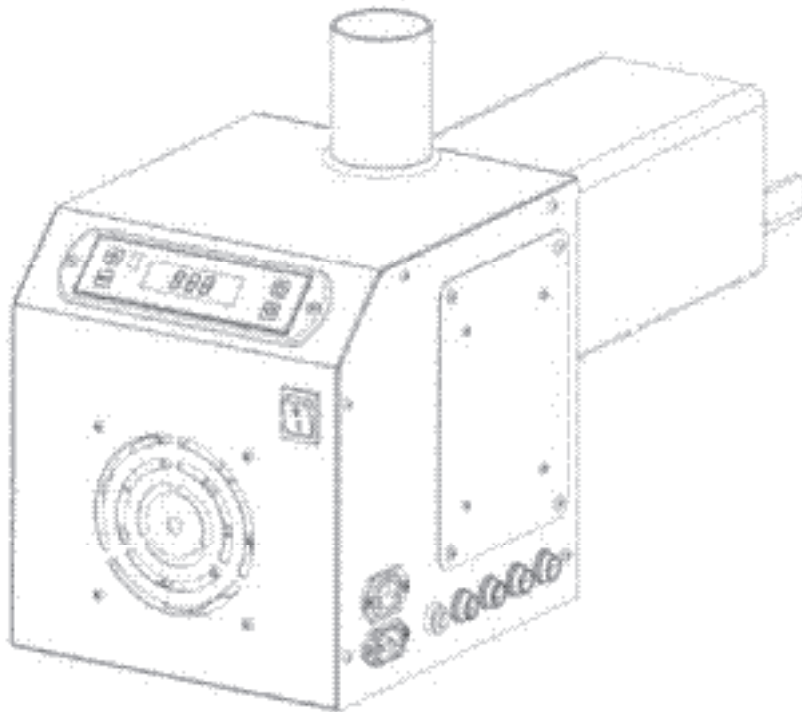


BIX B-One 100 kW INSTALLATION GUIDE



Dear Customer,

We thank you for choosing our product. The Bix B-One 100 Kw is a burner of advanced concept and technology, with a high reliability and construction quality.

The high consistency and advanced design of our pellet burner makes it adequate for use on most solid fuel boilers present today on the market.

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1.0 SAFETY

1.1 WARNINGS



CHECK THAT THE FUME EXHAUST PIPE HAS AN ADEQUATE DRAUGHT BEFORE CONNECTING THE BURNER TO THE BOILER



Do not start the burner before it is connected to the boiler and the boiler is connected to the chimney.



We recommend using a mask during the handling of the pellets.



The boiler room where the burner is installed must comply with all legal regulations and recommendations



