TECHNICAL DATA SHEET
№ 10-18

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Freestanding roomheater for intermittent burning with firedoors closed

Designation:	**REGINA**
Types of appliance:	Type B (БДС EN 16510-1:2023)
Fuel type:	Dry cleaved wood logs humidity level 25%
Heating volume:	115 м^3

Technical data and stove design.

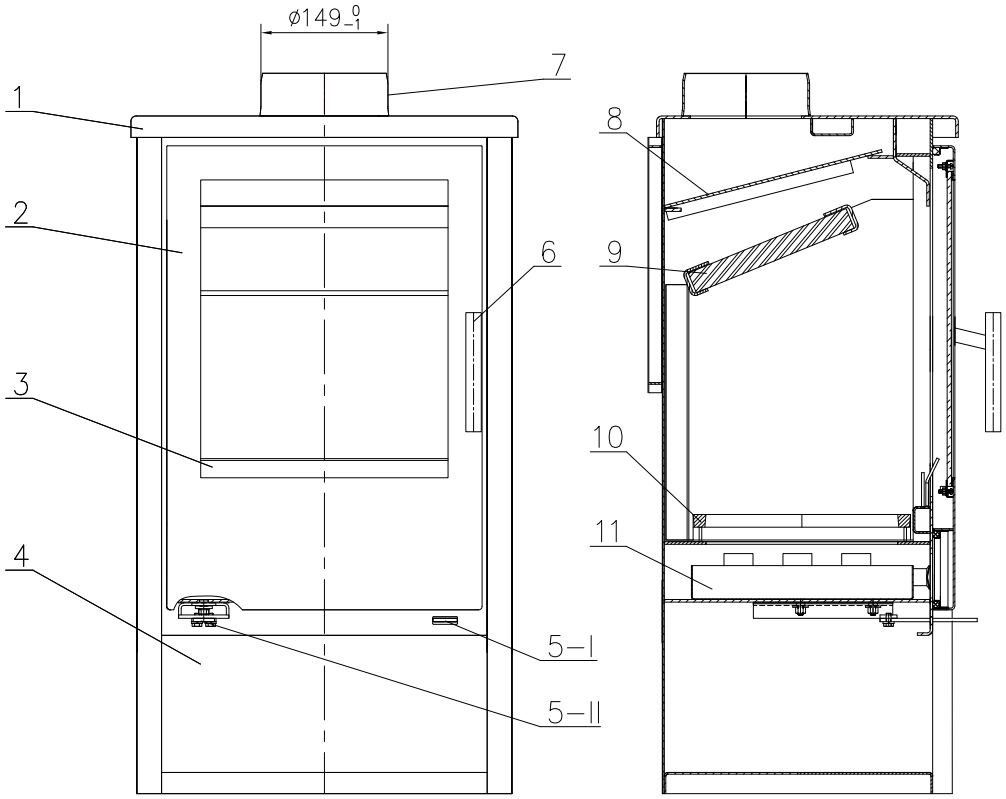


Fig.1.

1.Body; 2.Fire door; 3.Safety bar; 4.Niche; 5-I.Primary air regulator; 5-II.Secondary air regulator; 6.Handle; 7.Flue outlet; 8.Deflector; 9.Brick set (Fig.3); 10.Grate; 11.Ashtray;

QR code to the required product information on the manufacturer's freely accessible website.

- Declaration of performance
- Declaration of conformity
- Technical documentation
- Energy efficiency label
- Product information sheet
- Instruction manual

The wood burning stove is produced and tested in accordance with EU standard EN 16510-2-1:2023.

TECHNICAL DATA SHEET
for wood burning stove REGINA

in accordance with table 22 (EN 16510-1:2023)

Parameters at 13% O2	Unit	Explanation	Value for wood logs
P_{SHnom}	kW	The nominal space heat output or a range of outputs (dependent on fuel types)	6.5
η_{nom}	%	The appliance efficiency at nominal heat output	≥75
η_s	%	The appliance seasonal space heating efficiency at nominal heat output	≥ 65
EEI	-	The energy efficiency index	111
CO_{nom}	mg/m^3	CO emission at 13 % oxygen content at nominal heat output	≤ 1500
NOx_{nom}	mg/m^3	NOx emission at 13 % oxygen content at nominal heat output	≤ 200
OGC_{nom}	mg/m^3	Hydrocarbon emission at 13 % oxygen content at nominal heat output	≤ 120
PM_{nom}	mg/m^3	Particulate matter emission at 13 % oxygen content at nominal heat output.	≤ 40
p_{nom}	Pa	Minimum flue draught at nominal heat output	12
T_{snom}	°C	The flue gas outlet temperature at nominal heat output	213
T_{class}	-	Chimney designation according to the appropriate chimney standard	T400G
$\Phi_{f,g\ nom}$	g/s	The flue gas mass flow at nominal heat output	5.8
CON or INT	-	Whether the appliance is capable of continuous operation (CON) Whether the appliance is capable of intermittent operation (INT)	INT
d_{out}	mm	The diameter of the flue gas outlet	150
L, H, W	cm	The overall dimensions of the appliance (length, height, width)	45 / 85 / 40
m	kg	Mass of the appliance	58
m_{chim}	kg	The maximum load of a chimney the appliance may carry	20
d_R	mm	The minimum distances from the rear to combustible material	400
d_S	mm	The minimum distances from the sides to combustible material	500
d_C	mm	The minimum distances from the top to combustible material in the ceiling	800
d_P	mm	The minimum distances from the front to combustible material	1100
d_F	mm	The minimum distances from the front to combustible material in bottom front radiation area	600
d_L	mm	The minimum distances from the front to combustible material in side front radiation area	800
d_B	mm	The minimum distances below the bottom (not regarding feet) to combustible material	0
d_{non}	mm	The minimum distances to non-combustible walls	200
	-	**Read and follow the user manual!**	

