



Climate control and air treatment with HX-Factor

Overview of the product lines
Everything at a glance

[Product overview brochure](#)



**Good climate with HX-Factor:
Reliable. Efficient. Sustainable.**

The HX-Factor is our promise of performance. It stands for our unique competence in heat exchange (HX = HEAT EXCHANGE) and marks out all our products and services. The many advantages linked to the HX-Factor maximise your benefits for the entire life of your system.

Economy and ecology in focus

The signs of the times are unmistakable

Investors, plant engineers, planners, and architects no longer ask “whether” but “how” they can enhance the degree of sustainability of their plants and building management systems. Each building is unique. Its location, size, construction quality, and increasingly the building management system determine its value and profit. The energy state of a building has gained appreciably in significance here: it is a fact that buildings consume around 40 percent of the world’s energy, and produce 21 percent of global greenhouse-gas emissions. The proportion of the energy costs in the “second rent” for users and residents is constantly increasing.

Climate control and air treatment with HX-Factor meets you in all areas of life.

Where the heating, cooling, cleaning, purification, humidification and dehumidification of air are required, GEA makes its contribution to progress. Customised climate control and air treatment, with the maximum-possible reduction in energy consumption over the entire life cycle of the facilities: this all pays out handsomely in euros and cents, in comfort, and in staff productivity. Our solutions reliably comply with all international standards in highly sensitive areas such as hospitals and cleanroom applications – and they occupy a leading rank in the demanding classification of the Eurovent Compliance Committee for Air Handling Units. They likewise set new standards for sustainability and flawless system integration in advanced sports arenas, production facilities, airport buildings, and swimming pools – as well as in offices, museums, and hotels.

Summarised by the concept HX-Factor, this quality justifies our technological edge. The HX-Factor is more than a technology. It is an attitude which creates values for the future: enhanced quality of life for residents and users. Protection of energy resources and our climate. Security for investors and planners.

Technical Quality

The one who processes air must master it

It is due to the precision work that has gone into the development of the hardware and software that our air treatment can neither be seen nor be heard, provides pleasant experience and helps in avoiding wastage of energy and money.

Can a building with large glazed areas be heated during spring and autumn on its north side and cooled on its south side, with only one system and without having to switch on the central heating? Does a system used, e. g., for heating cooling, humidification and dehumidification in pharmaceutical or electronic industry also protect against dirt and bacteria? Can investors and building owners calculate the life cycle costs of a central plant air handling unit, determine the effect of an energy-saving equipment on the operating cost for this purpose and thus select the optimal efficiency class right in the configuration stage of the plant?

GEA has found answers to these and many other questions concerning air treatment and climate control – and has implemented them in solutions which reflect its experience gained in many and various successful applications. The core proposal consists of a broad spectrum of central and decentral air treatment plants, separators and filter plants up to complete clean-room systems. Their function, control and design can be fine tuned to their task, the condition and infrastructure of buildings, the operating cost calculations and the highest standards of energy efficiency and climate protection. State-of-the-art control technology developed in-house permits the individual control in individual rooms just as it permits the central handling in the context of building management system.

Control unit, which has interfaces to all usual systems of the building automation, provide for the trouble-free integration of the devices into the building management system. The fact that planners and users can implement their own desires at the design stage of the plant itself is the proof of the precision work involved in the air conditioning equipment.

You see, the HX-Factor has many facets. Its generations of experience are just as much a part of this as its customised engineering, worldwide customer proximity or its repeated demonstration of innovative strength. Every single employee in the Segment makes a contribution to energising the HX-Factor with positive attributes. Through an enthusiasm for a technology that shapes peoples' lives in a progressive way. Through particular care and precision. Through commitment at all levels. This quality is transferred directly onto the products and services. This makes the HX-Factor a tangible experience for you too. It ensures a wide range of product benefits for you. It rewards your trust with reliable, efficient and sustainable solutions. So you can count on the HX-Factor!



GEA stands for:

- Tailor-made air quality and a healthy, comfortable room climate with extremely noiseless operation
- Maximum energy efficiency and reduction in the CO₂ emission
- Precise central and decentral control and regulation
- High adaptability to most diverse functions and environments
- Easy system integration
- Durability and high degree of availability at low maintenance costs



Airports

- Air handling units
- Air filter systems including fire protection

Industry and Trade

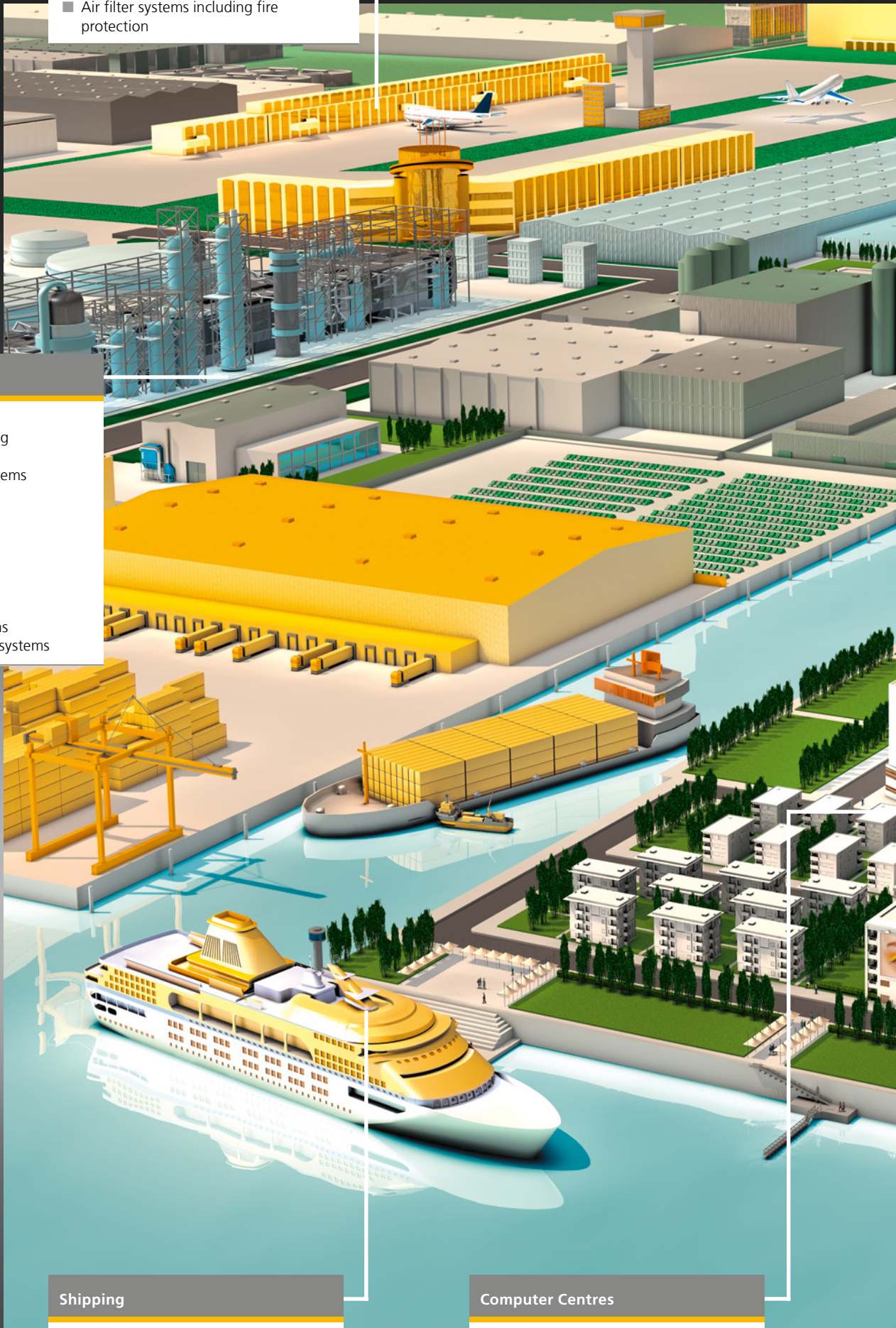
- Air handling units
- Decentral air conditioning
- Extract fans
- Energy recuperation systems
- Air curtains
- Chillers
- Heat pumps
- Ceiling outlets
- Air filter systems
- Dust extraction systems
- Suction plants
- Material recovery systems
- Controls and regulation systems

Shipping

- Air handling units
- Chillers
- Fan coil units

Computer Centres

- Close control units
- Chillers
- Controls and regulation systems



Office Buildings

- Air handling units
- Chillers
- Close control unit
- Energy recuperation systems
- Base convectors and fan coil units
- Controls and regulation systems

Hotels and Restaurants

- Air handling units
- Swimming pool climate control
- Extract fans
- Chillers
- Energy recuperation systems
- Fan coil units
- Controls and regulation systems

Clinics and Hospitals

- Air handling units
- Chillers
- Air filter systems

Clean Rooms for Many Sectors

- Ventilation components
- Building elements

Training Facilities

- Air handling units
- Heat pumps
- Chillers

Museums and Public Buildings

- Air handling units
- Close control unit
- Duct and base convectors
- Heat pumps
- Chillers

Shopping Centres, Commercial Centres

- Air handling units
- Heat pumps
- Chillers
- Split AC units
- Fan coil units
- Air curtains
- Air filter systems
- Controls and regulation systems

Indoor Swimming Pools

- Swimming pool climate control



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GEA Air Handling Units

Optimised for each application

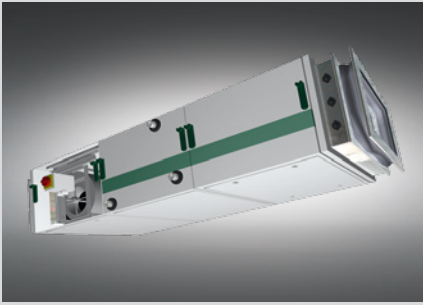


Central-plant building air conditioning

If the state of the room air is in the close comfort range, we feel well. However, the climate in rooms is affected by many factors and the requirements for air conditioning can differ depending on type of the room and/or its use. A regular fresh air supply is important. This requirement is fulfilled by the GEA air handling units. Besides, these units also have to create and maintain a defined air condition.

