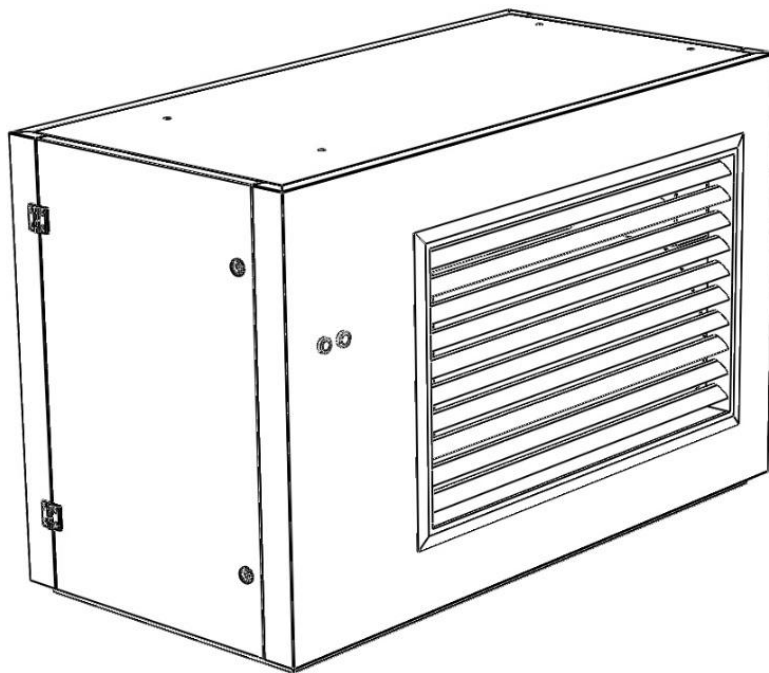




# SYSTEMA

## DIESEL OIL AIRTIGHT SUSPENDED WARM AIR HEATERS EOLO G GE/GC



**USER MANUAL  
INSTALLATION, USE AND MAINTENANCE**

Rev. 01EN18-04



**IMPORTANT:**

Read this manual carefully before starting up the system.  
In order to improve the product, Systema reserves the right to modify content without notice.

Appliance subject to periodic maintenance, depending on the type of fuel, specific applications, room temperature, time of use etc.



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# 1 GENERAL RULES

The present instruction manual is an integral and essential part of the appliance and must be kept carefully beside the appliance for further consultation.

Read the instructions and warnings contained in this manual carefully as they provide important information on safety, installation, use and maintenance.

## **ATTENTION!!**

In the event of this manual being misplaced contact the manufacturer immediately.

Several appliances installed in the same room or in directly communicating rooms, are considered as a single system, with a thermal capacity of the total of the thermal capacities of each single appliance.

Use is not permitted for the heating of rooms intended for craft or industrial activities in which processes and stored materials may give rise to vapours or dust which may cause fires or explosions.

The installation must be performed by professionally qualified personnel responsible for compliance with the current safety standards. The manufacturer declines all responsibility in the event of damages caused by erroneous installation or improper and/or of the appliance.

The packaging materials (nylon, foamed polystyrene, wood, staples, etc...) must not be left within the reach of children as they are potential sources of danger and pollution, but they must be collected and stored in a proper area.

Initial ignition of the appliance must be performed by professionally qualified personnel.

In the case of the appliance shutting down or functioning incorrectly it must be switched off. Any repairs or replacement of spare parts must be performed solely by qualified personnel using exclusively original spare parts. Failure to observe these rules may compromise the safety of the equipment.

To guarantee the correct operation of the appliance, carefully follow the instructions provided by the manufacturer and have the appliance serviced by qualified personnel at least once a year.

To switch off the appliance, always use the ambient thermostat and not the main switch on the control board, as this may cause overheating in the combustion chamber and consequently damage the appliance.

If there is a change of ownership or a new tenant, provide the new owner or tenant with all documentation relating to the heating system. The heater should be installed inside the building.

# 1.1 TECHNICAL SPECIFICATIONS

EOLO G...Oil burner version GE - axial fan and GC - centrifugal fan

# 1.2 TECHNICAL DATA

EOLO		25 GE/GC	35 GE/GC	45 GE/GC	55 GE/GC	65 GE/GC	85 GE/GC	100 GE/GC	
Thermal load	kW	22	32	42	50	62	80	101	
Combustion performance	%	<b>91</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>92</b>	
Emission CO	Mg/kWh	30		25			20		
Emission NOx	Mg/kWh	220		180			170		
Thermal load used	kW	<b>20</b>	<b>29.5</b>	<b>27.6</b>	<b>46</b>	<b>57</b>	<b>73.6</b>	<b>92.9</b>	
Fuel	-	Light oil							
Fuel connector diameter	"	½ + ½							
Oil burner model [one stage]	Riello	RG 0.3		RG 1			RG 2		
Total electric power required mod.GE	W	260	350	560	710	690	1120	1480	
Max oil consumption	kg/h	1,85	2,87	4,55	5,9	7,93	9,7	11,8	
Electrical supply		230 V. +/- 50 Hz.							
Total electric power required mod. GE	W	260	350	560	410	690	1 120	1 480	
Total electric power required mod. GC	W	540	580	1 120	1 140	1 160	2 260	2 580	
Air flow GE	m³h.	<b>3 200</b>	<b>4 500</b>	<b>6 000</b>	<b>7 000</b>	<b>8 200</b>	<b>11 000</b>	<b>13 000</b>	
Air flow GC	m³h.	<b>2 200</b>	<b>2 800</b>	<b>4 000</b>	<b>5 100</b>	<b>5 800</b>	<b>8 100</b>	<b>9 600</b>	
No. of ventilators GE/GC	Nr.	1/1	1/1	1/1	1/1	2/2	2/2	2/2	
Air throw GE	m.	13	17	19	23	25	27	30	
Usefull pressure mod. GC (standard)	Pa	110	120	110	110	110	120	120	
Thempeature rise GE/GC	°C	19/27	20/32	20/29	21/29	22/30	21/29	23/32	
Fume outlet diameter / air intake	mm.	100 / 100					130 / 130		
Type of instalation		B 23 – C 13 – C33 – C 53							
Work temperature	°C	0 / 30							
Sound level (at 5 mt)	dBA	51	52	57	58	59	60	61	
Waight GE	Kg.	69	75	89	118	128	192	212	
Waight GC	Kg.	75	86	102	136	148	212	236	

