

# COZY

COZY 12 AND COZY 18

INSTRUCTION FOR INSTALLATION AND USE WOODBURNING STOVE

COZY  
COZY TW



COZY O  
COZY O TW



COZY SW  
COZY SW TW



COZY OG  
COZY OG TW



COZY QUATTRO  
COZY QUATTRO TW



EN 15821:2010, BImSchV DIN EN 13240, level 2



Congratulations on your choice! The „**COZY**“ sauna stove works best and serves you longest when it is used and maintained according to these instructions.

***Read those instructions carefully before installing or using the sauna stove!***

The first heating must be performed outside or in a well-ventilated hot room, because the final curing of the external heat-resistant paint of the sauna stoves is completed only after heating and the curing process may give off an unpleasant burning smell. Avoid scratching the sauna stove before that. It's not recommended to fill the sauna stove with stones before the first heating.

**Technical data of the sauna stove**

Sauna stove type	HEAT12 (COZY12)	HEAT18 (COZY18)
Model	COZY 12; COZY 12-TW; COZY 12 O; COZY 12 O-TW; COZY 12 SW; COZY SW 12-TW; COZY 12 OG; COZY OG 12-TW; COZY 12 QUATTRO; COZY 12 QUATTRO - TW;	COZY 18; COZY 18-TW; COZY 18 O; COZY 18 O-TW; COZY 18 SW; COZY SW 18-TW; COZY 18 OG; COZY OG 18-TW; COZY 18 QUATTRO; COZY 18 QUATTRO -TW;
Nominal heat Capacity.i.e. ability to heat the room	12 kW	18 kW
Hot room size	6m <sup>3</sup> -12m <sup>3</sup>	9m <sup>3</sup> -18m <sup>3</sup>
Fuel	Wood logs with length up to 33 cm	Wood logs with length up to 40 cm
Fuel quantities to be added	3,6 kg in three parts	5,1 kg in three parts
Necessary draught	12 Pa	12 Pa
CO- emission( 13% Vol. O <sub>2</sub> )	0,074% / 918 mg/m <sup>3</sup>	0,093% / 1164 mg/m <sup>3</sup>
Dust -emission	22 mg/m <sup>3</sup>	35 mg/m <sup>3</sup>
Overall efficiency	73,9%	81,3%
Flue gas average temperature	292 °C	234 °C
Weight of sauna stove without stones	49-72 kg	70-100 kg
Weight of sauna stove's stones	100 -120 kg	140 -160 kg
Stone size (cm)	7,5cm-15cm	7,5cm-15cm
Minimum cross-section of ventilation openings	10 200 mm <sup>2</sup>	10 200 mm <sup>2</sup>
Minimum cross-section of smoke flue	7 850 mm <sup>2</sup>	7 850 mm <sup>2</sup>

**1. GENERAL**

**The „COZY“ sauna stove is intended for providing dry or humid heat in a sauna.**

Our product range includes various modifications of the sauna stoves. The selection has round and angular-shaped stoves. The stove can have a hot water boiler, a glass door and a wall penetration (TW through the wall model).

The stones of the sauna stove must be large granite fieldstones or also sauna stove stones sold in specialised stores.

**Choose the stove model carefully. A stove with too low output must be heated longer and more intensely, which will shorten the stove's life span.** Please note that non-insulated wall and ceiling surfaces (such as brick, glass, tile and concrete surfaces) increase the output requirement of the stove.

For every square meter of such wall and ceiling surface you should calculate an additional 1,2m<sup>3</sup> volume. If the sauna walls are made of massive log, the volume must be multiplied by 1,5.