Required safety distances during installation and operation of the wood burning stove for preventing fire hazard:

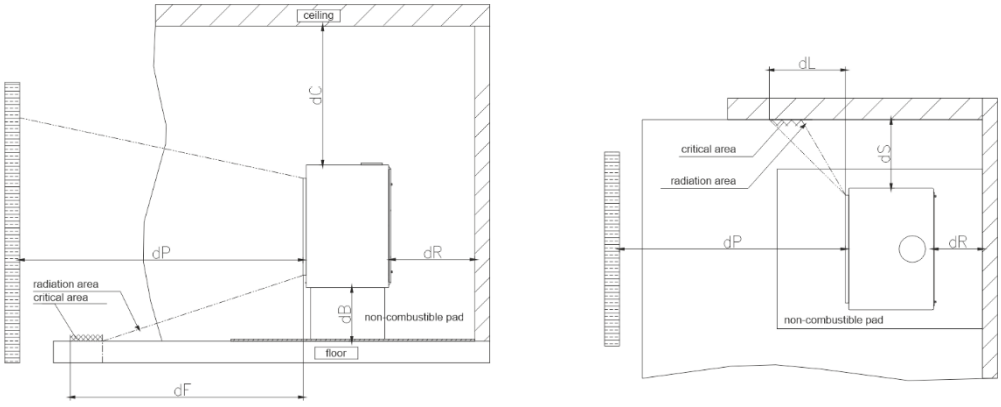


Fig.2.

Appliance operation.

The standard requirements for wood burning stove operation are described in chapters 2 and 3 in the instruction manual.

- The niche is decorative, and it's not allowed to store easy combustible materials.
- When non-combustible platform is used for fire protection, it must be larger than the stove with 50 cm in front and 30 cm at the sides. Measurement is taken from the fire door. If there are any combustible materials or constructions, the wood-burning stove should be away from them at minimum 80 cm or fireproof deflector should be installed.
- The chimney should be very well insulated and suitable for temperatures of the flue gasses of minimum 400°C, with inside diameter of at least ø 150 mm or with a cross-section area of at least 200 cm^2. Chimney fire-safety class -T400G.
- **The wood-burning stove should not be connected to a chimney when there is already a connected solid fuel boiler.**
- **If the stove does have a spring for self-closing fire door it can be used in a common chimney. Presence of a spring for self-closing fire door is indicated on the packing label and described in the technical data sheet.**

Control of the burning process.

Prior first usage of the appliance, the user should get familiar with all parts and control devices.

The burning process is controlled by the primary and secondary air regulators. (Fig.1, Fig. 2).
Primary air is used during ignition of the stove and for control of the burning intensity. The primary air is controlled with the position of the primary air regulator (Fig.1, Poss.5-I). By pulling out, the intensity of the burning is increased. Respectively, when pushed in, it decreases.
During initial ignition, it is recommended the controller (Fig.1, Poss.5-I) to be pulled fully back and after the fire is stable to push it fully to closed position.
The primary air passes through the ash pan, the bottom grate and goes into the firebox. The ashtray should not be left fully filled. If full, it will prevent the primary air from getting in the combustion chamber. It is necessary to clean the ash pan regularly.
The ashtray is cleaned only when it is cold.

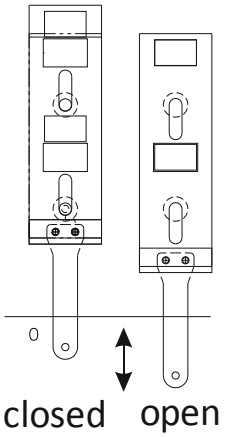


Fig.3.

