# INSTRUCTION AND MAINTENANCE MANUAL





#### **Δ. ΑΝΑΣΤΑΣΙΑΔΗΣ Α.Ε.** ΤΕΧΝΙΚΗ•ΕΜΠΟΡΙΚΗ•ΚΑΤΑΣΚΕΥΑΣΤΙΚΗ ΕΤΑΙΡΙΑ

1ο ΧΛΜ. Ε.Ο. ΚΑΤΕΡΙΝΗΣ-ΓΑΝΟΧΩΡΑΣ ΤΗΛ. 23510 28624 - FAX: 23510 33454 ΚΑΤΑΣΤΗΜΑ ΚΑΤΕΡΙΝΗΣ Τ. ΤΕΡΖΟΠΟΥΛΟΥ 8 ΤΗΛ. 23510 26796

ΚΑΤΑΣΤΗΜΑ ΘΕΣ/ΝΙΚΗΣ ΚΟΛΩΝΙΑΡΗ 35 ΤΗΛ-FAX: 2310 729814

Web: www.adgreen.gr - www.adtherm.gr - www.ad-therm.com email: info@adgreen.gr - info@adtherm.gr - info@ad-therm.com

#### INDEX

GENERAL WARNINGS	4
I,I INTRODUCTION	4
1.2 GENERAL AND SAFETY WARNINGS	4
1.3 PRODUCT DESCRIPTION	5
1.4 PACKAGING CONTENTS	8
2 TECHNICAL FEATURES	9
2.1 BURNER TECHNICAL SPECIFICATIONS	9
2.2 BURNER OVERALL DIMENSIONS	10
2.3 HATCH OPENING DIMENSIONS	10
2.4 PELLET LOADING AUGER OVERALL DIMENSIONS	
2.5 PELLET TANK OVERALL DIMENSIONS	
3 TRANSPORTATION	12
<b>4</b> ASSEMBLY AND CONNECTION	12
4,1 INSTALLATION OF THE BURNER ON THE BOILER	12
5 START UP	13
5.1 BEFORE STARTING UP THE BURNER	13
5.2 FIRST START UP	4
5.3 SWITCHING OFF	14
5.4 LATER IGNITIONS	14
6 FUNCTIONING OF THE DEVICE AND USER GUIDE	15
6.1 OPERATOR • USER	15
6.2 RESIDUAL RISKS	16
6.3 SAFETY DEVICES INSTALLED	16
6.4 CONTROL PANEL AND DESCRIPTION OF KEYS	16
6.5 USER SETTINGS	17
7 FAULTS • CAUSES • SOLUTIONS	18
8 ELECTRICAL CONNECTIONS	19
8.1 ELECTRICAL CONNECTION	19
8.2 WIRING DIAGRAM	20
9 MAINTENANCE	21
9.1 GENERAL MAINTENANCE	21
9.2 MAINTENANCE OPERATIONS TABLE	22
9.3 special maintenance	23
IO SPARE PARTS	23
II DISPOSAL	23
<b>12</b> DECLARATION OF CONFORMITY	24

All rights concerning this technical sheet are reserved. No part of it can be reproduced, mentioned in archival systems or transmitted in any form or by any means, be it electronic, mechanical, photocopying, recording or otherwise, without the prior written consent of the company Elmec Group S.r.l. If the inaccuracies contained in the manual are due to press transcription mistakes, Elmec Group S.r.l. disclaims any liability for them. The company reserves the right to introduce those changes to its products that it deems necessary and useful, without impairing their essential characteristics.

#### SYMBOLS AND TERMINOLOGY USED IN THE MANUAL

SYMBOL	MEANING
	THIS SYMBOL PROVIDES USEFUL INFORMATION FOR THE SAFE USE OF THE APPLIANCE
	THIS SYMBOL INDICATES THE SAFETY MEASURES AND WARNINGS FOR THE USER AND/OR THE EXPOSED PEOPLE

#### I. GENERAL WARNINGS

#### I.I INTRODUCTION

The following manual is property of Elmec Group S.r.l.; the contents of this document may not be reproduced or disclosed to third parties. All rights are reserved.

The machinery is not intended to be used in environments with a potentially explosive atmosphere.

This manual is an integral part of the product, the owner must ensure that it is always supplied with the machinery, even in the case of sale/transfer to another owner, so that it may be studied by the user or by the authorized personnel for maintenance and repairs.

Read the instruction manual carefully before using the burner.

The installation of the burner must comply with the instructions in this instruction manual.

Follow the guidelines and instructions in this instruction manual to ensure safe operation of the device and of the system. In case of doubts concerning the conditions and/or working of the burner and of the associated equipment, please contact your local distributor for more assistance. The system of the burner must be installed by authorized technical personnel, trained by the manufacturer/importer. The improper installation of the system can invalidate the warranty.