### 1.1. STOVE PARTS

**1 - Outer frame of the heater - 5 different models**

**2 - Chimney pipe D114**

**3 - Heater body**

**4 - Upper cleaning hole**

**5- Cleaning hatch**

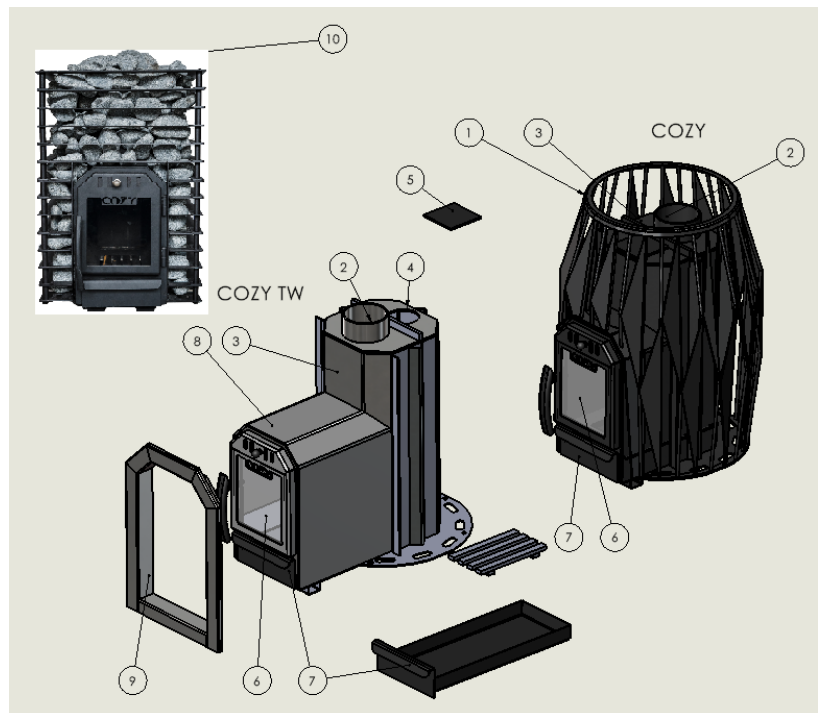
**6 – Heater door with glass**

**7 - Ash box**

**8 - Combustion chamber extension - model TW**

**9 – Hearth frame (only TW is not included)**

**10 - Stove stones (not included)**



### 1.2. BURNING

The „COZY“ type stoves have a special heater furnace construction separates combustion air into three parts. Part of the air passes through the fireplace grate, second part of the combustion air is directed through air channels to the middle part of the fire chamber and third part of the combustion air is directed through the pipes located in the furnace ceiling to the upper part of the fire chamber. This way, the flue gases also burn and generate heat. The burning is cleaner and more efficient. Also the burning material ( 3.3.) and ignition method ( 3.5.) significantly affect the burning efficiency and the flue gas emissions.

## 2. INSTRUCTIONS FOR INSTALLATION

### 2.1. Before Installation

**Before installing the stove make sure that all safety distance requirements are fulfilled. There shall be no electrical devices, wires or inflammable materials within the established safety distances around the stove.**

- The stove is not suitable for installation in a shared flue system.
- All local regulations, including those referring to national and European standards need to be complied with when installing the appliance.
- The local fire authorities in charge of approving the installations can provide more detailed information about fire safety regulations.

### 2.2. Ventilation of the Sauna Room

The ventilation of the sauna room should be arranged as follows:

The fresh air inlet must be placed above the stove and outlet should be as far as possible from the stove and near the ceiling. The stove itself circulates air effectively; the purpose of this outlet is mainly to remove moisture from the sauna after bathing. If you have through wall (TW) model, then is very important to have outle from opposite wall of inlet near to floor (it have o be always opened at bathing time.)

### 2.3. Protecting the Floor and safety distances

**A. Concrete floor without tiles.** The stove can be installed on a concrete floor without any specific safety measures, if the concrete is at least 60 mm thick. Make sure that there are no wires or water pipes in the concrete cast below the stove.

**B. Tile floor.** The floor glues and plasters and waterproof materials used below the tiles are not resistant to the heat radiation of the stove. Protect the floor with the protective bedding or similar heat radiation protection.

**C. Floor made of inflammable material.** Protect the floor with the protective bedding. If the floor in front of the stove door is made of inflammable material, install floor protection made of nonflammable material.

