



**USER MANUAL FOR  
23kW SUPER VULCANO PELLET STOVE**

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# 1. WARNINGS


The User Manual constitutes an integral of the product. Should the User Manual be damaged or lost, ask your installer or dealer to provide you with the full set of undamaged instructions. The product must be installed by a qualified installer, what implies full responsibility and the first ignition. The installer must comply with all national, regional and local regulations and standards in the country in which the product is to be installed.

# 2. SAFETY INSTRUCTIONS

- The stove must not be operated by persons (including children) with physical disabilities and mental disorders.
- Children must not play with the product.
- Take care that the power cable is not in contact with hot parts of the stove.
- Do not use flammable liquids to fire up the stove.
- The stove must be installed on the floor that may support its weight.
- Do not fire up the stove before connecting it to the central heating system.
- Do not insert pellets by hands into the burner
- The stove shall be installed so as to allow undisturbed access for thorough cleaning of the stove and chimney.
- For safety reasons, do not open the stove doors when operating.
- When adding pellets take care that the pellet does not fall into the stove parts under high temperatures. Otherwise, pellet will start to burn and smoke will appear in the room.

## **Load the stove when it is cooled.**

- When operating the stove must be always connected to the mains voltage (230V). Should unexpected power failures occur, install the UPS that will provide voltage for undisturbed stove shutdown and prevent smoke from entering the room.

 Danger to health and life of people in the room if no UPS is provided.

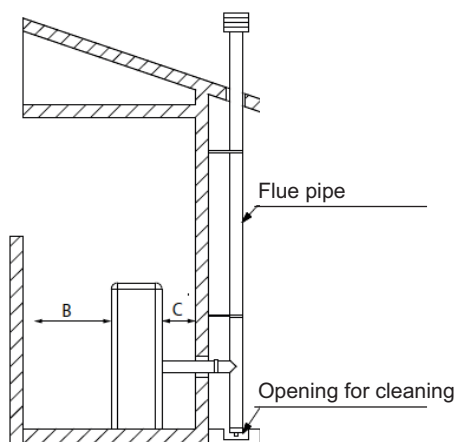
## 2.1 List of Safety Devices

- Safety valve
- Thermostatically controlled pump
- Water temperature indicator (display)
- Water pressure indicator (display)
- Minimum and maximum pressure indicator
- Safety thermostat (water thermostat)
- Expansion vessel
- Safety pressure switch

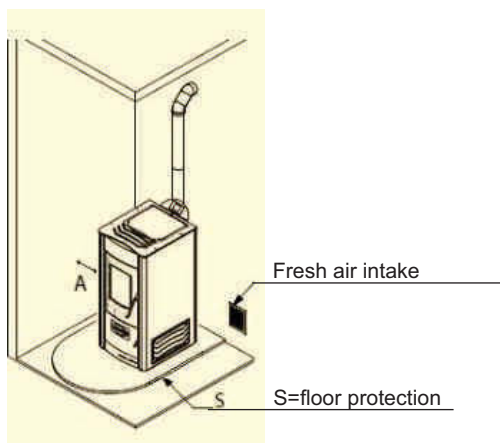
The product is designed for the installation on the closed central heating system

## 3. SAFETY DISTANCES

Designations	Flammable objects	Non-flammable objects
A	200 mm	100 mm
B	1500 mm	750 mm
C	200 mm	100 mm



( Figure 1. )

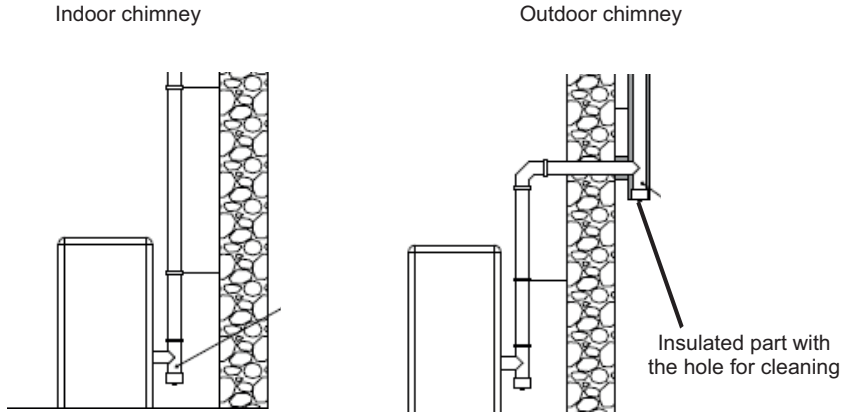


( Figure 2. )

