

SYSTEMA

HEATING COOLING GREEN ENERGY

ANEMOS *Gas condensing hot air generator for medium and large industrial environments from 11 to 1400kW*



FAST AND EASY
INSTALLATION



HIGH EFFICIENCY
AND EMISSIVITY



SILENT AND
HEALTHY



LOW
MAINTENANCE



FAST AND HIGH
THERMAL COMFORT



LOW RUNNING
COSTS

GENERAL FEATURES



ANEMOS hot air generator is the result of Systema S.p.A.'s long experience in the design and production of industrial hot air heating products.

ANEMOS has been designed down to the smallest detail to meet the needs of the most modern plant engineering and the demand from the various world markets in which **Systema S.p.A.** is present.

It has a base, made of thick steel profiles, of a continuous type so as to give the maximum guarantee of solidity both during transport and positioning, to which thick galvanised sheet metal profiles are attached to form the frame of the unit, which is closed at the top. This makes **ANEMOS** sturdy and compact, even more so



thanks to the closing panels made of sandwich panels, 20 mm thick, with the outer part pre-painted, which make the unit particularly silent and also provide excellent insulation limiting any heat dispersion.

ANEMOS has a very versatile fan section capable of adopting very high prevalence fans to be coupled to the most diverse types of motorisation through ad hoc transmissions; the combustion chamber, with flame inversion, varies according to the model, in the standard version it is made of AISI430 while in the high-efficiency and condensing version it is made of AISI 441, to give the maximum guarantee of durability, performance efficiency that can reach 109% and flexibility in burner couplings whether they are single-stage, two-stage, modulating or pre-mixed.



ANEMOS is offered with a **power range from 14 to 1,400 kW** and air capacities from 800 to 80,000 m³/h, in the vertical and horizontal versions, for indoor or outdoor installation, the latter with the application of the special section to protect the blown-air burner from the elements, which can be supplied as an option in both the gas and oil versions, complete with electrical panel, 3 thermostat kit and pre-drilled burner plate.

In addition to the basic configuration, ready for quick installation, **ANEMOS** has a complete offer of accessories that can make the machine similar to an air handling unit that can be connected to distribution ducts and with useful static pressures that can satisfy even the most demanding installations.

ANEMOS is available in a standard version, a high-efficiency version, and a condensing version, all of which fall within the terms of efficiency required for **EcoDesign** and **ERP** and therefore able to meet the characteristics required for the available contribution packages.

In addition to the traditional versions for ambient heating, **ANEMOS** is available in special versions for applications in the sports field for pressostatic structures or tensile structures, in production, animal husbandry and agriculture. or in environments with particularly aggressive atmospheres.

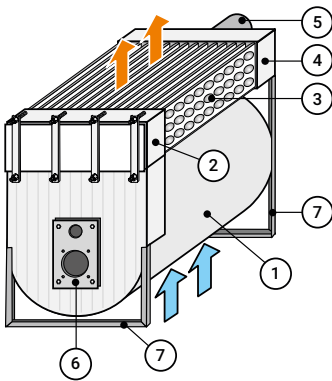
ADVANTAGES

- Product quality and reliability thanks to technical design choices
- Wide range available in power from 14 to 1400 kW, efficiency and version availability
- Standard efficiency and condensation, efficiencies up to 109%.
- Simplicity of installation and maintenance, all critical parts are easily accessible
- Flexibility of installation thanks to the variety of fan sections on offer, up to 300 Pa useful static pressure, and different configuration possibilities
- Wide choice of accessories for filtration, air distribution
- Availability of special versions for sporting, zootechnical, agricultural applications

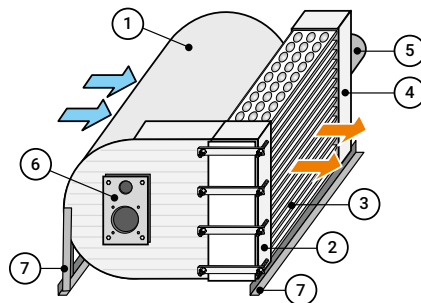
CONSTRUCTION FEATURES

- **3-flue heat exchanger in the GH-ME4 version** inclined to facilitate the exit of condensation produced by condensing operation
- **Heat exchanger with 5 smoke passes in the GCON version**, inclined to facilitate the exit of condensation produced by condensing operation
- Combustion chamber in **AISI 430 for the GH-ME1 model** and in **AISI 441 for the GH-ME4 model and for the GCON model** with flame inversion optimised in size to guarantee the greatest possible heat exchange surface area
- Flue gas exchanger in **AISI 304L for the GH-ME1 model** and in **AISI 441 for the GH-ME4 model and for the GCON model**, equipped with turbulator imprints to increase the thermal coefficient (patented detail studied with the University of Padua Research Centre)
- Heat exchange is optimised by the presence of deflectors on the exchanger that optimally direct the air flows that pass through it, which are given a counter-current motion with respect to the fumes inside the exchanger
- The burner mounting plate is pre-drilled at the factory according to the type of burner used
- The fan section is composed of the fan, single or double depending on the machine model, which is connected to the motor through a belt and pulley transmission; the wide choice of components allows for machines capable of providing useful heads of 300 Pa