All wiring must be done by qualified professional



No inflammable material must be stored close to the burner

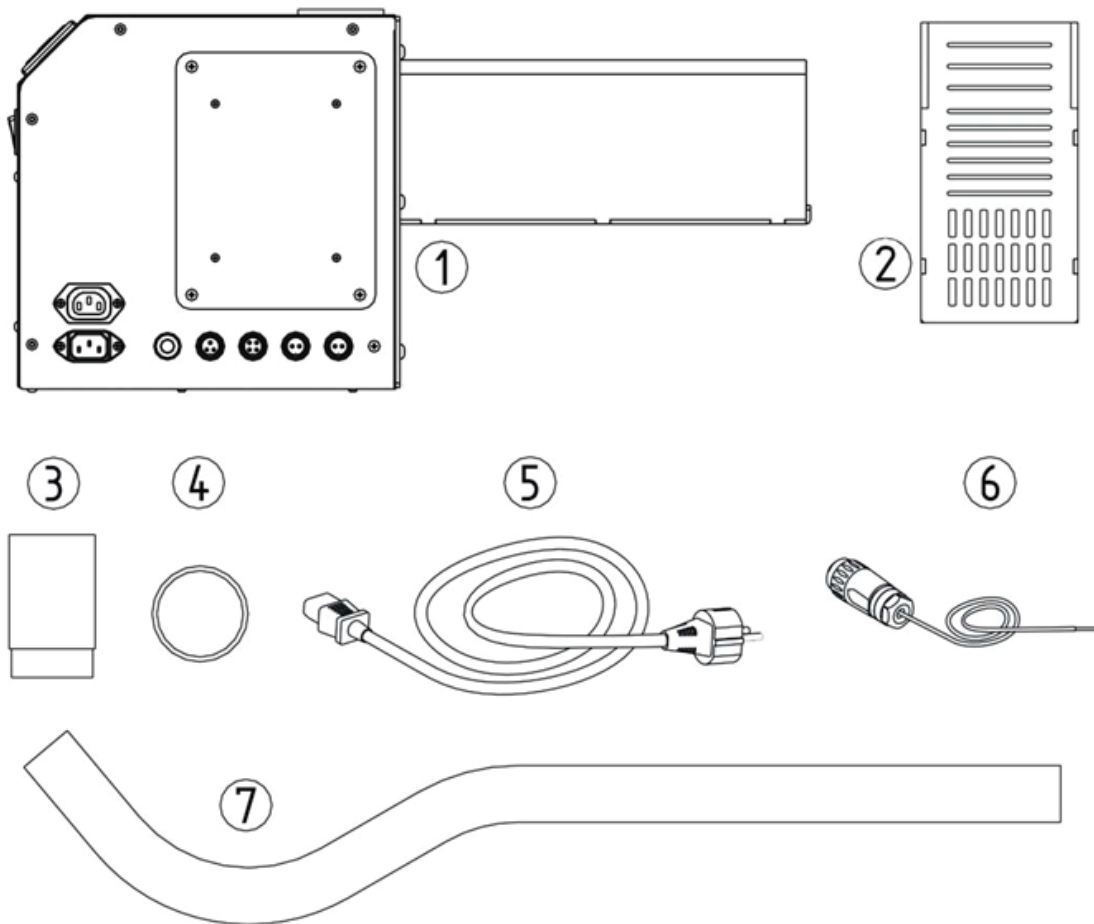
WARNING

- » It is strictly prohibited to make modifications without written authorization from the manufacturer
- » Use only original spare parts approved by the manufacturer in order to prevent possible damage to the burner
- » Do not open any boiler doors until the burner is operating
- » Welding on the electronic card may be carried out only once the burner has been disconnected from the electricity mains. The circuit must be removed from the burner.

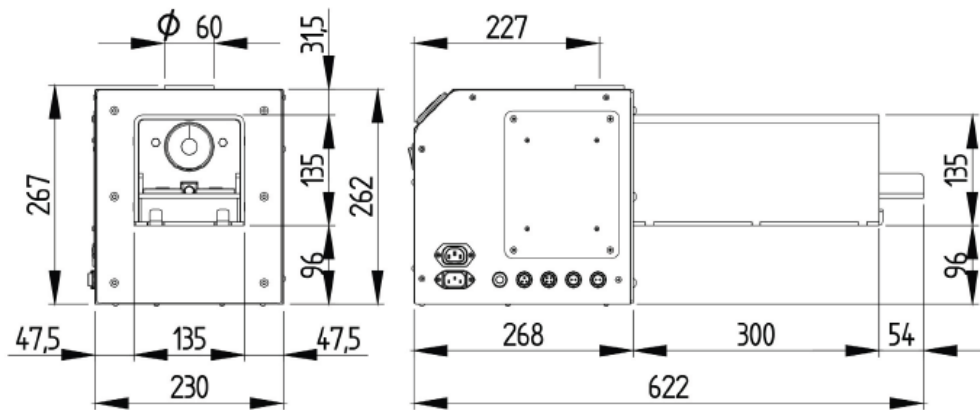
FEATURES AND TECHNICAL SPECIFICATIONS

Packaging contents

1. BURNER
2. GRILL (Brazier)
3. BOOT LINK FOR FLEXIBLE TUBE
4. O-RING
5. POWER CABLE
6. WATER PROBE CABLE
7. FLEXIBLE TUBE
8. INSTRUCTION MANUAL