# 4. STOVE CONNECTION TO THE CHIMNEY

## RIGHT

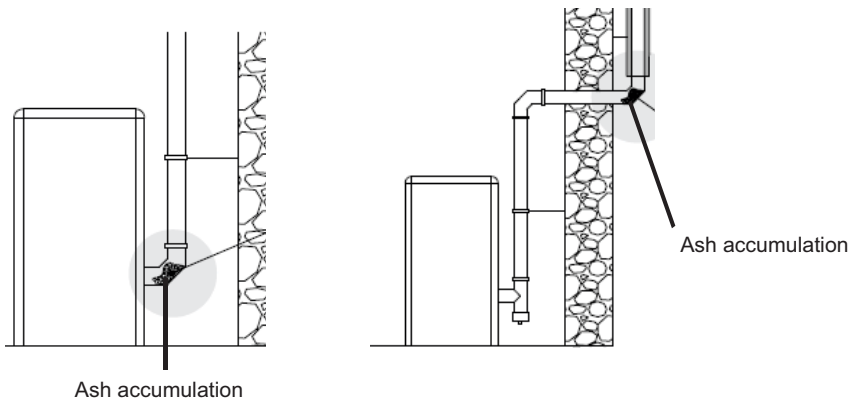
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(Figure 3.)

## WRONG

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(Figure 4.)

## **WARNING:**

- The horizontal line of flue pipes must have a slope of minimum 3%.
- The horizontal line length of flue pipes must be minimum and no longer than 3m.
- The number of flue pipe elbows and T-fittings must not exceed 4.

### **4.1 Combustion air**

 Every combustion process requires oxygen or air. The air taken from the room must be compensated. The loss of oxygen may occur in modern houses with high insulation efficiency and perfectly sealed windows and doors. Unless the stove is connected to fresh air intake, the room in which the stove is installed shall be more frequently ventilated.

### **4.2 Supply of fresh air for combustion**

- The stove structure has a connection on the back side.
- The fresh air supply pipes may be steel or aluminium. The minimum diameter amounts to 50 mm.
- The maximum pipe length shall not exceed 4 m in order to ensure adequate supply of fresh air. The pipes shall not have too many elbows.
- A failure to provide some of the specified conditions may result in poor combustion and vacuum generation in a room.

## 5. PELLET SPECIFICATIONS

What is pellet?

The wooden pellet is standardized fuel. Every manufacturer must comply with certain rules in order to provide highly energy efficient heating.

Please check with your local dealer for the list of manufacturers of attested pellets. The use of poor quality pellets may have a negative impact on the stove operation. The recommended standards for pellet quality are: **ÖNORM, DIN Plus or ENplus-A1**.