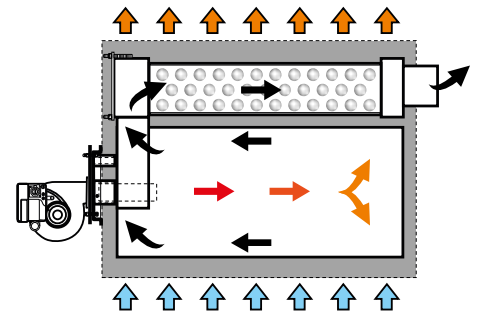
Anemos GH-ME Vertical



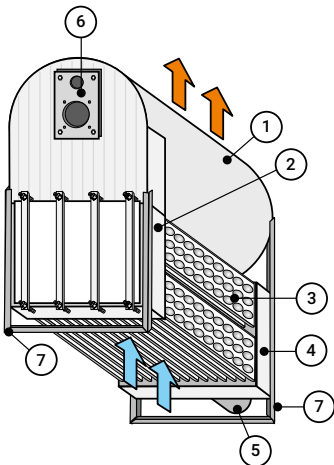
Anemos GH-ME Horizontal



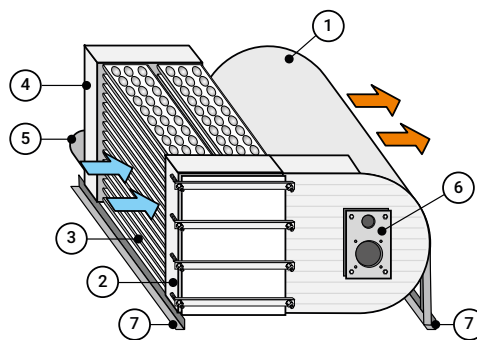
Structure GH-ME



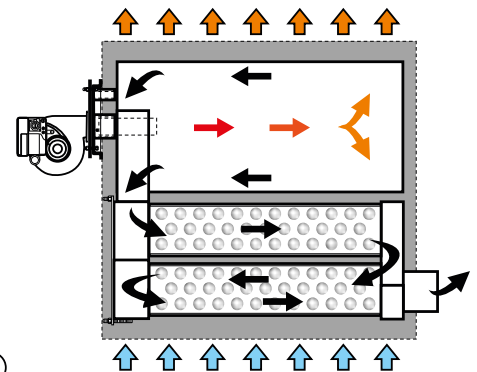
Anemos GCON4 Vertical



Anemos GCON4 Horizontal



Structure GCON4



Type	Description	GH-ME1	GH-ME4	GCON4
		Mix	Solo AISI 441	Solo AISI 441
1	Combustion chamber	AISI 430	AISI 441	AISI 441
2	Flue gas distribution manifold	AISI 430	AISI 441	AISI 441
3	Heat exchanger	Aluminized	AISI 441	AISI 441
4	Flue gas collection manifold	AISI 430	AISI 441	AISI 441
5	Flue gas exhaust pipe	AISI 430	AISI 441	AISI 441
6	Burner flange	Steel	Steel	Steel
7	Brackets/Supporting feet	Steel	Steel	Steel
Main features		Standard (NO condensation)	Condensation, Modulation ($\eta_{max} \sim 103\%$)	Condensation, Modulation ($\eta_{max} \sim 109\%$)
Field of application: traditional uses		Warm Air Generators	Warm Air Generators, AHUs, Roof-Top	

MODEL RANGE GH-ME1

Standard high efficiency, Modulation (η max~103%)

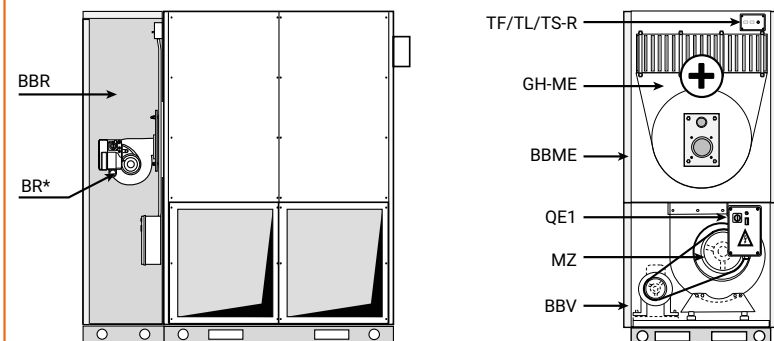
GH1-12	14 kW - η_s 82,2 %
GH1-15	18 kW - η_s 85,3 %
GH1-20	23 kW - η_s 84,2 %
GH1-25	28 kW - η_s 84,2 %
GH1-29	33 kW - η_s 85 %
GH1-30	34 kW - η_s 87,7 %
GH1-40	46 kW - η_s 89,9 %
GH1-60	69 kW - η_s 88,5 %
GH1-80	93 kW - η_s 87,7 %
GH1-110	127 kW - η_s 87,8 %
GH1-130	151 kW - η_s 87,2 %
GH1-160	186 kW - η_s 87,5 %
GH1-200	232 kW - η_s 87,6 %
GH1-250	290 kW - η_s 87,2 %
GH1-300	348 kW - η_s 87,4 %
GH1-350	407 kW - η_s 87,6 %
GH1-400	465 kW - η_s 87,8 %
GH1-450	522 kW - η_s 87,4 %
GH1-520	603 kW - η_s 87,1 %
GH1-580	672 kW - η_s 87,5 %
GH1-650	754 kW - η_s 87 %
GH1-750	870 kW - η_s 87,1 %
GH1-850	986 kW - η_s 86,8 %
GH1-1000	1.160 kW - η_s 86,9 %
GH1-1200	1.400 kW - η_s 87,2 %