#### **1.2 GENERAL AND SAFETY WARNINGS**

• The installation of the burner must comply with the instructions in this manual. Follow the guidelines and instructions in this manual to ensure safe operation of the device and of the system. In case of doubt concerning the conditions and/or working of the burner and of the associated equipment, please contact your local distributor for more assistance. The system of the burner must be installed by authorized technical personnel, trained by the manufacturer/importer. The improper installation of the system can invalidate the warranty.

• Before starting up the system, the user must consult and follow local laws and regulations regarding construction.

• The seller is not responsible for the installation of devices which do not comply with current laws, nor for its use without the necessary permits

• The burner is packaged in a standard cardboard box, therefore, during transportation, it must be handled according to the guidelines on the packaging. The device, during transportation, must be protected against adverse weather conditions, impacts and damages. Any improper loading, unloading or handling of the product might damage it.

• Perform a functional testing of the device in case of any damage to the packaging. In case of faulty operation (noisy operations, friction) or any other defect, contact your nearest authorized dealer to perform the necessary repairs and maintenance. In case of courier service, inspect the packages at the reception for any damage. Immediately report to the supplier or courier charged with the delivery of the product any faults discovered and problems.

• Consult the local safety regulations in force for heating devices, and maintain a 0,8m minimum distance around the boiler. Ensure the necessary space for maintenance and operation of the burner is provided. The boiler installation must be kept clean, dry and well ventilated. The air supply in the boiler installation must be at least equal to the exhaust fumes.

- To minimize the risk of fire do not store flammable materials near the burner.
- Do not leave the appliance exposed to weathering.

• Do not install the appliance on heat generating devices (boiler, hot water heater) situated in rooms which are poorly ventilated, unprotected from the weather or very humid; the vent openings of the boiler room must be sized so as to ensure complete combustion.

• The installation of the appliance must be performed by qualified personnel which is authorized in accordance with the current laws and regulations; an incorrect installation can cause damage to people, animals or material assets in respect of which the manufacturer of the product cannot be held responsible.

• Connect the device to an effective earthing system, done in accordance with the current safety laws, in case of doubt of the effectiveness of the earthing system, request a careful check of the electrical system by qualified and certified staff; the manufacturer cannot be held responsible for any damage caused by the failure to earth the appliance.

• Have qualified personnel check that the electrical system is suitable for the maximum power of the appliance, indicated both in this manual and on the plate.

• It is prohibited to use adapters, multiple sockets and/or extensions for the general supply of electricity to the appliance.

• A double pole differential switch is required for the connection to the electricity grid, as prescribed by the current safety regulations.

- Do not touch the appliance with wet hands and /or bare feet.
- The use of the appliance by young children or inexperienced people is prohibited.

• Do not use the container, the auger or any other part of the appliance as an earthing system for electric devices.

• The power cord of the appliance and the electrical framework/burner/generator of heat/supply grid interface connectors must not be replaced by the user; in case of damage to the cable or to a connector, contact only qualified and trained personnel.

• When the appliance is not used for a certain period of time, the electrical supply needs to be disconnected from all the components of the appliance that use electricity; the pellet container needs to be emptied.

#### **1.3 PRODUCT DESCRIPTION**

The machine is a device consisting of the following parts:

- A burner equipped with an igniter, a fan, a self-cleaning and photoresistant system;
- A fuel supply system consisting of an auger and a flexible tube for loading the pellets into the burner;
- A fuel storage container;

The operation, run by a microprocessor (Programmer), consists of the following phases:

I. Cleaning phase of the heat generator combustion chamber, achieved by the starting of the fan in conjunction with the mechanical cleaning system;

2. Loading phase of a preset quantity of pellets, achieved by the starting of the auger electric motor.

3. Start up phase: the igniter starts up the combustion;

4. Production phase, during which the burner is fueled with preset quantities of fuel according to the combustion power; during this phase the combustion chamber is maintained under negative pressure (vacuum), the igniter is switched off and the combustion is regulated by the fan which doses the quantity of combustive air in the burner.

#### 1.3.1 DESCRIPTION OF THE BURNER

Extremely versatile, capable of being employed for a wide range of uses, from the installation on new generation boilers to the transformation of old boilers.

Advanced design and technology, with high reliability and construction qualities able to self manage the entire heating system using an electronic card.

Fully automatic.

Reliable turning on and off due to a sensor and a photoresistance.

Self-cleaning system equipped with a small rake for the cleaning of the brazier.

Manufactured with certified high quality materials as the parts directly in contact with the heat are made of high temperature resistant steel.

Electronic self regulation based on the fuel used.