Tab 1.1 technical data

## 1.3 DIMENSIONS

### 1.3.1 Eolo GE- Axial fan

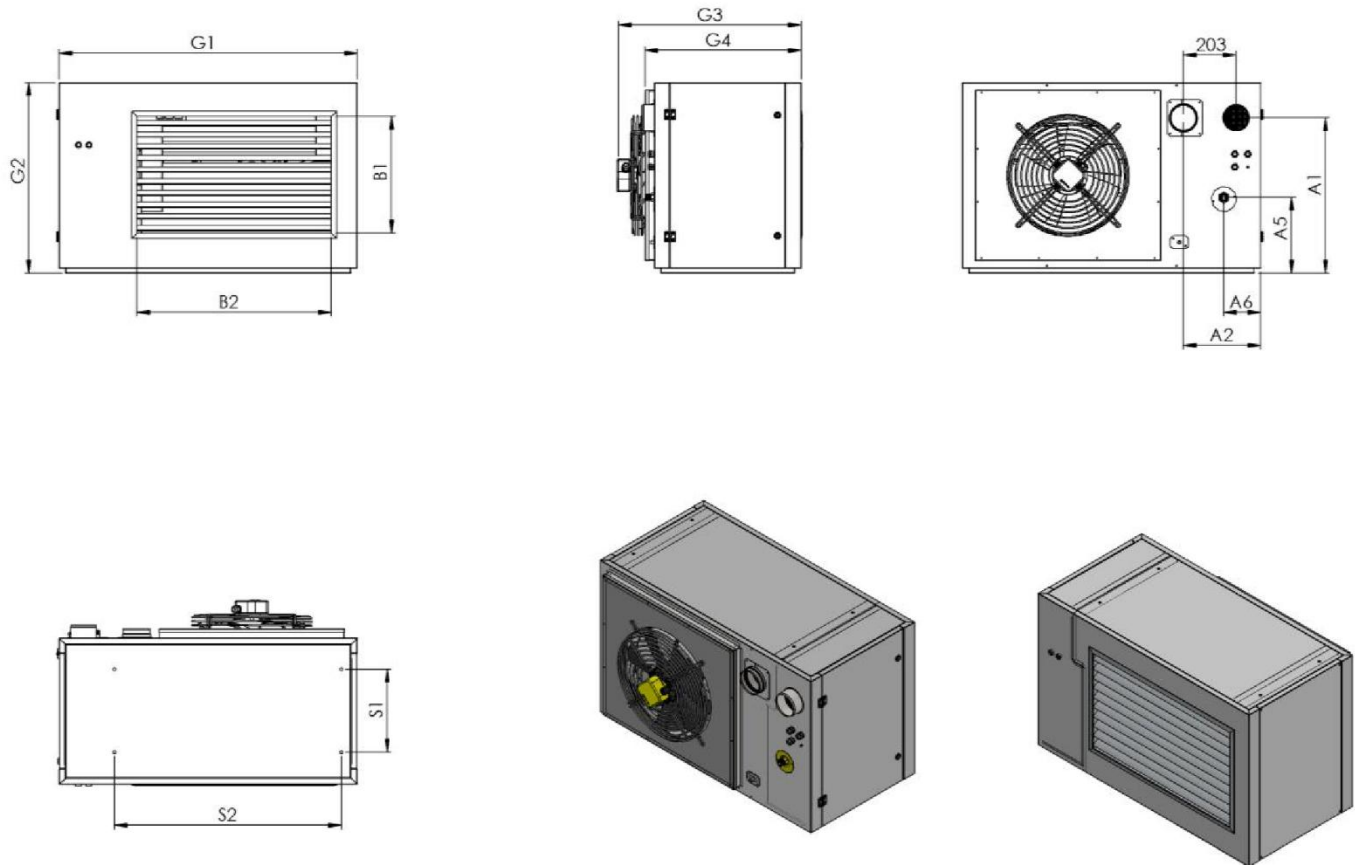


Fig 1.1 Dimensions Eolo GE series

Dimensions Eolo GE													
MODEL	G1	G2	G3	G4	A1	A2	A5	A6	B1	B2	S1	S2	Weight
EOLO 25 GE	854	620	655	535	475	322	255	95	350	450	232	648	69
EOLO 35 GE	1095	620	655	535	475	322	255	95	350	750	232	887	75
EOLO 45 GE	1155	740	710	600	600	300	285	145	450	750	320	875	89
EOLO 55 GE	1290	740	710	600	600	300	285	145	450	850	320	990	118
EOLO 65 GE	1440	840	840	720	675	324	290	180	500	900	332	1164	128
EOLO 85 GE	1600	840	840	720	675	324	335	160	500	1000	332	1324	192
EOLO 100 GE	1750	840	840	720	675	324	335	160	500	1150	332	1489	212

Tab 1.3

1.3.2 Eolo GC- centrifugal fan

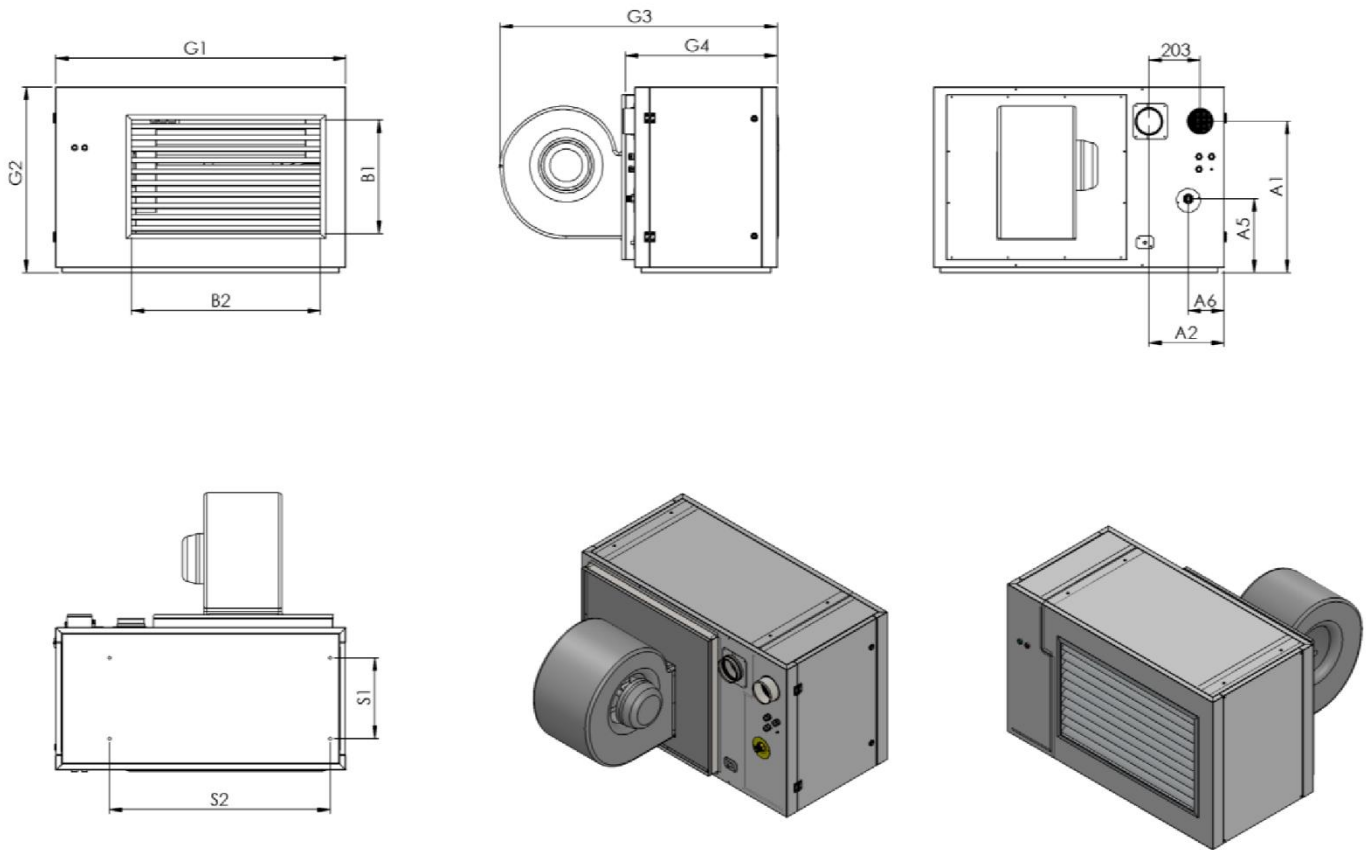


Fig 1.2 Dimensioni Eolo GC - serie centrifuga

Dimensions Eolo GC													
MODEL	G1	G2	G3	G4	A1	A2	A5	A6	B1	B2	S1	S2	Weight
EOLO 25 GC	854	620	655	535	475	322	255	95	350	450	232	648	75
EOLO 35 GC	1095	620	655	535	475	322	255	95	350	750	232	887	86
EOLO 45 GC	1155	740	710	600	600	300	285	145	450	750	320	875	102
EOLO 55 GC	1290	740	710	600	600	300	285	145	450	850	320	990	136
EOLO 65 GC	1440	840	840	720	675	324	290	180	500	900	332	1164	148
EOLO 85 GC	1600	840	840	720	675	324	335	160	500	1000	332	1324	212
EOLO 100 GC	1750	840	840	720	675	324	335	160	500	1150	332	1489	236