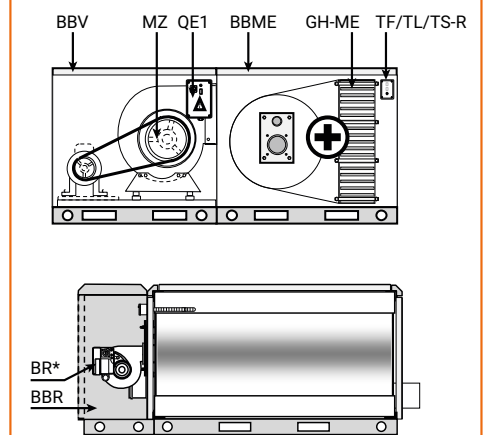
η_s = Seasonal energy efficiency of room heating ($\geq 74\%$) with installation outside the heated room

CONFIGURATION OF GH-ME1 MODELS

GH-ME VERTICAL



GH-ME HORIZONTAL



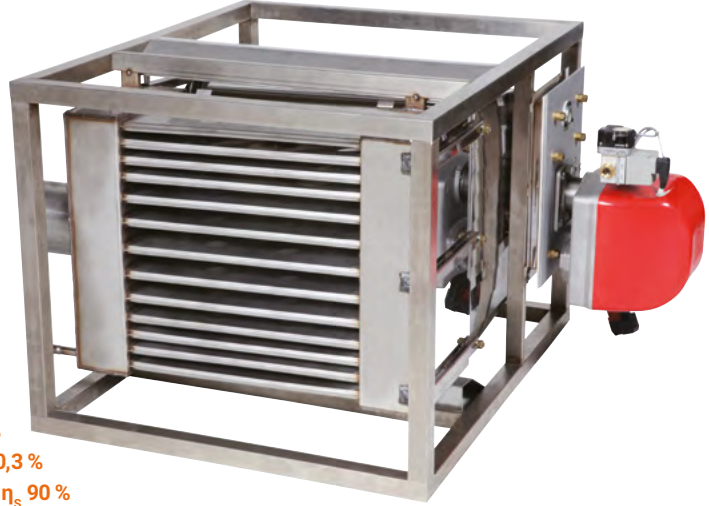
LEGEND

BBME	Combustion Module Box	TF/TL/TS-R	Kit 3 thermostats
GH-ME	ME1 Exchanger	BBR	Burner box (outdoor versions only)
BBV	Fan section box	BR	Burner (optional)
MZ	Motorisation (motor+fan)	VI	Indoor Vertical Version
QE1	Electrical Box	VE	Outdoor Vertical Version

MODEL RANGE GH-ME4

High efficiency, Condensation, Modulation (η max~103%)

GH4-12	11 kW - η_s 84,8 %
GH4-15	14 kW - η_s 87,3 %
GH4-20	18 kW - η_s 86,5 %
GH4-25	22 kW - η_s 87,7 %
GH4-29	26 kW - η_s 87,2 %
GH4-30	27 kW - η_s 89,8 %
GH4-40	37 kW - η_s 92 %
GH4-60	55 kW - η_s 90,9 %
GH4-80	74 kW - η_s 90,2 %
GH4-110	102 kW - η_s 90,3 %
GH4-130	121 kW - η_s 89,8 %
GH4-160	149 kW - η_s 90 %
GH4-200	186 kW - η_s 90,1 %
GH4-250	232 kW - η_s 89,8 %
GH4-300	278 kW - η_s 90 %
GH4-350	326 kW - η_s 90,2 %
GH4-400	372 kW - η_s 90,3 %
GH4-450	418 kW - η_s 90 %
GH4-520	482 kW - η_s 89,8 %
GH4-580	538 kW - η_s 90 %
GH4-650	603 kW - η_s 89,7 %
GH4-750	696 kW - η_s 89,7 %
GH4-850	789 kW - η_s 89,5 %
GH4-1000	928 kW - η_s 89,6 %
GH4-1200	1.120 kW - η_s 89,9 %



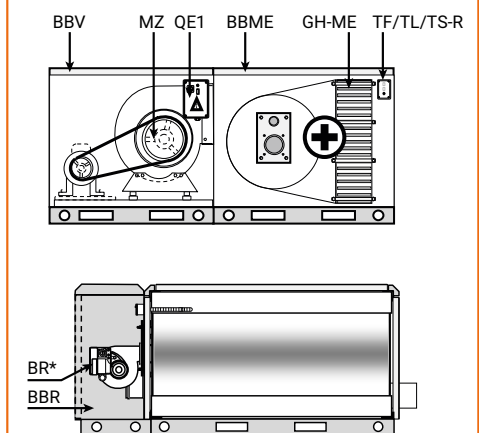
η_s = Seasonal energy efficiency of room heating ($\geq 74\%$) with installation outside the heated room