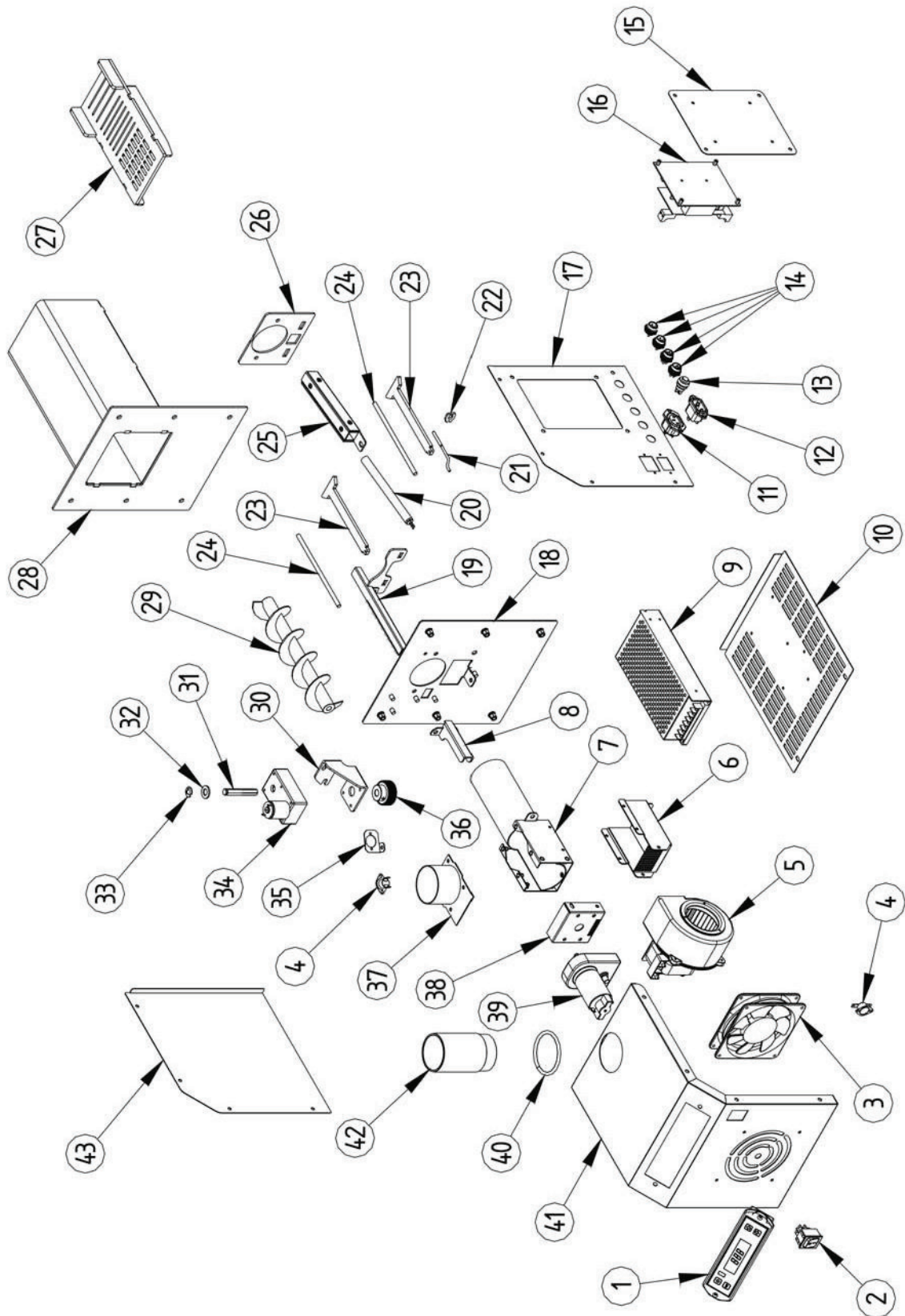
2.2 DIMENSIONS



2.3 TABLE OF TECHNICAL SPECIFICATIONS

BURNER DATA 100 Kw	UNITS	VALUES Burner 100 [Kw]
Max. Thermic Capacity	kW	100
Min. Thermic Capacity	kW	50
Max. Combust. Capacity.	kg/h	20
Min. Combust. Capacity.	kg/h	7,3
Supply Voltage/Frequency	V/Hz	230/50
Absorbed Electric Power	W	50
Electric Power Igniter	W	300
Empty Weight	kg	21
Pellet Size (Ø / Max. Length) Non-floury grain	mm	Recommended