Tab 1.4

### 1.3.3 Exploded view of Eolo heater

### 1.3.4 Eolo GE- axial fan

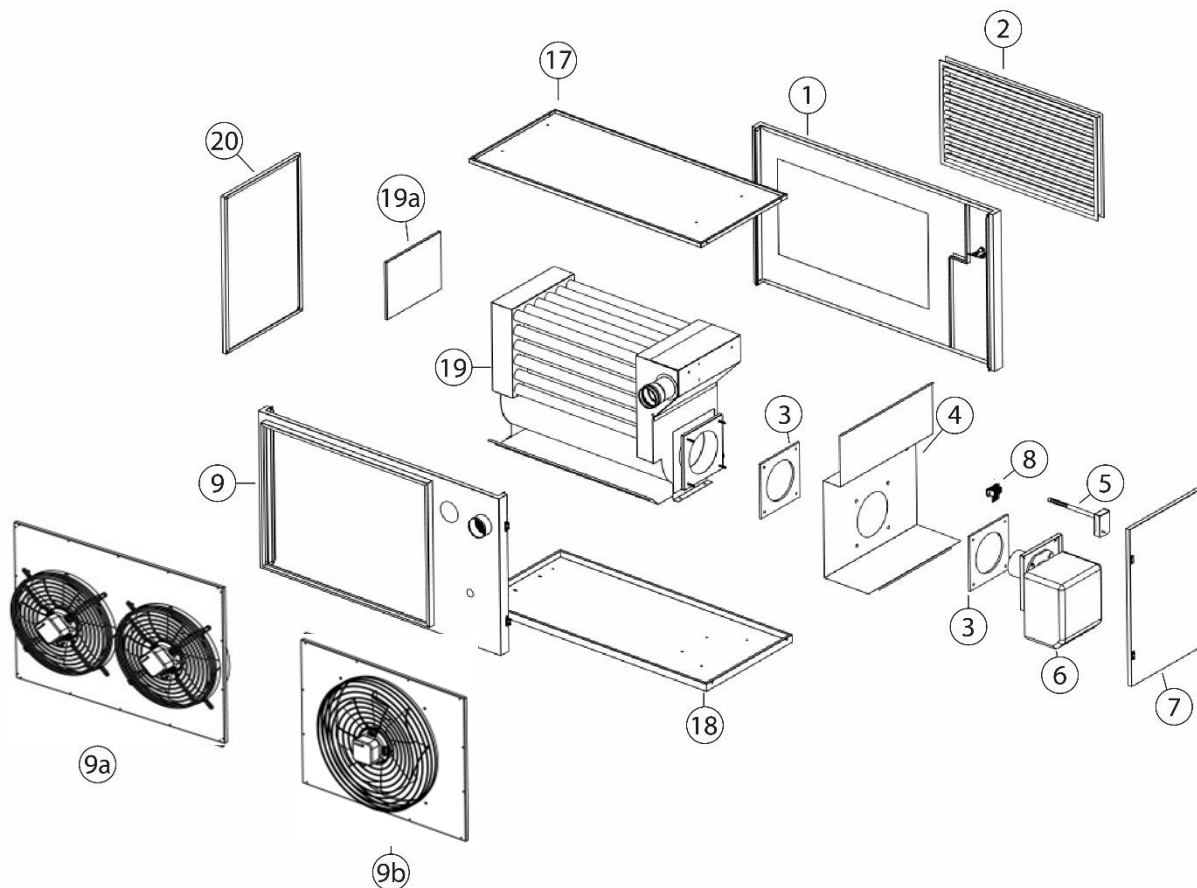


Fig 1.3

Pos	Descripti	Pos	Descrizione
1	Front panel	9	Back panel - fan support
2	Supply air grille with horizontal fins	9a	support with 1 axial fan
3	Thermal isolation	9b	support with 2 axial fans
4	Internal panel	17	top closing panel
5	Double thermostat with STB	18	Base panel
6	Burner RIELLO	19	Heat exchanger with combustion chamberposteriore
7	Side door panel	19a	Inspection of heat exchanger
8	Electrical terminal connection	20	Side panel