CONFIGURATION OF GH-ME4 MODELS

GH-ME VERTICAL



GH-ME HORIZONTAL

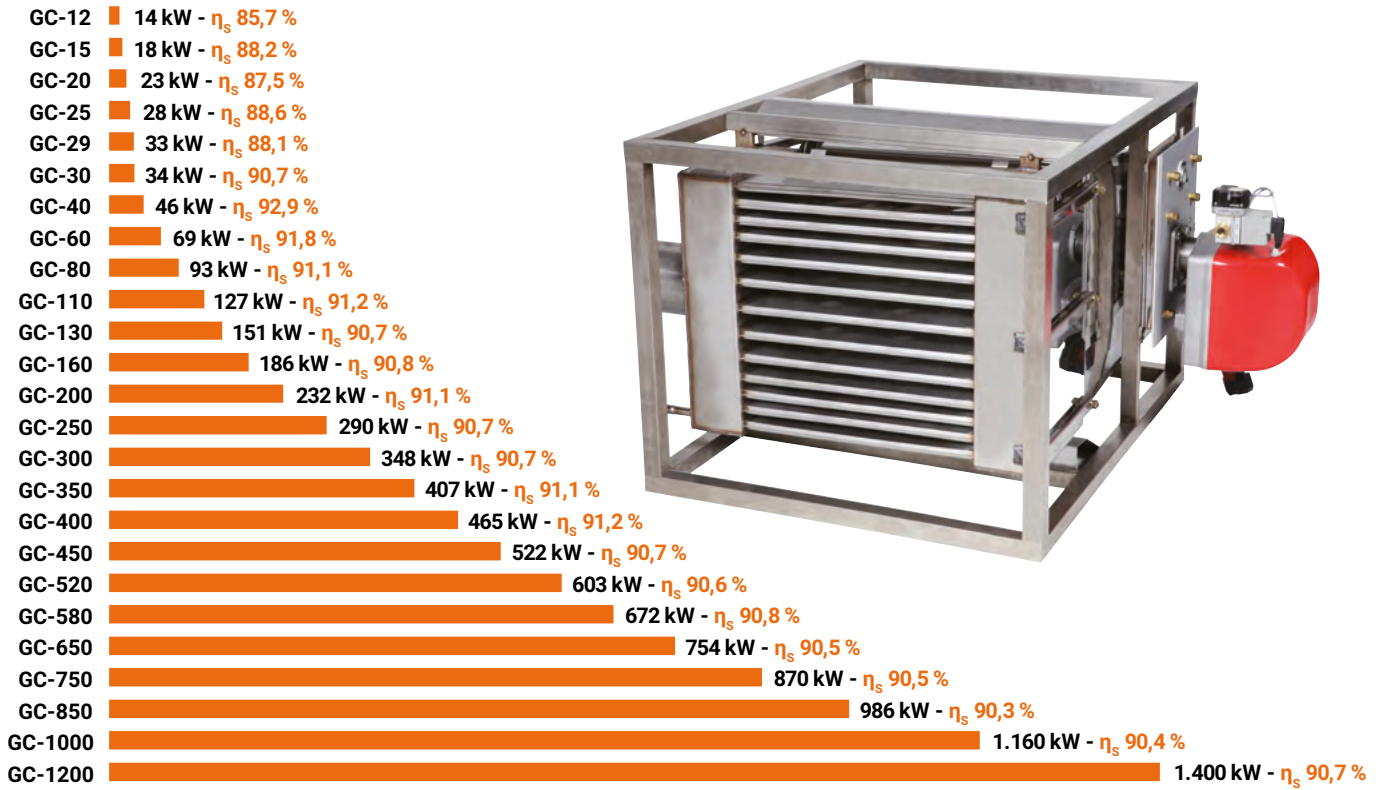


LEGEND

BBME	Combustion Module Box	TF/TL/TS-R	Kit 3 thermostats
GH-ME	ME4 Exchanger	BBR	Burner box (outdoor versions only)
BBV	Fan section box	BR	Burner (optional)
MZ	Motorisation (motor+fan)	VI	Indoor Vertical Version
QE1	Electrical Box	VE	Outdoor Vertical Version