Fig. 1. Burner

### 1.3.2 DESCRIPTION OF THE COCHLEA SUPPLYING THE PELLETS.

IThe pellets supplying device was designed using a cochlea system composed as follows:

- High breakaway torque gearmotor;
- Electrical connection cable, complete with connector;
- Guided rigid type spiral;
- Varnished steel tube;
- Flexible tube for the connection between the auger and the burner;
- Independent fan;



Fig. 2. Auger

#### 1.3.3 PELLET TANK DESCRIPTION

The supply tank is composed as follows:

- Fully removable sides and bottom;
- Conical bottom;
- Hinged lid that can be opened;

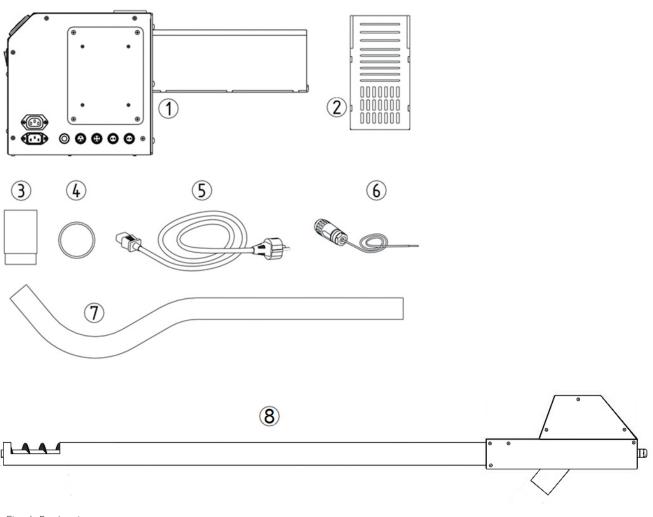
Every part is made of varnished steel.



Fig. 3.Tank

#### **I.4 PACKAGING CONTENTS**

- I. BURNER
- 2. COMBUSTION GRATE
- 3. FLEXIBLE TUBE CONNECTION SOCKET
- 4. O-RING
- 5. POWER CABLE
- 6. WATER SENSOR CABLE
- 7. FLEXIBLE TUBE
- 8. PELLET LOADING AUGER
- 9. USER MANUAL



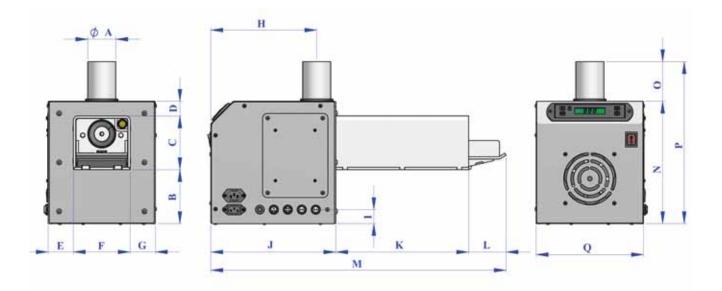


## 2. TECHNICAL FEATURES

## 2. I TECHNICAL SPECIFICATIONS OF THE BURNER

Model			B-Half	B-One	B-Two
Power of the burner		KW	34-50	50-100	100-200
Average energy	consumption	W	60 60		75
Supply voltage		V	230 V-50 HZ	230V-50 HZ	230V-50 HZ
Combustion Height	Height	mm	115	135	155
	Width	mm	122	170	230
	Length	mm	285	370	400
Start up	Start up		400	400	400
Flame height		mm	200	250	300
Sound level		dB	40	40	40
Burner weight		Kg	17	21	31
Wood pellets		mm	6-8	6-8	6-8
Minimum recommended	Height	mm	300	300	350
size of boiler	Width	mm	250	250	300
combustion	Length	mm	390	390	500
Pellet supplying	auger	mm	1700	1700	1700
Chimney flue draught		Pa	25	30	40
Performance		%	More than 91% when integrated with a boiler efficiency minimum 80%	More than 91% when integrated with a boiler efficiency minimum 80%	More than 91% when integrated with a boiler efficiency minimum 80%

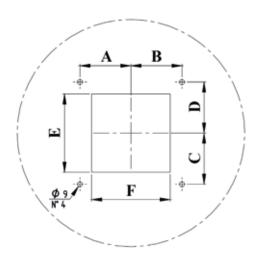
## 2.2 BURNER OVERALL DIMENSIONS



#### Fig. 5. Burner dimensions

Model	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	l [mm]	J [mm]	K [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	Q [mm]
EBB0050-P01	60	116	115	31.5	54	122	54	227	30	268	285	80	633	262.5	84.5	347	230
EBB0100-P01	60	116	135	31.5	55	170	55	231	25	273	370	78	721	262.5	84.5	367	280
EBB0200-P01	60	96	155	31.5	25	230	25	231	25	273	400	90	763	282.5	84.5	367	280

### 2.3 HATCH OPENING DIMENSIONS



Model	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
EBB0050-P01	85	85	75	75	118	125
EBB0100-P01	90	90	90	90	138	138
EBB0200-P01	140	140	102.5	102.5	158	233