Tab 1.5 Explode Eolo GE - axial fan series



1.3.5 Eolo GC - serie centrifuga

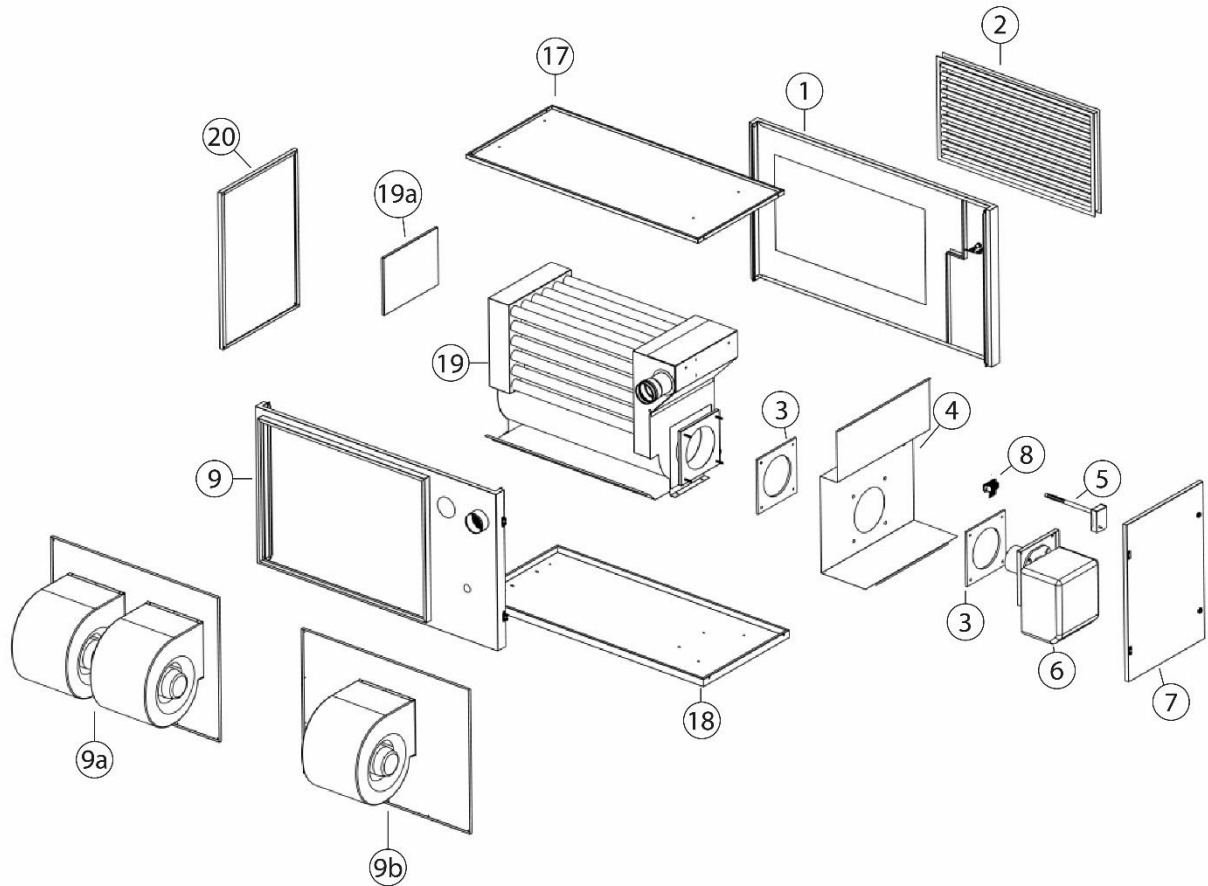
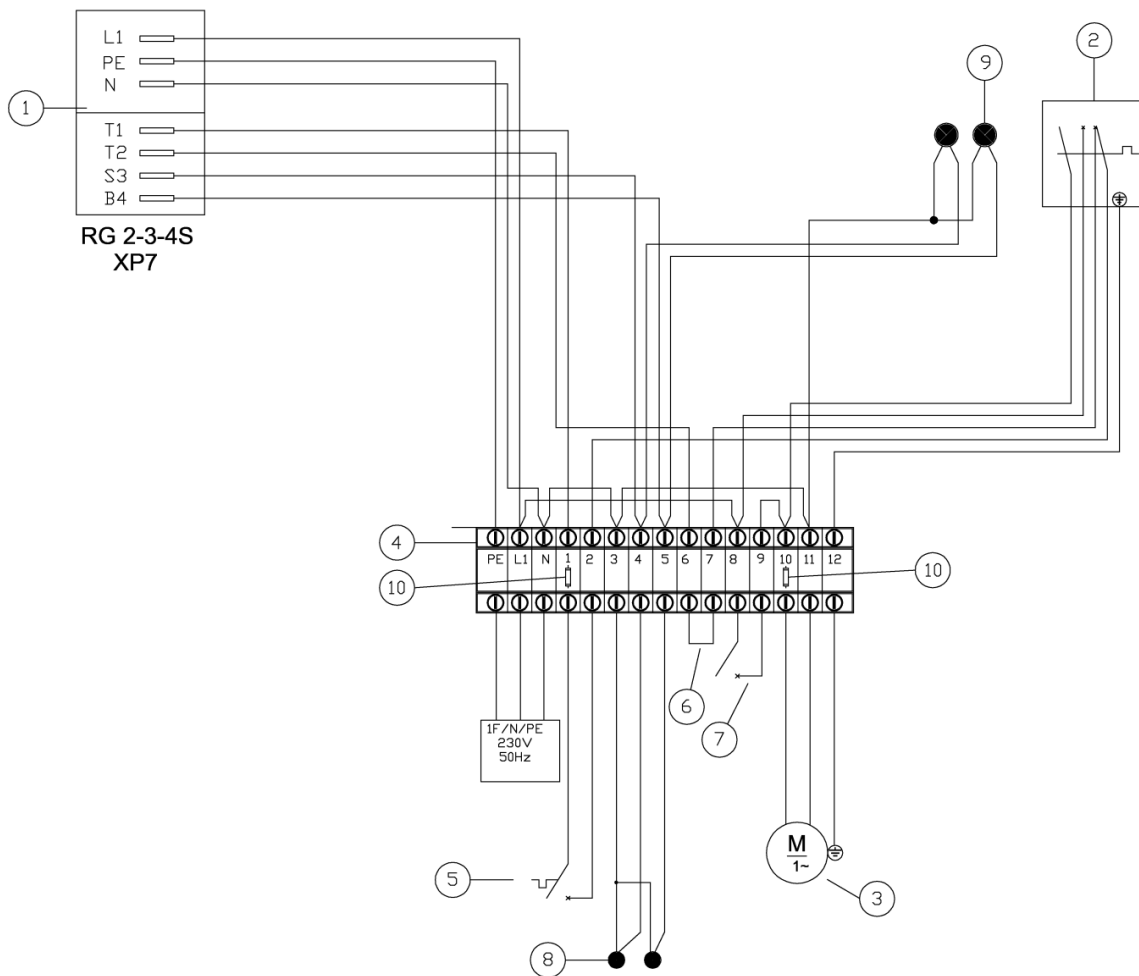


Fig 1.4

No.	Description	No.	Description
1	Front panel	9	Back panel - fan support
2	Supply air grille with horizontal fins	9a	support with 1 centrifugal fan
3	Thermal isolation	9b	support with 2 centrifugal fans
4	Internal panel	17	top closing panel
5	Double thermostat with STB	18	Base panel
6	Burner RIELLO	19	Heat exchanger with combustion chamber posteriore
7	Side door panel	19a	Inspection of heat exchanger
8	Electrical terminal connection	20	Side panel

Tab 1.6 Esploso Eolo GC serie centrifuga

2 ELECTRICAL DIAGRAM EOLO GE - GC



No.	Description
1	7 POLS SOCK RIELLO BURNER
2	THERMOSTAT OF VENTILATION – SAFETY THERMOSTAT
3	FAN CONNECTION - Connectors 10 FASE – 11 NEUTRO – 12 GROUND
4	ELECTRICAL CONNECTORS Alimentazione elettrica 230 V. 50 hz. 1F connettori PE-L1-N
5	AMBIENT THERMOSTAT Connectors 1-2
6	ADDITIONAL SAFETY Connectors 6-7
7	MANUAL TURNING OPERATION OF FANS (SUMMER VENTILATION) Connettori 8-9
8	WARKING / ALARM LIGHT Connectors 3 neutro-com 4 fase/warking - 6 fase / alarm burner light
9	WARKING / ALARM LIGHT - on the front panel
10	FUSES

### 3 BURNER - FUEL CONNECTION

The supply combustible system must comply to the scheme in additional instruction manual of Riello burner.

**ALL THE MAINTENANCE OPERATIONS MUST BE PERFORMED FROM TECHNICAL SPECIALISED PERSONNEL.**

### 4 INSTALLATION

To obtain the maximum performance from the "EOLO" suspended warm air heaters you must follow these rules:

- Established the position, bearing in mind the type of work, priority zones to be heated and absorbing walls (windows, doors, entrances etc.) see fig. (4.1, 4.2, 4.3).
- install the appliances respecting the correct distances from the walls see fig. (5d, 5e)
- install the suspended hot air heaters "EOLO" as near as possible to the area to be heated complying with a distance from the floor and from the people to ensure the jet of warm air is not aimed directly at them.
- When positioning the "EOLO" suspended hot air heaters take into account any obstacles, such as shelves, walls, columns, etc.
- if several appliances are to be installed in the same environment it is advisable to position these on opposite walls and between one another to cover the area to be heated uniformly. In order to uniform the area to be heated uniformly
- if there are any drafts of cold air from entrances, doors, etc. it is advisable to install the appliances so that the jet of hot air is aimed towards the source of cold air.
- the appliance installation mustn't be made in positions or niches that not guarantee sufficient aeration for the good working.
- several appliances installed in the same area or in directly communicating areas, are considered as a single system, with a thermal capacity of the total of the thermal capacities of each single appliance.
- installation must be performed by professionally qualified personnel responsible for complying with the current safety standards. The manufacturer declines all responsibility in the case of damage caused by erroneous installation or improper and/or incorrect use of the appliance