While some applications require only an air change to take place, the requirements regarding temperature, humidity and cleanliness of air are higher for other applications. Modular units permit a free selection of components and functions and can be adapted to their application in detail. Compact units are optimised for the use, fitted with a highly efficient heat recovery system and are delivered ready for installation with an integrated control system.

Central Plant Units



Modular low-profile air handling units

GEA *ATpicco*

Air volume flow rate 500-4,000 m³/h
 Centrifugal fans
 Heating Cooling Filtering
 Humidify Dehumidify
 Supply air Extract air Outside air
 Exhaust air Recirculating air Mixed air

Energy recovery

Liquid-coupled energy recovery system ECOFLOW
 Heat pipe ECOSTAT
 Plate heat exchanger ECOPLAT

GEA System Control

GEA MATRIX 4700 optional
 GEA DDC control system optional



Modular air handling units

GEA *CAIRplus*

Air volume flow rate 1,000-100,000 m³/h
 Centrifugal fans
 Heating Cooling Filtering
 Humidify Dehumidify
 Supply air Extract air Outside air
 Exhaust air Recirculating air Mixed air

Energy recovery

Liquid-coupled energy recovery system ECOFLOW
 Heat pipe ECOSTAT
 Plate heat exchanger ECOPLAT
 Rotation heat exchanger ECOROT

GEA System Control

GEA MATRIX 4700 optional
 GEA DDC control system optional

Commercial and Industrial



Air handling unit System engineering

GEA *Friego*

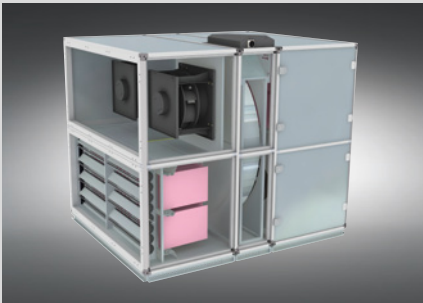
Air volume flow rate 1,000-7,000 m³/h
 Centrifugal fans
 Heating Cooling Filtering
 Power inverter for hot and cold operation
 Supply air Extract air Outside air
 Exhaust air Recirculating air Mixed air

Energy recovery

Liquid-coupled energy recovery system ECOFLOW
 Plate heat exchanger ECOPLAT

GEA System Control

GEA MATRIX 4700 System kit



Compact air handling units

GEA *COM4plus*

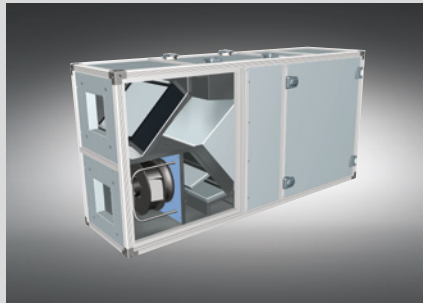
Air volume flow rate 1,700-16,000 m³/h
 Direct-driven plug fans
 Continuous EC motors, electr. commutated
 Heating Cooling Filtering
 Supply air Extract air Outside air
 Exhaust air Recirculating air

Energy recovery

Plate heat exchanger ECOPLAT
 Rotation heat exchanger ECOROT

GEA System Control

GEA MATRIX 4700 integrated



Compact air handling units

GEA *COM4mini*

Air volume flow rate 600-2,200 m³/h
 Direct-driven plug fans
 Continuous EC motors, electr. commutated
 Heating Cooling Filtering
 Supply air Extract air Outside air
 Exhaust air Recirculating air

Energy recovery

Cross-flow plate heat exchanger ECOPLAT

GEA System Control

GEA MATRIX 4700 integrated



Compact air handling units

GEA *COM4top*

Air volume flow rate 600-6,500 m³/h
 Direct-driven plug fans
 Continuous EC motors, electr. commutated
 Heating Cooling Filtering
 Supply air Extract air Outside air
 Exhaust air Recirculating air

Energy recovery

Plate heat exchanger ECOPLAT

GEA System Control

GEA MATRIX 4700 integrated

GEA Decentral Units for Commercial and Industrial Applications

Air treatment on the spot



Whether classically laid out shops, food product markets, indoor tennis courts or industrial buildings: GEA systems offer decentral air treatment solutions perfectly fine-tuned to the individual object. The product programme covers unit heaters, combined unit heaters and cooling units, door and gateway air curtains as well as (roof mounted) extract fans.

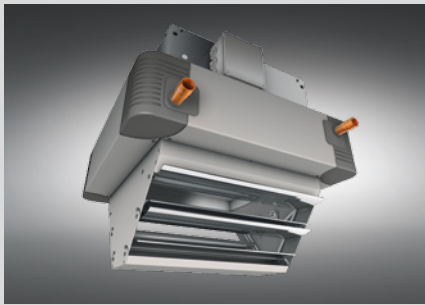
GEA unit heaters combine multi-function comfort with the highest economy and efficiency. Their decentral air treatment is versatile and means much more than just heating of a room.

GEA air curtains shield doors and entrance areas reliably against cold and warm air entering in. They form a sturdy air jet and thus separate the inside of a building from the external climatic influences invisibly. Valuable heating and/or cooling energy remains inside the rooms. Besides, they are convincing due to their high efficiency and convincing design. The covered mounting of the control valves and painting in many RAL colours ensure a seamless installation into each shop and business facility.

GEA extract air fans offer a proven technology for the exhaustion of extract air and other non-aggressive gases or vapours. These systems are also suitable for applications with special requirements such as quiet operation or installation in explosion risk areas.



Decentral Units

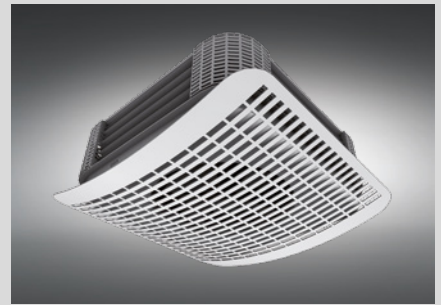


Unit heaters and cooling units	
GEA MultiMAXX HN	
Air volume flow rate	900-12,500 m ³ /h
Axial fans	
Heating	Cooling
Supply air	Outside air
Mixed air	Recirculating air
Filtering	
Energy recovery	
without	
GEA System control/control units	
GEA MATRIX	optional
GEA speed switch units	optional



Unit heaters/cooling units Ex protection	
GEA MultiMAXX HX	
Air volume flow rate	1,900-9,600 m ³ /h
Axial fans	
Heating	Cooling
Supply air	Outside air
Mixed air	Recirculating air
Filtering	
Energy recovery	
without	
GEA control units	
GEA control units IP 54	optional
Control units Eex	field-provided

Commercial and Industrial



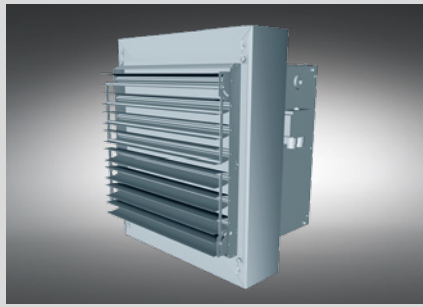
Unit heaters and cooling units	
GEA Multi Flair M	
Air volume flow rate	370-3,800 m ³ /h
Axial fans	
Heating	Cooling
Supply air	Primary air
	Recirculating air
Filtering	
Energy recovery	
without	
GEA System control/control units	
GEA MATRIX	optional
GEA speed switch units	optional



Unit heaters	ex stock
GEA MultiMAXX HP	
Air volume flow rate	2,000-5,800 m ³ /h
Axial fans	
Heating	Recirculation air
Energy recovery	
without	
GEA System control/control units	
GEA speed switch units	optional



Unit heaters	
GEA MultiMAXX HD	
Air volume flow rate	1,200-13,300 m ³ /h
Centrifugal fans	
Heating	Filtering
Supply air	Outside air
Mixed air	Recirculating air
Energy recovery	
see MAXX Ergo	
GEA System control/control units	
GEA MATRIX	optional
GEA speed switch units	optional



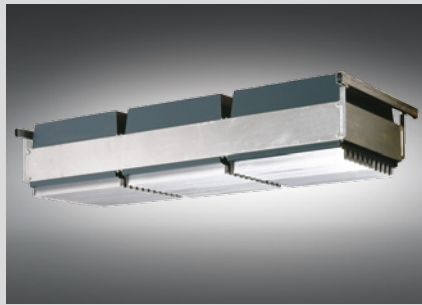
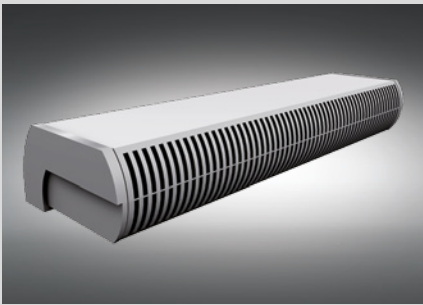
Unit heaters		stainless steel
GEA MultiMAXX HS		
Air volume flow rate 1,300-10,400 m³/h		
Axial fans		
Heating Filtering		
Supply air Outside air Recirculating air		
Mixed air		
Energy recovery		
without		
GEA System control/control units		
GEA MATRIX		optional
GEA speed switch units		optional

Electrical unit heaters	
GEA MultiMAXX HE	
Air volume flow rate 1,200-9,900 m³/h	
Axial fans	
Heating Filtering	
Supply air Outside air Recirculating air	
Mixed air	
Energy recovery	
without	
GEA System control/control units	
GEA MATRIX	
GEA speed switch units	
optional	optional

