TECHNICAL DATA SHEET
№ 10-11-2

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Freestanding roomheater for intermittent burning with firedoors closed

Designation :	**COMFORT F, COMFORT KF**
Types of appliance:	Type B (BDS EN 16510-1:2023)
Fuel type:	Dry cleaved wood logs humidity level 25%
Heating volume:	170 м^3

Technical data and stove design

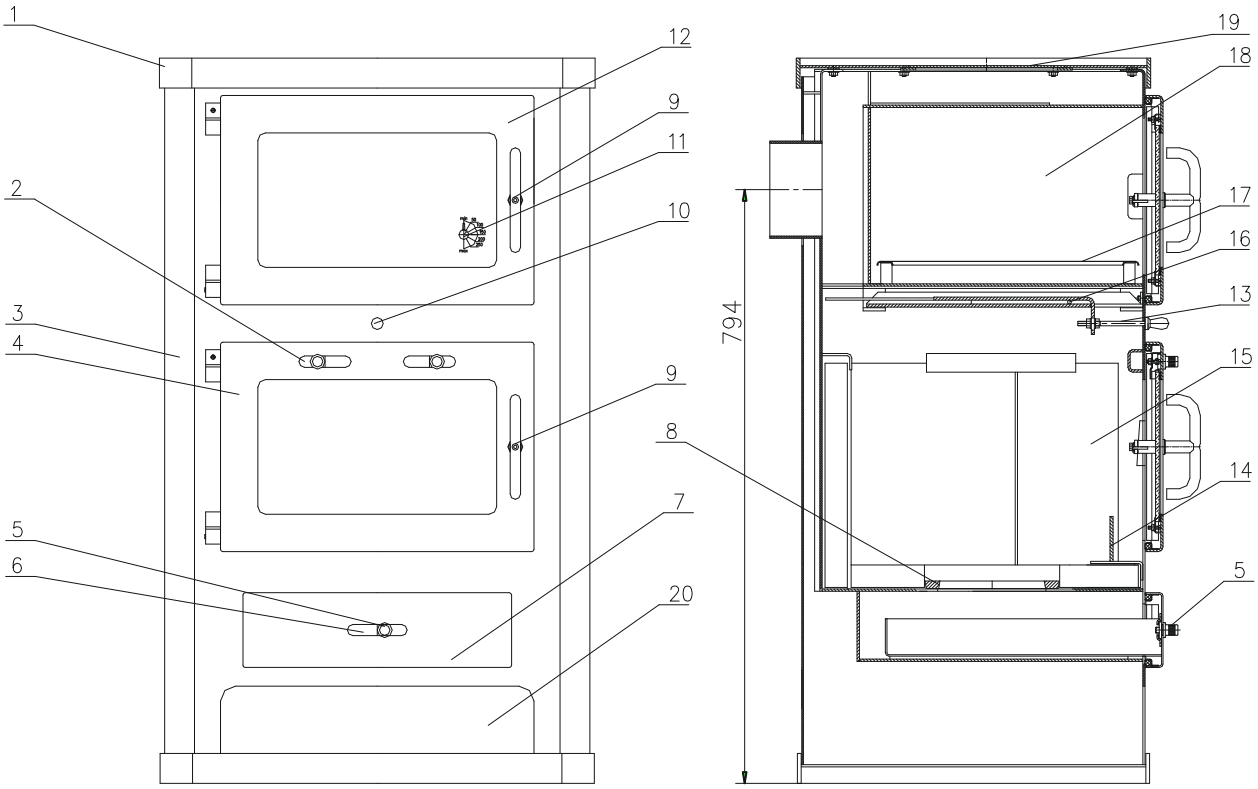


Fig. 1.

1.Top plate; 2. Secondary air; 3.Body; 4.Fire door; 5.Small handle (for regulator); 6. Primary air regulator; 7.Ashtray; 8.Grate; 9.Handle; 10.Handle; 11.Thermometer; 12.Oven door; 13.Axle; 14.Safety bar; 15.Brick set; 16.Flap set; 17.Oven grate; 18.Oven; 19.Service hatch; 20. Niche.

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 Comfort F, Comfort KF

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

Parameters at 13% O2	Unit	Explanation	Value when fuel is wood
P_{SHnom}	kW	The nominal space heat output or a range of outputs (dependent on fuel types)	9,5
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	103
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
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	750
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	500
d_L	mm	The minimum distances from the front to combustible material in side front radiation area	900
d_B	mm	The minimum distances below the bottom (not regarding feet) to combustible material	0
T_{snom}	°C	The flue gas outlet temperature at nominal heat output	250
$\Phi_{f,g\ nom}$	g/s	Chimney designation according to the appropriate chimney standard	10,5
CON или INT	-	Whether the appliance is capable of continuous operation (CON) Whether the appliance is capable of intermittent operation (INT)	INT
L, H, W	cm	The overall dimensions of the appliance (length, height, width)	58/ 97 / 58
d_{out}	mm	The diameter of the flue gas outlet	150
m_{chim}	kg	The maximum load of a chimney the appliance may carry	20
d_{non}	mm	The minimum distances to non-combustible walls	200
	-	**Read and follow the user manual!**	

Parameters	Unit	Explanation	Comfort F	Comfort KF
m	kg	Mass of the appliance	132	142

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

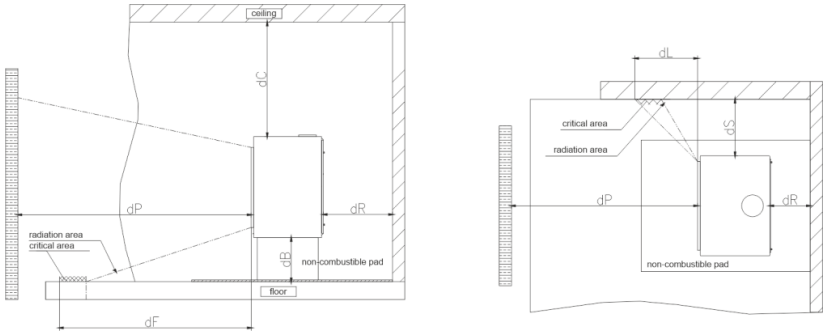


Fig. 2.