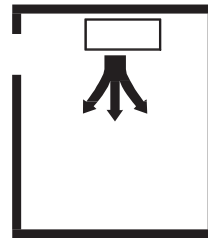


Fig. 4.1

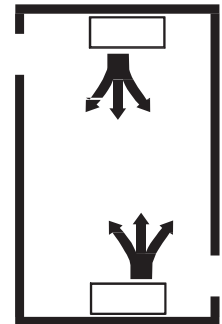


Fig. 4.2

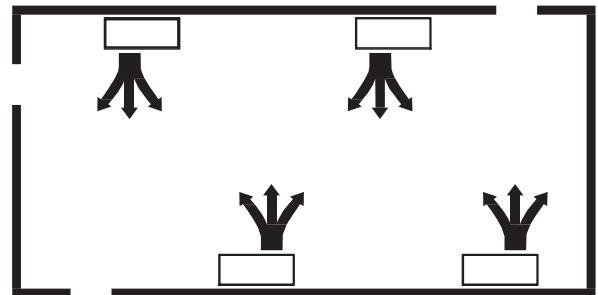


Fig. 4.3

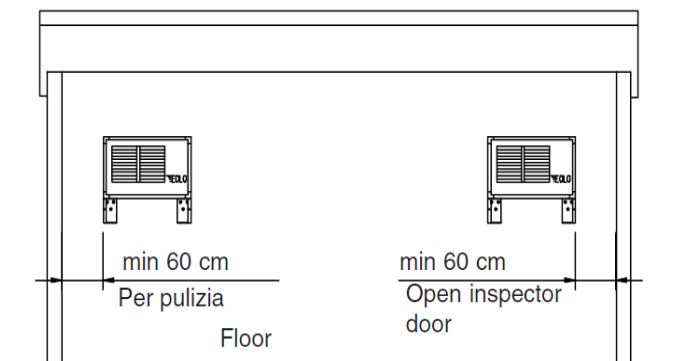


Fig. 5d

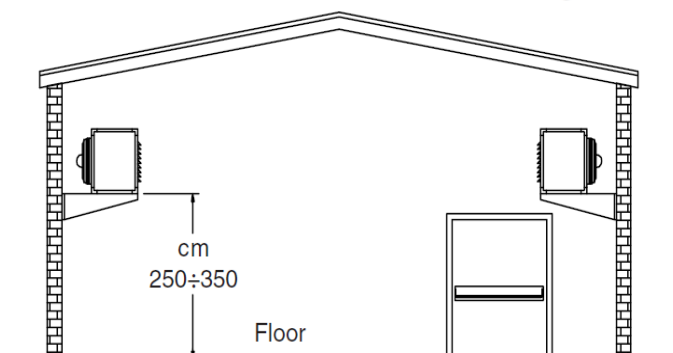


Fig. 5e

## 4.1 WALL INSTALLATION

The Eolo GE - GC heater can be fixed to the wall of the building. Using one of the solutions shown in the following figures..

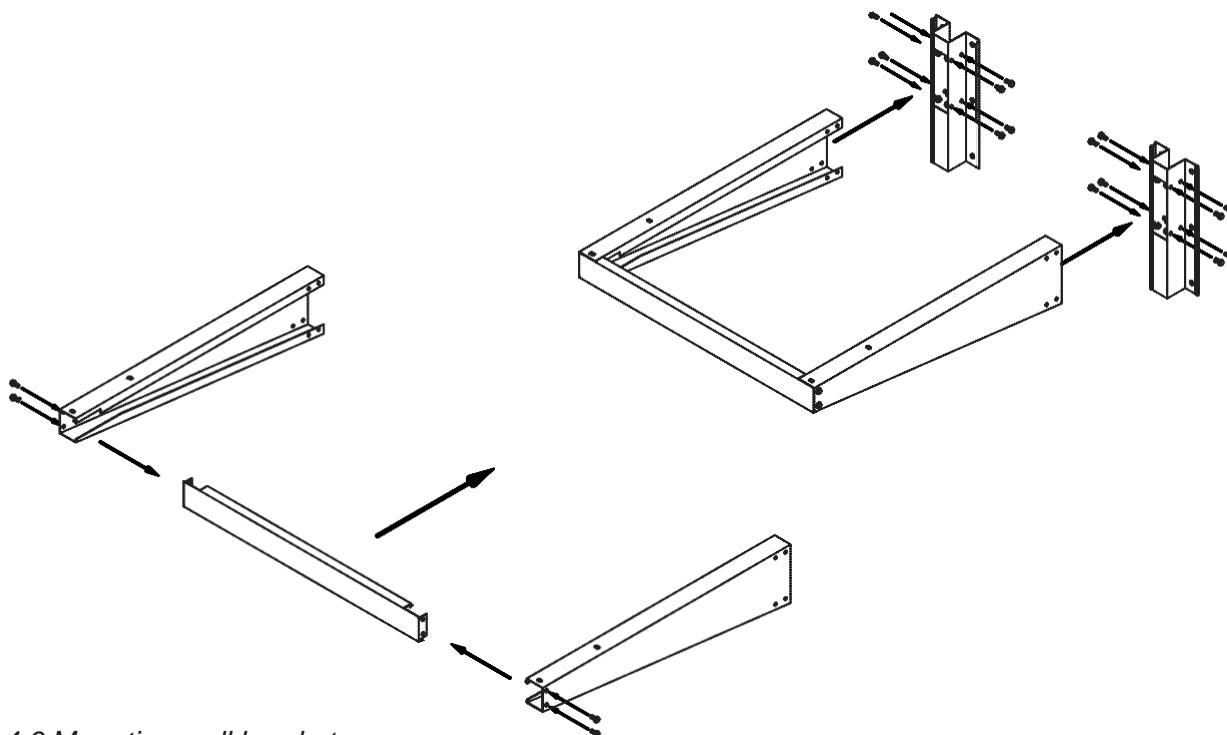


Fig.4.6 Mounting wall bracket

### **ATTENTION!!**

TO INSTALL EOLO IN SUSPENSION, IT IS NECESSARY TO SPECIFY THE ORDER CONFIGURATION.  
The manufacturer declines all responsibility in case of damages due to incorrect installation or improper and / or incorrect use of the appliance .

