

TECHNICAL DATA SHEET

№ 10-7-1

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Freestanding roomheater for intermittent burning with firedoors closed

Designation: **Regina F-w**
Types of appliance: Type BE (BDS EN 16510-1:2023)
Fuel type: Dry cleaved wood logs humidity level 25%
Heating volume: 154 m³

Technical data and stove design.

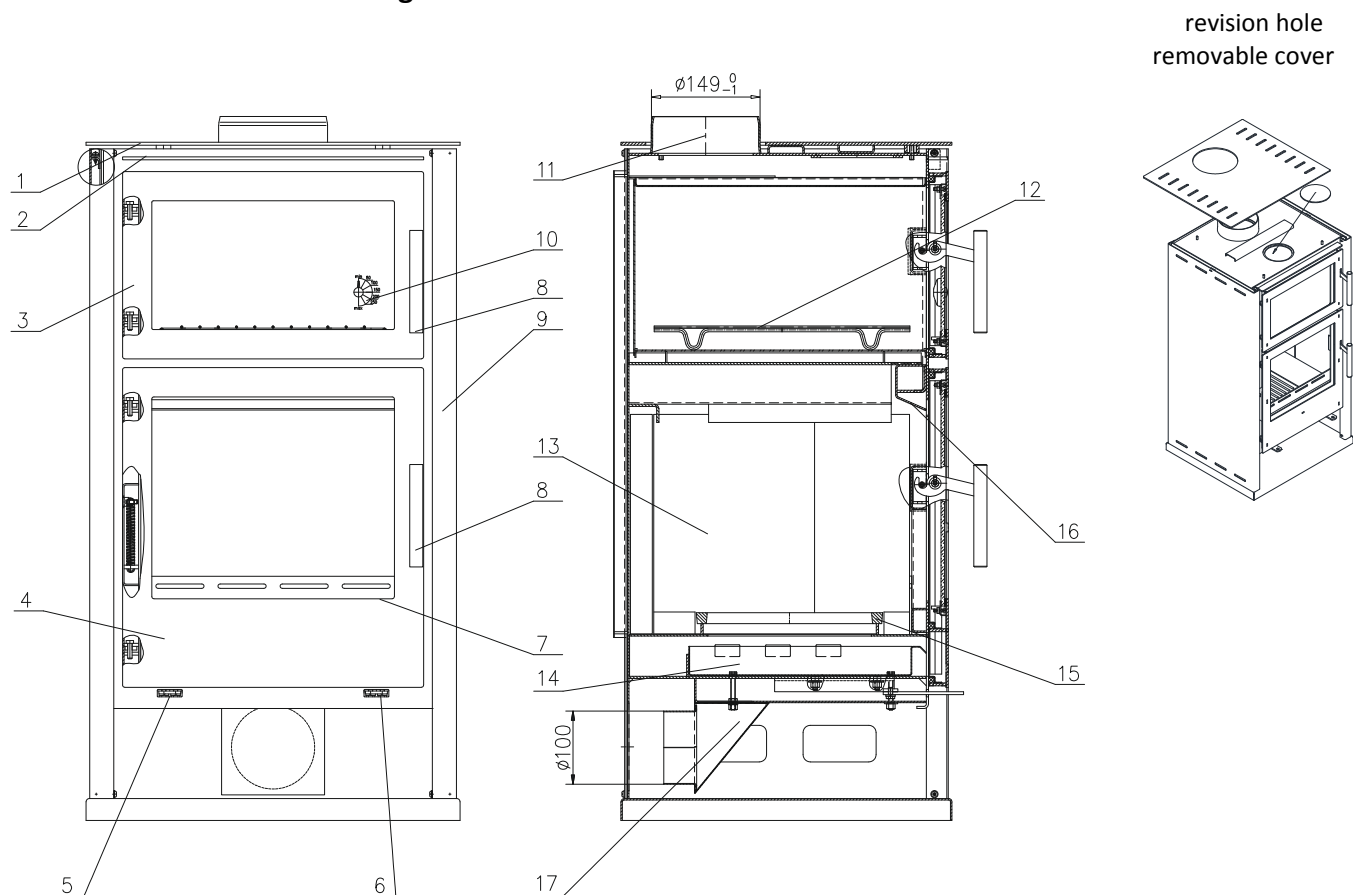


Fig. 1.

1. Top; 2. Body; 3. Oven door; 4. Fire door; 5. Secondary air regulator; 6. Primary air regulator; 7. Fuse; 8. Handle; 9. Side; 10. Thermometer 11. Flue; 12. Oven grate; 13. Brick set; 14. Ashtray; 15. Grate; 16. Reflector; 17. Air Box.