Gas unit heaters	
GEA MultiMAXX HG	
Air volume flow rate 2,400-10,800 m³/h	
Axial fans	
Heating Filtering	
Supply air Outside air Recirculating air	
Mixed air	
Energy recovery	
without	
GEA System control/control units	
GEA stage/burner control unit	
optional	optional

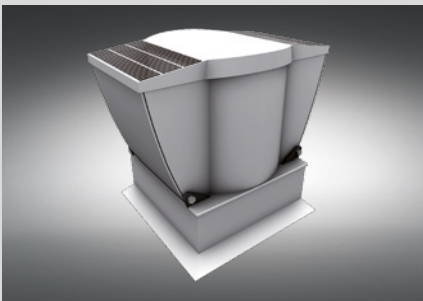
Decentral Units

Commercial and Industrial Applications



Air curtains	
GEA Viento	
Air volume flow rate	700-8,200 m ³ /h
Centrifugal fans	
Heating	Filtering
Supply air	outside air rate max. 25 %
Recirculating air	Mixed air
Energy recovery	
without	
GEA control units	
GEA speed switch units	optional

Air curtains	
GEA MultiMAXX HT	
Air volume flow rate	4,500-33,000 m ³ /h
Centrifugal fans	
Heating	Recirculation air
Energy recovery	
without	
GEA control units	
GEA speed switch units	optional



Roof extract fans	
GEA RoofJETT	
Air volume flow rate	1,000-19,000 m ³ /h
Centrifugal fans	
Extract air	Exhaust air
Energy recovery	
See GEA MAXX Ergo	
GEA System control / control units	
GEA MATRIX	optional
GEA speed switch units	optional

Extract fans	
GEA MAXXVent	
Air volume flow rate	1,700-13,600 m ³ /h
Axial fans	
Extract air	Exhaust air
Can also be used as supply air fan without heat exchanger	
Supply air	Filtration
Outside air	Recirculating air Mixed air
Energy recovery	
without	
GEA control units	
GEA speed switch units	optional

GEA Chillers

Energy-efficient, compact, available in variety of designs



The wide product range of GEA chillers offers the right model for almost every requirement. Irrespective of whether your requirement is for indoor or outdoor installation, air or watercooled, there is a vast variety of equipment with or without heat pump and an extensive spectrum of accessories available to you within the capacity range of 4.9 to 2,749 kilowatts.

Last but not the least, GEA chillers are characterised by their efficiency and high energy conservation potential, which is additionally underlined by the use of high-quality components and environment friendly refrigerants R410A and R134a, which are used in most GEA chillers depending upon the model.

You can get air cooled models for outdoor installation with or without free-cooling function as well as for indoor installation with duct connectors. Water cooled units were conceived exclusively for indoor installation.

With GEA chillers and heat pumps with reversible circuit, you can provide energy not only for cooling, but also for heating. And if you require a compressor/condenser unit or desire to have a system with external condenser, our programme includes the suitable unit for you even here. The choice is with you.

Versatile and super quiet

Thanks to the use of state-of-the-art compressors and the insulation of the compressor sections, the GEA chillers are characterised by efficient performance and low noise emission. In addition, super quiet versions which permit trouble-free installations even in close proximity of residential areas are also available to you in almost every series. Frames and panels of the GEA chillers are made from coated steel sheet. Depending upon the model fully hermetic scroll compressors or semi-hermetic screw compressors are used.



Chillers – air cooled	
Outdoor installation	
Compact	
Series	GSAC – GAC – GMAC – GLAC
Cooling capacity	4-1,750 kW
Series	GLFC with free cooling
Cooling capacity	35-326 kW
Series	GSAH – GAH – GLAH with heat pump switch
Heating capacity	6-517 kW
Cooling capacity	5-466 kW



Chillers – air cooled	
Indoor installation	
Packaged for duct connection	
Series	GSDC – GDC – GLDC
Cooling capacity	5-312 kW
Series	GSDH with heat pump switch
Heating capacity	6-17 kW
Cooling capacity	5-15 kW



Chillers – air cooled	
Indoor installation	
Split without condenser	
Series	GRC – GLRC
Cooling capacity	12-435 kW



Chillers – water cooled	
Indoor installation	
Packaged without heat rejection	
Series	GWC – GLWC
Cooling capacity	13-2,430 kW
Series	GLWH with heat pump switch
Heating capacity	51-2,750 kW
Cooling capacity	38-2,170 kW



Compressor / condenser unit	
Outdoor installation – air cooled	
Split without evaporator	
Series	GLCU
Cooling capacity	39-171 kW
Series	GCH with heat pump switch
Heating capacity	7-35 kW
Cooling capacity	6-31 kW

GEA Close Control Units

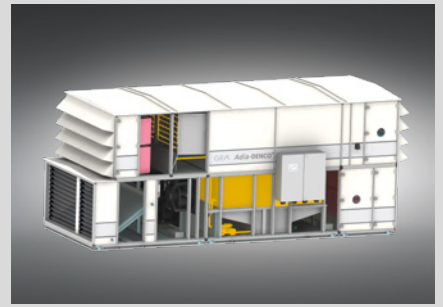
Accurate air data for critical processes



Close control units are much more than just words for us; they are also a promise. A promise, which we can keep due to our long-lasting expertise. All units of the Denco product series are bywords for accurate-to-the-degree cooling, exact control of humidity and absolutely reliable, space-saving and at the same time energy-efficient air conditioning solutions.

The GEA Denco close control units meet the stringent requirements in computer centres and telecommunications installations and make a valuable contribution to the reliable operation and permanent availability of the IT. All air conditioners of the Denco series fulfil the temperature requirements precise to a degree and at the same time maintain a constant humidity in the room and thus prevent heat-related failures and premature ageing of the hardware. But GEA Denco does not provide valuable services to the information technology industry alone. Accurate maintenance of given air parameters and a particularly good air quality are of extremely high importance even in laboratories and chip production, nano-technology and hospitals.

GEA manufactures the equipment and supports the units by providing service, helps planners with the project engineering for the optimum air conditioning and air circulation and tests the products in its own laboratories and measuring rooms under realistic conditions. The GEA technicians also check the efficiency of the equipment, simulate and inspect the air flow on the object and measure the sound power. Thus our clients always receive a fully developed and inspected product, which was also manufactured according to DIN ISO 9001.



Close control units	compact
Multi-DENCO®	
Cooling capacity	5-30 kW
Air volume flow rate	3,000-31,100 m³/h
Humidification capacity	3-15 kg/h
Fans / drives	
EC plug fan	Direct driven
Refrigeration systems	
Chilled water operation Direct evaporation R-410A Free cooling	
Air routing	
Upflow – Downflow	

Close control units	compact
Ultra-DENCO®	
Cooling capacity	50-180 kW
Air volume flow rate	11,000-39,000 m³/h
Humidification capacity	8-15 kg/h
Fans / drives	
EC plug fan	Direct driven
Refrigeration systems	
Chilled water operation	
Air routing	
Downflow	

Air handling unit	modular
Adia-DENCO®	
Cooling capacity	100 kW
Air volume flow rate	30,000 m³/h
Humidification capacity	3-15 kg/h
Fans / drives	
EC plug fan	Direct driven
Refrigeration systems	
Chilled water operation (redundance) Indirect free cooling Indirect adiabatic evaporative cooling	
Air routing	
Horizontal	



Close control units	compact
DENCO T-Range	
Cooling capacity	5-136 kW
Air volume flow rate	1,590-29,160 m³/h
Humidification capacity	3-15 kg/h
Fans / drives	
AC radial	Direct driven
EC plug fan	Direct driven
Refrigeration systems	
Chilled water operation Direct evaporation Free cooling	
Air routing	
Upflow – Downflow	

Close control cabinet unit	
DENCO MS-Range	
Cooling capacity	5-14 kW
Air volume flow rate	1,080-2,520 m³/h
Humidification capacity	3 kg/h
Fans / drives	
AC radial	Direct driven
Refrigeration systems	
Chilled water operation Direct evaporation	

Heat rejection unit	
DENCO DCRA- / DDRA-Range	
Heat rejection capacity	5-140 kW
Refrigerant	R407C / R410A
Fans / drives	
Axial	Direct driven
Single stage	6-/8-/12 pole
Refrigeration systems	
Condenser Dry coolers	

GEA Decentral Systems for Commercial and Residential Applications

Innovative systems for a comfortable climate



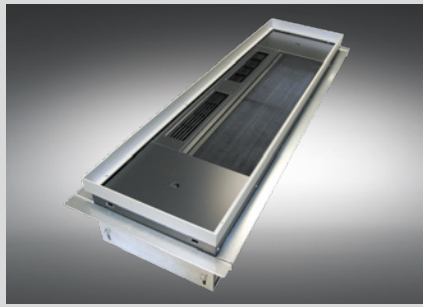
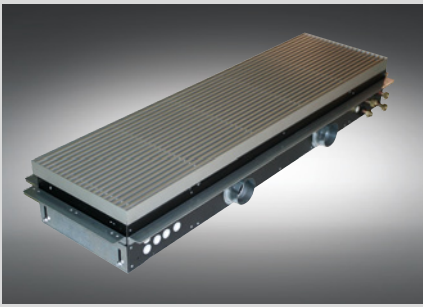
Wherever a comfortable climate is required for habitation, living and work, GEA has a lot to offer. The programme for the comfort range includes convectors, base convectors, fan coil units and split AC units in diverse variations.

GEA convectors can be used anywhere where comforting warmth or cooling is required with fast adaptation to the regulation. Typical areas of application are buildings with glass façades, such as, e.g., modern open-plan offices and hotels. In addition, they are esteemed anywhere where utility space even on the walls is used; e.g., in museums and libraries.