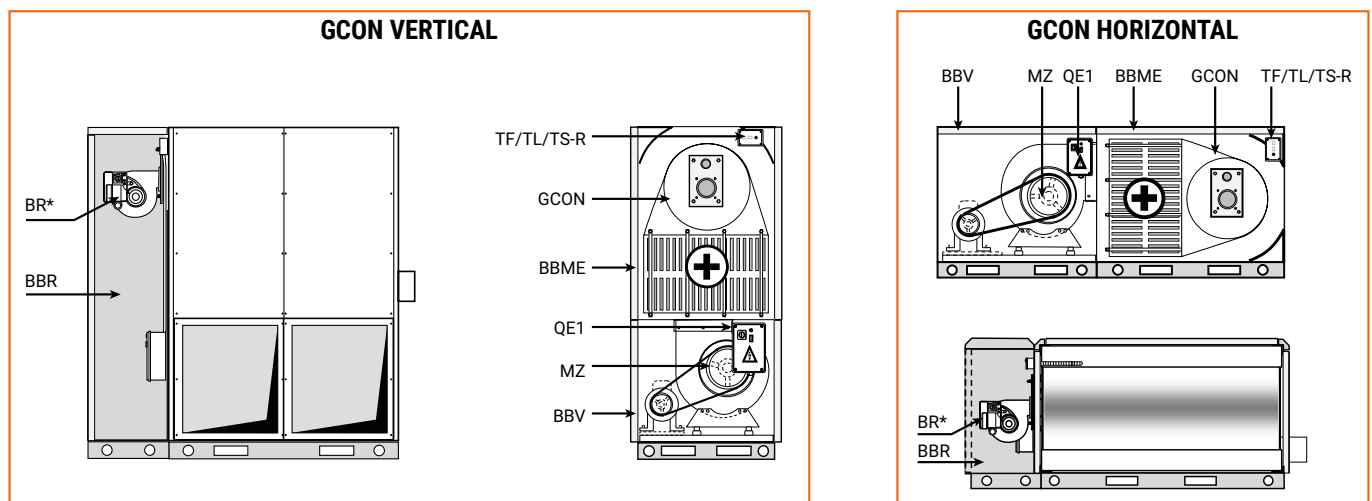
MODEL RANGE GCON4

High efficiency, Condensation, Modulation (η max~109%)



η_s = Seasonal energy efficiency of room heating ($\geq 74\%$) with installation outside the heated room

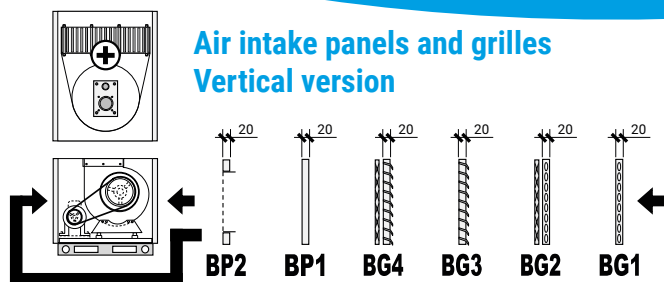
CONFIGURATION OF GCON4 MODELS



LEGEND			
BBME	Combustion Module Box	TF/TL/TS-R	Kit 3 thermostats
GCON	GCON4 Exchanger	BBR	Burner box (outdoor versions only)
BBV	Fan section box	BR	Burner (optional)
MZ	Motorisation (motor+fan)	VI	Indoor Vertical Version
QE1	Electrical Box	VE	Outdoor Vertical Version

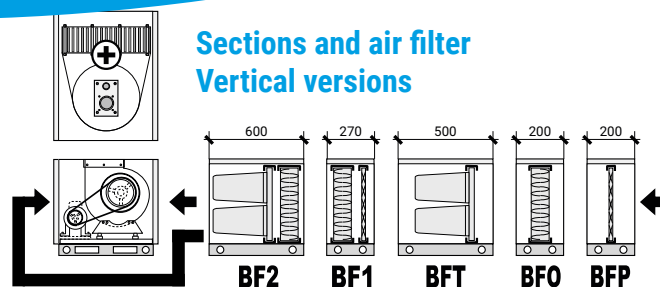
ACCESSORIES

Air intake panels and grilles Vertical version



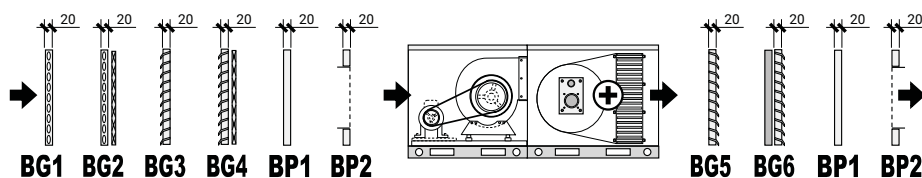
- BG1-K** = Perforated panel (= air intake grille) without air filter - Suitable for closing only No. 1 side of the intake section
- BG2-K** = Perforated panel (= air intake grille) + flat air filter with EU3 filtration degree (EUROVENT 4/5) - Suitable for closing only No. 1 side of the intake section
- BG3-K** = Panel with air intake grille with a single order of fixed fins (with rainproof characteristics) in sheet metal, without air filter - Suitable for closing only No. 1 intake side
- BG4-K** = Panel with air intake grille with single order of fixed fins (with rainproof characteristics) in sheet metal + EU3 flat air filter - Suitable for closure of only N° 1 suction side
- BP1-K** = Closed/blind panel - Suitable for closing only N° 1 suction side
- BP2-K** = Panel with N°1 hole with dimensions on request - Suitable for closing only N° 1 side of the suction section - Use: e.g. to install an "ST" damper on it

