

## ORTE Burner 24 – 350 kW



1

# USER'S MANUAL OPERATING AND MAINTENANCE INSTRUCTIONS

version of the burner: 03/2012  
version of the document: 12ENG/2015/JK

www.orte.pl

Orte Polska Sp. z o.o.  
ul. Groblowa 1  
05-800 Pruszków  
Poland



Made in Poland

## CONTENTS

1. General information .....	3
1.1 Required fuel parameters .....	4
1.2 Technical description .....	4
2. Components .....	8
3. Burner construction .....	8
4. Mounting .....	9
5. Activation .....	10
6. Functions .....	11
7. Problems.....	12
8. Guidelines .....	13
9. Conditions of safe use .....	13
10. Cleaning .....	14
11. Lighter exchange .....	17
12. Disposal of the burner after its life span termination .....	17
13. Electrical scheme.....	18
14. Controller.....	18
15. Warranty conditions .....	19
16. Declaration of CE Conformity of the ORTE Burner 24 – 350 kW .....	20
16. Installation protocol .....	21

Dear Customer,

We wish to thank you for choosing the ORTE Pellet Burner. In order to get the best performance from your appliance we recommend that you read this booklet carefully before first activation.

## **1. General information**

ORTE Pellet Burner is an automatic, self-cleaning burner developed to burn wooden pellets (made of sawdust and wood waste shavings)\*. It is designed to work with stoves for solid fuel, with some coal and oil furnaces (stoves with combustion chamber which enable gathering and removing ash).

The appliance is environmentally friendly thanks to low emission of exhaust fumes and very small electricity demand.

**Installation and initial launch can only be completed by the authorized service team indicated by the manufacturer. Installation of the device should be done by electrician with needed authorization. Power system should be done in accordance with local legal regulations and protected by a residual current device (30mA).**

**After installing the burner, chimney installation should be checked and made by authorized chimney sweep according to local law. Chimney checking and service should be done according to local law, at least once in 3 months.**

### **ATTENTION**

**In order to clean/repair the burner it is necessary to switch it off first and wait until the temperature of the furnace drops (min. 2 hours!). Also make sure that the device is unplugged.**

The fluent power modulation of the burner is a unique technical improvement – the higher the temperature the less fuel is consumed.

ORTE Pellet Burner can work together with a room temperature controller keeping requested temperature in the heated space. Filling the fuel tank and removing eventual ash from the ash pan is the only thing one has to do.

The construction of the Burner makes it impossible to overheat in case of a power blackout, because the amount of fuel is limited. In that case the burner will automatically switch off and then switch on again.

The burner is able to burn pellets compliant with pellet parameters in the description below.

In order to improve the product, to keep this publication up to date the manufacturer reserves the right to make modifications without any advance notice.

\* the pellet must be compliant with the one recommended in the following User's Manual

### 1.1 Required fuel parameters

Diameter $\varnothing$	6 – 8 mm
Length	4 – 50 mm
Density	$\geq 600$ kg
Content of fraction	3 mm 0,8%
Fuel value / heat output	$\geq 16$ MJ/kg or $\geq 4,7$ kWh/kg
Ash content	$\leq 0,7\%$
Humidity	$\leq 10\%$
Ash melting point	$\geq 1350^{\circ}\text{C}$

It is recommended to use POWER 8 mm by Barlinek. All the parameters set for the ORTE Pellet Burner are based on POWER.

4

### 1.2 Technical description

TYPE	ORTE 24	ORTE 35	ORTE 45	ORTE 60	ORTE 80	ORTE 100
TECHNICAL DETAILS						
Power range (kW) MIN/MAX	7/24	10/35	13/45	18/60	24/80	30/100
Average power consumption (W)	70	70	70	70	70	70
Total length (mm)	470	495	505	500	515	520
Length of the furnace pipe (mm)	185	205	215	210	225	230
Width (mm)	180	180	180	180	180	180
Height (mm)	220	220	360	360	360	360
Furnace pipe diameter (mm)	105	135	135	150	150	183
Length of the feeder (m)	1,8	1,8	1,8	1,8	1,8	1,8
Ventilator force (W)	45	45	45	85	85	85
Voltage (V)	230	230	230	230	230	230
Igniter force (W)	700	700	700	700	700	700
Precaution (A)	5	5	5	5	5	5
Required chimney draft (Pa)	5-15	5-15	5-15	10-25	10-25	38
Required opening to put in the burner, diameter (mm)	110	138	138	153	153	186
FUEL						
Pellets	s	s	s	s	s	s
PELLET HOPPER						
Standard: 270 liter	n	n	n	n	n	n
Non-standard: 380 liter, 560 liter	n	n	n	n	n	n
External fuel hopper	n	n	n	n	n	n
Fuel fed from the pellet hopper into the burner	s	s	s	s	s	s
BURNER						
Steel quality: 1.4828	s	s	s	s	s	s
Cilindric burner	s	s	s	s	s	s
Furnace made of heat-proof steel	s	s	s	s	s	s
Chute burner	s	s	s	s	s	s