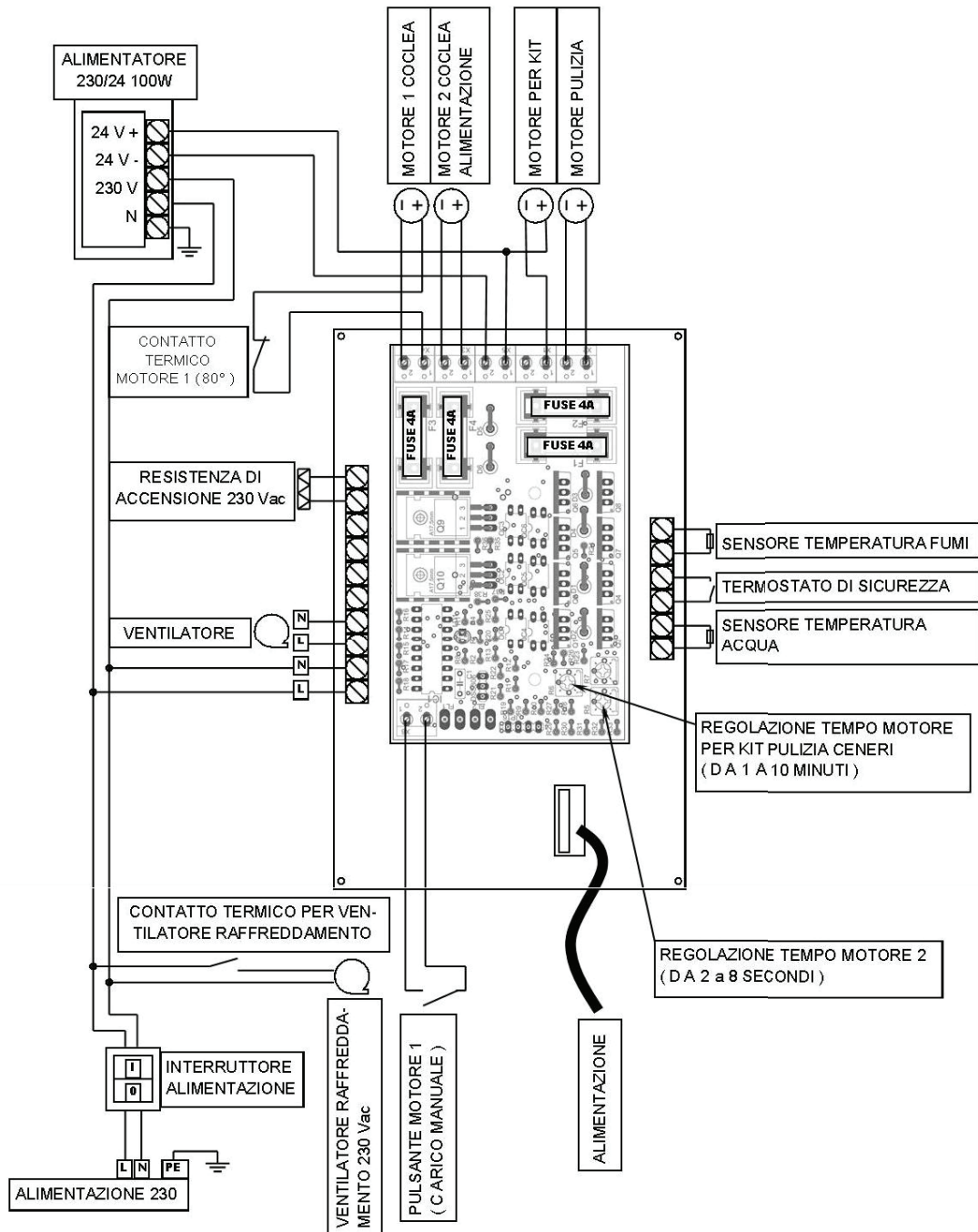
2.4 EXPLODED VIEW



2.5 PARTS LIST

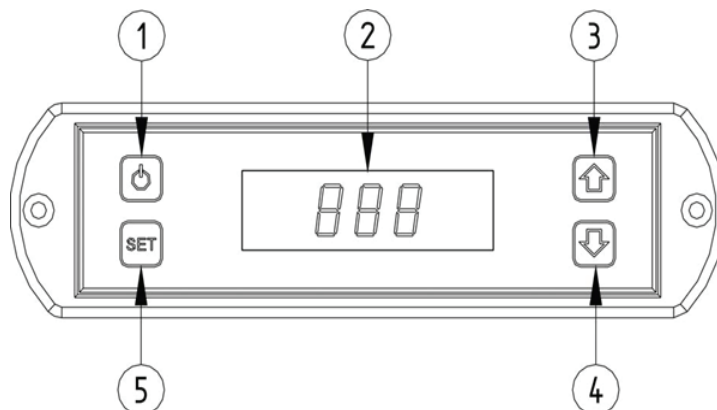
POS.	DESCRIPTION
1	CONTROL PANEL
2	MAIN SWITCH
3	AXIAL FAN
4	THERMOSTATS
5	CENTRIFUGAL FAN
6	FAN SUPPORT
7	TUBE FOR INTERNAL COCLEA
8	SELF CLEANING GUIDE SYSTEM
9	TRANSFORMER
10	INFERIOR GRILL 11
11	SOCKET FOR LOADING COCHLEA WITH FAN [OPTIONAL]
12	220 VOLT POWER OUTLET
13	BUTTON FOR MANUAL PELLET LOADING
14	CONNECTIONS
15	CARD SUPPORT PANEL
16	ELECTRONIC CARD
17	RIGHT PANEL
18	INTERNAL PLATE
19	SELF CLEANING BRACKET SYSTEM
20	RESISTANCE (Spark Plug for Pellet Ignition)
21	SMOKE SENSOR
22	SUPPORT BRACKET FOR SMOKE SENSOR
23	SELF CLEANING BRACKET SYSTEMS
24	THREADED RODS
25	RESISTANCE SUPPORT
26	PLATE FOR RESISTANCE SUPPORT and INT. COCHLEA TUBE
27	COMBUSTION GRILL
28	COMBUSTION CHAMBER
29	INTERNAL COCHLEA
30	SUPPORT FOR SELF CLEANING GEARMOTOR
31	PIN FOR SELFCLEANING GEARMOTOR
32	SELFCLEANING GEARMOTOR ESCUTCHEON PIN
33	SELFCLEANING GEARMOTOR ELASTIC RING PIN
34	SELF CLEANING GEARMOTOR
35	THERMOSTAT SUPPORT BRACKET
36	AUTO SYSTEM COGWHEEL
37	INTERNAL COCHLEA TUBE COVER
38	COCHLEA TUBE AND MOTOR SUPPORT 2 CLOSURE
39	MOTOR 2 FOR INTERNAL COCHLEA
40	O-RING
41	FRONTAL CARTER
42	CONNECTING BOOT FOR FLEXIBLE TUBE
43	LEFT PANEL

2.6 WIRING DIAGRAM



3.0 OPERATING INSTRUCTIONS

3.1 CONTROL PANEL AND BUTTON DESCRIPTION



BUTTONS

1 ON/OFF Button (Starts and turns off the burner)

2 Display

3 UP button (Increases Power, if used on the Home Screen)

4 DOWN button (Diminishes Power, if used on the Home Screen)

5 SET key

» SET+UP = State of cycle (Shows temperature, etc.)