Fig. 6. Opening dimensions

## 2.4 PELLET LOADING AUGER OVERALL DIMENSIONS

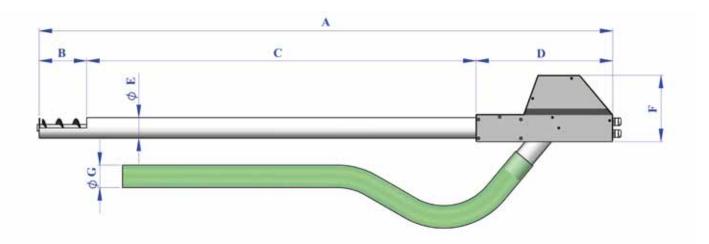
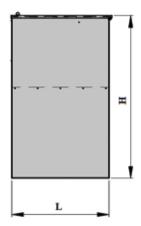
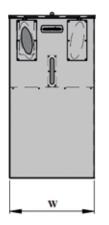


Fig. 7 Pellet loading auger dimensions

Model	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G[mm]
EBL0001-P00	1690	140	47	403	60	215	66
EBL0002-P00	1690	140	47	403	80	215	66

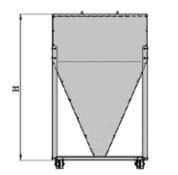
#### 2.5 PELLET TANK OVERALL DIMENSIONS

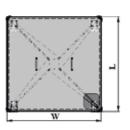




Model	Storage	H	L	W
	Capacity [KG]	[mm]	[mm]	[mm]
EBT0001-P00	300	1252	750	650

Fig. 8 Tank dimensions





Model	Storage	H	L	W
	Capacity [KG]	[mm]	[mm]	[mm]
EBT0002-P00	300	1230	799	799

Fig. 9 Tank dimensions

#### **3.TRANSPORTATION**

Device	Mode of packing	Mode of lifting	Remarks
BURNER	CORRUGATED CARDBOARD BOX	MECHANICAL MEANS OR AT LEAST 2 PEOPLE	FRAGILE - DO NOT TURN OVER HANDLE WITH CARE
COCHLEA	CORRUGATED CARDBOARD BOX	MECHANICAL MEANS OR AT LEAST I PERSON	HANDLE WITH CARE
PELLET TANKS	CORRUGATED CARDBOARD BOX	MECHANICAL MEANS OR AT LEAST 3 PEOPLE	HANDLE WITH CARE



DURING THE INITIAL STAGE OF LIFTING, CHECK THAT THE MACHINERY IS IN THE CORRECT POSITION SO AS TO KEEP IT IN A BALANCED POSITION.

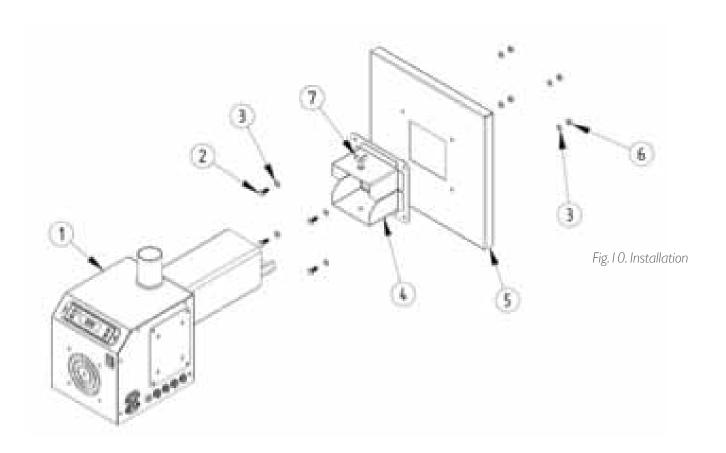
#### 4. ASSEMBLY AND CONNECTION

#### 4.1 INSTALLATION OF THE BURNER ON THE BOILER

Checks must be carried out at the first start up and after any maintenance operation which has needed the disconnection of the appliance, an intervention on the safety system or on parts of the burner



WARNINGS: THE BURNER YOU ARE ABOUT TO USE WAS DESIGNED TO FUNCTION ESCLUSIVELY WITH HEAT GENERATORS THAT HAVE A NEGATIVE PRESSURE COMBUSTION CHAMBER, HENCE A DIFFERENT USE MAY CAUSE FIRE HAZARD..



- I. MAKETHE HOUSING HOLE AS IN FIGURE "A"
- 2. FASTEN THE COLLECTOR (4) (OPTIONAL) TO THE HATCH USING M8 SCREWS (2) -
- 3. M8 SCREW WASHERS (3) M8 SCREW NUTS (6)
- 4. INSERT THE BURNER IN THE COLLECTOR (4) UP TO THE END
- 5. FASTEN THE SCREWS (7)

#### 5. START UP

#### 5.1 BEFORE STARTING UP THE BURNER

» Check that the burner is fixed correctly onto the boiler according to the factory configured calibrations. » Check that the boiler and the system are filled with water or diathermic oil, that the valves of the hydraulic system are open and that the smoke exhaust duct is free and properly sized.