Secondary air is used for fully burning of the used fuel and prevents accumulation of dust on the glass. Secondary air supplies the fire with the necessary oxygen and helps for a proper burning and complete burning of the fuel. Increases efficiency and prevents accumulating of dust on the glass and the chimney. It also prevents excessive harmful emissions into the atmosphere.
Secondary air is regulated by the position of the regulator (Fig.1, Poss.5-II). By pulling back the controller, fresh air goes through the square tube on the left side of the combustion chamber and enters in front of the fire door glass.
It is recommended the secondary air regulator (Fig.1, Poss.5-II) to be fully open. The secondary air regulator should not be closed when the appliance is working. In many cases the secondary air regulator has been closed shortly after the ignition, to reduce fuel consumption, despite our directions. This leads to limitation of the flow of oxygen and as a result a not efficient burning process and then the glass is covered with soot. In addition, there are harmful emissions which may cause higher amount of soot particles in the chimney.

Initial ignition of the appliance.

At the first ignition of the appliance, pay attention to the following:

- Take off all the supplementary tools out of the ash pan.
- The regulators for primary and secondary air control must be fully open.
- Remove the energy efficiency label.
- The first ignition must be slow and still, with little quantity of sticks and paper.
- **Only during the first ignition, it is necessary to leave the fire door slightly open, to prevent sticking of the sealing rope of the fire door onto the paint.**

Ignition during regular exploitation.

Your appliance is constructed and designed for intermittent burning.
At each ignition, you must do the following:

- The primary and secondary air regulators have to be in open position (fully pulled out).
- Put the basic combustion materials, ignite them and close the door completely.
- After the kindling has burned down, you must wait few minutes until good embers form. After that, the embers must be collected in the middle. Then you can put 2 - 3 wood logs on top of it.
- After the wood is burning well, the primary air regulator has to be closed.
- The preferred heat output is achieved by regulating the combustion air.
- As the heat output of your appliance depends also on the height of the chimney, the precise control of the necessary air for the combustion is done by trial and error.

Fuel quantity and reloading interval

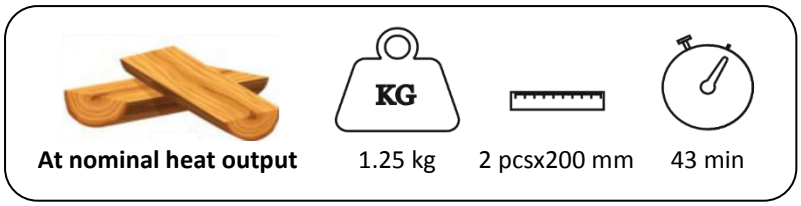


Fig.4.



Fig.5.

⚠ • Maximum allowed height of the used fuel in the combustion chamber is 150 mm. (Fig.5).
• When more fuel than the maximum allowed is used, there is a danger of overheating, unexpected deformations and overall bad appearance of the appliance.

Spare parts.

Scheme of refractory bricks.

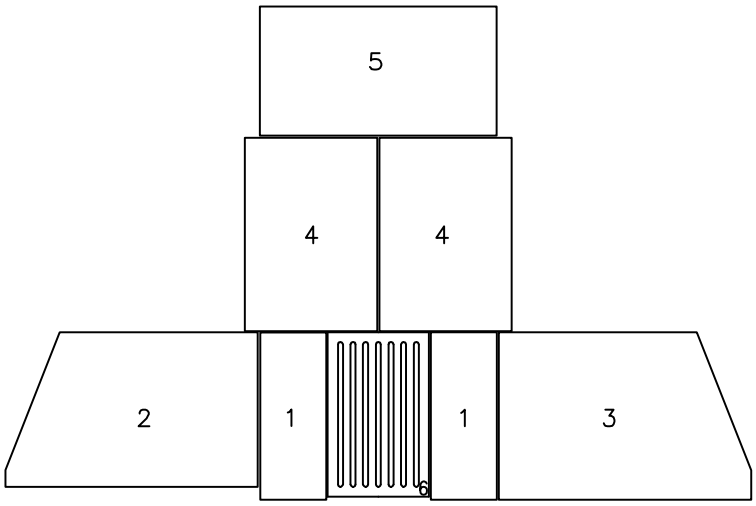


Fig.6.

№	Designation	Dimensions / Number	Material	Quantity
1	Brick	30 x 105 x 260	Chamotte	2
2	Brick side left	201.00.00.25	Vermiculite	1
3	Brick side right	201.00.00.28	Vermiculite	1
4	Brick back	25 x 210 x 300	Vermiculite	2
5	Brick top	25 x 200 x 375	Vermiculite	1
6	Grate	631.00.00.37	Cast iron	1
7	Ceramic glass	4 x 305 x 370		1
8	Door sealing	Rope ϕ12		1
9	Glass sealing	Flat rope 10 x 2		1
10	Handle			1

Tabl.2.