Automatic ash removing	s	s	s	s	s	s
Igniter	s	s	s	s	s	s
Ventilator	s	s	s	s	-	-
Pressure Ventilator	-	-	-	-	s	s
Gear motor x 2 pieces	s	s	s	s	s	s
Photocell – flamedetection control	s	s	s	s	s	s
Grill for pellet burning	s	s	s	s	s	s
<b>AUTOMATIC EQUIPMENT</b>						
Boiler temperature sensor	s	s	s	s	s	s
Burner temperature sensor	s	s	s	s	s	s
Main off-switch	s	s	s	s	s	s
Safety switch	s	s	s	s	s	s
Indicator light	s	s	s	s	s	s
Room temperature sensor	s	s	s	s	s	s
Hot water sensor	s	s	s	s	s	s
Enlargement possibility (extra modules)	s	s	s	s	s	s
GSM module or Wi-Fi	n	n	n	n	n	n
<b>AUTOMATIC CONTROLLER – POSSIBILITIES</b>						
Feeder steering	s	s	s	s	s	s
Burner feeder controller	s	s	s	s	s	s
Pressure ventilator controller	s	s	s	s	s	s
Igniter controller	s	s	s	s	s	s
Central heating pump controller	s	s	s	s	s	s
Hot water pump controller	s	s	s	s	s	s
Mixing valve controller	s	s	s	s	s	s
Buffer controller	s	s	s	s	s	s
Cooperation with the Wi-Fi module	s	s	s	s	s	s
<b>AUTOMATIC SYSTEMS</b>						
5-steps burner modulation	s	s	s	s	s	s
Hot water priority	s	s	s	s	s	s
Wi-Fi Communication	s	s	s	s	s	s
Fuel choice (3 possibilities)	s	s	s	s	s	s
Alternative function – “boiler mode”	s	s	s	s	s	s
Output testing	s	s	s	s	s	s
Weekly hot water time programming	n	n	n	n	n	n
Weekly room temperature time programming	n	n	n	n	n	n
Simple menu	s	s	s	s	s	s
Advance menu	s	s	s	s	s	s
Weather module controller, solar controller and buffer controller from the controller menu	s	s	s	s	s	s
Alarm codes	s	s	s	s	s	s
Service mode	s	s	s	s	s	s
Languages – multiple choice	s	s	s	s	s	s
<b>EXTRA MODULES</b>						
Solar system controller	n	n	n	n	n	n
Triple mixing valve controller (max 16 pieces)	n	n	n	n	n	n
Room temperature sensor	n	n	n	n	n	n

GSM Module	n	n	n	n	n	n
WIFI Module	n	n	n	n	n	n
Steering via WIFI + integrated tablet	n	n	n	n	n	n
Steering via GSM/WIFI + integrated tablet	n	n	n	n	n	n

## Explanation:

s - standard equipment

n – non-standard equipment, additionally payable

Producer may change technical info in offer without prior information.

TYPE	ORTE 130	ORTE 150	ORTE 200	ORTE 250	ORTE 300	ORTE 350
<b>TECHNICAL DETAILS</b>						
Power range (kW) MIN/MAX	39/130	45/150	60/200	75/250	90/300	105/350
Average power consumption (W)	115	115	190	190	190	190
Total length (mm)	555	520	610	650	690	750
Length of the furnace pipe (mm)	260	230	320	360	400	400
Width (mm)	180	180	180	180	180	180
Height (mm)	360	445	445	445	445	445
Furnace pipe diameter (mm)	183	260	260	260	320	320
Length of the feeder (m)	1,8	1,8	1,8	1,8	1,8	1,8
Ventilator force Moc (W)	85	100	185	185	185	185
Voltage (V)	230	230	230	230	230	230
Igniter force (W)	700	700	700	700	700	700
Precaution (A)	5	5	5	5	5	5
Required chimney draft (Pa)	42	42	48	48	48	48
Required opening to put in the burner, diameter (mm)	186	270	270	270	330	330
<b>FUEL</b>						
Pellet	s	s	s	s	s	s
<b>PELLET TANK</b>						
Standard: 270 liter	n	n	n	n	n	n
Non-standard: 380 liter, 560 liter	n	n	n	n	n	n
Outside feeding	n	n	n	n	n	n
Fuel feeding from the pellet tank into the burner	s	s	s	s	s	s
<b>BURNER</b>						
Steel quality: 1.4828	s	s	s	s	s	s
Cilindric burner	s	s	s	s	s	s
Furnace made of heat-proof steel	s	s	s	s	s	s
Chute burner	s	s	s	s	s	s
Automatic ash removing	s	s	s	s	s	s
Igniter	s	s	s	s	s	s
Ventilator	s	s	s	s	-	-
Pressure Ventilator	-	-	-	-	s	s
Gear motor x 2 pieces	s	s	s	s	s	s
Photocell – flamedetection control	s	s	s	s	s	s