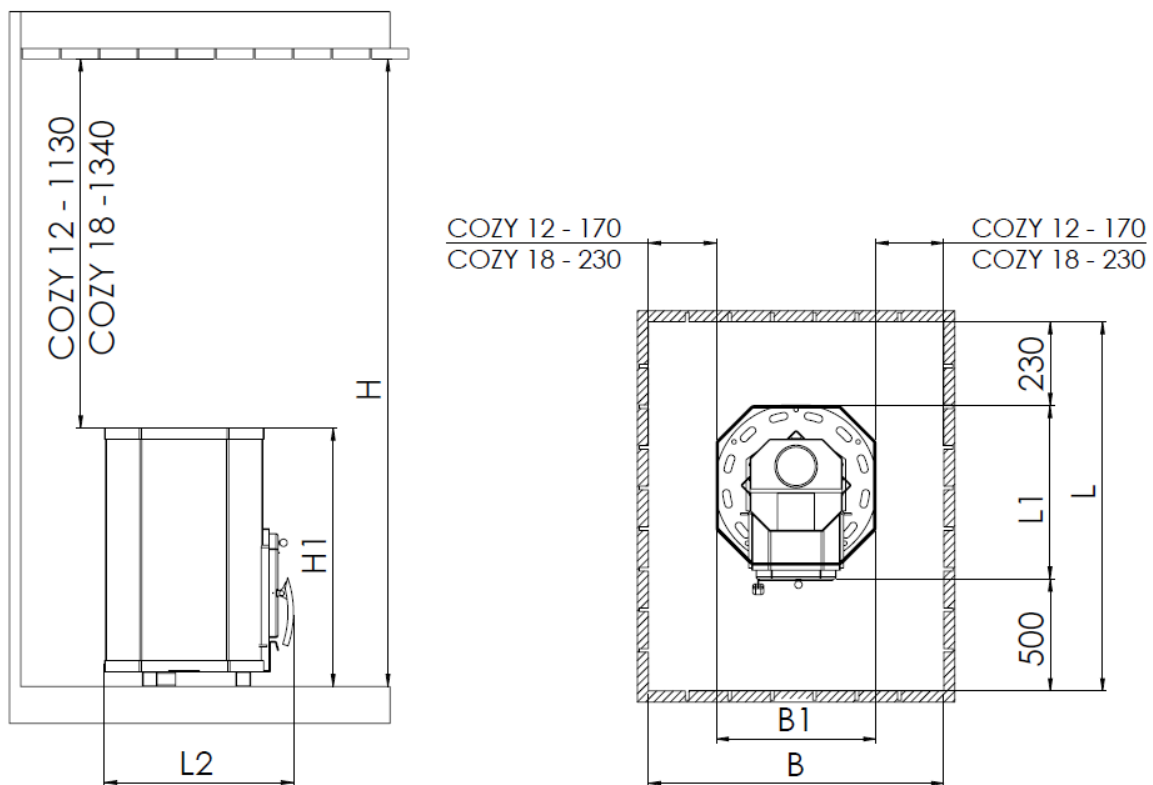
**The stove shall be installed on a floor with an adequate load-bearing capacity. If the existing floor does not meet this prerequisite, suitable measures (e.g. load distributing plate) shall be taken to achieve it.**

**Light-coloured floor materials will become dirty from the ash, particles of stone and metal flakes that fall from the stove. Use floor coverings made of dark materials and dark joint grouts.**

- **Ceiling.** The minimum safety distance between the top of the stove to the ceiling COZY 12- 1130 mm, COZY 18 – 1340 mm.

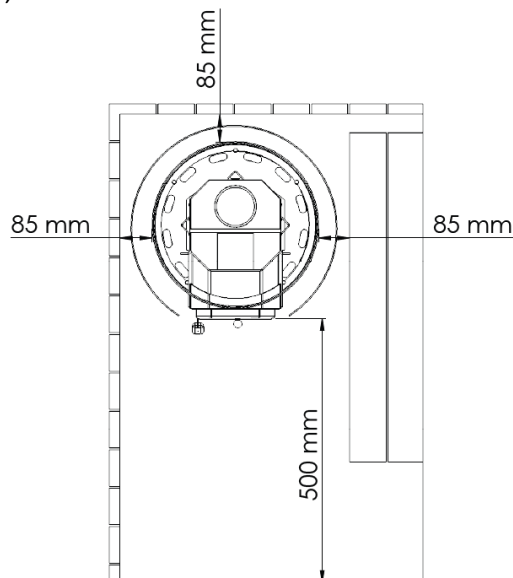
- **Walls and benches made of inflammable materials.**

The minimum safety distances to inflammable materials: on either side COZY 12 -170mm and COZY 18 – 230 mm , behind the stove COZY 12 and 18 - 230mm, to the front COZY 12 and 18 - 500mm.