### Specification of wooden pellets in accordance with En plus - A1

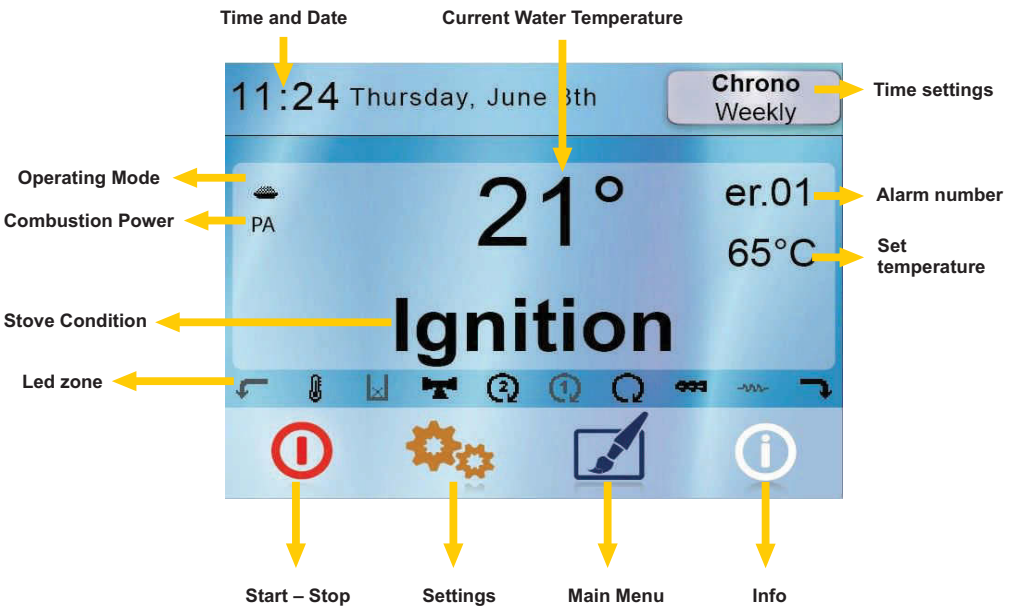
Parameter	Unit of Measurement	Enplus-A1
Diameter	mm	6
Length	mm	3,15 do 40
Bulk density	kg/m <sup>3</sup>	600
Calorific value	MJ/kg	16,5
Water content	Max %	10
Ash residue	Max %	0,7
Chlorine content	Max %	0,02
Sulphur content	Max %	0,03
Nitrogen content	Max %	0,3
Copper content	mg/kg	10
Chromium content	mg/kg	10
Arsenic content	mg/kg	1
Cadmium content	mg/kg	0,5
Mercury content	mg/kg	0,1
Lead content	mg/kg	10
Nickel content	mg/kg	10
Zinc content	mg/kg	100

# 5.1 Storage of Pellets






It is very important that the pellets are stored at the dry place. It is not advisable to store pellets in bags exposed to atmospheric conditions. Too wet pellets may block the auger or stove operation.









# 6. DISPLAY

Figure 5 shows the Touch Screen Display with all designations and the meaning of each element.










(Figure 5.)


Designations	Meaning
	Firing up the stove if the button is pressed for 3 seconds
	Stove shutdown and alarm reset if the button is pressed for 3 seconds
	Access to the Settings Menu
	Access to the Main Menu
	Access to the Info Menu

Designations	Meaning
	Return to the Home Screen
	Return to the previous level
	Moving through the Menu Value increase
	Moving through the Menu Value decrease
	Exit the Menu and save values
	Exit the Menu without saving values
	Move to the left
	Move to the right

**The LED zone** is not always visible on the main screen. By pressing the central display zone, the led designations become visible. The led designations shall disappear from the screen by pressing the display again.


Designations	Meaning
	Heater ON
	Motor-reducer ON
	Circulating pump ON
	Solenoid valve open
	Output V2 ON
	Output Aux 2 ON
	Output Aux 3 ON

Visualization:


By pressing the info button  the visualisation settings are accessed.

Exhaust T:	Temperature of exhaust gases (C°)
Water T:	Water temperature in the boiler (C°)
Pressure:	Water pressure in the boiler (mbar)
Fan speed:	Fan speed (rpm)
Auger:	Motor-reducer (s)
Recipe:	Mode (r.b.)
Product Code 480-00.00	Product code

## 7. USER MENU

The Settings Menu is accessed by pressing the button P  .  
The menu configuration is as follows:

Menu contents		Description
<b>Combustion Management</b>	Functioning	Menu for changing combustion modes
	Pellet Power	Combustion power setup menu
	Wood Power	Not in function
	Pellet Recipe	Not in function
	Auger Calibration	Setup menu for the motor-reducer uptime
	Fan Calibration	Fan speed setup menu
<b>Heating Management</b>	Boiler Thermostat	Setup menu for the maximum and minimum temperature in the boiler
	Buffer Thermostat	Setup menu for Buffer temperature. Available only if P26=2,3,4,8 and P79=9
	Summer-Winter	Summer – Winter Switch Menu
	Heating Power	Not in function
	Climatic Function	Climatic Function Setup Men. Available only if P74>7
	Mixer Valve	Mixer Valve Setup Menu. Available only if P26=7.8
<b>Chrono</b>		Menu for setting up the time interval for stove switching on and off
<b>Remote Keyboard</b>	Room Thermostat	Room thermostat setup menu. Available only if A52=0
	Enable	Enable and disable the room thermostat
<b>Manual Load</b>		Activation of the manual load option during the first start-up or after no pellets are left in the hoper.
<b>Reset Service</b>		Not in function