Grill for pellet burning	s	s	s	s	s	s
<b>AUTOMATIC EQUIPMENT</b>						
Boiler temperature sensor	s	s	s	s	s	s
Burner temperature sensor	s	s	s	s	s	s
Main off-switch	s	s	s	s	s	s
Safety switch	s	s	s	s	s	s
Indicator light	s	s	s	s	s	s
Room temperature sensor	s	s	s	s	s	s
Hot water sensor	s	s	s	s	s	s
Enlargement possibility (extra modules)	s	s	s	s	s	s
GSM module or Wi-Fi	n	n	n	n	n	n
<b>AUTOMATIC CONTROLLER – POSSIBILITIES</b>						
Feeder steering	s	s	s	s	s	s
Burner feeder controller	s	s	s	s	s	s
Pressure ventilator controller	s	s	s	s	s	s
Igniter controller	s	s	s	s	s	s
Central heating pump controller	s	s	s	s	s	s
Hot water pump controller	s	s	s	s	s	s
Mixing valve controller	s	s	s	s	s	s
Buffer controller	s	s	s	s	s	s
Cooperation with the Wi-Fi module	s	s	s	s	s	s
<b>AUTOMATIC SYSTEMS</b>						
5-steps burner modulation	s	s	s	s	s	s
Hot water priority	s	s	s	s	s	s
Wi-Fi Communication	s	s	s	s	s	s
Fuel choice (3 possibilities)	s	s	s	s	s	s
Alternative function – “boiler mode”	s	s	s	s	s	s
Output testing	s	s	s	s	s	s
Weekly hot water time programming	n	n	n	n	n	n
Weekly room temperature time programming	n	n	n	n	n	n
Simple menu	s	s	s	s	s	s
Advance menu	s	s	s	s	s	s
Weather module controller, solar controller and buffer controller from the controller menu	s	s	s	s	s	s
Alarm codes	s	s	s	s	s	s
Service mode	s	s	s	s	s	s
Languages – multiple choice	s	s	s	s	s	s
<b>EXTRA MODULES</b>						
Solar system controller	n	n	n	n	n	n
Triple mixing valve controller (max 16 pieces)	n	n	n	n	n	n
Room temperature sensor	n	n	n	n	n	n
GSM Module	n	n	n	n	n	n
WIFI Module	n	n	n	n	n	n
Steering via WIFI + integrated tablet	n	n	n	n	n	n
Steering via GSM/WIFI + integrated tablet	n	n	n	n	n	n

Explanation:

s - standard equipment

n – non-standard equipment, additionally payable

Producer may change technical info in offer without prior information.

## 2. Components

The following items are components of the ORTE Pellet Burner:

- burner together with a controller,
- conveying screw (of 1,6 to 3m long),
- spiro pipe to connect the conveying screw with the burner,
- whole wiring together with temperature sensors

Following lengths of the conveying screw are available: 1,6m,1,8 m, 2 m, 2,5 m, 3 m.

## 3. Burner construction

ORTE Pellet Burner consists of:

- main (frontal) board fastening the burner,
- furnace,
- conveying screw leading fuel to the furnace,
- air ventilator,
- lighter.

The mechanism leading fuel to the furnace is integrated with air ventilator fitted up with a build-in lighter. The whole is sheltered by a two-piece housing with a controller situated in a separate casing placed on the Air Heater (eventually on the boiler), on the wall or on the fuel tank. All elements are high quality, heatproof, acid proof, zinc-plated and powder coated materials.

The furnace has the shape of a pipe with a perforated fire grate which is situated inside the air heater / boiler. Its outer surface doesn't significantly heat up to cause any danger.

The work of the burner is completely automatic – as from igniting, up to burning, standby and extinguishing. Igniting process begins with starting up the ventilator in order to aerate the combustion chamber and remove cumulated gases. Thereafter the lighter goes off. The ignition of pellet is caused by blowing hot air. The flame is detected by a photocell. Thanks to



the photocell the flame can be constantly monitored. Apart the photocell one can also employ a waste gas temperature sensor PT-1000 situated in the outlet pipe of the heater (boiler) or a traditional waste gas temperature sensor. The controller can work with all the three ways of fire detection modes.