» Check that the boiler door is closed, so that the flame is only generated inside the combustion chamber.

» Check the correct positioning of the auger and of the flexible tube connecting it to the burner.

- » Fill the pellet container.
- » Check the correct positioning and connection of the temperature sensor.

#### 5.2 FIRST START UP

This operation has to be carried out by qualified and authorized personnel.

Procedure:

I. Fill the fuel container with pellets (done by the user);

2. Power by switching on the ON/OFF main power button, no. I (see fig. 12) and check that the display is turned on;

3. Press button no. 4 (see fig. 12) to start up the fuel supplying auger, and keep it pressed down until the auger itself is full (to check that the auger is full it is sufficient to verify that the pellets have begun to flow from the discharge connection of the auger, through the flexible pellet feeding tube, to the burner); when the auger is full release button no.4;

4. Start up the burner by pressing the ON/OFF no.1 button for 4 seconds (see fig. 11);

5. It should start up after 4-5 minutes.

6. After starting up the device, check that the heat generator reaches the set temperature and that on the display the writing " heater on " appears;

P	CALIBRATION OF THE FLOW OF FUEL FOR THE POWER REQUIRED BY THE HEAT GENERATOR.
P	CALIBRATION OF THE COMBUSTION AIR AND FUEL RATIO IN ORDER TO ALLOW A CORRECT COMBUSTION AND TO REACH A PERFORMANCE AT LEAST EQUAL TO THE MINIMUM PRESCRIBED BY CURRENT REGULATIONS.
P	CHECK OF THE PROPER FUNCTIONING OF THE CONTROL AND SAFETY DEVICES.
P	CHECK OF THE PROPER FUNCTIONING OF THE COMBUSTION PRODUCT EXHAUST DUCT.
P	AT THE END OF THE CALIBRATION OPERATIONS, CHECK THAT ALL THE MECHANICAL CONTROL SYSTEMS ARE LOCKED AND SECURED.

#### 5.3 SWITCHING OFF

After pressing the ON/OFF no. 1 button, for 4 seconds (see fig.11), the burner will immediately enter the switching off phase, stopping the supply of pellets.

#### 5.4 FURTHER IGNITIONS

Press the ON/OFF no. I button, for 4 seconds (see fig. I I),) to start up the device, which will happen after 4-5 minutes.

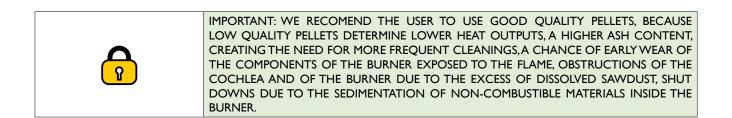
#### 6. FUNCTIONING OF THE DEVICE AND USER GUIDE

#### 6.1 OPERATOR - USER

The device functions fully autonomously, without the need of the constant intervention of an operator. The user acts as the operator of the device. He carries out the first start up. After having started up the device, he should perform all the checks, monitor its proper functioning, and if necessary, proceed to switch it off.

#### INTENDED USE

P	THE DEVICE IS DESIGNED AND BUILT TO OPERATE ONLY AFTER BEING CORRECTLY INSTALLED ON A HEAT GENERATOR (BOILER, HOT WATER HEATER). ANY OTHER USE IS TO BE CONSIDERED IMPROPER.					
P	THE DEVICE IS DESIGNED AND BUILT TO BURN WOOD PELLETS WHICH DO NOT CONTAIN SAWDUST AND HAVE THE FOLLOWING FEATURES: Lower calorific value 5 kWh/kg					
	Density	650 kg/m³				
	Moisture percentage	8% of the weight (max)				
	Ash percentage	1% of the weight (max)				
	Diameter	6 - 8 mm				
	Length	35 mm (max)				
	INSTALLATION TO QUALIFIED AN	E PROPER ASSEMBLY OF THE DEVICE, ENSTRUSTING THE ID CERTIFIED PERSONNEL,AND HAVING THE FIRST START R AUTHORIZED BY THE MANUFACTURER.				
	DO NOT EVER OPEN OR REMOVE	EANY COMPONENT OD THE DEVICE.				
		ILTTO FUNCTION ESCLUSIVELY WITH HEAT GENERATORS E COMBUSTION CHAMBER. DIFFERENT USES MAY CAUSE				



#### 6.2 RESIDUAL RISKS

DEVICE	RESIDUAL RISK	NOTES	signs
Burner	Thermal risk	The surfaces of the burner near the flame, heat both during the pre- start phase and during the functioning; they remain hot even after the burner has been switched off. Therefore there is a risk that a maintenance operator – while removing the burner from the heat generator - may come into contact with the heated surfaces. This risk is managed as residual risk and an appropriate warning is placed on the device.	the surface of the burner while it is still

#### 6.3 SAFETY DEVICES INSTALLED

The safety devices installed are:

- A fixed setting thermostat (60  $^{\circ}$ C) is installed on the fuel supply tube; when the temperature of the tube exceeds the fixed temperature, which derives from a return of heat, the thermostat stops the burner.