Even GEA fan coil units offer all possibilities of a technology tailored to suit the requirements. The desired temperature can be achieved even with smaller units. GEA fan coil units actively guide the air to be processed through the heat exchanger, whereby it is heated and cooled particularly effectively. The better transmission of heat permits lower inlet temperatures when cooling. This minimises losses and saves energy.

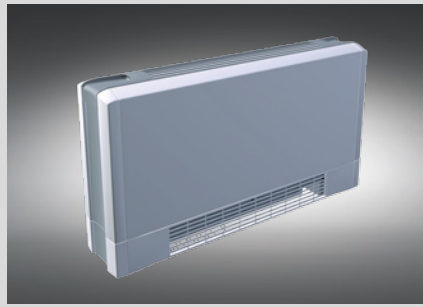
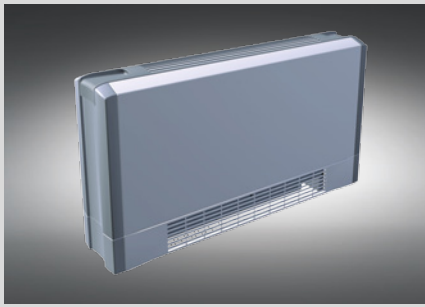


GEA split AC systems are compact room air conditioner which inconspicuously adapt themselves to each interior. They are equipped with a heat pump switch for cooling and heating operation, so that they offer a comfortable room climate throughout the year. The units can be operated as single-split and multi-split installations.



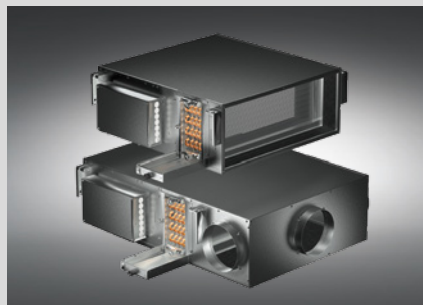
Base convectors	
GEA SBI	
Primary air volume flow rate	50-120 m ³ /h
Function	Inductive
Heating	0.41-0.57 kW
Cooling	0.50-0.87 kW
Supply air	
Primary air connection	
GEA System Control	
GEA MATRIX	optional

Base convectors	
GEA SBQ	
Primary air volume flow rate	150-320 m ³ /h
Function	via cross-flow fans
Heating	0.79-1.14 kW
Cooling	0.35-0.66 kW
Supply air	
Primary air connection	
GEA System Control	
GEA MATRIX	optional



Fan coil units	
GEA Flex-Geko Basic Edition	
Air volume flow rate	150-1,800 m³/h
Centrifugal fans	
Heating	Cooling Filtering
Supply air	Recirculating air
Energy recovery	
without	
GEA System Control	
GEA MATRIX	optional

Fan coil units	
GEA Flex-Geko Comfort Edition	
Air volume flow rate	150-1,800 m³/h
Centrifugal fans	
Heating	Cooling Filtering
Supply air	Recirculating air Outside air
Mixed air	
Energy recovery	
without	
GEA System Control	
GEA MATRIX	optional



Fan coil units	
GEA Cassette-Geko	
Air volume flow rate	250-1,700 m³/h
Centrifugal fans	
Heating	Cooling Filtering
Supply air	Recirculating air Primary air
Energy recovery	
without	
GEA System Control	
GEA MATRIX	optional

Fan coil units	
GEA MPower-Geko	
Air volume flow rate	510-2,460 m³/h
Centrifugal fans	
Heating	Cooling Filtering
Supply air	Recirculating air Primary air
Energy recovery	
without	
GEA System Control	
GEA MATRIX	optional



Split AC – wall unit	
GEA Mitsubishi – MSZ series	
Cooling capacity	0.8-8.7 kW
Optional with heat pump function	
Heating capacity	0.8-9.9 kW
Refrigerant R410A	
Infra-red remote control With swing mode for fast cooling/heating.	



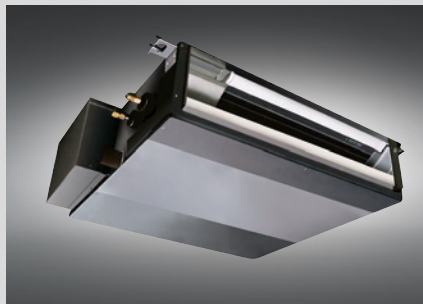
Split AC – ceiling cassette unit	
GEA Mitsubishi – MLZ series	
Cooling capacity	2.5-5.0 kW
With heat pump function	
Heating capacity	3.3-6.0 kW
Refrigerant R410A	
Infra-red remote control Integrated condensate pump 1-way ceiling cassette system	



Split AC – ceiling cassette unit	
GEA Mitsubishi – SLZ series	
Cooling capacity	0.9-5.2 kW
With heat pump function	
Heating capacity	0.9-6.5 kW
Refrigerant R410A	
Infra-red remote control Integrated condensate pump 4-way ceiling cassette system	



Split AC – cabinet unit	
GEA Mitsubishi – MFZ series	
Cooling capacity	0.9-5.4 kW
With heat pump function	
Heating capacity	0.9-7.9 kW
Refrigerant R410A	
Infra-red remote control With additional super high fan speed for fast cooling/heating.	



Split AC – unit for duct installation	
GEA Mitsubishi – SEZ series	
Cooling capacity	0.9-8.3 kW
With heat pump function	
Heating capacity	0.9-10.4 kW
Refrigerant R410A	
Cable remote control with multi-language display, Weekly timer and self diagnostic function	



Multi-split AC – outdoor units	
GEA Mitsubishi – Multi-split-inverter	
Cooling capacity	1.1-14 kW
With heat pump function	
Heating capacity	1.1-16 kW
Operation for 2-8 indoor units	
Inverter-controlled rolling piston or scroll compressor with minimum noise and vibration development. Single-split-inverter in similar construction.	

Swimming Pool Climate Control

Dehumidifier units create an atmosphere with a feeling of well-being



The air conditioning of indoor swimming pools and baths is one of the most demanding tasks among aerodynamic systems. They produce an air temperature which is appropriate for the water temperature, so that the persons bathing do not freeze outside of the pool. At the same time they ensure that the persons bathing find the humidity pleasant and not “oppressive”. The dehumidification thereby also protects the structural core against fungus growth – here humans and brick-work profit equally from the functioning of the air conditioning equipment. The characteristics of an effective air conditioning are in demand in a private pool just as they are in hotel baths or in public baths. GEA offers custom-made solutions for all areas.



Depending upon the area of application, central and decentral systems can be selected, which visually integrate smoothly into any ambience. All systems have energy recovery and GEA system controls. The solutions with tried and tested materials and corrosion protection measures which are fine tuned to the case of application, correspond to the high requirements in terms of material resistance: In case of devices which, e.g., are exposed to saliferous and thus aggressive atmosphere in saline or sea water baths, a special equipment provides for additional protection and ensures a long service life for the unit.



Air handling units		compact
GEA CAIRfricostar Micro		
Air volume flow rate	750-3,600 m³/h	
Centrifugal fans		
Heating	Dehumidification	Filtration
Supply air	Extract air	Outside air
Exhaust air	Recirculating air	Mixed air
Energy recovery		
Double plate heat exchanger	ECOPLAT	
Heat pump system *	integrated	
GEA System Control		
GEA DDC control system	integrated	

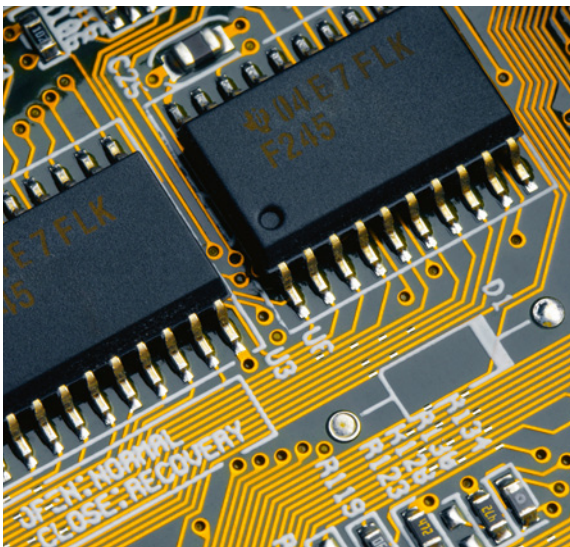
Air handling units		modular
GEA CAIRfricostar		
Air volume flow rate	750-45,000 m³/h	
Centrifugal fans		
Heating	Dehumidification	Filtration
Supply air	Extract air	Outside air
Exhaust air	Recirculating air	Mixed air
Energy recovery		
Liquid-coupled energy recovery system	ECOFLOW	
Heat pipe	ECOSTAT	
Double plate heat exchanger	ECOPLAT	
Heat pump system *	integrated	
GEA System Control		
GEA DDC control system	integrated	
GEA Analog control system	integrated	

Decentral cabinet unit	
GEA F800	
Air volume flow rate	800 m³/h
Centrifugal fans	
Heating	Dehumidification Filtration
Supply air	Extract air Outside air
Energy recovery	
Heat pump system	integrated
GEA System Control	
GEA Analog control system	integrated

* Air handling units GEA CAIRfricostar optional with or without integrated heat pump system

GEA Control Technology

Regulate efficiently, conserve resources

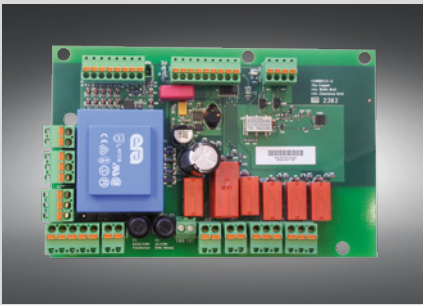


GEA MATRIX is a control system developed by GEA inhouse which can be used across all products. It offers quite a few advantages to installers, investors, planners and users. The offer for complete packages makes the process of selecting suitable control components simple and effective, the uniform concept permits intuitive commissioning. Control panels automatically adapt themselves to the respective unit and can thus be used universally.