#### 4. Mounting

It is important to choose the best possible way of placing the burner in each type of the appliance to assure the highest efficiency of the whole system, enable removing ash and easy access in order to check up and maintenance.

For mounting and first activation please follow the instruction below. In order to apply to the warranty conditions, mounting must be carried out by an authorized service engineer / qualified personnel.

##### **ORTE Burner User's Manual:**

- a) Make special thrills to assemble the burner in the opening of the boiler or its frontal board. Open the burners lid and plug the control wire into the suitable socket on the mounting plate. Fasten the wire to the lid by means of an impedance coil.
- b) Place the pellet tank next to the heater (boiler), put the conveying screw in the pellet tank opening and pin it down to the chain (line) installed on the pellet tank.
- c) Put the stainless steel pipe on the burner and join it with the conveying screw by means of a suitable spiro pipe. Please note, that the gradient of the fuel fall cannot be smaller than 45°.

**When mounting just the ORTE Burner (not as a set together with ORTE POWER Pellet Air Heater), it is important to notice, that the controller must be installed in a suitable place (it cannot be exposed to the direct affection of heat). Plug in the wires of the central heating or ventilator by means of a transmitter to appropriate sockets in the control box (panel). Next, switch the control box to the conveying screw using a cable that is to be found in the set. Then plug the control box to the power supply.**

- d) Fill the fuel tank with pellet.

After installing, plugging in and first activation of the burner, the service engineer should instruct the user how to operate the burner correctly, mainly concerning unassisted setup of

basic parameters and adequate reactions in emergency cases (e.g. no fuel), as well as how to fill the pellet tank, optimize the sensitivity threshold of the sensor (photocell) etc.

ATTENTION: BOILER WITH SOLID FUEL BURNER must be installed according to local norms. Chimney must be inspected according to local norms.

## 5. Activation

Before first activation it is important to remember, that the room where the heater (or boiler) is installed must be well ventilated – the cross section of the ventilation opening must be at least half as big as the cross section of the exhaust stack (min. 50%).

Keep inflammable materials away from the heater (boiler) – inflammable materials cannot be kept in the boiler room.

**Remember: The appliance must be connected to a power source.**

### STEP 1

Check the amount of pellet in the fuel tank.

### STEP 2

The conveying screw must be filled with pellet in order to pour the fuel to the burner. In order to do start this function press the **START** button for about 5 seconds – until you see the dispatch **FILLING** on the display.

First filling of the conveying screw may take a couple of minutes. The controller will automatically stop the process after 10 minutes. If the conveying screw isn't still full, it is necessary to repeat the action. The whole process can be stopped at any time by pushing the **STOP** button.

### STEP 3

Set up the photocell parameters by using the buttons [◀] and [▶] following the instructions below:

Next button push [▶]	Display dispatch	Explanation	Remarks
1	DESIRED BOILER TEMPERATURE 90°C	Ultimate boiler temperature	-----
2	CURRENT FURNACE BRIGHTNESS 26	Current state detected by the photocell – no flame detected	It will change depending on the brightness in the combustion chamber
3	IGNITION OFF AT BRIGHTNESS 29	The igniter will switch on below this point (value)	Set the brightness value from section 2. or one point higher
4	IGNITION OFF AT BRIGHTNESS 30	The igniter will switch on above this point (value)	Set the value from 2 to 5 points higher than in section 2.

**ATTENTION**

If, for any reason, the set up returns to the service mode, (apart from renewed setting up of the service menu: flame detection, security, fuel and air parameters etc.) remember to set up the sensitivity verge of the photo cell once again following instructions in the table above.

#### STEP 4

If the installation is a water installation, fill the water in the Central Heating system.

#### STEP 5

Set all regulators (room thermostats, long distance switches etc.) in max position – the room regulator has an overriding position over the controller. If the room thermostat is not applied, then its output in the control box must be short circuit.

#### STEP 6

Press **START**.

### 6. Functions

Pressing the START button will switch the burner on. The controls and ventilator will go off at first (in order to aerate the combustion chamber). When the combustion chamber is ventilated, first fuel dose will be inserted and the lighter will switch on. It needs about 90 – 120 seconds to ignite the pellet.

After the flame is detected (sensitivity verge of the photo cell has been crossed), the igniter turns off and ORTE Burner starts to work on automatic mode. This will be shown on the display with the indication MAXIMAL POWER.

If brightness in the combustion chamber falls below the set point (see chapter 5. Activation, STEP 3, point 3), the igniter will switch on in order to ignite the fuel again.

The display will indicate the work of the Burner showing following messages:

Operation mode	Description
TEMPERATURE 67°C STOP	The controller is switched off. Press START in order to continue work.
TEMPERATURE 67°C IGNITION	Controller carries out automatic ignition.
TEMPERATURE 67°C STAND-BY	Desired temperature has been achieved.
TEMPERATURE 67°C EXTINCTION	No heat demand. Controller shuts down heater/boiler operation.
TEMPERATURE 67°C MAX POWER	The burner operates to reach the max. power (it hasn't reached desired temperature yet).