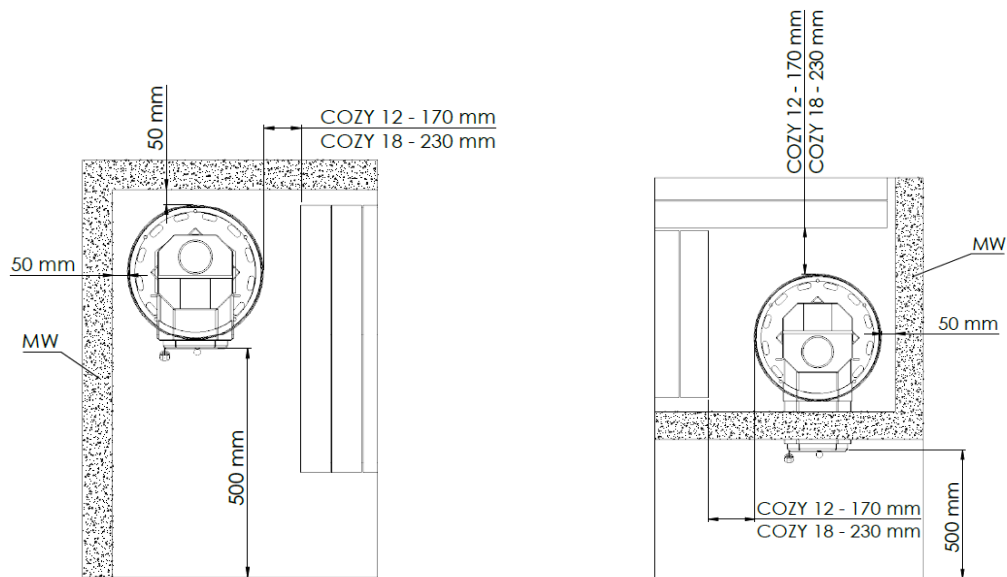


Data	COZY 12/18	COZY 12/18 O	COZY 12/18 SW	COZY 12/18 OG	COZY 12/18 QUATTRO
to sides	170/230				
to back	230/230				
to front	500/500				
to ceiling	1130/1340				
L1*	470/625	480/585	500/580	505/615	475/585
L2*	510/580	520/630	540/650	545/655	515/630
L*	1200/1355	1210/1315	1230/1310	1235/1345	1205/1315
B1	430/500	450/505	490/550	498/560	440/515
B	770/960	790/965	830/1010	838/1020	780/975
H1	700/756	700/756	816/870	709/755	700/730
H	1830/2096	1830/2096	1946/2100	1839/2095	1830/2075
Weight , kg	49/72	49 /70	65/95	55/80	64/90
Weight (TW), kg	57/84	57/82	73/107	63/90	72/100
Stones weight**, kg	110/160	110/160	120/180	120/160	120/160
* TW model add 150 mm.					
** depending on the size of the stones.					

When using a protective wall, the distance from wooden surfaces can be reduced to 85 mm.



- **Masonry walls (MW).** Leave 50mm between the stove and walls what provided that the air can circulate in front and to one side of the stove.



If the stove is installed into a recess made of non-flammable material (stone, concrete), then the distance between the wall and the stove must be at least 50 mm, to allow for proper air movement.

**There must be no electrical equipment or cables within the safety zone of the sauna stove.**

#### 2.4. Connecting the sauna stove to the smoke flue

As a rule, the „COZY“ sauna stoves have the flue gas outlet opening on top of the sauna stove. Special metal flue pipes must be used for connecting the sauna stove to the smoke flue; the flue pipe connections must be sealed with heat-resistant sealing cord if necessary. Any bends in the connection pipes must be round and wide, in order to ensure minimum obstructions of the chimney draught. The flue pipe must enter through the chimney wall and it must be sealed with mineral wool. The connection of the sauna stove to the smoke flue must be made by a specialist of the relevant field.