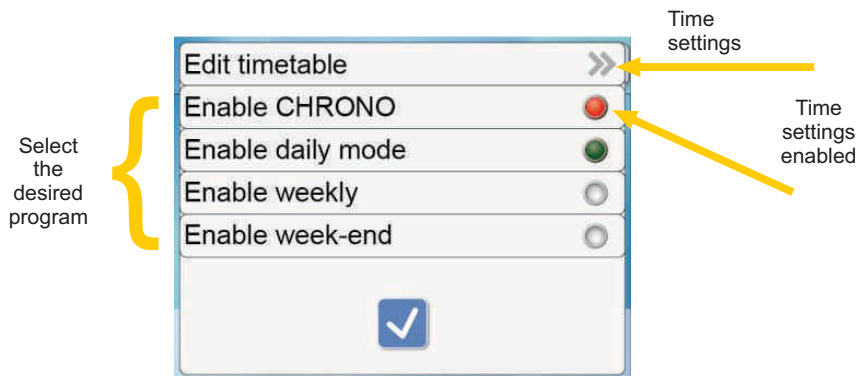
By pressing the button  you will enter the main menu with the following configuration:






Menu Contents		Description
<b>Keyboard Setting</b>	Date and time	Time and date settings
	Language	Selection of the preferred language
<b>Display/ Keyboard Menu</b>	Display Light	Screen brightness adjustment
	Keyboard Address	RS 485 Setup Menu
	Node List	Menu for the communication of addresses on the board, board type and software version
<b>System Menu</b>		Technical Menu. Password protected. The access only allowed to the authorised service centre.

## 7.1 Chrono Menu – Time setting

The menu is designed to set the timing of stove start-up and shutdown.

- To set the time settings press the "Chrono" button in the upper right corner of the screen.



- In order to enable/disable the time settings, press **"Enable CHRONO"**.
- If the chrono function is disabled the light is off . However if this function is enabled, the light is red .
- To select the desired program press one of the following options:
  - **"Enable daily mode"**, **"Enable weekly"**, **"Enable week-end"**.
- If the programming is disabled the light is turned off . If the programming is enabled the light is green .
- To set time press "Edit timetable".
- To exit the Chrono menu press the button .

## 7.2 Time Settings

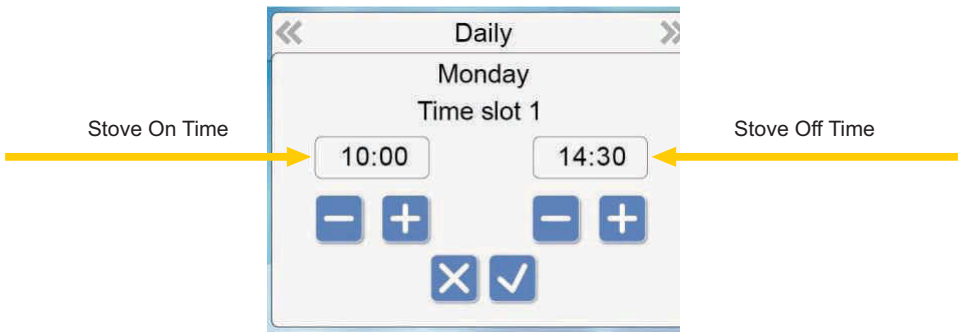
- By pressing "Edit timetable" you will access the cards for time settings for each of the offered modes.