TEMPERATURE 67°C MIN POWER	The burner is working in automatic mode with minimal power (desired temperature has been achieved).
-------------------------------	---

## 7. Problems

If any problems occur, it is possible to try to fix them following the description below or contact your local service.

	Problem	Possible reason	Solution
1.	the burner doesn't ignite	no fuel in the fuel tank – dispatch on the display: NO FUEL	- fill the fuel tank with pellet - delete the dispatch on the dispatch by pressing STOP - reset the burner by pressing START
		faulty igniter	contact your local service
		cinder in the furnace	- clean the furnace thoroughly - clear the air openings
		Igniter, stoker and conveying screw doesn't work	exchange the fuse that is placed next to the controller (fuse 5A – 5x20)
2.	the ventilator doesn't switch off during extinction of the burner	wrong selection of flame detection parameters	contact your local service
		flame detector polluted	disassemble and clean the photo cell
3.	conveying screw fire alert – dispatch on the display: HOT	excessive temperature augmentation of the burner housing caused by fire in the stoker or intake pipe	- when the extinction is finished (the ventilator will switch off and the stoker will remove the burning fuel), wait until the temperature of the burner housing sinks - delete the dispatch on the display by pressing STOP - reset the burner by pressing START
4.	overheating alarm - dispatch on the display: BOILER OVERHEAT	boiler water temperature increased up to the 'boiler overheating temperature'	- wait until the water temperature in the boiler fall below 'boiler overheating temperature' - delete the dispatch on the display by pressing STOP - reset the burner by pressing START
5.	temperature sensor failure	failure of the temperature sensor circuit or temperature beyond measuring range -9°C - 109°C	- press STOP - if the dispatch doesn't delete after pressing STOP, contact your local service
		failure of the conveying screw temperature sensor circuit	
		failure of the temperature sensor circuit automatically shuts the hot water regulations off	contact your local service
6.	the burner fumes soot arises	failure of the temperature sensor of the burner	
		- too much fuel added (in proportion to air) - burner furnace is polluted - slag in the furnace	- clean the furnace thoroughly - clear the air openings - set up the burner – fuel and air proportions for min. and max. power

7.	Soot in the furnace arises too often – the burner doesn't clean be itself	wrong fuel	find a new pellet supplier
----	---	------------	----------------------------

## 8. Guidelines

For an efficient functioning of the ORTE Burner it is important to apply to the producers guidelines. Only correct use of the following instructions allows appropriate functioning of the appliance and helps to avoid unwelcome effects:

13

### ATTENTION

**In order to clean/repair the burner it is necessary to switch it off first and wait until the temperature of the furnace drops (min. 2 hours!). Also make sure that the device is unplugged.**

- shut the appliance down in the event of breakdown or bad running
- do not use any other fuel than wood pellets
- install the appliance in a location which is suitable for firefighting and equipped with all services such as air and electricity supply and provision for discharging combustion gases
- if the appliance is in storage, it should be in a place that is free of damp and it should not be exposed to extremes temperatures
- in case of any problems, get in touch with your dealer or a qualified engineer, and if a repair is necessary, insist on the use of original spare parts
- periodically check and clean the smoke pipe outlet ducts
- keep the furnace clean – remove the ash and slag at least once a week. The frequency of cleaning depends a lot of the quality of pellet
- technical checkup is advised at least once a year (before heating season)
- assure appropriate ventilation of the boiler-house
- keep the ventilation pipes and boiler-house clear
- always employ good quality fuel



## 9. Conditions of safe use

For the correct use of the appliance and to prevent accidents, the instructions given in this booklet must always be followed, especially the following rules:

- installation of the burner, making the electrical connections, checking its operation and maintenance are all tasks which should be carried out by qualified and authorized personnel according to local norms
- install the burner in accordance with the regulations in force in your local area, region and country
- before beginning any operation, the user, or whoever is preparing to operate on the appliance, must have read and understood the entire contents of this instruction booklet
- the burner can only be handled by adults
- keep children away of the appliance
- never put your hands into the pellet tank
- it is important to keep the burner, the conveying screw and the air heater (boiler) in a good technical state
- keep the boiler-house clean and don't store inflammable materials and other things unrelated with handling the appliance
- always follow the producers guidelines
- never interfere unassisted with the electronic parts of the appliance
- when cleaning the burner and air heater (boiler), the appliance must be switched off and not connected to the power supply

### **ATTENTION**

**In order to clean/repair the burner it is necessary to switch it off first and wait until the temperature of the furnace drops (min. 2 hours!). Also make sure that the device is unplugged.**

## 10. Cleaning

ORTE Pellet Burner is equipped with a self-cleaning system. Therefore the appliance doesn't require daily cleaning nor grubbing in the furnace – especially if appropriate fuel is applied. Check the furnace each time the burner is being cleaned. Remove remainders and fouling if needed.