» SET for 2 seconds= Configures Time, chronothermostat, language, display contrast.

» SET open and release = Water temperature adjustment

» ON/OFF+SET+UP+DOWN for 2 Secs,= Activates technical parameters

3.2 USER SETTINGS

1. Open SET key for 2 seconds
2. Select the menu parameters with the arrow keys
 - A. Time settings
 - B. Chronothermostat settings
 - C. Not used
 - D. Language settings
 - E. Display contrast

TIME SETTINGS

To set the time use the arrow keys, to scroll through the configuration screens press the SET key, to exit setting configuration press ON/OFF

CHRONOTHERMOSTAT SETTING

To configure the chronothermostat use the arrow keys, to scroll through the configuration screens press the SET key, to exit setting configuration press ON/OFF.

FUEL TYPE

The burner is calibrated only for the use of Pellets.

LANGUAGE

Select the language

CONTRAST

The contrast refers to display visualization

3.3 TECHNICAL PARAMETER SETTING (for the installer)

- » Press all keys at the same time
- » Insert access code = (in possession of the installer) and press SET
- » Select the Technical parameter menus with the arrow keys
- » To confirm press SET, to exit press ON/OFF

1. Delta Control Temperature (0-9) [necessary for the setting, modulation or when burner is on for water temperature]
2. Delta Temperature Wait (0-30) [necessary for regulating the water temperature] If the room temperature is higher than the user temperature set + Delta, the burner turns off and wait. If Delta = 0, it is deactivated.
3. Ignition Attempts [If the max time of ignition has passed, and the burner is still off, new ignition attempts are carried out before saying that the burner is off]
4. Lamp Time [If during the minutes configured no key is pressed then the display light goes into standby]
5. Vacuumeter Control
6. Pellet Thermostat Control
7. Ext. Thermostat Enablement [enables management of the external thermostat, when the external thermostat contact is at 0 the burner goes into modulation, minimum power: ON = Enabled - OFF = Not enabled]
8. Water Temperature [enables viewing and management of the water temperature on the main screen: ON = Enabled - OFF = Not enabled]

3.4 GENERAL SETTINGS (FOR THE INSTALLER)

- » Press all keys at the same time
- » Insert access code = (in possession of the installer) and press SET
- » Select the Technical parameter menus with the arrow keys
- » To confirm press SET, to exit press ON/OFF

1. Maximum Ignition Time in min. [maximum time within which the burner must turn on]
2. Flame Stabilizing Time [once the flame is on, wait for the stabilizing time of the flame to pass in order to ascertain the burner has started]
3. Time between Cleanings in min. [once the burner is on, this is the time before cleaning of brazier - if 0 = Deactivated]
4. Brazier Cleaning Time in secs. [brazier cleaning time if the time between cleanings ends; if time between cleanings = 0, cleaning has not been done - when the burner is off, the smoke extractor always starts at maximum speed for this time even if the time between cleanings = 0]
5. Alarm Delay in secs. [time of delay before alarm checking]
6. Lux minimum start-up [Lux time in which the Photoresistance must stay above a pre-programmed Lux time, before moving into the Flame stabilization and Stove switched-on phase]
7. Lux Turning Off [if the photoresistance for a particular Lux period remains under a pre-programmed time span in Lux, the burner turn-off function is started up, and in this phase it can give the ALARM signal: Fuel Low or Stove switched off]
8. TIM turning-off [time in minutes of fan functioning inside burner at MAX speed in turning-off phase]

9. Time before Resistance Ignition [minutes of time before resistance ignition before burner start up]
10. Manual Loading Time [time of pellet manual loading]
11. TIM [External Thermostat Shut off time 1 - 99 minutes]
12. TIM LUX Neutral Zone [LUX time which detects the Photoresistance before turning off burner]
13. Max. Cochlea Time sec. [maximum time of cochlea operating]
14. Time of cochlea loading in secs. [time of cochlea in ON phase of pellet loading to start up the burner, the OFF time is given from the difference between the maximum time and the ON time]
15. Cochlea Starting Time. [time of cochlea in ON starting phase after flame is burning]
16. Cochlea cleaning time in secs. [time of cochlea in 'ON' brazier cleaning phase]
17. Cochlea Time Power 1 [ON time of cochlea to the power of 1 once burner is started]
18. Cochlea Time Power 2 [ON time of cochlea to the power of 2 once burner is started]
19. Cochlea Time Power 3 [ON time of cochlea to the power of 3 once burner is started]
20. Cochlea Time Power 4 [ON time of cochlea to the power of 4 once burner is started]
21. Cochlea Time Power 5 [ON time of cochlea to the power of 5 once burner is started]
22. Vacuum during Loading [extractor speed in loading phase]
23. Vacuum during Operation [extractor speed in start-up phase after lighting flame]
24. Vacuum during Cleaning [extractor speed during cleaning of brazier]
25. Vacuum Power 1 [extractor speed to the power of 1 once burner is started]
26. Vacuum Power 2 [extractor speed to the power of 2 once burner is started]
27. Vacuum Power 3 [extractor speed to the power of 3 once burner is started]
28. Vacuum Power 4 [extractor speed to the power of 4 once burner is started]
29. Vacuum Power 5 [extractor speed to the power of 5 once burner is started]
30. Not Used
31. Not Used
32. Not Used
33. Not Used