Sections and air filter Vertical versions



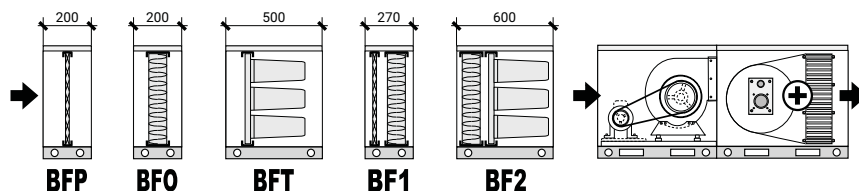
- BFP-K** = Ductable air filter section + flat air filter; Filtering degree EU3 (EUROVENT 4/5); Filter removable only from above
- VARIANT** = Full-INOX flat air filter (AISI304 stainless steel sock mat + 2 nets and AIS304 frame), Filtration grade EU1. (price to be added to BFP price)
- BFO-K** = Ductable air filter section + corrugated air filter H=100mm HIGH EFFICIENCY; Filtering degree EU5 (EUROVENT 4/5); Filter removable only from above
- BFT-K** = Ductable air filter section + POCKET AIR FILTER H=400mm HIGH EFFICIENCY; Filter grade EU7 (EUROVENT 4/5); Filter can only be removed from the top
- BF1-K** = Ductable air filter section + Double air filter (Flat, EU3 filtration degree + Corrugated H=100mm, EU5 filtration degree); Filter removable from above only
- BF2-K** = Ductable air filter section + Double air filter (Corrugated H=100mm, filtering degree EU5 + Pockets H=400mm, filtering degree EU7); Removable filters only from above

Air intake panels and grilles Horizontal versions



- BG1-K** = Pannello forato (= griglia aspirazione aria) senza filtro aria
- BG2-K** = Pannello forato (= griglia aspirazione aria) + Filtro aria piano con grado filtrazione EU3 (EUROVENT 4/5)
- BG3-K** = Pannello con griglia aspirazione aria a semplice ordine di alette fisse (con caratteristiche anti-pioggia) in lamiera, senza filtro aria
- BG4-K** = Pannello con griglia aspirazione aria a semplice ordine di alette fisse (con caratteristiche anti-pioggia) in lamiera + Filtro aria piano con grado filtrazione EU3 (EUROVENT 4/5)
- BG5-K** = Pannello con griglia mandata aria a semplice ordine di alette (alette in lamiera stampata, in ogni caso orientabili)
- BG6-K** = Pannello con griglia mandata aria a doppio ordine di alette (alette in lamiera stampata, in ogni caso orientabili)
- BP1-K** = Pannello chiuso/cieco per la chiusura di 1 lato della sezione (specificare il lato richiesto)
- BP2-K** = Pannello con N°1 foro con dimensioni a richiesta - Idoneo per la chiusura di N° 1 lato della sezione (specificare il lato richiesto) - Uso: es. per installarci sopra una serranda "ST"

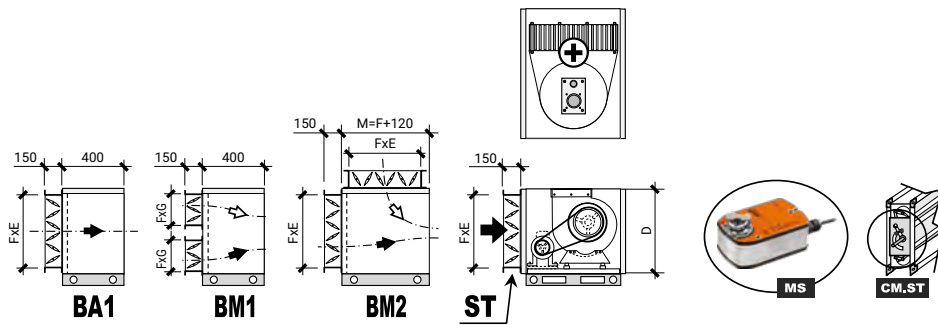
Sections and air filter Horizontal versions



- BG1-K** = Sezione filtro aria canalizzabile + filtro aria piano; Grado filtrazione EU3 (EUROVENT 4/5); Filtro estraibile solo da un lato (stesso lato bruciatore)
- V.BFP (AISI304)** = VARIANTE: Filtro aria piano Full-INOX (materassino in calza inox AISI304 + 2 reti e telaio AIS304), Grado filtrazione EU1. (prezzo da sommare al prezzo di BFP)
- BFO-K** = Sezione filtro aria canalizzabile + filtro aria ondulato H=100mm ALTA EFFICIENZA ; Grado filtrazione EU5 (EUROVENT 4/5); Filtro estraibile solo da un lato (stesso lato bruciatore)
- BFT-K** = Sezione filtro aria canalizzabile + filtro aria A TASCHE H=400mm ALTISSIMA EFFICIENZA; Grado filtraz. EU7 (EUROVENT 4/5); Filtro estraibile solo da un lato (stesso lato bruciatore)
- BF1-K** = Sezione filtro aria canalizzabile + Doppio filtro aria (Piano, grado filtraz. EU3 + Ondulato H=100mm, grado filtraz. EU5); Filtri estraibili solo da un lato (stesso lato bruciatore)
- BF2-K** = Sezione filtro aria canalizzabile + Doppio filtro aria (Ondulato H=100mm, grado filtraz. EU5 + Tasche H=400mm, grado filtraz. EU7); Filtro estraibile solo dal lato bruciatore