It is not only the quick installation that conserves the budget: owing to the function-oriented selection, you pay only for the control functions which are required. In addition, the combination options ensure high flexibility and the exactness of the selection.

GEA MATRIX has only five different groups of components:

Using a control panel it is possible to set the desired values and get information about important unit statuses; controllers compare the setpoint and actual values, control and supervise the units and react to external events. The control signals of this control electronics convert power units into switching commands. Global modules which receive the control signals, control the actuators of the pump up to the chiller or enable the connection to external systems, such as, for instance the building management system, are available for extending the functionality. And finally a comfortable PC-software ensures smooth commissioning, setting and systems analysis.



System control in the unit casing

GEA MATRIX 500 – 2000 – 3000 – 4000

for decentral unit functions:

Heating	Cooling	Filtering
Supply air	Extract air	Outside air
Exhaust air	Recirculating air	Mixed air

Assembly in GEA unit casing.

and energy recovery

Liquid-coupled energy recovery system	ECOFLOW
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in combination with MATRIX 4000 for the GEA MAXX Ergo system.

System control in the wall casing

GEA MATRIX 4700

for air handling unit functions:

Heating	Cooling	Filtering
Supply air	Extract air	Outside air
Exhaust air	Recirculating air	Mixed air

and energy recovery

Liquid-coupled energy recovery system	ECOFLOW
Heat pipe	ECOSTAT
Plate heat exchanger	ECOPLAT
Rotation heat exchanger	ECOROT

Control panels without display

GEA MATRIX 500 – 2000 – 3000 – 4000

for the decentral unit system control, without timer. Protection class IP21 with integrated or IP54 with separate room temperature sensor. IP21 optionally with protective cover.

without energy recovery



Control panels with display

GEA MATRIX – 3000 – 4000 – 4700

for the central and decentral unit system control, alternatively with or without timer. Protection class IP21 with integrated or IP54 with separate room temperature sensor.

and energy recovery

Liquid-coupled energy recovery system	ECOFLOW
Heat pipe	ECOSTAT
Plate heat exchanger	ECOPLAT
Rotation heat exchanger	ECOROT

Global modules

GEA MATRIX 2000 – 3000 – 4000 – 4700

for extending the functions of the central and decentral system controls. Available in a on-wall-mounted casing or for the top rail assembly in a control cabinet.

Service tool MATRIX.PC

GEA MATRIX 2000 – 3000 – 4000 – 4700

Software for service and commissioning. Connection via the service plug of a control panel, regulator or one of the global modules. Access to all functions, components and possibly existing faults in the network. Display of the actual values and setting the desired values. Reading out the error memory and inspection of the actuators, such as, e. g., valves or motors.

GEA Filtration Units, Filtration Plants and Filtration Systems

Custom-made and efficient air conditioning



Whether restaurant kitchen, shopping centre, hotel lobby, industrial hall or operating theatre: There is always an air filter, which fulfils the unique requirements of the respective area of application. The current programme comprises more than 2,000 different standard and special filters, which provide clean air in commercial, industrial and residential areas. Finest emulsion mists, toxic vapours, fine dusts and material chips are filtered just as reliably as odours, bacteria, fungus pores or viruses.

In addition, air filters support an economic process control. Consumption costs for electricity, heat and water are lowered noticeably and statutory provisions are certainly fulfilled.

The product range overview on the following pages introduces you to a series of filter systems which are just as innovative as they are tried and tested. These include electrostatic filters, duct air filter, dust extraction units and plants as well as intake air filter systems. The range is rounded off with a variety of suitable filtering media, filter system controls and accessories.



As a planner, you benefit from the maximum flexibility. Which user profile an area or a process has to fulfil, or how high the requirements even for the extract air are: Due to the variety of possible variations, you find a tailored solution for each project. We draw on the vast range of process engineering possibilities of air filtration.



Filter mats, rolls, pre-cut sections, pads

Filter classes G2-F5

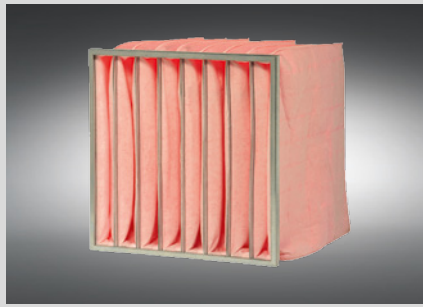
Application: Filtration of coarse or fine dust particles

Nominal air volume flow rate: up to 10,000 m³/m²h

Series: CTM, VENUFA, MYSTOP, FIBROIDELASTOV, PERFECT, ACELAN, SERIES 1000, FIBROBAND and 412 roll-band filter, LoTex® particularly for the aerosol and mist filtration.

Product details: Filter material elastic, without wetting agent and regenerable, usually made from polyester fibres or glass fibres.

Overall depth: 5-100 mm.



Bag filter

Filter classes G3-F9

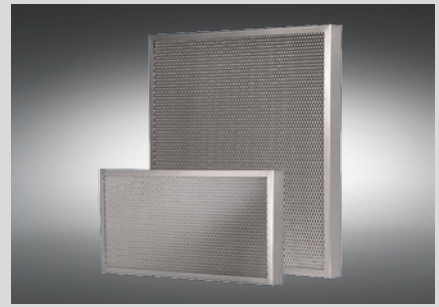
Application: Filtration of coarse or fine dust particles

Nominal air volume flow rate: 3,400-4,250 m³ /h per cell 592x592 mm.

Series: MULTISACK and SERIES 4000 SepTex® with depth effect against germs and mould fungi. FireTex® as fire-retardant design. StaTex for explosion-protection areas.

Product details: Wedge-shaped filter bags with spreader bar. Alternatively made from synthetic fibre fleece or micro glass-fibre fleece, front frame alternatively made from plastic or galvanized steel

Overall depth: 195-635 mm.



Metal filter

Filter classes G2-F5

Application: Filtration of coarse or fine dust and aerosol particles

Nominal air volume flow rate: up to 10,000 m³/m²h

Series: GAL, HL 12.5, ST 8 and SERIES 2000

Product details: Filter plates and cells, filter material regenerable, made from several layers of aluminium, stainless steel, polyester fabric and/or mixed fabric or expanded metal.

Overall depth: 8-82 mm.



Filter cells

Filter classes G4-F9

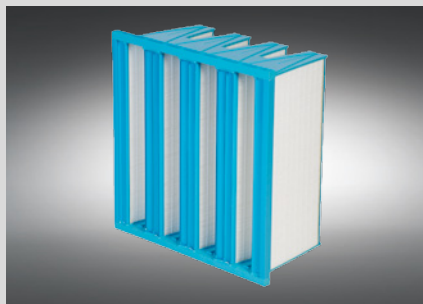
Application: Filtration of coarse or fine dust and aerosol particles

Nominal air volume flow rate: up to 10,000 m³/m²h

Series: AeroPlus and SERIES 3000 Z-cells, FILTERGLAS, FIBERGLAS, ULTRAGLAS, ULTRANGLAS-H (up to 300°C)

Product details: Pleated glass or synthetic fibre fleece in the fibreboard, synthetic or metal frame. In case of glass cells, glass fibre mat held within the frame

Overall depth: 14-96 mm.



Filter elements

Filter classes F6-E12

Filtration of fine or finest dust and aerosol particles

1,500-5,100 m³/h per cell 610x610 mm.

MULTIFORM, MULTIPLAN, SERIES 8000 (AeroPlus and MultiPlus), Multi 2004 and MultiPack back-loading type, MULTICOL, MULTITHERM (up to 250°C)

Synthetic or Micro glass-fibre fleece in Mini-Pleat design. Frame made from plastic or metal depending on series. Designs with and without burst protection.

40-292 mm.



HEPA filters

Filter classes E11-U15

Application: Filtration of suspended solid particles

Nominal air volume flow rate: 600-4,000 m³/h

Series: MICROPUR, MACROPUR, ABSOPUR, ULTRAPUR and SERIES 6000

Product details: Table filter elements made from micro glass-fibre fleece in Mini-Pleat or separator design. FV design with package of folds arranged in V shape. Frame material selectable or metal

Overall depth: 30-292 mm.



Activated carbon filter

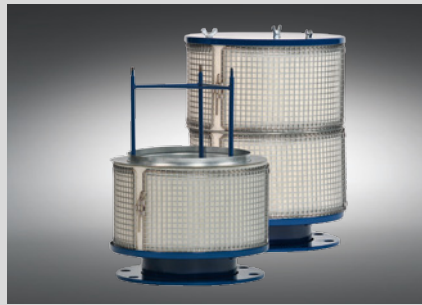
Application: Filtration of gaseous contaminations and odours

Nominal air volume flow rate: 10-300 m³/h per cartridge

Series: 705-709 available with different AKOLIT activated carbon types. Alternatively even filter plates, filter elements or packed bed filters available.

Product details: Activated carbon filter cartridges in concentric plastic or metallic cylinders, activated carbon replaceable or regenerable with bayonet, plug-type or screw-type closures

Overall depth (length): 291, 450, 600 mm



Round air filters

Filter classes G2-F5

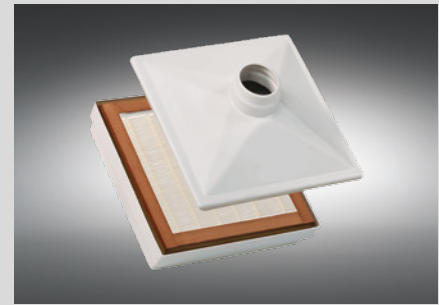
Application: Filtration of coarse and fine dust particles

Nominal air volume flow rate: 220-7,000 m³/h per filter

Series: DAH, DBH, DBA, DBV, DAC and DBC
Diameter 130-500 mm
Intake air cleaning for IC engines or fans.