«	Daily		»
«	Monday		»
Time slot 1	10:00	14:30	<input checked="" type="radio"/>
Time slot 2	0:00	0:00	<input type="radio"/>
Time slot 3	0:00	0:00	<input type="radio"/>
<input checked="" type="checkbox"/>			

«	Weekly		»
«	Monday-Sunday		»
Time slot 1	06:00	10:30	<input checked="" type="radio"/>
Time slot 2	18:00	20:00	<input type="radio"/>
Time slot 3	22:00	23:00	<input type="radio"/>
<input checked="" type="checkbox"/>			

«	Week-end		»
«	Monday-Friday		»
Time slot 1	12:30	14:30	<input checked="" type="radio"/>
Time slot 2	0:00	0:00	<input type="radio"/>
Time slot 3	0:00	0:00	<input type="radio"/>
<input checked="" type="checkbox"/>			

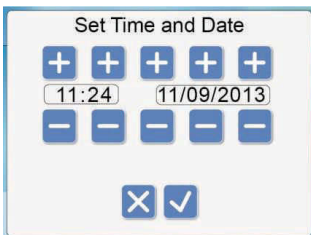
- By pressing the left « or right » arrow in the first row, we choose between the three offered modes: "daily mode", "weekly", and "week-end".
- By pressing the left « or right » arrow in the second row we select the day or group of days in the week based on the previously selected the program mode.
- You may choose any day of the week within the daily mode:
- Monday, Tuesday, Wednesday, Thursday, Friday), Saturday and Sunday.
- Only one group of days may be selected for the weekly mode: Monday-Sunday.
- The two groups of days may be selected for the week-end mode: Monday-Friday and Saturday-Sunday
- To exit the "Edit timetable" menu press
- To enable/disable the selected time press the lamp indicating the desired time
- If the time settings option is disabled the lamp is turned off  and if the time settings option is enabled the light is red.



- The card shows the day or group of days of the week as well as time settings. The time on the left side shows the stove on time, while the time on the right side shows the stove off time.
- To increase the time value press **+** and to decrease the time value press **-**
- To save the set time value and exit the menu press **✓**
- If you want to exit the menu without saving data press **X**
- The saved time settings for all three program modes are separately memorized. Therefore, should the data related to the daily mode be changed, the weekly and weekend modes will not be changed.

### 7.3 Time and Date Settings

- To display time and date press the “Time and date” zone on the main screen.



- To increase the value press **+** in the upper row
- To decrease the value press **-** in the bottom row
- To save the set values and exit the menu press **✓**
- To exit the menu without saving values press **X**

## 7.4 Alarms

Alarm	Description
Er 01	Safety Thermostat HV 1
Er 02	Safety Pressure Switch HV 2
Er 03	Shutting down due to the low temperature of exhaust gases / high temperature in the hoper
Er 04	Shutting down due to too high water temperature
Er 05	Shutting down due to too high temperature of exhaust gases
Er 07	Encoder error
Er 08	Encoder error. This error may occur due to the setting of round numbers.
Er 09	High water pressure
Er 10	Low water pressure
Er 11	Clock error in the real time
Er 12	Shutting down due to the failed ignition
Er 15	Lack of electricity
Er 16	Communication error RS485
Er 17	Error in the air flow regulator
Er 18	Lack of pellets
Er 23	Active probe of the boiler, buffer or return line
Er 25	Faulty motor for burner cleaning
Er 26	Faulty motor for cleaning
Er 27	Faulty motor for cleaning 2
Er 34	Vacum is below the minimum
Er 35	Vacum is above the maximum
Er 39	Faulty sensor of the air flow regulator
Er 41	The minimum air flow in the Check-up phase has not been reached
Er 42	The maximum air flow has been reached (F40)

### Other messages:

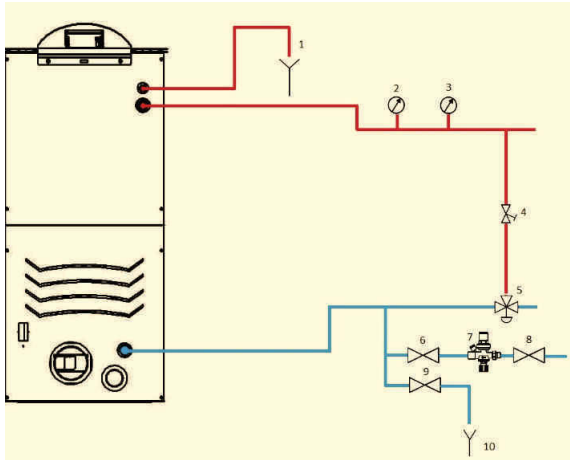
<b>Sond</b>	Visualisation of the condition of temperature probes
<b>Service</b>	Notification that the defined period for product servicing has expired
<b>Clean</b>	Notification that it is time to clean the product
<b>Ignition Block</b>	This message will appear if the system has been shut down in the ignition period by an external device: the system stops when enters operation phase
<b>Er 20</b>	Grid sensor open
<b>Door</b>	Open door
<b>Er 06</b>	Pellet thermostat active
<b>Link Error</b>	Error in communication between the motherboard and display