ACCESSORIES

Air intake and air mixing sections Vertical versions

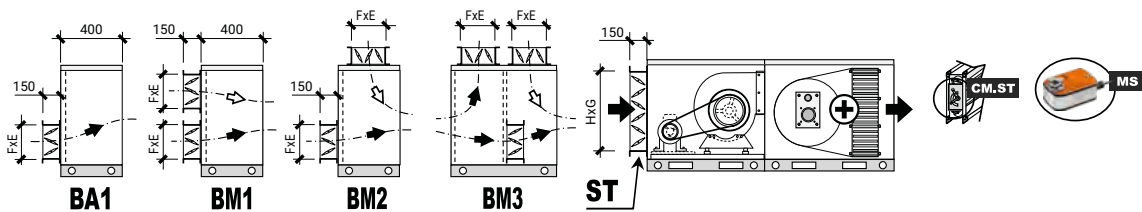


- ST** = Frontal damper (with dimensions similar to air intake suction), without control. Normally it is used on the units with all external air treatment or all recirculation air
- BA1-K** = Air intake section with 1 frontal regulation/adjustment louver (louver without control - can be either manual or motorized control)
- BM1-K** = Air mixing section with 2 Frontal regulation/adjustment louvers - Louvers without controls - can be either manual or motorized control
- BM2-K** = Air mixing section with 2 Regulation/adjustment louvers (1 frontal louver + 1 louver on upper side) - Louvers without controls - can be either manual or motorized control

The dampers are sized to intercept and control the 100% of the air flow. Most common sections are shown (most requested). Depending on the needs, any configuration can be requested:

- The dampers can be requested in different size (different price, according to AIR section).
- The dampers can be mounted in different positions of the section (rear panel, upper panel, lower, right or left side panel): same price with the same louvers dimensions.
- The dampers may not be required: as alternative the air intake can be made with a simple opening, with a flange, or a blank panel on which practice the wished size opening.
- **The louvers are supplied without control (with only the rotation pin). Available a wide range of manual controls, on/off damper motors, modulating.**

Air intake and air mixing sections Horizontal versions



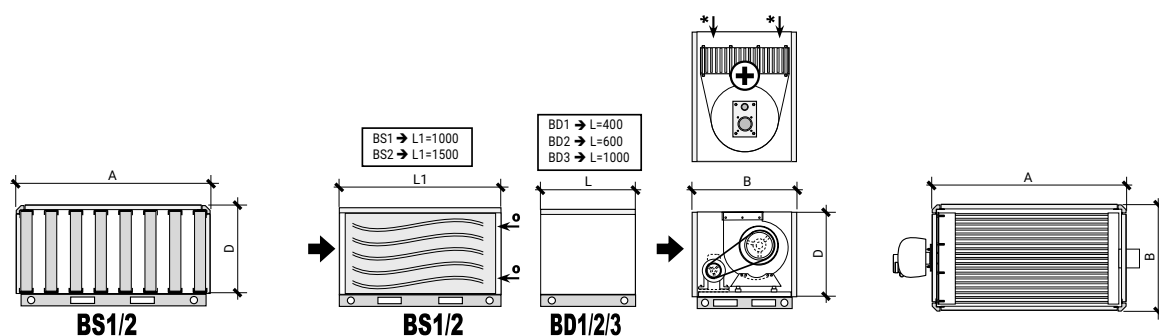
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- BA1-K** = Air intake section with 1 frontal regulation/adjustment louver (louver without control - can be either manual or motorized control)
- BM1-K** = Air mixing section with 2 Frontal regulation/adjustment louvers - Louvers without controls - can be either manual or motorized control
- BM2-K** = Air mixing section with 2 Regulation/adjustment louvers (1 frontal louver + 1 louver on upper side) - Louvers without controls - can be either manual or motorized control
- BM3-K** = Air mixing and discharge section with 3 Louvers (free-cooling; free-heating) - This solution is used when there is an intake fan for discharge+mixing - No controls

The dampers are sized to intercept and control the 100% of the air flow. Most common sections are shown (most requested). Depending on the needs, any configuration can be requested:

- The dampers can be requested in different size (different price, according to AIR section).
- The dampers can be mounted in different positions of the section (rear panel, upper panel, lower, right or left side panel): same price with the same louvers dimensions.
- The dampers may not be required: as alternative the air intake can be made with a simple opening, with a flange, or a blank panel on which practice the wished size opening.
- **The louvers are supplied without control (with only the rotation pin). Available a wide range of manual controls, on/off damper motors, modulating.**

ACCESSORIES

Empty sections and Silencers Vertical versions



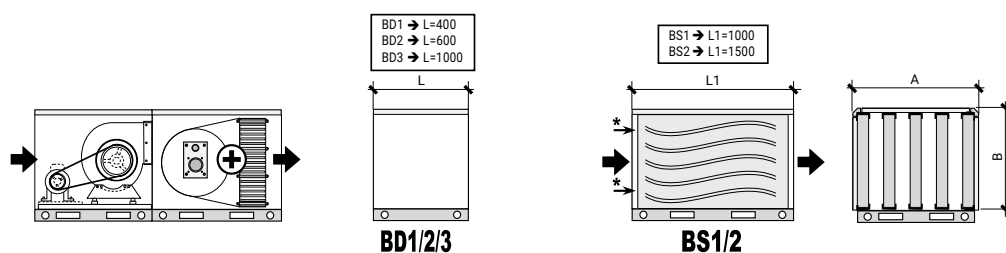
- BD1-K** Empty section L = 400mm (Typical application: inspection, field devices insertion, free sections configuration)
- BD2-K** Empty section L = 600mm (Typical application: inspection, field devices insertion, free sections configuration)
- BD3-K** Empty section L = 1.000mm (Typical application: inspection, field devices insertion, free sections configuration)
- BS1-K** Noise level silencer section dissipative type with sound attenuators made of glass wool and lined by a compact fabric ("velovetro"), L1 = 1.00
- BS2-K** Noise level silencer section dissipative type with sound attenuators made of glass wool and lined by a compact fabric ("velovetro"), L1 = 1.500mm