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 fireplace is manufactured and tested in accordance with the requirements of standard BDS EN 16510-2-1:2023

TECHNICAL DATA SHEET for wood burning stove Regina F-w

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

Parameters at 13% O ₂	Unit	Explanation	Value for wood logs
P _{SHnom}	kW	The nominal space heat output or a range of outputs (dependent on fuel types)	8,7
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
NO _x _{nom}	mg/m ³	NO _x 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	13
T _{snom}	°C	The flue gas outlet temperature at nominal heat output	295
T _{class}	-	Chimney designation according to the appropriate chimney standard	T400G
Φ _{f,g nom}	g/s	The flue gas mass flow at nominal heat output	7,7
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)	51/96/51
m	kg	Mass of the appliance	126
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	500
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	1000
d _F	mm	The minimum distances from the front to combustible material in bottom front radiation area	700
d _L	mm	The minimum distances from the front to combustible material in side front radiation area	700
d _B	mm	The minimum distances below the bottom (not regarding feet) to combustible material	40
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. Required safety distances scheme

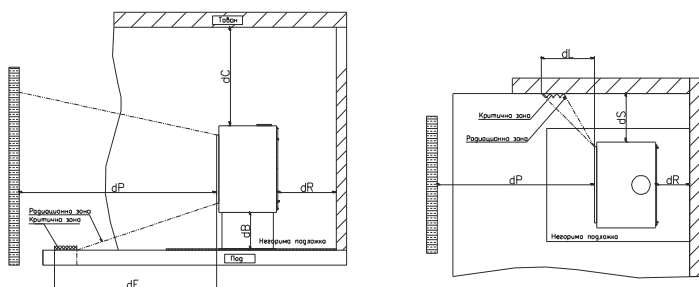
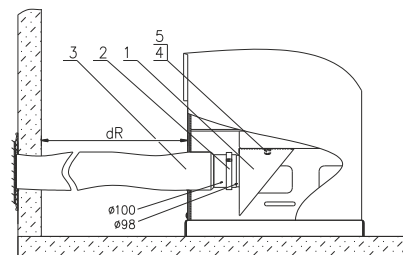


Fig. 3. External air connection scheme



1. Air Box ; 2. Hose Clamp; 3. Flexible Tube;
4. Spring Washer M6-2 pcs; 5. Nut M6-2pcs.

Appliance operation.



Common requirements for the operation of the stove are indicated in sections 2 and 3 of the Instruction Manual.

Your stove is constructed with a built-in oven, which is intended only for heating dishes. The temperature in the oven depends on the intensity of burning and the amount of wood loaded. A thermometer is mounted on the oven door (Fig.1, Pos.3) to facilitate temperature control.

- Oven dimensions: width - 342 mm, depth - 405 mm, height - 224 mm.
- The niche is decorative and should not be used to store flammable materials.
- When using a non-combustible hearth plate for fire protection, it should extend 50 cm to the front and 30 cm to the sides, measured from the stove door. In the presence of easily flammable materials and structures, the stove must be at a distance of 80 cm from them or have a non-combustible screen.
- The chimney to which the stove is connected must be well insulated and suitable for a flue gas temperature of at least 400 °C, with a minimum diameter of $\varnothing 150$ mm or a free cross-section of at least 200 cm². Chimney fire safety class - T400G.
- **The stove must not be connected to a shared chimney when a boiler for central heating is connected to**

If your stove is equipped with a spring for self-closing the fire door, then the stove can operate in a shared chimney. The presence of such a spring is recorded on the packaging label, and you can also see it mounted on the fire door.

Under the top plate (pos.1, Fig.1) there is a revision hole, which is closed with a removable cover. This hole is for cleaning the surface above the muffle. It is advisable to remove the accumulated soot at least 2 times during the heating season.

Control of the combustion process.



Before the first ignition of the heating appliance, you must be familiar with the function of all control elements.

The combustion process is regulated by the supplied primary and secondary air through the regulators (Fig.1, Fig. 4).

The primary air serves to ignite the stove and regulate the intensity of combustion. It is controlled by the position of the regulator (Fig.1, Pos.6). Moving the regulator outwards increases the combustion intensity and correspondingly decreases when moving in the opposite direction. When lighting the stove, it is desirable for the regulator (Fig.1, Pos.6) to be pulled out to the maximum, and after ignition to be pushed in to the maximum.

The primary air passes through openings to the ash pan, under the grate, and enters the combustion chamber. The ash pan should not be completely filled with ash so that the primary air can enter the combustion chamber without problems. It is necessary to clean it regularly.

The ashpan should be removed for cleaning only when cold.