Product details: Filter cartridges in different sizes and with different filtering media. Filtering media replaceable or reusable after cleaning and, if necessary, wetting.

Overall depth (height): 120-705 mm



Copular HEPA filter

Filter class H13

Application: Filtration of suspended solid particles

Nominal air volume flow rate: 50 and 220 m³/h

Series: CKL
Sizes 240x240 and 490x490 mm

Product details: Copular filter with one or two connection sockets. The HEPA filter element is not replaceable.

Overall depth: 140, 228 and 192, 330 mm



Glove box filters

Filter class E12-H13 / activated carbon

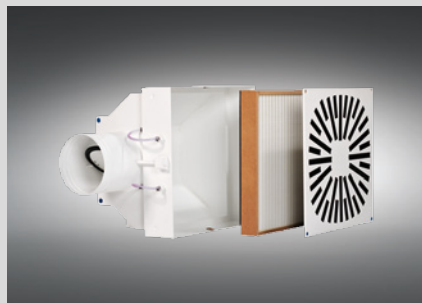
Application: Filtration of suspended solid particles and gaseous materials

Nominal air volume flow rate: 25 m³/h per filter

Series: DKA, DKB, DKC, DKD
Diameter 140 mm

Product details: HEPA filters in totally enclosed design, also available with activated carbon insert.

Overall depth: 172, 194, 257, 279 mm



Ceiling outlet HEPA filter

Filter classes E11-H14

Application: Filtration of suspended solid particles

Nominal air volume flow rate: 260-1,400 m³/h

Series: CGF
as the last filter stage in RLT plants, for clean air rooms with turbulent ventilation in the hospital and in the life sciences area.

Product details: Compact system powder coated, with integrated isolation damper, pressure gauge connection for differential pressure monitoring and filter seat testing facility. Filter element replaceable.

Model sizes: 305/305-610/610 mm



Wall frame

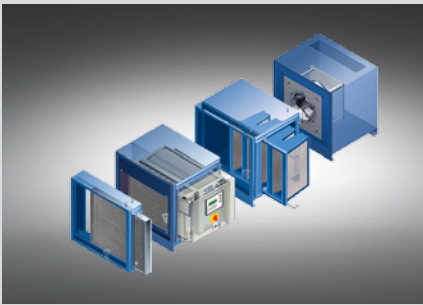
Application: For the mounting of air filters

Materials: Galvanized or painted steel sheet or stainless steel.

Series: CDD, CKC, MPW, CKG, CFC, MCB
CDD for bag filters and filter elements
CKC/MPW for HEPA filters CKG for activated carbon cartridges CFC/MCB for filter mats and table filter cells

Product details: Filter frame also suitable for the modular configuration of filter walls.

Model sizes: 305/305-610/610 mm



Compact electrostatic filter

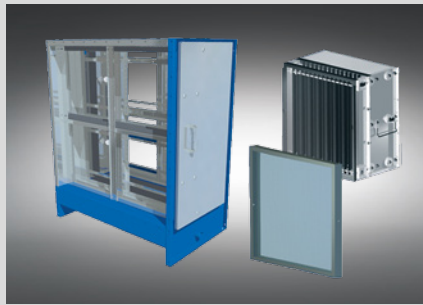
Application: Filtration of cooling lubricants particularly oil mist, smokes and oxides

Nominal air volume flow rate: 500-8,500 m³/h

Series: MultiTron *Premium*
Extract air Process air
Decentral

Application: Metalworking industry

Product details: • Modular configuration
• Minimum power costs due to lowest pressure drops
• Recirculating air mode possible
• Regenerable filter elements
• Fans, standard accessories



Compact electrostatic filter draw-out unit

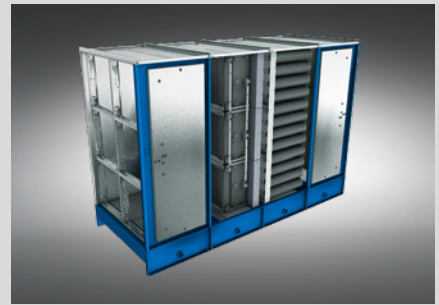
Application: Filtration of cooling lubricants particularly oil mist, hall exhaust

Nominal air volume flow rate: 10,000-40,000 m³/h

Series: MultiMaster-Vario, Ek
Extract air Process air
Central Decentral

Application: Industrial, climate control, ventilation

Product details: • Lateral insertion resulting in shorter overall length
• Low power costs due to lowest pressure drops
• Recirculating air mode possible
• Regenerable filters



Electrostatic filter

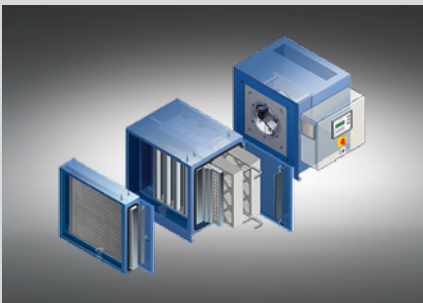
Application: Filtration of cooling lubricants particularly oil mist, hall exhaust

Nominal air volume flow rate: 10,000-200,000 m³/h

Series: MultiMaster-Vario, E
Extract air Process air
Central

Application: Industrial, climate control, ventilation

Product details: • Modular configuration
• Low power costs due to lowest pressure drops
• Recirculating air mode possible
• Regenerable filter elements



Compact aerosol filter

Filter classes F7-H13

Application: Filtration of emulsion mists and solid aerosols

Nominal air volume flow rate: 500-6,800 m³/h

Series: MultiAir *Premium*
Extract air Process air
Decentral

Application: Metalworking industry

Product details: • Modular configuration
• Extensive range of pre and main filters
• Vast range of efficient fans
• Recirculating air mode possible



Duct mist filters

Filter classes G3-F9

Application: Filtration of emulsion and oil mists and fine particles

Nominal air volume flow rate: 3,000-61,000 m³/h

Series: KNA
Extract air Process air
Central Decentral

Application: Metalworking industry

Product details: • Compact design
• Regenerable design, maintenance-free
• Vast range of different pre and main filters



Duct aerosol filters

Filter classes G3-F9

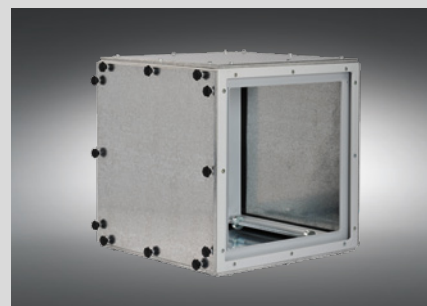
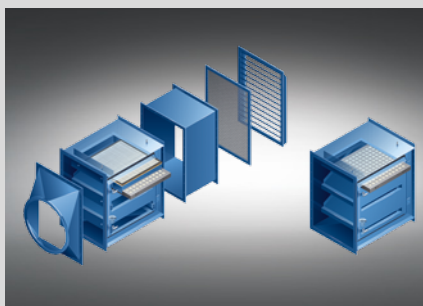
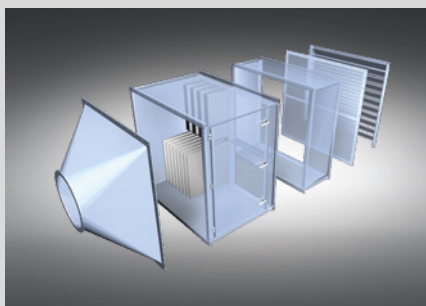
Application: Filtration of dry and liquid aerosols

Nominal air volume flow rate: 20,000-400,000 m³/h

Series: MultiMaster-Vario, MCB
Supply air Extract air Process air
Central

Application: Industrial, intake filter for gas turbines, compressors and motors

Product details: • High volume flow rates at small cross section
• Multi-stage filter arrangement possible
• Modular configuration
• Standard accessories



Duct air filters

Filter classes G3-F9 / activated carbon

Application: Filtration of coarse and fine dusts and odours

Nominal air volume flow rate:
2,000-41,000 m³/h

Series: MultiMaster
Supply air Extract air Process air
Central Decentral

Application: Climate control, ventilation, industrial

Product details: • Extensive standard accessories • Available as kit
• Measuring points for the differential pressure measurement by default

Universal duct air filter

Filter classes G3-H13

Application: Filtration of coarse, fine and suspended particulate matter or oil and emulsion mists

Nominal air volume flow rate:
1,000-49,000 m³/h

Series: MultiClean
Supply air Extract air Process air
Central Decentral

Application: Industrial, pharmaceutical and chemical industry

Product details: • Use of up to 4 different filter stages possible • Reinforced and pulse-jet resistant design • Normal steel, stainless steel

Modular duct air filters

Filter classes G2-H13 / activated carbon

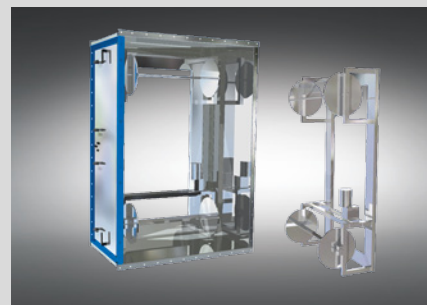
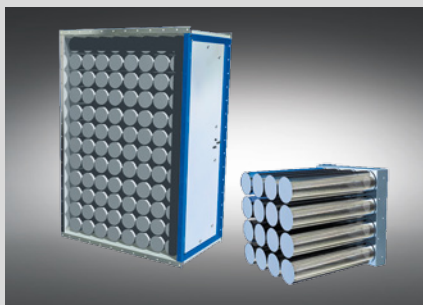
Application: Filtration of coarse and fine dusts and odours

Nominal air volume flow rate:
1.200-4,250 m³/h per module 610/610 mm

Series: EBE
Supply air Extract air
Central Decentral

Application: Climate control, ventilation, industrial

Product details: • Housing made from galvanized steel sheet or stainless steel
• With measuring points for differential pressure measurement • Single modules for plants can be combined



