galvanized Sheet Material	Base Height						
1.45 m/s	0.8 mm Galvanized Sheet Material	Roof (Outside)						
20.45 m/s	0.8 mm Galvanized Sheet Material	Sheet						
Design Outside Temp (W-E)	Indoor Sheet Material	Motor Power						
-10°C(14°F)-25°C(77°F)(USA)	0.8 mm Galvanized	3 kW/1.5 kW						
Design Inside Temp (W-E)	Motor Power	Exhaust Fan Power						
20°C(68°F)-25°C(77°F)(USA)	0.8 kW	3.84 kW						
Design Fan Power(P Total)	Fan Power	Refrigerant Power						
20.13 W(m³/h)	1.075	12.00 kW						
SOUND POWER LEVEL (dB)								
Frequency Hz	125	250	500	1000	2000	4000	8000	L <sub>WA</sub> (dB)
Acoustic Sound Power Level	90,7	98,5	90,7	81,7	69,7	63,2	53,7	52,7
Octave Band Sound Power Level								
500 Hz	98,5	98,5	90,7	81,7	69,7	63,2	53,7	52,7
1000 Hz	98,5	98,5	90,7	81,7	69,7	63,2	53,7	52,7
2000 Hz	98,5	98,5	90,7	81,7	69,7	63,2	53,7	52,7
4000 Hz	98,5	98,5	90,7	81,7	69,7	63,2	53,7	52,7
8000 Hz	98,5	98,5	90,7	81,7	69,7	63,2	53,7	52,7
Acoustic Sound Power Level	78,8	81,2	87,8	83,8	75,8	73,8	70,8	67,3
Acoustic Sound Power Level	72,3	78,8	84,7	75,4	73,8	71,8	68,7	63,2
Accessories								
Model	CIS	CIS Class	CAL Class	CAL Class	FRI Class	TT Class	TBF Class	Cooling acoustic power level 125 Hz [dB]
Design	0	0	0	0	0	0	0	250 Hz [dB] 500 Hz [dB] 1000 Hz [dB] 2000 Hz [dB]
Other Info								
Design	0	0	0	0	0	0	0	0
CE TSEK								
Designer:								

Thanks to GMCAIR selection program, 3D models of air handling has revit plugging which can be easily transferred. Also that can give 2D detailed drawings in the format of DXF and DWG.

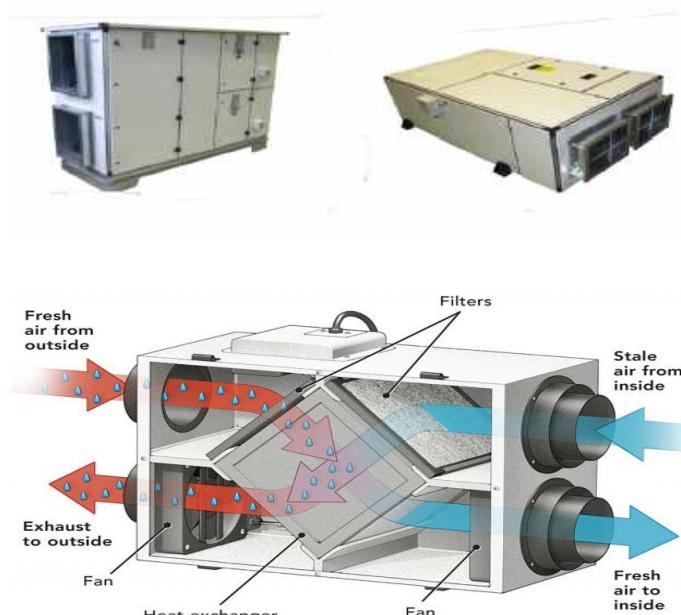
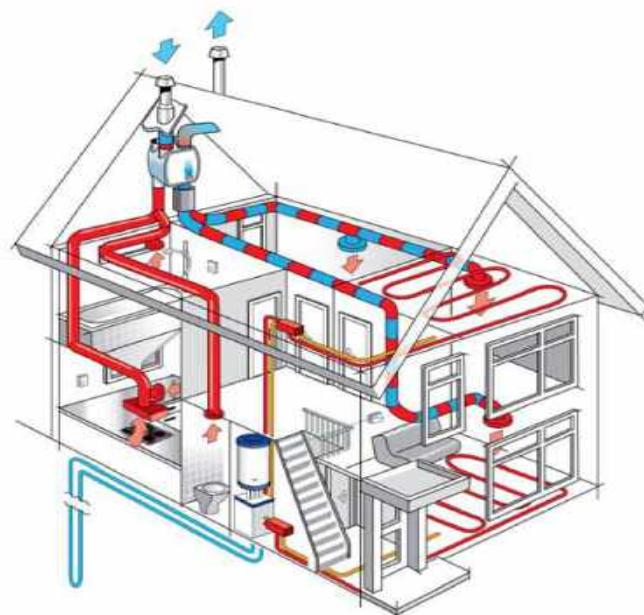


# Kitchen Exhaust Units

Produced in the range of 1.500 - 45.000 m / h, Gmcair Ecological units are plug and play models on the electrical panel and have automation options developed for need-based kitchen exhaust.



# Heat Recovery Units



# Heater with Fan



Their fan heaters have an extremely compact and light design. Portable and easily mounted on the wall.

# Floor Convector



# GMCAIR In The World

- 1 Orlando, USA - [www.gmcairgrille.com](http://www.gmcairgrille.com)
- 2 Cardiff, United Kingdom - [www.gmcair.co.uk](http://www.gmcair.co.uk)
- 3 Kocaeli, Turkiye - [www.gmcair.com.tr](http://www.gmcair.com.tr)
- 4 Luqa, Malta - [www.gmcair.com](http://www.gmcair.com)