## 8. TECHNICAL CHARACTERISTICS

Characteristics	Value
Efficiency ratio (%)	90,1
Height (mm)	1254
Width (mm)	589
Depth (mm)	763
Weight (kg)	244
Min-max stove power (kW)	8-23
Water volume (l)	25
Hoper capacity (kg)	50
Operation autonomy (Max/h - Min/h)	31 - 13
Flue pipe diameter (mm)	120
Necessary draught (Pa)	5
Pellet consumption (Min - Max)	1,6kg/h - 4kg/h
Connection lines (Col)	1"
<b>Electricity consumption</b>	
Ignition phase (W)	450
Operation phase (W)	50
Power supply (Vol - Hz)	230 Vol - 50 Hz

## 9. THE FIRST IGNITION OF THE STOVE

- Super Volcano pellet stove is factory equipped with the circulating pump, expansion vessel, safety valve and automatic air vent. The stove is to be connected to the central heating system by discharge and return line pipes as shown in Figure 6.




(Figure 6.)

A	Safety valve	3bar
B	Outlet line	Hot water
C	Connection for the flue pipe	Ø 120mm
D	Return line	Cold water
E	Connection for the fresh air supply	Ø 60mm
1	Safety valve discharge drain	
2	Thermometer	
3	Pressure gauge	
4	Balance valve	
5	Thermostatic mixing valve 55°C	
6,8,9	Valve	
7	Installation refilling system	
10	Drain to the sewer	

Prior to the stove first ignition make sure that:


- All tools are removed from the stove (user manual, power cable)
- The stove is connected to the pipeline and filled with water
- The air vent cover under the stove cover is open
- The flue outlet is connected to the chimney
- The door is closed and the ash trap is place
- The hopper is loaded with pellets

- The power cable is connected to the mains (220V) and the stove is turned on via the main switch on back side of the stove
- The auger is filled with pellets in the following manner (the hopper must be loaded with pellets):

1. Press  on the main screen
2. Press “Manual Load”
3. Press “ON”
4. This function is active for 30 seconds. Monitor the section where pellets enter the burner through the firebox doors and when the first pellet grains occur turn this function into “Off”. If necessary, repeat this action until the pellets start to enter the burner.

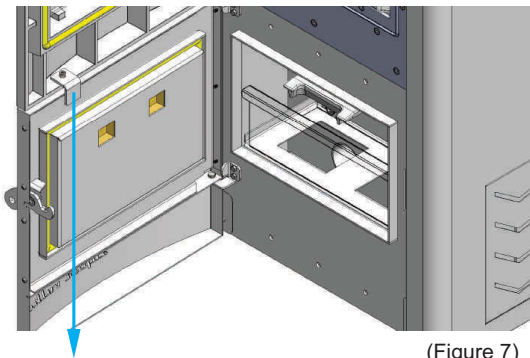
**NOTE:**

This function is to be used when the stove started up for the first time or when there are no pellets in the hopper (there are no pellets in the auger)

5. A long press on the field  (3 - 4 seconds) activates the stove ignition process

**9.1 Safety Function of the Door**

For safety reasons the upper door cannot be open during the stove operation. As shown in Figure 7 it is required to close the upper door first and then the bottom door.



Upper door latch

(Figure 7)


**NOTE:**

**For the purpose of ensuring reliable operation, the upper and bottom doors must be locked**

## 10. PELLET POWER SETTINGS

Press  on the main screen.


Press the field “Combustion Management” and then “Pellet Power “

Select the desired power by pressing the card (from 1 to 5) or select the automatic mode on the next page (press ). The automatic mode is reflected in the following:

- The pellet power is automatically selected based on the set temperature and current water temperature in the boiler:

Example:



	Set T					
Water T C°	≤70	71	72	73	74	≥75
Pellet power	5	4	3	2	1	Modulation


To return to the home screen press 

## 11. SET TEMPERATURE SETTINGS

Press  on the main screen.