Notice= THE TECHNICAL AND GENERAL PARAMETERS ARE CONFIGURED IN THE FACTORY, WE STRONGLY DISCOURAGE ANY HANDLING BY UNTRAINED PEOPLE OR CHILDREN; ONLY SPECIALIZED OR QUALIFIED PERSONNEL SHOULD HANDLE THE BURNER.

3.5 PARAMETER CANCELLATION

In order to cancel parameters, turn off and start the burner again selecting the model. The selection of the model happens with the arrow keys. Confirmation comes by pressing the SET button. The selection operates the default parameters also.

4.0 INSTALLATION

4.1 OPERATING INSTRUCTIONS

Operation of the burner, once installed and correctly set up, (AS PRECONFIGURED IN THE FACTORY) is completely automatic and does not require any command on the part of the user. In case of low fuel supply or faults the burner turns itself off and shuts down. We recommend that the fuel is reloaded before finishing completely in order to avoid irregular functioning of the burner

Adjustment of Minimum-Maximum Power

Parameter Value	Power Burner 100 Kw
1	50
2	60
3	75
4	85
5	100

4.2 INSTALLATION WARNINGS

The room in which the burner is installed must have openings towards the outside in compliance with current regulations.

The installation area must be free of flammable objects, corrosive gases, dust and volatile substances that, if sucked up by the fan may obstruct internal ducts of the burner. The area must be dry and not exposed to snow, rain or ice.

4.3 FUEL SUPPLY

The burner must be powered by the type of fuel for which it has been preconfigured (ONLY PELLET). We recommend only the use of good quality pellets, because low quality pellets determine lower performances, a higher ash content of ashes creating the need for much more frequent cleaning, and early wear of the burner components exposed to the fire and with the possibility of shut downs due to the sedimentation of non-combustible materials inside the burner.