- A photoresistance supplied with the burner, which stops the burner if the flame is absent.

#### 6.4 CONTROL PANEL AND DESCRIPTION OF KEYS

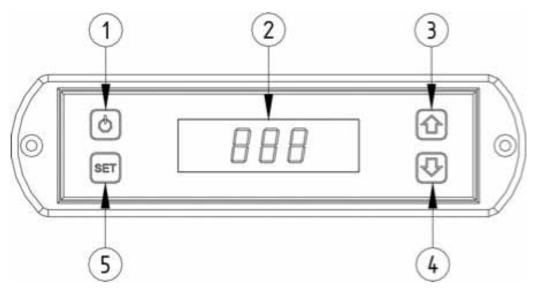


Fig. 1 1 Control Panel

BUTTONS
I 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 (Decreases power, if used on the Home Screen)
5 SET button
$\gg$ SET+UP = State of the cycle (Shows temperature, etc.)
» SET for 2 seconds = Configures time, timer, language, display contrast
» SET press and release = Water temperature adjustment

» ON/OFF+SET+UP+DOWN for 2 seconds = Actives the setting of technical parameters

#### 6.5 USER SETTINGS

I. Press SET for 2 seconds

2. Select the parameters menu with the arrow keys

A.Time settings

B.Timer settings

C. Not used

D. Language settings

E. Display contrast

TIME SETTINGS	To set the time use the arrow keys. To scroll the configuration screens press the SET button. To exit press ON/OFF.
CHRONOTHERMOSTAT SETTINGS	To set the timer use the arrow keys. To scroll the configuration screens press the SET button. To exit press ON/OFF. For every day of the week it is possible to set 6 different activation time frames. If the activation times FROM-TO are set on zero, the activation in that time frame is switched off.
FUELTYPE	The burner is calibrated only for the use of pellets.
LANGUAGE	Select the language.
CONTRAST	The contrast refers to display visualizations.

#### 7. FAULTS - CAUSES - SOLUTIONS

The burner is equipped with a self diagnosis system, which, in case of a fault to the burner, displays the following messages on the display.

In the following table are indicated the most common faults with their possible solutions.

FAULT	CAUSE	SOLUTION			
FAILED START UP	Pellet tank empty	Fill the tank			
	Auger cable disconnected or interrupted	Restore the connection or find the interruption			
	Ignition resistance faulty	Substitute the resistance (call a qualified technician)			
	Combustion grate clogged	Remove grate and clean it			
	Internal power supply of the auger clogged	Check that the auger which clogged combustion chamber is not for some reason clogged			
BLACK OUT ALARM	Power failure	Restore power. If after having restored the power the alarm continues, call a qualified technician.			
WATER SENSOR FAULTY ALARM	Sensor badly connected	Check connection			
	Sensor faulty	Change the sensor			
FUEL EMPTY ALARM	Pellet tank empty	Fill the tank			
	Auger cable disconnected or interrupted	Restore the connection or find the interruption			

N.B. = WARNING = IF THE PROBLEM FOR THE FAULTS DESCRIBED PERSISTS, DO NOT LOOK FOR ALTERNATIVE SOLUTIONS TO THOSE LISTED, IN ORDER TO AVOID CAUSING PERMANENT DAMAGE TO THE BURNER, NOT COVERED BY THE WARRANTY, PLEASE CONTACT A QUALIFIED TECHNICIAN INSTEAD.

#### 8. ELECTRICAL CONNECTIONS

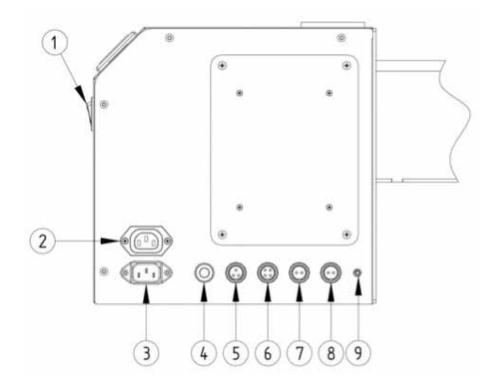


Fig. 12 Electrical connections

BUTTONS
I. General ON/OFF power button
2. Auger loading power outlet with fan [Optional]
3. 220 Volt power outlet
4. Button for manual pellet loading
5. Motor power outlet   [external loading auger]
6. Connection for water sensor
7. Connection for thermostat
8. Optional connection
9. Connection for earthing