Safety filter

Filter classes F5-U15 / activated carbon

Application: Filtration of viruses, bacteria, radioactive and toxic materials

Nominal air volume flow rate:
1,000-32,000 m³/h

Series: MultiSafe
Supply air Extract air Process air
Central Decentral

Application: Pharmaceutical, chemical, nuclear, health care industry, laboratories

Product details: • Contamination-free filter replacement • Maintenance-free clamping device • Filter seat testing possible during the operation • Extensive standard accessories

Activated carbon filter

Application: Filtration of odours and gaseous pollutants

Nominal air volume flow rate:
12,000-144,000 m³/h

Series: MultiMaster-Vario, CKG
Supply air Extract air Process air
Central

Application: Climate control, ventilation, industrial

Product details: • Vast range of application-specific activated carbon variety
• Filter cartridge housing made from galvanized steel, stainless steel or plastic

Roll-band filter

Filter class G3

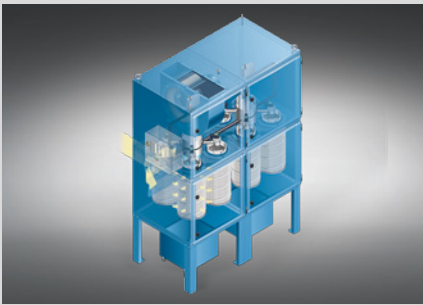
Application: Filtration of coarse particles

Nominal air volume flow rate:
10,000-150,000 m³/h

Series: MultiMaster-Vario, GDB
Supply air Process air
Central

Application: Ventilation, industrial, intake filter for gas turbines, compressors and motors

Product details: • Automatic, differential pressure-controlled further transportation of the filtering medium • Maintenance-free • Adjustable band guide



Cartridge dust filters

Filter categories (L, M)

Application: Filtration of dry dust and smoke

Nominal air volume flow rate: 2,000-24,000 m³/h

Series: EuroJet
 Supply air Process air
 Central Decentral
 Back-loading system for filter cartridges

Application: Metalworking industry

Product details: • Back-loading system of the filter cartridges • Modular configuration • Different filtering media • State-of-the-art controls • Fans, accessories

Cartridge dust filters

Filter categories (L, M)

Application: Filtration of dry dusts, for coarse to sub-micron particles

Nominal air volume flow rate: 2,000-50,000 m³/h

Series: Multijet
 Extract air Process air
 Central Decentral
 Compact hose cartridges

Application: Industrial, pharmaceutical and chemical industry

Product details: • Reinforced and pulse-jet resistant design • Modular configuration • Various filter media • State-of-the-art controls • Fans, accessories

Compact pipe-coil jet filter

Filter categories (L, M)

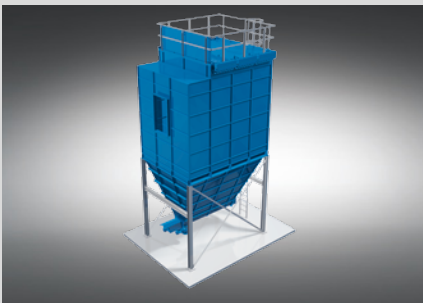
Application: Filtration of dry dusts, for coarse to sub-micron particles

Nominal air volume flow rate: 2,000-50,000 m³/h

Series: Jet filter KJF
 Extract air Process air
 Central Decentral
 Highly efficient Deicolon Filter elements

Application: Industrial, pharmaceutical and chemical industries, thermal processes, metallurgy

Product details: • Reinforced and pulse-jet resistant design • Modular configuration • Various filter media • State-of-the-art controls • Fans, dust discharge organs



Hose jet filter

Filter categories (L, M)

Application: Filtration of dry dusts, for coarse to sub-micron particles

Nominal air volume flow rate: 20,000-500,000 m³/h

Series: Jet filter SJV, SJR
 Extract air Process air
 Central Decentral

Application: Industrial, pharmaceutical, chemical and wood working industry, combustion processes, stones and earth

Product details: • Reinforced and pulse-jet resistant design • Modular configuration • Various filter media • State-of-the-art controls • Fans, dust discharge organs

Spare filter material dry dust extraction

Filter categories (L, M)

Filter cartridges
 Filter hoses
 Flat bag filters
 Hose cartridge filters
 Deicolon candle filters
 Compact filter elements
 all designs alternatively for horizontal and vertical installation

GEA offers the entire range of the commonly commercially available filter media, materials and designs. In addition, antistatic, hydrophobic, temperature-resistant, flame retardant and other special media available for special applications.

Vortex scrubber

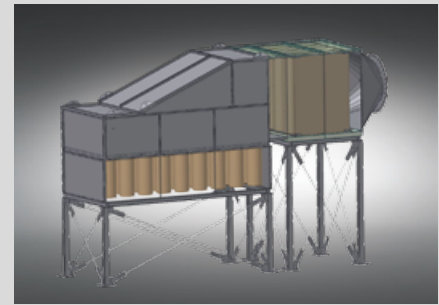
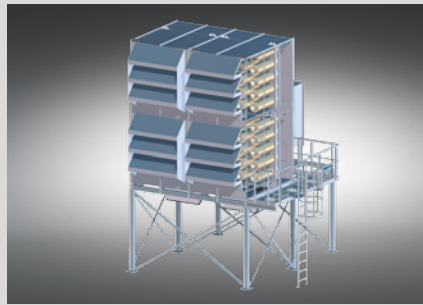
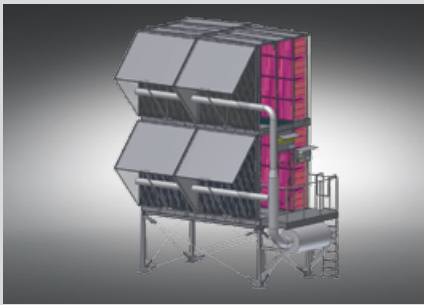
Application: Filtration of sticky dusts, aluminium dusts, for the process cooling and spark quenching

Nominal air volume flow rate: 2,500-82,000 m³/h

Series: AquaClean
 Extract air Process air
 Central Decentral

Application: Metalworking industry

Product details: • Extremely sturdy and durable • Automatic water level regulation with overflow protection • State-of-the-art controls • Fans • Accessories



Static filter systems

Filter classes G4-H13

Application: Intake filter for moderate dust loading (e.g. Europe)

Nominal air volume flow rate: 10,000-750,000 m³/h

Series: Static filters

Application: Energy and process industry

- Product details:**
- Custom-made system
 - Retrofit
 - Coalescer
 - Droplet separator
 - Anti icing systems
 - Air conditioning
 - Noise control

Pulse filter systems

Filter classes F6-F9

Application: Intake filter for high dust loading (e.g. desert region)

Nominal air volume flow rate: 10,000-750,000 m³/h

Series: Pulse filter

Application: Energy and process industry

- Product details:**
- Use of up to 4 different filter stages possible
 - Reinforced and pulse-jet resistant design
 - Normal steel, coated or stainless steel

Deep bed filter cartridge systems

Filter classes F9-E11

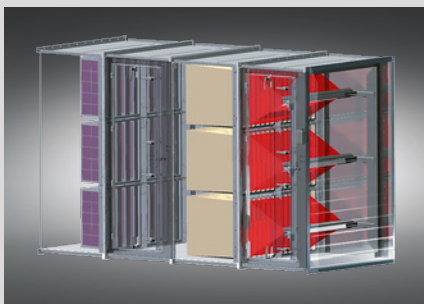
Application: Intake filter for moderate dust loading and max. filter performance

Nominal air volume flow rate: 10,000-750,000 m³/h

Series: Deep bed filters

Application: Energy and process industry

- Product details:**
- Custom-made system
 - Retrofit
 - Horizontal or vertical cartridge arrangement
 - Pre-filter sock
 - Air conditioning
 - Noise control



Standard filter systems

Filter classes G4-H13

Application: Intake filter for moderate dust loadings (e.g. Europe)

Nominal air volume flow rate: 2,000-100,000 m³/h

Series: Multi-Master Vario

Application: Energy and process industry

- Product details:**
- Modular system
 - With several variants
 - Coalescer
 - Droplet separator
 - Anti icing systems
 - Air conditioning
 - Noise control

Standard oil bath-rotary filter systems

Filter classes G3-G4

Application: Intake filter (coarse dust filtration) with wide range of application

Nominal air volume flow rate: 2,000-100,000 m³/h

Series: RotaClean

Application: Energy and process industry

- Product details:**
- Modular system with several variants
 - Automatic operation
 - Maintenance-free
 - For difficult operating conditions
 - Noise control

Spare filter media intake air filtration

Filter classes G2-H13

- Coalescer filters
- Filter mats G2-F5
- Filter band G3
- Filter cells G4-F5
- Bag filters G3-F9
- Filter elements F6-F9
- HEPA filter elements E10-H13
- Pulse filter cartridges F6-F9
- Deep bed filter cartridges F9-E11

GEA offers the entire range of the commonly commercially available filter media, materials and designs. In addition, antistatic, hydrophobic, temperature-resistant, flame retardant and other special media available for special applications.