If the burner is applied in a boiler (and not in air heater), it is advised to place it on the boiler opening (door) in order to facilitate cleaning (instead of putting it in the boiler corps). This way the burner will emerge together with door opening.

The necessity of burner cleaning may change depending of the fuel quality. If the pellet doesn't achieve quality requirements, the burner may need frequent ash removing (even every couple of hours). That is why good quality fuel is so important.

**ATTENTION**

**In order to clean/repair the burner it is necessary to switch it off first and wait until the temperature of the furnace drops (min. 2 hours!). Also make sure that the device is unplugged.**




It can only be executed by adults with particular caution. Keep children away of the appliance during burner cleaning.


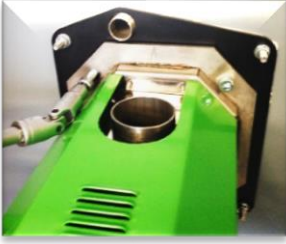
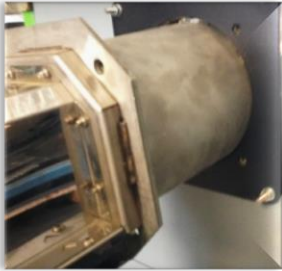


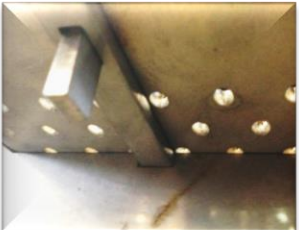
Always empty ash into a metal container as ash which may appear cool could be hot in the center.

Never use plastic brushes or dust pans to clean ash.


Always use heat resistant gloves when handling the ash pan.

**BURNER'S CLEANING**

<p>1</p>	<p>Before cleaning the burner, one must turn off the device (STOP button on the steering panel) and wait for 2 hours. Turn the device off the power.</p>	
<p>2</p>	<p>Take away the feeder pipe from burners chimney.</p>	
<p>3</p>	<p>Take off the burners cover.</p>	

4	Unplug the cables from the socket.	
5	Unscrew the screws (heaters 24-45 kW: 2 screws $\varnothing$ 8, heaters 80-250 kW: 4 screws $\varnothing$ 10).	
6	Pull out the burner and put it on table or other convenient place.	
7	Pull out the grate and remove ash. Clean the place under the grate in the tube.	
8	Insert the grate on place. ATTENTION: The grate must be placed under fixed part of the grate.	
9	Please check whether the tongue of the grate is on place.	



10	Insert and connect the burner in the reverse order to its removal.	
----	--	--

### **11. Lighter exchange**

The lighter is the mostly used element of the burner. In case it stops working, please check if its fuse doesn't need to be exchanged first. It can be recognized by the absence of fuel feeding apart from the lack of ignition (the screw doesn't spin although the dispatch on the display informs, that fuel feeding is on).

If the lighter requires to be replaced, please follow the guidelines below:

#### **HOW TO EXCHANGE THE LIGHTER – step by step:**

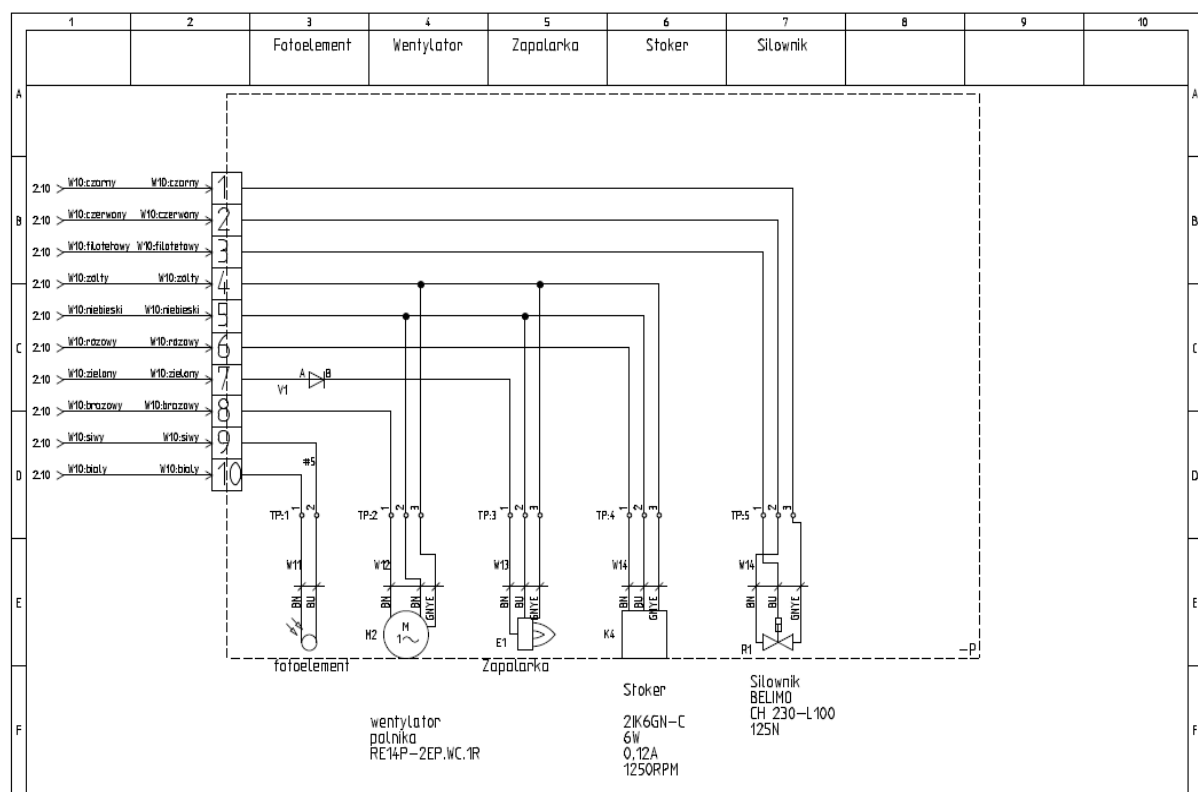
1. Switch the power supply wire off from the power source
2. Put the pipe from the T-connector off
3. Take off the upper cover of the burner
4. Unscrew the back cover of the air chamber where the drive of the stocker is fixed
5. Put the covering together with the drive and stocker feeder off by pulling it until the lighter will be completely exposed
6. Pull out the heating element by catching it by the pipe with a pair of pliers
7. Uncouple the controller wires from the clamps
8. Repeat the whole action the other way round paying special attention to the correct connection of the terminal blocks of the frontal plate in the burner
9. Switch the appliance on

### **12. Disposal of the burner after its life span termination**

The appliance shall not be treated as household waste. It has to be considered as Waste Electrical and Electronic Equipment. Therefore it has to be handed over to the applicable

collection point for used up electrical and electronic equipment for recycling purpose. Ultimate disposal of the appliance shall follow according to applicable local regulations on waste utilization. For more information about disposal, utilization and recycling please contact your local authorities, household waste disposal service, the shop where you purchased the product or producer.

### 13. Electrical Scheme



### 14. Controller

Before turning on the controller, connect power cables of: controller, blow-in fan, central heating and hot tap water pumps and auger to appropriate sockets in the rear of the controller. The temperature sensor should be placed in metering locations that shall be dry. For connection of stoker, alarm indicator and ash removal system the additional module UM-1 shall be applied.

**CAUTION!** Before plugging in the controller first check if the wiring system is properly grounded, and also if the terminal screws of the output connector are tightened.

**CAUTION!** Total power of the fan, central heating and hot water pump which are connected to the controller must not exceed 900W. Outputs of the controller that are not used may remain disconnected.

**CAUTION!** Control outputs of the feeder and lighter are not protected and **MUST BE** protected with adequate fuses.

**CAUTION!** The controller is equipped with properly protected semiconductor temperature sensors, yet metering locations with installed sensors must be dry.