## 8.1 ELECTRICAL CONNECTION

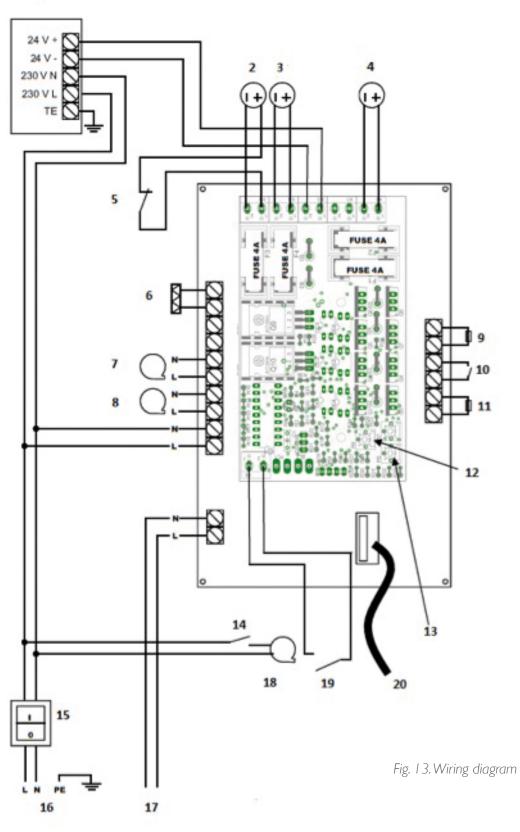


THE ELECTRICAL CONNECTION OPERATIONS SHOULD BE DONE BY A TRAINED ELECTRICIAL, APPROVED BY THE MANUFACTURER...



DO NOT EXPOSE THE OUTER CASING OF THE ELECTRICAL PANEL TO DRIPS AND JETS OF WATER AND /OR DUST.

## 8.2 WIRING DIAGRAM



	DESCRIPTION
Ι	230/24 I 00W POWER SUPPLIER
2	AUGER MOTOR   EXTERNAL POWER SUPPLY
3	AUGER MOTOR 2 INTERNAL POWER SUPPLY
4	GRATE CLEANING MOTOR
5	MOTOR I THERMAL CONTACT (80°)
6	230 Vac 300W IGNITION RESISTANCE
7	230 Vac FAN LOAD SHAFT
8	230 Vac FAN POWER SUPPLY
9	SMOKE TEMPERATURE SENSOR
10	SAFETY THERMOSTAT
	WATER TEMPERATURE SENSOR
12	MOTOR TIME SETTING FOR ASH CLEANING KIT (FROM 1 TO 10 MINUTES)
13	MOTOR TIME SETTING 2 (FROM 2 TO 8 SECONDS)
14	THERMAL CONTACT FOR COOLING FAN (40°)
15	POWER SWITCH
16	230 Vac POWER SUPPLY OR INVERTER (OPTIONAL)
17	230 Vac POWER SUPPLY IN CASE OF INVERTER INSTALLED (OPTIONAL)
18	230 Vac COOLING FAN
19	MOTOR I BUTTON (MANUAL LOAD)
20	DISPLAY POWER SUPPLY (USB)

#### 9. MAINTENANCE

- Check periodically that those parts of the burner that tend to get dirty due to bad quality pellets or due to the incorrect setting of the burner, are clean.
- The burner requires periodic maintenance, we recommend a weekly cleaning of the combustion grate by the user.
- Furthermore, request authorized personnel to perform ANNUALY maintenance operations



THE PELLET TANK SHOULD BE PLACED IN SUCH A WAY AS TO AVOID ANY KINKING AND /OR BENDS OF THE FLEXIBLE TUBE CONNECTING THE AUGER AND THE BURNER, THUS ENSURING THE FLOW OF PELLETS. IN ADDITION, AT BOTH ENDS OF THE FLEXIBLE TUBE FASTEN THE TUBE CLAMPS PROVIDED WITH THE BURNER.

#### 9.1 GENERAL MAINTENANCE

|--|

<u>/</u>			MAINTENANCE HORIZED PERSON		SHOULD	BE	PERFORMED	BY	QUALIFIED	AND
----------	--	--	-------------------------------	--	--------	----	-----------	----	-----------	-----

#### SAFETY PROCEDURE FOR THE APPLIANCE

- I. Check that the device has been switched off using the shutdown procedure.
- 2. Set on "OFF" the "ON/OFF" button, no.1 (see fig. 11) and cut the power to the device selecting the bipolar button
- 3. Cut and isolate the fuel supply.



THE PROCEDURE OF SECURING THE DEVICE AND RESETTING NORMAL OPERATIONAL CONDITIONS, SHOULD BE DONE ONLY BY THE MAINTENANCE OPERATOR.