Press “Heating Management” and then “Boiler Thermostat”.

 or  increase or decrease the value .The limit values range from 50°C to 80°C.

To return to the home screen press 

## 12. PELLET LOADING CORRECTION

This function shall be used to fine tune the pellet power. If the power 5 is too high and power 4 insufficient, the power shall be corrected from 5 to - 1,2,3 so as to obtain the power between 4 and 5.

Press  on the main screen.

Press “Combustion Management” and then “Auger Calibration”

 or  increase or decrease the value from 0 to 5. To return to the

Home screen press 

### NOTE:

**If the pellet loading correction is to be made it is also necessary to correct the fan speed “Fan Calibration”. Should the pellet correction be + the fan correction must also be + for the same value. The stove is factory set for flawless operation. Should the high quality pellets be used, there will be no need to make corrections.**

## 13. CLEANING AND MAINTENANCE

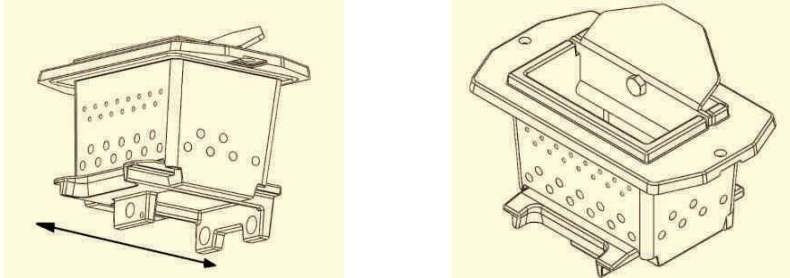
Basic Information

**The stove must be off and completely cooled before starting any cleaning and maintenance activity.**

The stove cleaning and maintenance intervals primarily depend on the pellet quality. The wet pellets contain a high percentage of ash, dust and unburned residues, which double the cleaning and maintenance intervals. Therefore, we would like to emphasize once again that only attested and certified pellets shall be used. The stove is equipped with a removable handle for opening the firebox door. Having closed the door, the handle shall be laid next to the stove in order to prevent the possibility of door opening during the operation as well as handle overheating. Cleaning is divided into three categories: **Daily, Weekly and Monthly.**

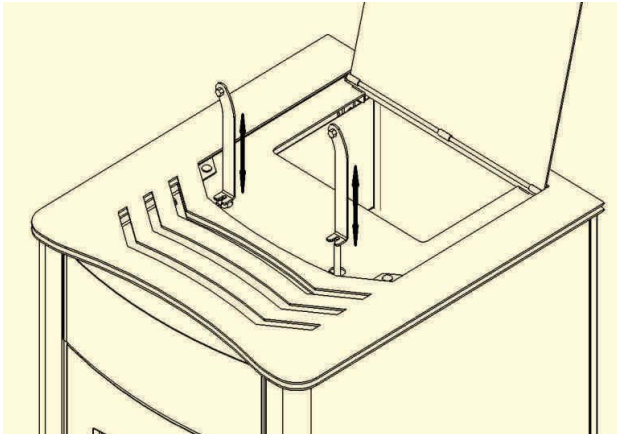
## Daily Cleaning

Super Volcano pellet stove is equipped with the automatic system that controls the periodic mechanical cleaning of the burner. However, it is recommended to remove ash residue from the burner by a vacuum cleaner every 2-3 days.



( Figure 8)

To clean the heat exchanger, the crank may be pulled only when the stove is cold. In order to ensure the undisturbed energy transmission to water, the cleaning operations shall be performed on a daily basis. The crank is to be pulled a removable handle (Figure 8) which is also used for (pulling) cleaning the heat exchanger turbulator. It is necessary to pull the turbulator cranks several times (3-4) up and down.