### **15. Warranty conditions**

1. The manufacturer provides the limited 2 year warranty for ORTE Pellet Burner starting from the date of purchase.
2. The term 'warranty' is to be understood to denote the free of charge replacement or repair of parts recognized to have been defective at the start by reason of manufacturing defects.
3. Recognized manufacturing defects will be replaced or repaired within no longer than 21 working days starting from the day written complaint has been delivered/send to the manufacturer.
4. The way and extent of the reparation as well as repairing and replacement conditions are to be determined by the manufacturer.
5. The manufacturer must be informed about each defect as soon as it has been recognized. In order to do it, please fill out the complaint report that is to be found in this booklet.
6. Documents needed for free of charge replacement or reparation of parts recognized as defective are: Installation Protocol (filled warranty sheet) and receipt / invoice proving the purchase.
7. Incorrectly filled installation protocol (lack of signatures, stamps, dates etc.) make the warranty not valid.
8. The warranty is conditional on the installation protocol being filled and returned to the manufacturer within 14 days and requires that the product be installed and commissioned by an authorized installer according to the detailed instructions given in this User's Manual supplied with the product.
9. First activation must be performed by an authorized installer.
10. The manufacturer refuses to accept any responsibility when:
  - the appliance or any other accessory has been improperly used or modified without authorization
  - the appliance has been incorrectly installed, activated or used (in consequence of the failure to observe all the prescriptions laid down in this User's Manual, especially those concerning warnings on the subject of installation, use and maintenance of the appliance)
  - damages are not being caused by the manufacturer
  - in case of misuse of the product or sabotage (making changes or modifications of the burner)
  - the burner has been activated without mounting it first into the heater (or boiler)
  - the chimney and chimney draft diameter is too small
  - reparations have been made by unauthorized personnel
  - damages have been made due to false electrical installation
  - the appliance has been damaged during incorrect transport to the boiler house
  - the burner parameters have been incorrectly set up
  - the fuel doesn't have requested quality causing slag and other tarry residues difficult to remove
  - the damages are being caused due to low quality pellet or inappropriate fuel
  - the reparation is not possible due to reasons independent from the manufacturer (e.g. no fuel, no access to the burner, no chimney draft etc.)
11. The warranty doesn't include:
  - ORTE Burner parameters regulation
  - Cleaning and maintenance of the ORTE Burner
12. In cases mentioned in points 10 and 11 the user/owner of the appliance will be charged for reparation or replacement of parts.
13. The request for action under the warranty must be addressed and sent to: Orte Polska Sp. z o.o., ul. Groblowa 1, 05-800 Pruszków, Poland or [biuro@orte.pl](mailto:biuro@orte.pl).

## 16. Declaration of conformity



### DECLARATION OF CONFORMITY

Manufacturer **Orte Polska Sp. z o.o., ul Groblowa 1, 05-800 Pruszków, Poland** hereby declares that the product:  
ORTE Pellet Burner type 24, 35, 45, 60, 80, 100, 130, 150, 200, 250, 300, 350  
is in conformity with provisions of the following directives:

2006/42/WE  
2006/95/WE  
2004/108/WE  
2011/65/EEC RoHS 2

### On basis of compliance with the following harmonized directives:

PN-EN 15 270 :2008  
EN ISO 12100 :2012  
EN 60730-2-5:2006  
EN 60730-1:2012  
PN-EN 303-5:2012

CE issued in 2014  
Pruszków, Poland 20.10.2014

Signature of an authorized person:

.....

### 17. Installation protocol

**BUYER**

Name:

.....

Address:

.....

e-mail: ..... phone number:

.....

**SELLER**

Date of sale: .....

.....

.....

**INSTALLING COMPANY**

Date of first activation:

.....

Company name:

.....

Address:

.....

e-mail: ..... phone number:

.....

**INSTALLATION OF ORTE PELLET BURNER**

Serial number: ..... Production year: ..... Type: .....  
[kW]

Boiler: ..... Production year: ..... Power: .....  
[kW]

**BURNER PARAMETERS**

Efficiency of the conveying screw (10 minutes): .....kg/10 min. x 6 =  
.....kg/h

**Air settings:**

Ventilator rotation by maximal power (%):

.....

Ventilator rotation by minimal power (%):

.....

**Fuel settings:**

Fuel consumption by maximal power:

.....

Fuel consumption by minimal power:

.....

**Flame detector: Photo-cell**

Photo-cell parameter for dark burner:

.....

Fuel ignition by following photo-cell parameter:  
 .....  
 Lighter switch off by following photo-cell parameter:  
 .....

**Waste gas analysis:**  
 WASTE GAS TEMPERATURE    Min. power: ..... °C    Max. power: ..... °C  
 CO<sub>2</sub> - emission [ppm] :    Min. power: ..... °C    Max. power: ..... °C

Chimney draft: ..... Pa

Air excess: ..... λ                      Efficiency: ..... %

I accept warranty conditions described in the following User's Manual.

---

Customer's signature

Warranty conditions has been thoroughly described in the following User's Manual. In case of any problems with the Burner, please contact the service company who made the first activation.

**CHIMNEY SWEEP ACCEPTANCE**

Company name: .....  Address: .....  Phone number: .....	Date .....  Signature   Authority no:.....  Stamp
---	---

**INSTALLATION OF THE ELECTRICIAN**

Company name: .....  Adress: .....  Phone: .....  SERVICE:.....	Date.....  Signature.....  Authority no:.....  Stamp
--	--

**SERVICE MADE BY:**

Stamp/Service man	Date and signature	Service

**CHIMNEY-SWEEPER SURVEYS**

Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp
Date.....	Date.....	Date.....
Signature.....	Signature.....	Signature.....
Stamp	Stamp	Stamp



Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp
Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp
Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp
Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp
Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp	Date..... Readable signature ..... Stamp