Sections/Accessories supplied mounted or not mounted (on request) on the unit. Most common sections are shown (most requested). Depending on the needs, any configuration can be requested:

- Silencer with any wished length.
- Empty section with any wished length. Coupling a BD empty section to BG or BP perforated panels, grilles, ST dampers, etc. it is possible to have any intake section, mixing, recirculation, expulsion or air supply section with the wished configuration.
- Note: the empty section can be used to access and inspect of the components and the maintenance of the unit or to enable the installation of probes, thermostats, pressure switches and any other "field device".

BS1-BS2 installed on the air-supply of the ventilating section: it is mandatory to add/interpose an empty section min L400mm between the ventilating section and the noise attenuator (in order to distribute the air on the noise attenuator, since the sound-absorbing baffles have the same length as the BS1/2 section).

Empty sections and Silencers Horizontal versions



- BD1-K** Empty section L = 400mm (Typical application: inspection, field devices insertion, free sections configuration)
- BD2-K** Empty section L = 600mm (Typical application: inspection, field devices insertion, free sections configuration)
- BD3-K** Empty section L = 1.000mm (Typical application: inspection, field devices insertion, free sections configuration)
- BS1-K** Noise level silencer section dissipative type with sound attenuators made of glass wool and lined by a compact fabric ("velovetro"), L1 = 1.00
- BS2-K** Noise level silencer section dissipative type with sound attenuators made of glass wool and lined by a compact fabric ("velovetro"), L1 = 1.500mm

Sections/Accessories supplied mounted or not mounted (on request) on the unit. Most common sections are shown (most requested). Depending on the needs, any configuration can be requested:

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BS1-BS2 installed on the air-supply of the ventilating section: it is mandatory to add/interpose an empty section min L400mm between the ventilating section and the noise attenuator (in order to distribute the air on the noise attenuator, since the sound-absorbing baffles have the same length as the BS1/2 section).

MISSION

SUPPORT OUR CUSTOMERS BY PROPOSING ENERGY-EFFICIENT AND ENERGY-SAVING SOLUTIONS AND SYSTEMS.

VISION

SUPPORTING OUR CUSTOMERS TO CREATE CONFERTBLE WORKING ENVIRONMENTS WITH DEDICATED HVAC SOLUTIONS.

MISSION

VISION

SYSTEMS

HEATING COOLING

MAP

GREEN ENERGY



Since 1986, Systema S.p.A. is one of the leader companies in Italy and Europe in designing, developing and producing devices for the heating and conditioning in industrial and commercial buildings.

There has been always in Systema's Research and Development department where high investments have been made, since the beginning, for the creation of an internal laboratory who could design and offer highly innovative products that can satisfy and anticipate all the requests coming from the market. In this field Systema works together with important Italian, European and extra-European laboratories and university departments. A cooperation which leads to the concept of innovative and visionary products and solutions and to the obtaining of several international patents.

Systema S.p.A. differs from competitors because can offer a complete range of products that goes from commercial and industrial heating with radiant and hot air solutions, to conditioning with absorption chillers, electric heat pumps and evaporative adiabatic coolers and with a specific focus on the agricultural and breeding farms products for heating (both heaters and radiant systems) and conditioning with adiabatic coolers. This range has been conceived looking for environmental-friendly products with the lowest energy consumption.

Managing such a large range of products is not easy but, also in this field, Systema S.p.A. has been always different with an internal and external organization that guarantees high quality services through an extensive commercial network made of highly qualified technical salesmen, an internal organization of customer service with experience in designing and consultancies well aware of all the required standards and rules and a massive after sales structure both internal and external that Systema keeps regularly update in order to have technicians who are always very well prepared.

The work of these structures is greatly facilitated by Systema S.p.A.'s production facilities, which are made up of the highest quality standards and production processes that are technologically advanced and constantly modernised. The united work of those responsible for production, procurement and quality allows Systema S.p.A. to make available to its commercial structure products and systems that are of high quality, reliable and made in full compliance with the most advanced standards.

Systema S.p.A. is able to supply its sales organisation with products and systems of high quality and reliability and manufactured in full compliance with the most advanced standards.

Systema S.p.A. has thus managed, over the years, to gain a strong international presence which sees it active in markets all over the world, carrying forward the flag of top quality Made in Italy and achieving leadership positions in many countries. A strategic decision was taken by Systema S.p.A. to create Systema Polska, which is able to provide a highly qualified, high quality production force and a commercial structure, in synergy with that of Systema S.p.A., which is able to present and improve the commercial penetration of Systema products in markets such as Poland and neighbouring countries.

The synergies put in place have greatly facilitated the growth of the services offered to the market, services made up of a very high level of attention to the customer, who in Systema finds not only a business partner but also a highly qualified technical consultancy service that goes hand in hand with reliable after-sales services that are always ready to quickly resolve any problems reported by the customers themselves.

*Systema: focus on the future
by interpreting the present...*



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