Appliance operation.

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



Your wood burning stove is equipped with oven which is intended only for warming up of different dishes. The temperature in the oven depends from the burning rate, the position of the flap (Poss. 16) and from the quantity of the used fuel. On the fire door (Poss. 12) is installed thermometer (poss. 11), which helps for better control of the temperature.

- **The niche is decorative and it's not allowed to store easy combustible materials (Poss.20,Fig.1).**

Safety distances for stove installation for preventing fire hazard: 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 a safe distance (Table 1)or fire proof deflector should be installed.

- Distance to non-combustible materials should be minimum 200 mm.

The chimney should be very well insulated and suitable for temperatures of the flue gasses of minimum 400 ^{0}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.**

The stove is equipped with spring for self-closing fire door and can be connected to 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 air needed for the burning process is controlled from the handle (Fig. 1, Poss.5). Closed at position "0", and open at maximum at the opposite side (Tabl. 2).

Primary air is used for quicker ignition of the stove. The primary air passes through the ash pan, the bottom grate and goes into the firebox. Adjusting of the primary air during the burning process is performed by air regulator (Fig.1, Poss.6). When the stove is connected to a chimney with high draft, it is recommended the regulator to be in closed position.) The ashtray (Fig.1,Poss.7) should not be left fully filled. If full, it will prevent the primary air to get in the combustion chamber. It is necessary to clean the ashtray regularly. **The ashtray is cleaned only when it is cold.**

When the oven is used, with the help of the primary air regulator the user can control the intensity of the burning. When moved to open position the rate increases.

Secondary air supplies to the fire the necessary oxygen and helps for proper burning and complete burning of the fuel increases the efficiency and prevents the accumulation of dust on the glass. Secondary air is regulated by the position of the regulator (Fig.1, Poss.2). 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 the fuel consumption, despite our directions. This leads to limitation of the flow of oxygen and as a result to 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.

To complete the ignition faster the stove is equipped with flap for ignition (Fig.1, Poss.16). The flap is opened when you completely pull the handle towards you (Fig.1, Poss.10). In this way, direct connection between the combustion chamber and the chimney is established. As soon as the burning rate is stable, the flap must be closed. The stove is constructed in a way that it works with fully closed or almost closed flap. Nominal parameters are reached in that way.

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.

Initial ignition of the appliance.

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

- Take out all the supplementary tools out of the ash pan.
- The regulators for primary, secondary air control and the flap 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:

- Primary, secondary air regulator have to be in open position.
- Pull the leaver for the flap.
- Put the basic combustion materials, ignite them and close the door completely. The ashtray have to be fully closed and tightly pressed to the stove body.

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 preferred heat output is achieved by regulating the combustion air and the possition of the flap.

Control of the burning process:



Process / Regulator	Lighting	Burning
Secondary	open	open
Primary	open	closed

Table. 2

Fuel quantity and reloading interval

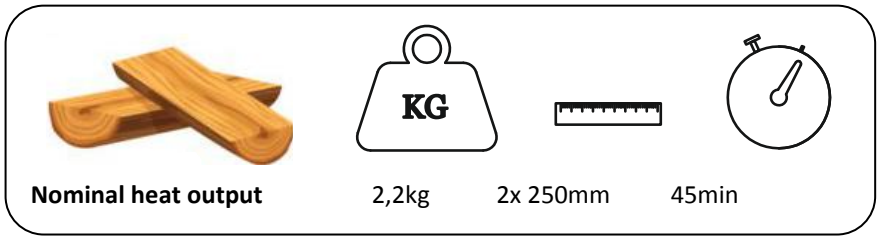


Fig.3.



Fig.4.

- **Maximum allowed height of the used fuel in the combustion chamber is 150 mm (Fig.4**).
- **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 the used bricks

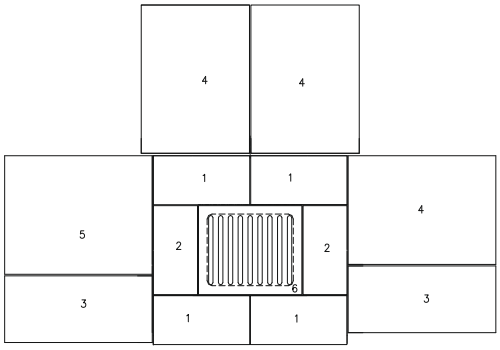


Fig. 5.

N	Designation	Dimensions / number	Material	Quantity
1	Brick	30 x 99 x 196	Schamotte	4
2	Brick	30 x 90 x 180	Schamotte	2
3	Brick	30 x 135 x 300	Schamotte	2
4	Brick	30 x 220 x 300	Schamotte	3
5	Brick	30 x 240 x 300	Schamotte	1
6	Grate	619.00.00.13	Cast iron	1
7	Oven glass	105.00.00.17	Tempered glass	1
8	Ceramic glass	4x200x340	Ceramic glass	1
9	Handle			2
10	Door sealing	Rope ϕ12	Glass fiber	2
11	Glass sealing	Flat rope 10x2	Glass fiber	2
12	Oven thermometer	50^0C - 300^0C		1

Table. 3.