4.4 BOILER INSTALLATION

FIGURE "A": PREPARATION HOLE ON BOILER DOOR

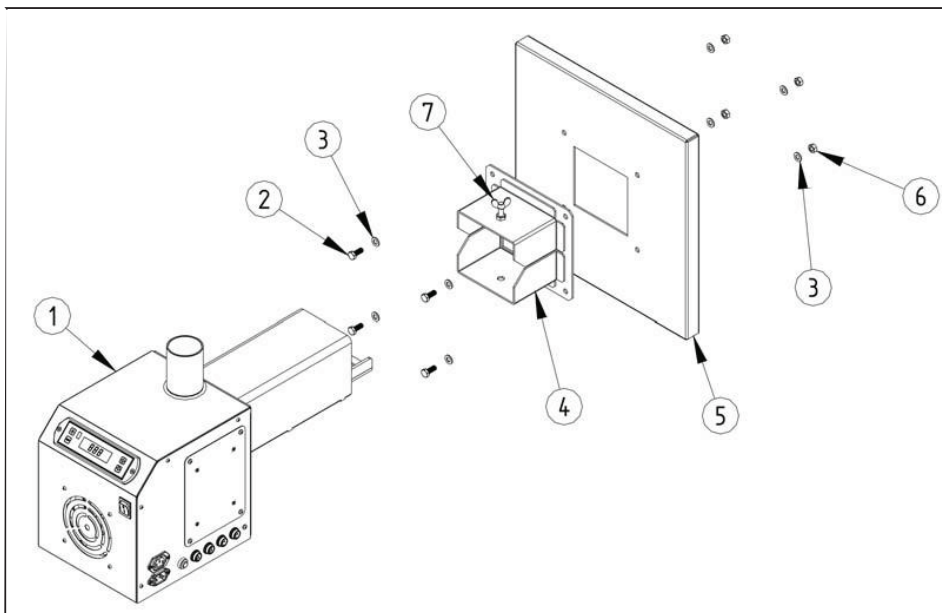
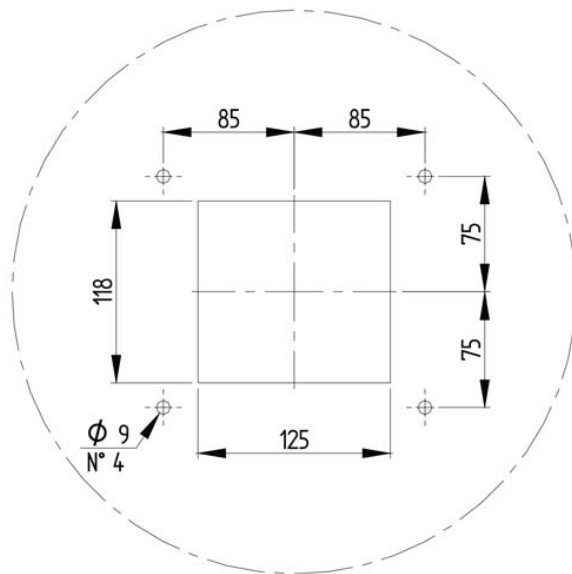
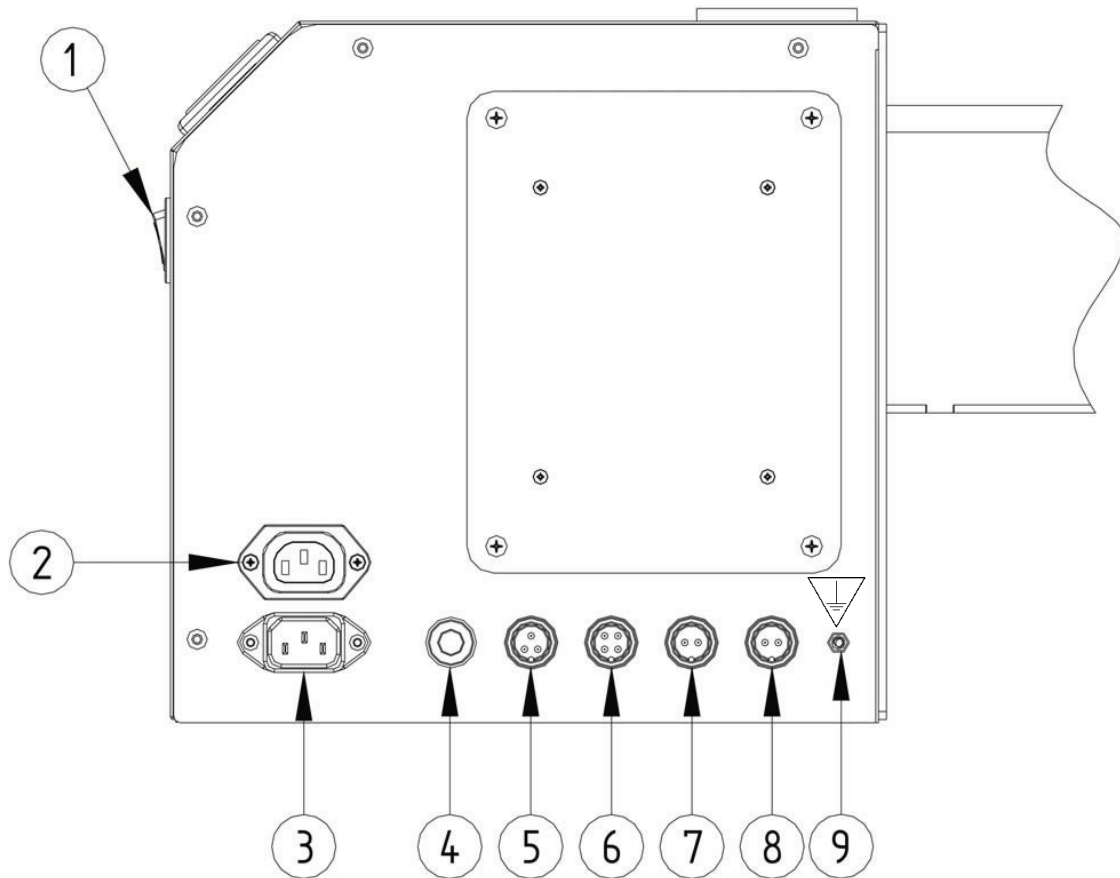


FIGURE "B": ASSEMBLY DIAGRAM FOR BURNER ON BOILER

- 1 MAKE THE CASING HOLE JUST AS IN FIGURE "A"
- 2 FIX THE COLLECTING DOOR (4) EBK0001-P00 (OPTIONAL) FIGURE "B WITH M8 SCREWS(2) – WASHERS FOR M8 SCREWS (3) - M8 NUTS (6)
- 3 INSERT THE BURNER IN THE COLLECTOR (4) UNTIL THE LIMIT
- 4 FIX THE SCREW (7)

5.0 SERVICE & MAINTENANCE

5.1 WIRING



1. General ON/OFF power button
2. Cochlea loading power outlet with fan [Optional]
3. 220 Volt power outlet
4. Button for manual pellet loading
5. Supply motor 1 [external loading cochlea]
6. Connection for water and smoke sensor
7. Connection for self cleaning boiler kit [Optional]
8. Connection for thermostat
9. Connection for earthing

5.2 STARTUP

Checks that must be carried out when first ignited, and after any maintenance operations that have led to the disconnection of the system or an intervention on the safety devices or on parts of the burner.