**The sauna stove must not be modified without the manufacturer's consent.**

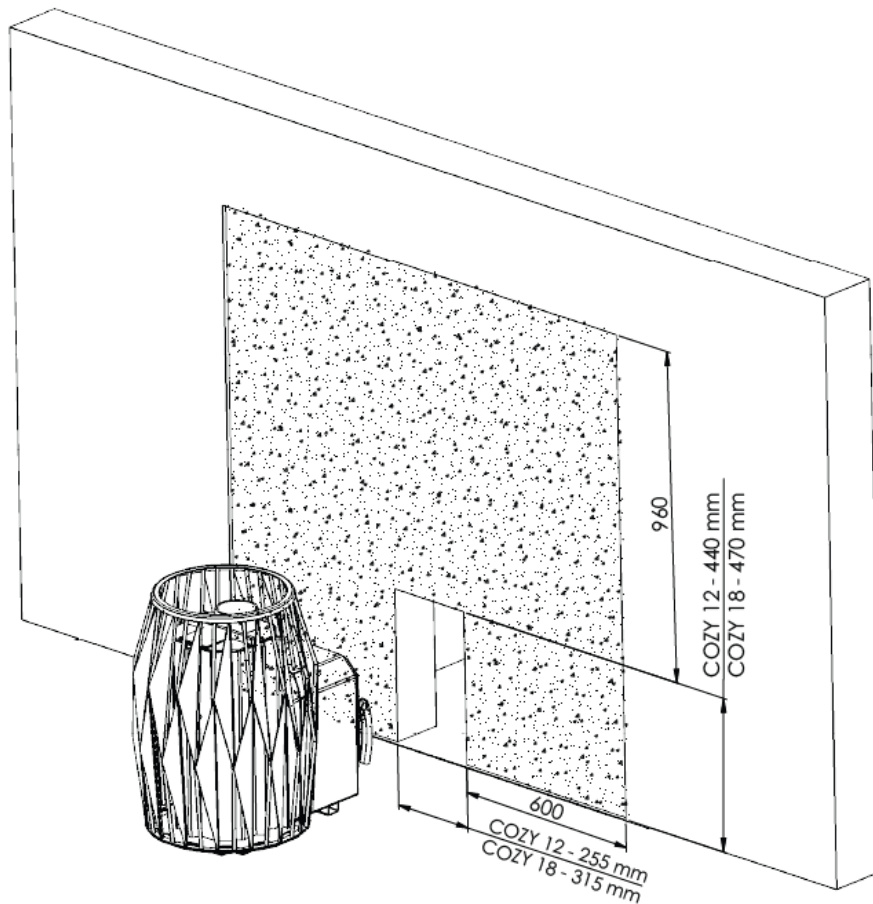
#### 2.5. Models COZY TW (THROUGH THE WALL)

##### Installing the Stove in an opening in a concrete or brick wall

The stove is installed in an opening in a concrete or brick wall. The minimum width of the opening is COZY12 - 255 mm, COZY 18 - 315mm and the minimum height from the floor is COZY12 - 440mm, COZY 18 – 470mm. The maximum wall thickness is 150mm.

The minimum safety distances from wall opening to inflammable materials:

- from sides of opening 600mm;
- upward from ceiling of opening 960mm



### 3. INSTRUCTION FOR USE

Read the instructions carefully before using the stove.

#### 3.1. Warnings

- Staying in the hot sauna for long periods of time makes the body temperature rise, which may be dangerous.
- Keep away from the stove when it is hot. The stones and outer surface of the stove may burn your skin.
- Always use the delivered safety cloth/glove for grabbing the handle of the fire chamber door when heating the stove.
- Never throw water on the stones when there are people near the stove, because hot steam may burn their skin.
- Keep children away from the stove.
- Do not let young, handicapped or ill people bathe in the sauna on their own.
- Consult your doctor about any health-related limitations to bathing.
- Be very careful when moving in the sauna, as the platform and floors may be slippery.
- Never go to a hot sauna if you have taken alcohol, strong medicines or narcotics.
- Never sleep in a hot sauna.
- Sea air and a humid climate may corrode the metal surfaces of the stove.
- Do not hang clothes to dry in the sauna, as this may cause a risk of fire.
- NB! The sauna stove must be fired with wood logs only. Avoid overheating the sauna stove; this would be indicated by the sauna stove's shell starting to glow red. Overheating deforms the metal and the manufacturer will not bear any liability for defects of the stove resulting from that.
- Never throw salt water onto the sauna stove!
- It is not recommended to throw water with high hardness grade or excessive iron content onto the sauna stove.

### 3.2. Preparing the Stove for Use

**The initial heating of a new sauna stove is recommended to do with half the stove-load of firewood and without the stones; the room must be ventilated afterwards.**

The purpose of the procedure is to burn off protective paint from the stove body. This will cause the stove body to emit smoke with unpleasant smell.