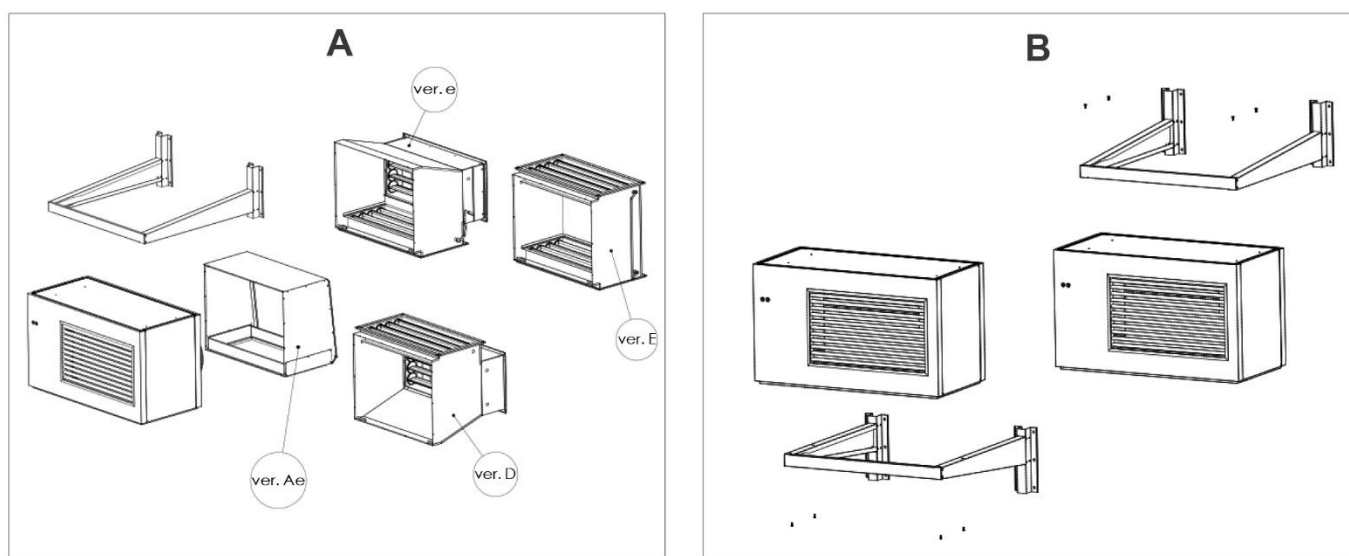


Fig.4.7 Example of wall mounting Eolo GC / GE series with brackets: A - in support, B - in suspension

## 4.2 EXAMPLE OF INSTALTION EOLO CENTRIFUGAL

The following figures show an example of the installation of centrifugal Eolo series, installed inside with air duct and mixing chamber. Air intake takes place both from the outside and inside with the possibility of adjusting the internal / external air mixture.

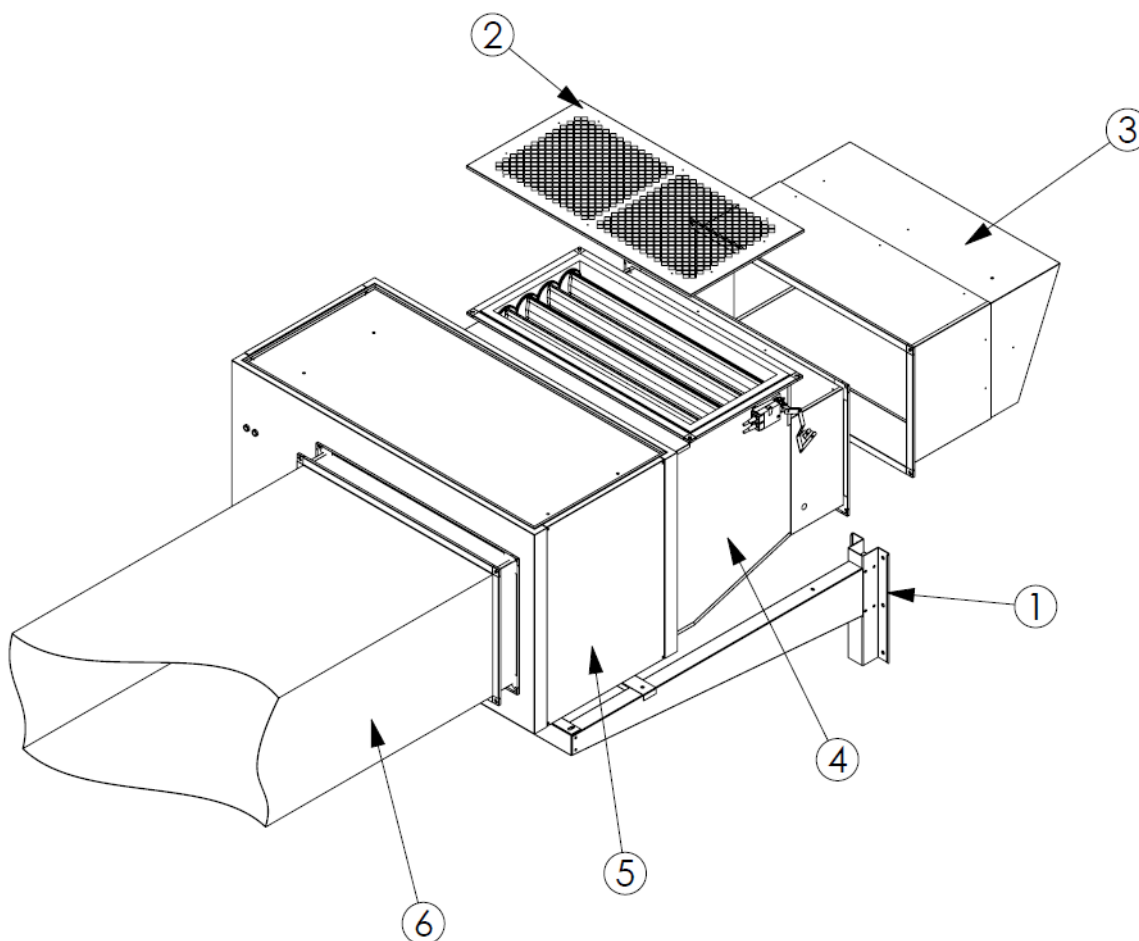


Fig.4.8 Example of installation Eolo with mixing chamber.

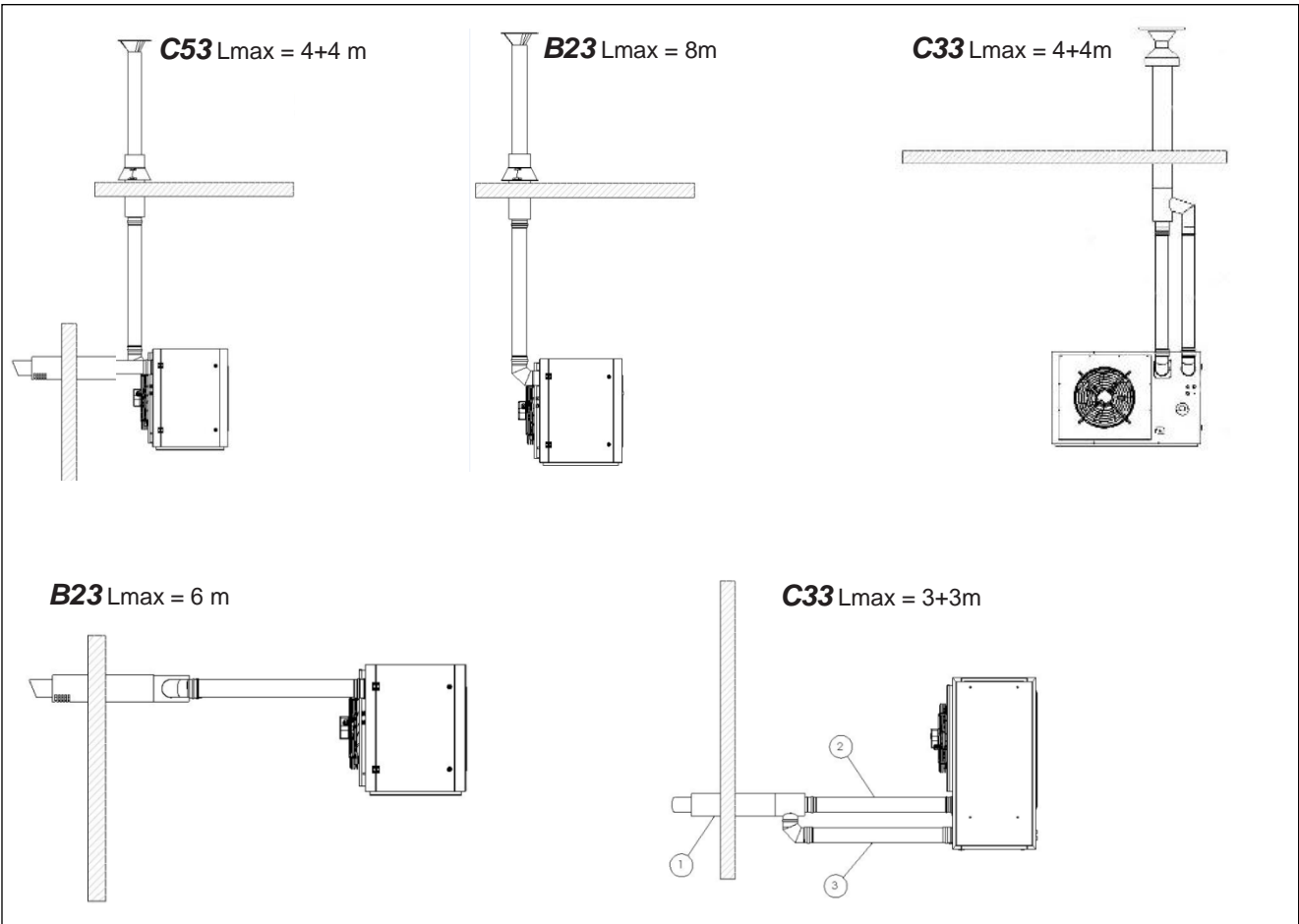
Pos.	DESCRIPTIONS
1	Wall bracket
2	Intake internal air.
3	Intake external air.
4	Mixing chamber with dumper internal/external air
5	Heater Eolo GE/GC
6	Supply air channel.