Filter monitor

Application: For differential pressure monitoring of mechanical filters

Application: Duct air filters, separators, intake filters

Series: DeltaTronic

Measuring range 0 – 5,000 Pa

Product details: • Control LED's for OPERATION/CSERVICE/FAULT • Digital display of the operating pressure difference • 2-button menu operation • Two-position controller, time functions, operating and service -production line operating hour counter • Control outputs



Filter control

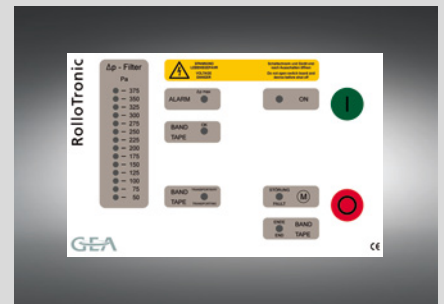
Application: For differential pressure monitoring of mechanical filters with fan

Application: Compact separator

Series: MechaTronic

Measuring range 0 – 1,000 Pa

Product details: • Control LED's for OPERATION/SERVICE/FAULT • Digital display of the operating pressure difference • Differential pressure switch point and connection for mains supply of the fan adjustable • Fan monitoring • Control outputs



Roll-band filter control

Application: Filter control for band air filters

Application: Roll-band filter

Series: RolloTronic

Measuring range 0 – 375 Pa

Product details: • Automatic band feed • Monitoring of up to 4 band limit switches • Motor control (direct start up) for max. 4 geared motors • Fan monitoring (optional) • Manual band feed possible • Control outputs



Pulse filter controls

Application: Filter control for jet filter with/without fan

Application: Cartridge, cassette and bag filters

Series: PulsaTronic

Measuring range 0 – 5,000 Pa

Product details: • Differential pressure monitoring • Differential pressure switch points • Optional control of motor and discharge organs • Adjustable down-time cleaning • Digital recording of operating hours • Control outputs



Filter control

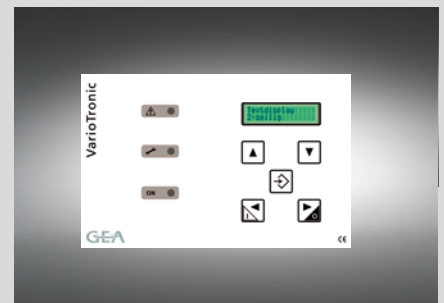
Application: Filter control for mechanical and electrostatic filters with/without fan

Application: Compact separator, compact electrostatic filter

Series: MultiTronic Patented

Measuring range 0 – 1,000 Pa

Product details: • Comprehensive control unit • Automatic adaptation of the optimal high voltage (electrostatic filter) • Fan control • Display of the operating pressure difference • Digital text display of all operating parameters • Control outputs



Electrostatic filter control

Application: Filter control for large electrostatic filter with/without fan

Application: Electrostatic filter

Series: VarioTronic
Control of the washer as well as differential pressure monitoring of a pre-filter optional
Measuring range 0 – 1,000 Pa

Product details: • Monitoring and controlling of the plant components • Automatic adaptation of the optimal high voltage • Digital text display of all operating parameters • Monitoring of the HV-modules • Control outputs

GEA Clean Rooms *

Tailored system solutions for strictest requirements



Clean room technologies for flawless quality and absolute hygienic demands

Clean rooms and ultra-clean rooms represent some of the most complex challenges for air treatment. They demand a very strict standard for competence as well as specific experience for reliable clean room and process air treatment. GEA Clean Rooms satisfy all international clean room standards and ISO classifications. They far exceed conventional quality levels.

Research and production under clean room conditions take place extensively in semiconductor production and in the pharmaceutical industry – as well as for work in the chemical industry, medicine, optical and laser technology, and in the aerospace field. These activities involve the further processing of biological, chemical, and technical products in closed areas with highly sensitive production techniques. These processes require the absolute maximum absence of dust and other particles in room air and for production.

GEA Clean Room systems enable users to coordinate all critical parameters exactly with the needs of the respective production process, and to systematically control the decontamination of room air. These systems enable the exact supervision and control of air pressure, temperature, and relative humidity. They likewise eliminate the presence of fine dust, particles, bacteria, pathogens, and the like from products and processes.

GEA customers profit from our comprehensive overall expertise in room-air handling and filter technology. In contrast to other providers, we cover the entire process of air treatment and air filtration for supply-air and extract-air systems.

* Currently not yet available for all sales areas.
Please get in touch with us.



We understand the interrelationships and control them down to the smallest detail. And we know the requirements of the various sectors of industry, from microbiology to nanotechnology. As a result, we can offer highly effective, process-dedicated package solutions with energy-efficient technology – optimized for your sector and applications.

Efficient GEA heat-recovery systems and reliable GEA filter systems with low pressure drop assure considerable energy savings. In addition, we deliver turnkey solutions on a one-stop-shopping basis: beginning with building elements such as clean room walls, wall paneling, ceiling grid modules, filter and panel ceilings, windows, doors, and laminar-flow ceilings – including the development and installation of your clean room facilities – and extending to after-sales service.

GEA Clean Rooms for all industrial sectors

- Biotechnology
- Chemistry, pharmaceuticals, and the life sciences
- Semiconductor production
- Industrial production
- Hospitals and laboratories
- Food and beverage industries



Building elements

Customized outfitting for all sectors

Walls: sandwich panels, 60 mm thick, optionally with X-ray protection

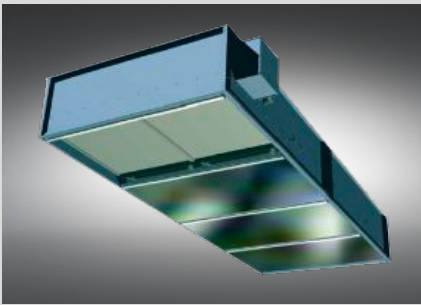
Paneling: cladding of existing walls for clean room conformity

Windows: windows in a range of sizes, especially designed for individual applications, with many positioning possibilities; as option, with fire protection

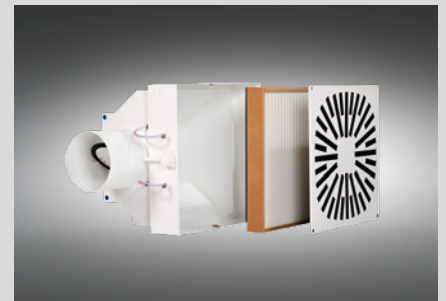
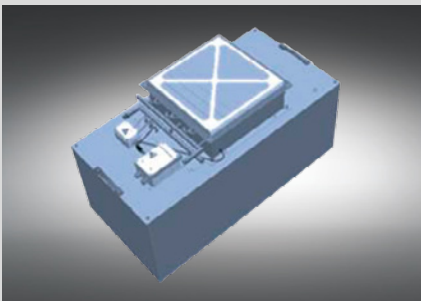
Doors: hinged and sliding doors, mechanically or automatically operated, single- or double-part doors, glazed, GEA interlock system, optimally with X-ray protection

Suspended ceilings: for gapless installation of lighting elements and ventilation components, designed for pressures up to 40 Pa

GEA Clean Rooms are maximum-quality, tailor-made, and highly and precisely flexible. These systems are customized for individual applications and are delivered as complete systems. The installation of these systems is very simple.



TAV supply-air ceiling module		
GEA FRESH HEAVEN MAXX		
Air velocity	Industry 0.15-0.45 m/s	Operating rooms 0.18-0.38 m/s
Dimensions	As required	3.2 x 3.2 m
Base unit	No	Yes – for operating-room lighting unit
Mode of operation/air supply	Recirculated-air operation (FHM power) or from AHU	From AHU
Material	AISI 304 stainless steel	Galvanized steel sheet, painted with RAL 9010
Filter gasketing	U-shape	Gel
Diffusors	Perforated stainless steel/single-layer PES fabric	Single-layer PES fabric in aluminum frame
Complete filtration – horizontally configured HEPA/ULPA filters H13/H14/(U15) Optional: chilled-water coil (in Power version)		



Fan-filter Unit
GEA FRESH BREEZE
Dimensions: 600 x 1200 mm or 1,200 x 1,200 mm
Nominal air flow: 1,200-2,400 m³/h
Motor: EC
Accessories: curtain made of PV strips; illumination
Optional: pre-filter and/or chilled-water coil

Staff air lock
GEA AIR SHOWER
Air shower with clean air
Application in locks for decontaminating clean room staff, to prevent ingress of contamination
For one person

Ceiling air outlet with HEPA filter
GEA CGF
Application: filtration of suspended solid particles
Nominal air flow: 260-1,400 m³/h
Filter classes: E11-H14
Various filter seals
Various air outlets for turbulent flow
Optional: automatic shutoff flap for filter exchange without contamination
Also available: CGO for air extraction

First Service

Always at your side



Our services at a glance

- Own heat exchanger production
- Use of certified products and components
- Use of components from well-known component manufacturers
- Short delivery times for spare parts
- Commissioning of new facilities
- Periodic servicing
- Maintenance
- Factory trial run
- Upgrading and optimisation of old facilities
- Maintenance agreements

Economical from the beginning

The technical developments of GEA represent state-of-the-art swimming pool climate control. Our systems support diverse applications that optimally conform to current criteria of cost effectiveness, safety and sustainability. Our products and services go far beyond pure technology. They are integrated into a comprehensive and in every respect customised service package. This programme includes not only conventional services such as spare part delivery, maintenance, and repair. It unites the consulting and engineering of a technology leader with customised after-sales service and rapid response times. And this not only for installing new equipment. This service also applies for upgrading and optimising old equipment and provides you with perfect support in all project phases. The functionality of the system is secured over its entire service life.

International service und support in experienced hands

Wherever you need us, we will be there for you in the shortest time. All over Europe, our own customer service ensures that you are able to make optimal use of our units' advantages at all times. Many technicians are ready on-call in Germany alone for rapid deployment. All services are designed for absolute safety and reliability. For example, an on-site function check is a part of our delivery service, conducted by an experienced GEA technician together with the installer. This way we directly and personally pass on our functional know-how built up over many years. In this context we should also mention the training we offer in the technology of our climate control systems. Such training is a beneficial instrument for ensuring the lasting functionality and availability of the systems.

A decision for quality

A high quality standard is the basis and principle for all our services. All our service specialists are highly experienced and devote themselves to their work with great diligence. Technically and personally convincing; this is what you can expect from us.



Initial installation

Maintenance and servicing

Assembly services

Spare parts

Customer service

Consulting

Refurbishing

Training



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.