1. If possible, heat the stove body outdoors until it stops emitting smoke. Install smoke pipes (if any) for draught. Let the stove body cool.
2. Install the stove according to installation instructions. Place the stones into the stove
3. Heat the sauna to a normal bathing temperature. You should ensure good ventilation in the sauna room as the stove body may still emit smoke and smell. When the smoking stops, the stove is ready for normal use.

### 3.3. Burning Material

Dry wood is the best material for heating the stove. Dry chopped firewood clinks when it is knocked together with another piece. The moisture of the wood has a significant impact on how clean the burning is as well as on the efficiency of the stove. You can start the fire with birch bark or newspapers. The thermal value of wood differs from one type of wood to another.

**If you burn large amounts of wood, which has a high thermal value, the life span of the stove will shorten!**

**Do not burn the following materials in the stove:**

- **Burning materials that have a high thermal value (such as chipboard, plastic, coal,brickets, pellets)**
- **Painted or impregnated wood**
- **Waste (such as PVC plastic, textiles, leather, rubber, disposable diapers) - Garden waste (such as grass, leaves)**
- **Liquid fuel**

### 3.4. Sauna Stones

- The stones should be 7,5–15 cm in diameter.
- Only proper stones meant for the specific purpose should be used as sauna stones. Peridotite, olivine-dolerite and olivine are suitable stone types. Stones found in nature may contain harmful substances, such as iron pyrite, and therefore should not be used.
- Wash off dust from the stones before piling them into the stove.

**Piling of the sauna stones:**

1. Align the steel frame and the stove body. Place a few stones between the stove body and steel frame so that the steel frame will not move during the placement of the stones.
2. Cover the stove body with stones. Place the stones in a dense layer between the stove body and steel frame. **Direct heat radiation from the uncovered stove body can cause the surrounding structures to heat up to dangerous temperatures even outside the safety distances.** Use stones that fit easily between the steel frame and the stove body.
3. Fill the upper part of the steel frame with stones. Place the stones sparsely. Do not form a high heap of stones above the frame.
4. Make sure that the stove body is not visible behind the stones after the stones have been placed. If necessary, pile stones more densely and/or add stones.

### 3.5 Heating the Stove

**1. Before heating the stove make sure that there are no unnecessary items in the sauna or inside the stove's safety distances.**

**2. Empty the ash box.**

**3. Place the firewood into the fire chamber, leaving enough room for the combustion air to flow between the firewood.** Place the biggest firewood on the bottom and the smaller ones on the top. Use firewood with a diameter of 8–12 cm. Ignition load value is 2,8-3,6 kg depends of wood. It is recommended to pick the first stove-load of firewood (the ignition load) from smaller and easilyigniting pieces of wood, thus having more air and less weight than the standard stoveload.



**FOR models TW (through the wall) stoves: Place the firewood on the grate at back of the fire chamber. Avoid burning firewood in the fire chamber extension. Do not use excessively long firewood even though they would fit in the fire chamber. Maximum length of log is 30+3cm**

**3. Place the kindling on the top of the firewood.** By starting the fire on the top of the firewood, fewer emissions are produced.

**4. Fire the kindling and close the door.** The flow of combustion air is regulated by changing the position of the ash drawer (primary air inlet) and sizes of openings in the upper part of the stove door (door openings- secondary air inlet). The recommended position of the ash drawer is open by **2 mm**. The stove is not intended for use with the stove door open.

**Note! The handles become hot while in use.**

**Use the supplied safety cloth for opening and closing the stove door and ash box.**

During bathing, and when the sauna room is already heated, the ash box can be closed to keep down the fire and decrease wood consumption.

**5. If necessary, place more firewood into the fire chamber when the ember is dying down.**

Use firewood with a diameter of 12–15 cm.

It takes only a couple of pieces of wood to maintain the bathing temperature.

**Prolonged, intense heating may cause risk of fire!**

- Excessive heating (several full loads in a row, for example) will make the sauna room, stove and the chimney overheat. Overheating shortens the stove's life span and may cause risk of fire.
- A good rule of thumb is that temperatures of over 100 °C are too high in a sauna.
- Observe the correct wood quantities noted in the heating instructions. Let the stove, chimney and sauna room cool down if necessary.