Tab.4. Example of installation Eolo centrifugal

# 5 FUMES / AIR INTAKE INSTALLATIONS

**IMPORTANT**

In the case of outlet of the combustion products in the fumes cane, this must be realized respecting the current standards in the country where the system is installed.



## 5.1 FUMES / AIR TERMINALS TYPE C13 HORIZONTAL

Pos.	Descriptione	Code	Q.ty
1	Fume terminal horizontal Ø 100 mm with colars	04CNTE0451	1
2	Air intake terminal horizontal Ø 100 mm with colars	04CNTE0446	1
3	Flexible stainless steel coupling/rigid pipe Ø100 mm	00CNGI2542	2
4	Flexible stainless steel tube Ø 100 mm	00CNTU0543	M

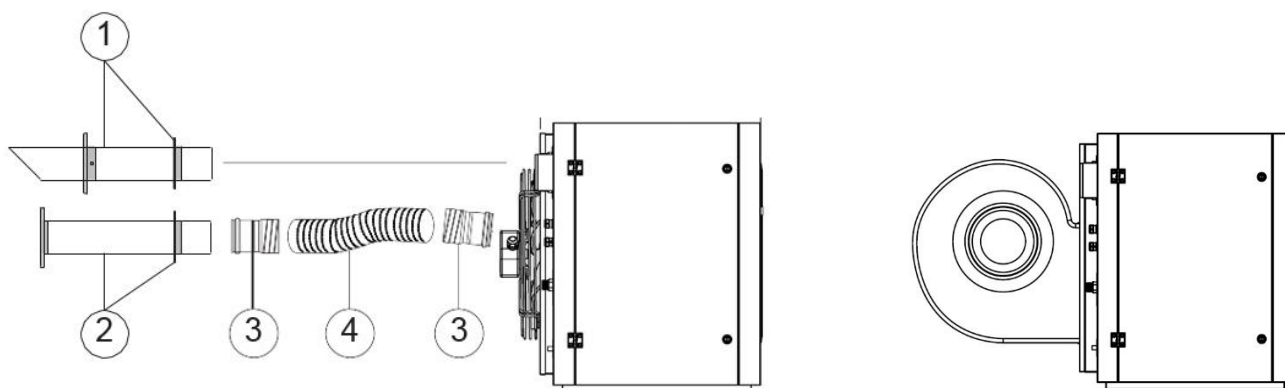


Fig.5.1 Instalation type C13 horizontal

## 5.2 FUMES TERMINAL TYPE B23 HORIZONTAL

Pos.	Descriptione	Code	Q.ty
1	Fumes terminal horizontal Ø 100 mm with colars	04CNTE0445	1

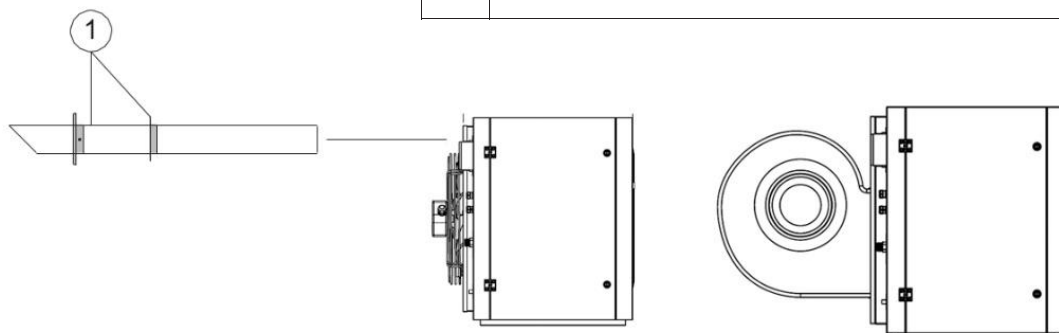


Fig.5.2 Instalation type B23 horizontal

### 5.3 FUMES / AIR TERMINALS TYPE C33 VERTICAL

Pos.	Description	Code	Q.ty
1	Fumes terminal Ø 100 mm vertical	00CNTE0001	1
2	Tube stainless steel Ø 100 mm	00CNTU2705	1
3	Collar	00CNCO3012	1
4	Lead seal	01CNCO0131	1
5	Hole cover rosette	00CNCO0605	1
6	Air terminal Ø 100 mm con: Collar Lead seal Hole cover rosette	00CNTE0442	1
7	Flexible stainless steel coupling/rigid pipe Ø100	00CNGI2542	2
8	Tubo flessibile in acciaio inox aria Ø 100 mm	00CNTU0543	M
9	condensing exhaust kit "T" M-M-F with plug condensate trap Ø 100 mm	00CNTU8008	1
10	Condensate drain	--	--