Before starting up the burner

- Check that the burner is fixed correctly onto the boiler with calibrations as configured in the factory.
- Check that the boiler and the system is filled with water or diathermic oil, that the valves of the hydraulic system are open and that the smoke exhaust duct is free and correctly sized.
- Check that the boiler door is closed, so that the flame is generated only inside the combustion chamber.
- Check the correct positioning of the cochlea and of the flexible tube of connection to the burner.
- Fill the Pellet container.
- Check if positioned correctly and check the temperature sensor connection.

MAINTENANCE

- Check periodically the cleaning of the parts of the burner that will tend to get dirty because of bad pellet quality or because of an incorrect setting of the burner
- The burner requires periodical maintenance; we recommend a weekly cleaning of the combustion grill by the user.
- Also have an ANNUAL maintenance session done by authorized personnel.

5.4 FAULTS-CAUSES-SOLUTIONS

The burner is equipped with a self diagnosis system and in the case of a fault to the burner on the Display these fault messages appear

In the following table we have indicated the most common faults with the possible solutions.

FAULTS	CAUSES	SOLUTIONS
Ignition Failed	Pellet Container Empty	Fill the container
	Cochlea Cable Disconnected or Interrupted	Restore the connection or find the interruption
	Ignition Resistance Damaged	Substitute the Resistance (call a specialized technician)
	Combustion Grill Clogged	Remove grill and clean
	Internal Cochlea Power Supply Clogged	Check the Cochlea that supplies the combustion chamber, in case for some reason it may be clogged
Black Out Alarm	Power failure	Restore power, if after having restored power the alarm continues, call a specialized technician
Water Sensor Out of Service	Badly connected sensor	Verify connection
	Sensor damaged	Change the sensor
Fuel Empty Alarm	Pellet Container Empty	Fill the container
	Cochlea Cable Disconnected or Interrupted	Find Fault and Restore the Connection
Damaged Temperature Sensor Alarm	Sensor Damaged	Change the Sensor
	Sensor Badly Connected	Check the Connection



WARNING= IF THE PROBLEM PERSISTS WITH THE FAULTS DESCRIBED DO NOT LOOK FOR OTHER SOLUTIONS OTHER THAN THE SOLUTIONS PRESENTED HERE IN ORDER TO AVOID CAUSING IRREPARABLE DAMAGE TO THE BURNER NOT COVERED BY THE WARRANTY, BUT CALL A SPECIALIZED TECHNICIAN INSTEAD.

6.0 PRECONFIGURED PARAMETERS

6.1 PRECONFIGURED TECHNICAL PARAMETER

BURNER PRECONFIGURED TECHNICAL PARAMETERS		
	100 Kw Burner with Pellet Comb.	100 Kw Burner with Other Comb
Delta Temperature Control	02	
Delta Temperature Wait	05	
Ignition Attempts	1	
Lamp Time	05	
Vacuometer Control	OFF	
Pellet Thermostat Control	OFF	
Ext. Thermostat Enablement	OFF	
Water Temperature Visualization	ON	

6.2 PRECONFIGURED GENERAL PARAMETERS

BURNER PRECONFIGURED TECHNICAL PARAMETERS		
	100 Kw Burner with Pellet Comb.	100 Kw Burner with Pellet Comb.
Maximum Ignition Time	15	15
Flame Stabilizing Time	001	001
Time between Cleanings	060	060
Brazier Cleaning Time	55	55
Alarm Delay	120	120
Lux Minimum Start-up	100	100
Lux Turning Off	60	60
Time before Resistance	04	04
Manual Loading Time	2	2
TIM (Thermic Shutting Off Time)	00	00
TIM LUX Neutral Zone	80	80
TIM Switching Off	15	15
Max. Cochlea Time	45,0	45,0
Cochlea Charging Time	00,8	00,8
Cochlea Operating Time	01,5	01,5
Cochlea Cleaning Time	01,5	01,5
Cochlea Time Power 1	00,6	00,6
Cochlea Time Power 2	01,5	01,5
Cochlea Time Power 3	02,0	02,0
Cochlea Time Power 4	02,7	02,7
Cochlea Time Power 5	03,7	03,7
Vacuum during Loading	46	46
Vacuum during Operation	42	42
Vacuum during Cleaning	99	99
Power Vacuum 1	38	38
Power Vacuum 2	39	39
Power Vacuum 3	42	42
Power Vacuum 4	44	44
Power Vacuum 5	45	45
Configured Water Temperature	60	60