It is recommended to have a set of handy stove accessories (shovel, brush, stove iron) in the lower-temperature part of the hot room (up to 40°C) for cleaning the fire chamber and for safe operation of the sauna stove. As a rule, the fire chamber door must be kept close during heating. The door can be opened only for the time of adding firewood. With sauna stoves having a glass door, avoid getting water on the hot glass. The hardened glass of the door is not covered by the product warranty. The time needed for heating up the hot room depends on the heat conductivity of the wall materials, the volume of the room and the heating capacity of the sauna stove.

### **3.6. Maintenance Stove**

- The ash box should always be emptied before heating the stove so that the combustion air that is lead through the box would cool off the fire grate and lengthen its life span. Get a metal container, preferably standing model, to put the ash in. **As the removed ash may include hot embers, do not keep the ash container close to combustible material.**
- Soot and ashes gathered in the smoke canals of the stove should be removed occasionally through the soot opening.
- Due to large variation in temperature, the sauna stones disintegrate in use. Therefore, they should be rearranged at least once a year or even more often if the sauna is in frequent use. At the same time, any pieces of stones should be removed from the stone space, and disintegrated stones should be replaced with new ones.
- Wipe dust and dirt from the stove with a damp cloth.
- The chimney and connection pipes should be swept at regular intervals and especially if the stove has not been used in a long time.
- Due to incomplete burning of fuel and failure of sweeping the chimney, the soot build-up in the flue may ignite.

**Actions to be taken in case of a chimney fire:**

- 1. Close the ash box, stove door and damper plate (if installed).**
- 2. Contact local fire authority.**
- 3. Do not try to extinguish fire using water.**
- 4. After a sootfire, a chimney sweeper must check the stove and the flue before use.**

### 3.7. Troubleshooting

#### **There is no draught in the flue. Smoke comes into the sauna.**

- There are leaks in the flue connection. Seal the connection ( 2.4.).
- The brick flue is cold.
- There is low pressure caused by an extractor fan or another device in the room. Make sure there is
- enough air to compensate.
- Several fireplaces are used at the same time. Make sure there is enough air to compensate.
- The ash box is full.
- The smoke canals of the stove are blocked.
- The flue connection pipe is too deep in the chimney.

#### **The sauna does not heat up.**

- The sauna is too big in relation to the stove's heating capacity (see table 1).
- There is lots of non-insulated wall surface in the sauna.
- The burning material is moist or its quality is otherwise low ( 3.3.).
- The flue does not have a needed draught.
- The smoke canals of the stove are blocked.

#### **The stove stones do not heat up.**

- The sauna is too small in relation to the stove's heating capacity ( see table 1).
- The flue does not have a good draught.
- The burning material is moist or its quality is otherwise low ( 3.3.).
- The smoke canals of the stove are blocked. Check the stone placement. Remove the damaged pieces of stones and stones that are less than 7,5 cm in diameter from the stone space. Replace the disintegrated stones with large and undamaged ones.

#### **The stove emits smell.** See section 3.2.

- The hot stove may emphasize odours mixed in the air that are not, however, caused by the sauna or the stove. Examples: paint, glue, oil, seasoning.

#### **Wooden surfaces of the sauna room blacken**

- It is perfectly normal for the wooden surfaces of the sauna room to blacken in time. The blackening may be accelerated by sunlight, heat from the stove, protective agents on the walls (protective agents have a poor heat resistance level), fine particles disintegrating from the sauna stones which rise with the air flow and smoke that enters the sauna, for example, when adding firewood.

## Product warranty

#### **The sauna stoves have a manufacturer's warranty of 24 months after the date of purchase, proven by a purchase slip.**

The warranty covers defects due to manufacturing errors.




The warranty does not cover the following effects caused by the joint effect of temperature and steaming water:

- Metal deformations;
- Effects on surface covering;
- Effects on door glass.



Reclamations due to defects must be sent via e-mail to the address of [voldemar.nellis@cozyheat.ee](mailto:voldemar.nellis@cozyheat.ee) or as paper mail to the address of **Harku tee 7, Tabasalu, 76901 Harju maakond Estonia.**

The reclamation must be accompanied by photographs of the places where the defect is apparent, and by copies of the purchase documents of the sauna stove.