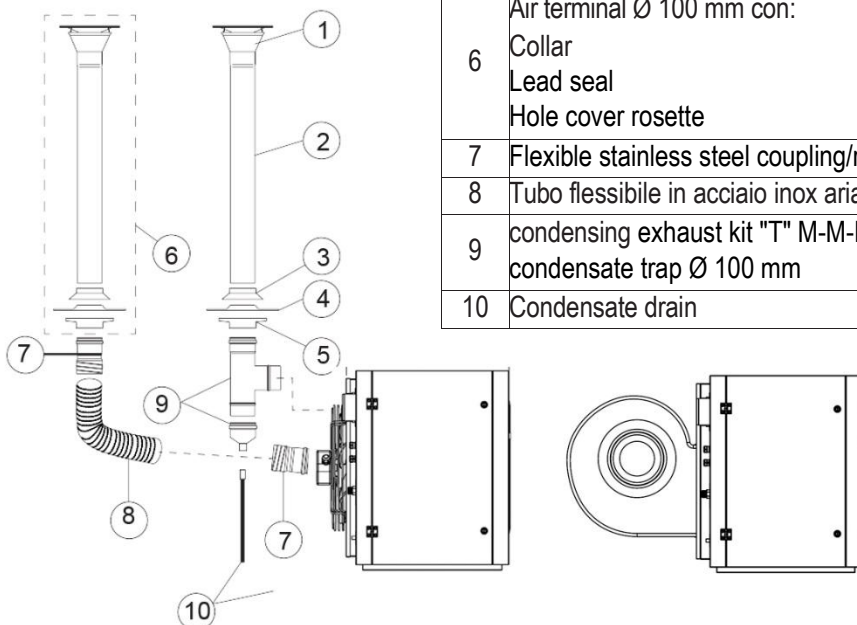


Fig.5.3 Installation type C33 vertical - separate

### 5.4 FUMES TERMINAL TYPE B23 - VERTICAL

Pos.	Description	Code	Q.ty
1	Fumes terminal Ø 100 mm vertical	00CNTE0001	1
2	Tube stainless steel Ø 100 mm	00CNTU2705	1
3	Collar	00CNCO3012	1
4	Lead seal	01CNCO0131	1
5	Hole cover rosette	00CNCO0605	1
6	condensing exhaust kit "T" M-M-F with plug condensate trap Ø 100 mm	00CNTU8008	1
7	Condensate drain	--	--

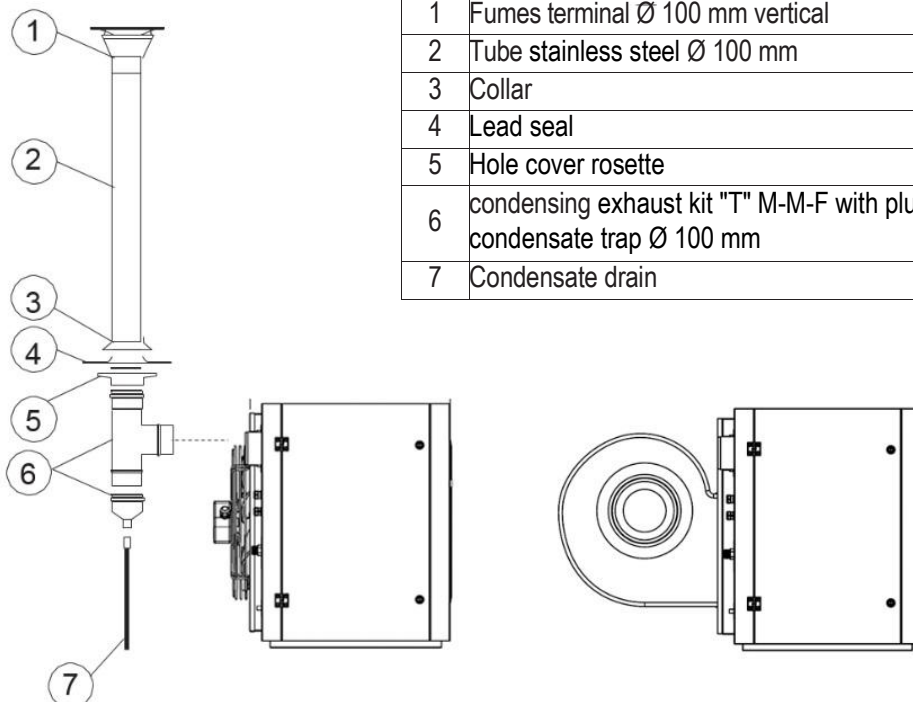


Fig.5.4 Instalation type B23 - vertical



## 6 START UP OF HEATER

### 6.1 PRELIMINARY OPERATIONS

The supply combustible system must comply to the scheme in additional instruction manual of Riello burner.

- First of connect the appliance, it must perfectly clean the supply combustible system.
- For proper operation of the device must be made the properly regulations:
  - combustion air
  - head of burner
  - pressure to the nozzle
  - after having executed the regulations, check quality of combustion.

The device is equipped with an oil burner and during standard conditions of use it is necessary to cleaning, check or replace the filters, the nozzle of the burner.

**ALL THE MAINTENANCE OPERATIONS MUST BE PERFORMED FROM TECHNICAL SPECIALISED PERSONNEL.**

## 7 WARRANTY

### 7.1 SUBJECT-MATTER AND DURATION OF THE WARRANTY

1. The warranty is limited to the faults in material or machining of components supplied by SYSTEMA. In the case of a fault in the material or machining, SYSTEMA shall repair or replace faulty parts ex-works free of charge. ALL OTHER FORMS OF WARRANTY OR COMPENSATION, LEGAL OR CONVENTIONAL, ARE EXPRESSLY EXCLUDED. The replaced parts shall be returned immediately to SYSTEMA, free at its works in Zduńska Wola PL, by and to expense of the user.
2. The warranty becomes valid as from "Initial ignition", provided that this is performed within 3 months of the date on which the appliance is purchased by the user. In any case, the Warranty shall expire 15 months from the date on which the SYSTEMA invoice is issued.
3. In the event of replacement of defective parts (or the equipment itself), the initial terms of the warranty are not charged. The warranty on the parts which have been replaced will expire at the same time of the equipment warranty.
4. The "duration of the warranty" shall be 1 (one) year for each component of the appliance.

### 7.2 Exclusions from the warranty

The warranty is not valid in the case of:

- a) defects that cannot be attributed to faulty materials or machining, without limits:
  - breakages during transport;
  - non-compliance of the system with local laws and regulations in force;
  - failure to comply with the installation instructions set down in the technical notes supplied with the appliance and/or the rules of correct technique;
  - damage caused by accidents in general, fires or negligence that cannot be attributed to SYSTEMA.
- b) Tampering or faults due to operations performed by unauthorized personnel
- c) Defects caused by faults concerning the electrical or gas supply mains.
- d) Failures caused by: incorrect maintenance, negligence or improper use, variations in the power supply voltage, dampness and dust in the rooms, incorrect dimensioning and/or faulty execution of installation.
- e) Corrosion or breakage caused by: stray currents, condensation, overheating caused by incorrect regulation of the pressure of supply oil or to the burner, or the use of oil with different heating specifications in standard.
- f) Use of non-original spare parts or parts not authorized by SYSTEMA
- g) Normal wear and tear.
- h) Product not correctly cared for or stored

2) Moreover, the warranty is not valid if:

- a) payment for the appliance was not effected within the terms established in the contract
- b) "Initial ignition" was not effected by the Service Centre and/or its copy of the warranty duly compiled and signed in all parts was not received.
- c) The user did not report the fault within 10 days of discovering it.

## 7.3 COMPETENCE

Requests for operations under Warranty must be submitted, subject to forfeiture, to the Service Centre that performed "initial ignition". The user must, in this case, present the Certificate of Warranty to the Service Centre.

The Service Centre shall perform operations according to its organizational requirements, during normal working hours.

## 7.4 RESPONSABILITY

The customer exempts the supplier from any liability for accidents or damage that may occur to the machines or systems during operation. The supplier is liable to the purchaser only within the limits of the aforementioned warranty obligations.

## 8 SETING ASIDE

Should it be necessary to set aside the appliance for a long period of time, it is recommended to carry out the following operations: Turn the main switch to the "O" position and disconnect the appliance from the mains. Close the supply oil valve and disconnect additional pump in the tank.

In case of change of owner or new tenant, deliver all the documentation concerning the heating system to the new owner / tenant.



**CAUTION !! all disconnection operations carried out by authorized technical personnel.**





**In order to improve the quality of products,  
Systema reserves the right to change specifications without notice**