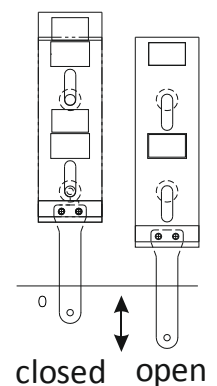


Fig. 4

The secondary air serves for the complete combustion of the fuel and for protecting the glass from sooting. It supplies the fire with the oxygen necessary for combustion, promotes better fuel combustion, increases the efficiency coefficient, and prevents the deposition of soot on the glass, chimney, and the release of harmful emissions into the atmosphere.

The secondary air is regulated by the position of the regulator (Fig.1, Pos.5). By moving the regulator outwards, fresh air enters through the rectangular profile on the left side of the combustion chamber and flows in front of the glass of the fire door. It is desirable for the regulator (Fig.1, Pos.5) to be pulled out to the maximum. It should not be closed during the combustion process. Often, to save fuel material, the secondary air regulator is closed shortly after ignition, contrary to our instructions. This leads to a restriction of the oxygen supply, which hinders combustion and the glass becomes soiled with soot. Harmful emissions are also released, which could lead to deposits in the chimney.

Initial ignition of the appliance.

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

- During the first ignition of the heating appliance, pay attention to the following:
- Remove all additional accessories from the ashpan.
- The primary and secondary air regulators must be open (pulled forward to the maximum).
- Before the initial lighting, peel off the colored energy label from the stove glass.
- The first ignition should proceed slowly and calmly, with a small amount of kindling and paper.
- Only during the first ignition is it necessary for the combustion chamber door to be slightly open, to prevent the door seal from sticking to the paint.

Ignition during regular exploitation.

Your heating appliance is designed and intended for intermittent combustion mode.

The following should be performed for each ignition:

- The primary and secondary air regulators must be open (pulled forward to the maximum).
- Place the main fuel material and kindling, ignite them, and close the door tightly.
- After the kindling burns, wait a few minutes for embers to form, then group them towards the center and place two to three small logs on top.

- After the logs are well lit, close the primary air regulator.
- The desired heat output is achieved by regulating the amount of combustion air.
- Since the output of your heating appliance also depends on the chimney height, the precise regulation of the air supply required for the combustion process is established by experience.

Fuel quantity and reloading period

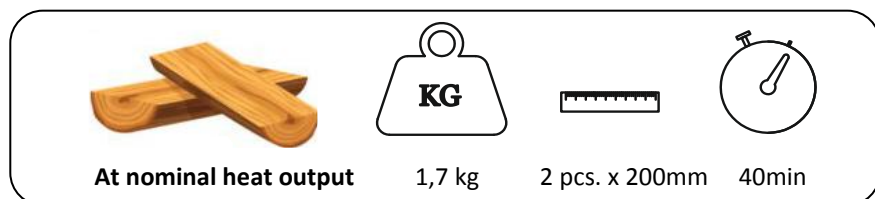


Fig. 5.



Fig. 6.



- The maximum permissible height of the loaded fuel in the combustion chamber is 150mm (Fig. 6).
- Placing a larger quantity of fuel than the maximum permissible poses a risk of overheating, unpredictable deformations, and deterioration of the stove's appearance.

Spare parts.

Scheme of refractory bricks.

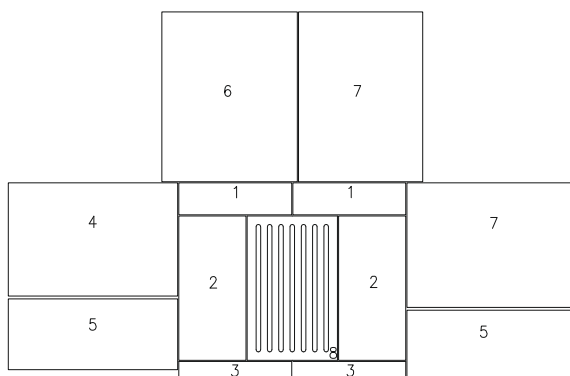


Fig. 7.

N	Designation	Dimensions / Number	Material	Quantity
1	Brick I	30x55x200	Fireclay	2
2	Brick II	30x120x255	Fireclay	2
3	Brick III	30x30x200	Fireclay	2
4	Brick VII	30x200x300	Fireclay	1
5	Brick VI side	30x125x300	Fireclay	2
6	Brick IV rear	30x240x300	Fireclay	1
7	Brick V	30x220x300	Fireclay	2
8	Grate	631.00.00.37	Cast iron	1
9	Ceramic glass	4x346x295		1
10	Oven glass	223F.00.00.24	Tempered glass	1
11	Oven grate	864F.06.00.00	Metal	1
12	Thermometer	50°C - 300°C	Bimetallic	1
13	Handle set	201.40.00.00		2
14	Door seal	Rope ø12	Glass textile	3
15	Glass seal	Tape 10x2	Fiber glass	2

Tabl. 2.