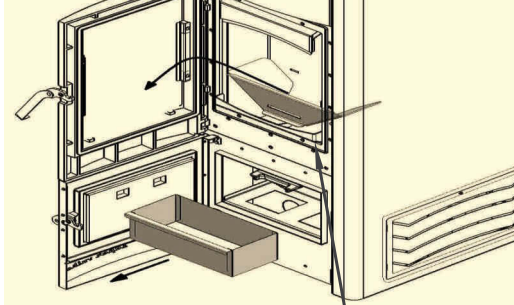


( Figure 9)

## Weekly Cleaning

Clean the firebox and ash trap from ash:

- empty the ash trap on a weekly basis or more frequently as needed
- pull the flame deflector up and outward (Figure 9)
- it is recommended to vacuum clean dust and ash in the firebox section minimum once a week by using the adequate vacuum cleaner

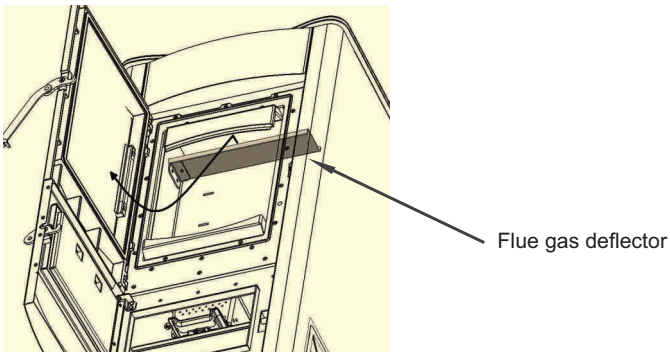


(Figure 10) Flame deflector

## Monthly Cleaning

The deflector of flue gases positioned atop the firebox must be removed and cleaned at least once a month. The deflector dismantling is very simple. The deflector shall be pulled onward and downwards as shown in Figure 10. It shall be returned to its place in a reverse order.

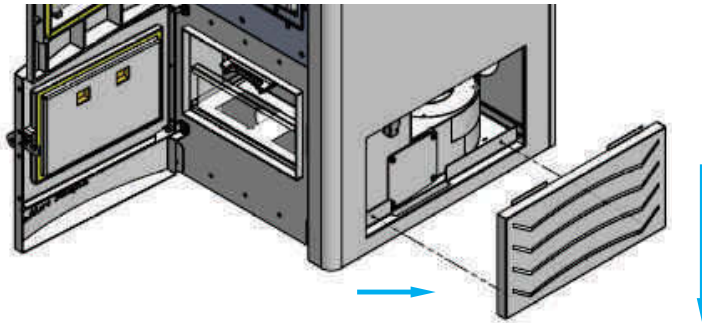
**NOTE: The stove is to be cleaned only when it is completely cooled**



(Figure 11)

The flue gas duct shall be cleaned once every two months or at the end of the heating season depending on the stove mode and pellet quality.

The cleaning opening is to be assessed by pulling the bottom part of the cover onward, removing the couplings and then by pulling it down (Figure 12)



Cover of the opening for cleaning

(Figure 12)

- Clean the ash layers from the left and right chamber by a vacuum cleaner
- Return the cover of the cleaning opening into its place and tighten all four screws

In order to guarantee safety and reliable operation of the stove the operations specified below must be performed at the end of every season or more frequently, if needed:

- Seals allow proper stove operation only when they are undamaged and adequately set
- Seals must be periodically inspected. Should seals be worn or damaged, they must be immediately replaced.
- Flue pipes must be cleaned and vacuum cleaned once during the season or more frequently, if needed. If there are horizontal lines, ash shall be cleaned before it blocks the passage of flue gases and causes stove downtime.

### **Hoper Cleaning**

Do not load pellets unless you vacuum cleaned the residues of the previously used pellet quantities (dust, fine pellet waste, etc.)

## 14. APPENDIX

CE Declaration of Conformity:

Manufacturer „**ABC PROIZVOD**“ doo  
Miloša Obrenovića 2  
31000 Užice/ Srbija

Hereby declares that the pellet stove: **Super Volcano**, conforms to the **CE** requirements and provisions (Construction Products Directive) 89/106/ EEC as well as the following harmonized standard:

**EN 14785**

In 2007, **ABC PROIZVOD** doo, Užice implemented the quality management system

**SRPS ISO 9001/ 2008**, which is maintained and improved.

Another 2 standards have been implemented since 2013:

**SRPS OHSAS 18001/ 2008** and  
**SRPS ISO 14001/ 2005**, therefore, the company has an **INTEGRATED QUALITY MANAGEMENT SYSTEM** certified by the accredited body.

### 14.1 Certificates





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