#### 9.2 MAINTENANCE OPERATIONS TABLE

During the first start up, after an hour of operation, the burner should be switched off and the grate should be checked for the presence of unburned materials; in the case of unburned materials modify the setting of the air and fuel combustion parameters.

The data given in the following table is approximate and related to the use of certified pellets.

In case of use of non-certified pellets, not knowing the quality of the material and its composition, it is not possible to determine the frequency of cleaning.

In the case of use of non-certified pellets, Elmec s.r.l disclaims all liability for any faults, damage and possible environmental damage.

WARNING: Please note that the incorrect cleaning also affects the wear and tear on the parts of the burner exposed to the fire.

	If required	7days	14 days	30 days	1/2 year	Every year
Cleaning of the combustion chamber in case of ash deposit	×	×	×			
Cleaning of the space under the grate from dust and ash			×	×		
Cleaning of the fan					×	X
Cleaning of the burner and of the boiler	Х		×	Х		
Cleaning of the chimney flue and of the rear of the boiler	х			×	×	
Check to identify and replace worn parts						×
Adjust the combustion process	Х					
Fill the pellet tank	Х	X	×			
Cleaning of the chimney flue						X

This program is merely informational, and if necessary the clearing activity should be constant. The cleaning varies according to the situation, because the choice of pellets, the system and the burner setting have a major impact on the frequency of cleaning intervals.

### 9.3 SPECIAL MAINTANANCE

Special maintenance should be done at the end of the season, and in any case once a year. The maintenance operations to perform are the following:

- Clean all the components of the burner, grate and nozzle etc.;
- Clean and check that the flame check photoresistance is operating correctly;
- Check the correct operation of the igniter;
- Check the bearings and possible cleaning;
- Oil of the auger bearings;
- Clean the fan;
- Empty and clear the pellet tank;
- Check the condition of the flexible tube connecting the auger and the burner, and if necessary replace it;
- Check the condition of the electric power supply cables and electrical connectors, and if necessary replace them; such replacement should only be performed by qualified and authorized personnel for this type of operation.

#### **10. SPARE PARTS**

For each maintenance operation which involves the replacement of parts of the device, please refer to the reference drawings. WARNING: The spare parts for which a claim is being made under the warranty agreement should not be tampered with, but simply removed from the device and sent to headquarters for the necessary verifications.



THE USE OF THE DEVICE UNDER BAD MAINTENANCE CONDITIONS CAN RESULT IN THE APPLIANCE OPERATING IN UNPREDICTABLE AND EXTREMELY DANGEROUS CONDITIONS.

#### II. DISPOSAL

Most of the device is made of steel and commercial components in general, which do not require special instructions for their disposal.

Careful attention should be paid to the disposal of oils and grease in general, which must be disposed according to the current regulations for used oils.

The disposal of plastic parts should be managed similarly.



FOR THE DISPOSAL PLEASE CONSULT AUTHORIZED COMPANIES.

#### **12. DECLARATION OF CONFORMITY**



#### ELMEC GROUP Srl

Assemblaggi industriali, lavorazione lamiere

Localită Ca' D'oro 36020 Asigliano Veneto (VI)

Tel. . 0444/772023 Fax 0444/773129

Iscr. Reg. Imprese (VI) Cod. Fiscale & P.IVA: 03725780245 www.eimec-online.net e-mail: info@eimec-online.net www.b-max.com e-mail: info@b-max.com



#### DECLARATION OF CONFORMITY

# CE

ELMEC GROUP Srl, declares that the projects and construction of pellet burners, codes: EBB0034, EBB0100, EBB0200, EBB0300, power 34/50kW, 100kW, 200kW and 300kW, are in compliance with the following norms:

- Machinery Directive (2006/42/CE)
- Low Voltage Directive (2006/95/CEE)
- EMC (2005/65/CE)

Which technical documents are stored in our office

Asigliano Veneto, 01/03/2012

Elmec Group Srl Federico Marcante (CEO) 21-1

# Δ. ΑΝΑΣΤΑΣΙΑΔΗΣ Α.Ε.

ΤΕΧΝΙΚΗ•ΕΜΠΟΡΙΚΗ•ΚΑΤΑΣΚΕΥΑΣΤΙΚΗ ΕΤΑΙΡΙΑ

1ο ΧΛΜ. Ε.Ο. ΚΑΤΕΡΙΝΗΣ-ΓΑΝΟΧΩΡΑΣ ΤΗΛ. 23510 28624 - FAX: 23510 33454 ΚΑΤΑΣΤΗΜΑ ΚΑΤΕΡΙΝΗΣ Τ. ΤΕΡΖΟΠΟΥΛΟΥ 8 ΤΗΛ. 23510 26796 Web: www.adgreen.gr - www.adtherm.gr - www.ad-therm.com email: info@adgreen.gr - info@adtherm.gr - info@ad-therm.com