# DECLARATION OF CONFORMITY COZY 12

DoP HEAT 12			
Product type and models	<b>HEAT 12</b> COZY 12; COZY 12-TW; COZY 12 O; COZY 12 O-TW; COZY 12 SW; COZY SW 12-TW; COZY 12 OG; COZY OG 12-TW; COZY 12 QUATTRO; COZY 12 QUATTRO -TW;	  COZY HEAT OÜ Harku tee 7, 76901, Harku vald, Estonia  	
Intended use	Multi-firing sauna stove fired by natural wood logs		
The product conforms to the following standards	Products are tested accordance to the methods described in the standard EN 15821:2010; First Ordinance for the Implementation of the Federal Immission Control Act (Ordinance on Small and Medium - sized Fire Facilities - BImSchV, 26.01.2010) for room heaters according to DIN EN 13240, level 2		
Notified body (ID number)	TÜV SÜD Industrie Service GmbH; Ridlerstrasse 65, 80339 Munich, Germany (0036)		
<b>Declared performance</b>			
Essential characteristic	Performance	Harmonised technical specification	
	to ceiling	1130 mm	EN 15821:2010 BImSchV, 26.01.2010 DIN EN 13240, level 2
	to sides	170 mm	
	to front	500 mm	
	to back	230 mm	
Fire safety (initiation, risk to adjacent elements)		Pass 1)	
Emission of combustible products		Pass	
Surface temperature		Pass 2)	
Release of dangerous substances		NPD	
Cleanability		Pass	
Flue gas temperature*		292 °C	
Mechanical resistance		Pass	
Thermal output		12 kW	
Carbon monoxide emission (%) at 13 % O <sub>2</sub>		0,07%	
Total efficiency		73,9%	
Flue draught *		12 Pa	
Ignition load and refuelling loads		2,4kg	
Ash box gap (after ignition phase)		2 mm	
Durability		Pass	
Flue gas mass flow*		12,9 g/s	
* Stove door closed NPD = no performance determined 1) installation of the stove only on non combustible floor or base 2) an operating tool are supplied with the stove			
Tallinn, Estonia 07.02.2019		Voldemar Nellis CEO 	

# DECLARATION OF CONFORMITY COZY 18

DoP HEAT 18			
Product type and models	<b>HEAT 18</b> COZY 18; COZY 18-TW; COZY 18 O; COZY 18 O-TW; COZY 18 SW; COZY SW 18-TW; COZY 18 OG; COZY OG 18-TW; COZY 18 QUATTRO; COZY 82 QUATTRO -TW;	  COZY HEAT OÜ Harku tee 7, 76901, Harku vald, Estonia  	
Intended use	Multi-firing sauna stove fired by natural wood logs		
The product conforms to the following standards	Products are tested accordance to the methods described in the standard EN 15821:2010; First Ordinance for the Implementation of the Federal Immission Control Act (Ordinance on Small and Medium - sized Fire Facilities - BImSchV, 26.01.2010) for room heaters according to DIN EN 13240, level 2		
Notified body (ID number)	TÜV SÜD Industrie Service GmbH; Ridlerstrasse 65, 80339 Munich, Germany (0036)		
<b>Declared performance</b>			
Essential characteristic	Performance	Harmonised technical specification	
	to ceiling	1340 mm	EN 15821:2010 BImSchV, 26.01.2010 DIN EN 13240, level 2
	to sides	230 mm	
	to front	500 mm	
	to back	230 mm	
	Fire safety (initiation, risk to adjacent elements)	Pass 1)	
	Emission of combustible products	Pass	
	Surface temperature	Pass 2)	
	Release of dangerous substances	NPD	
	Cleanability	Pass	
	Flue gas temperature*	234 °C	
	Mechanical resistance	Pass	
	Thermal output	18 kW	
	Carbon monoxide emission (%) at 13 % O <sub>2</sub>	0,093%	
	Total efficiency	81,3%	
	Flue draught *	12 Pa	
	Ignition load and refuelling loads	5,1kg	
	Ash box gap (after ignition phase)	2 mm	
	Durability	Pass	
	Flue gas mass flow*	9,1 g/s	
* Stove door closed NPD = no performance determined 1) installation of the stove only on non combustible floor or base 2) an operating tool are supplied with the stove			
Tallinn, Estonia 07.02.2019	Voldemar Nellis CEO	