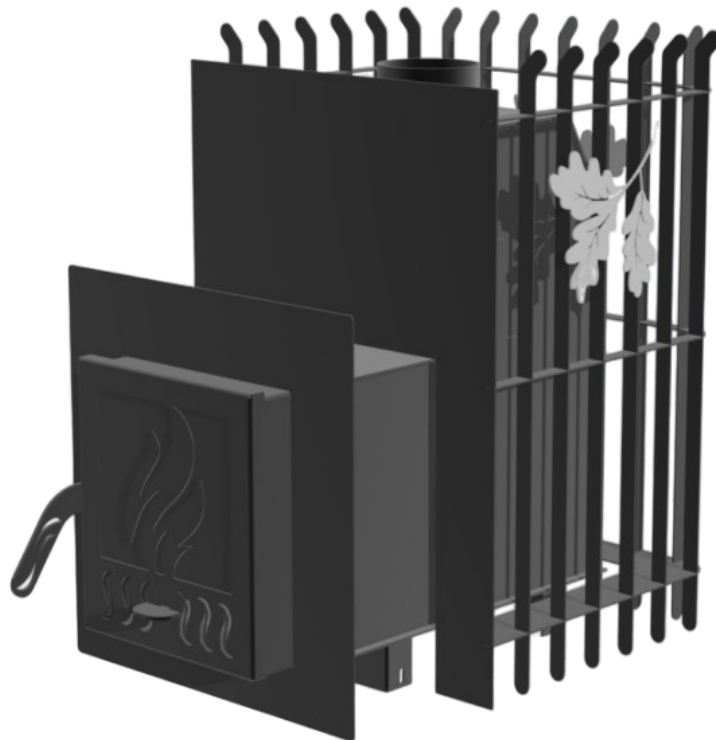




Operating manual  
to the stove **Etna**



Detailed study of this manual before installing the product is MANDATORY!

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## About the company

The SM Global company has been in heating and stove equipment business since 2016. The creative approach at all stages of the production process, careful selection of suppliers, and close attention to the needs of the customer are the basic principles of the company. The products of the SM Global company that are different in purpose, design, structure, power are reliable, cost-effective and durable.

The products of SM Global have gained popularity in the Latvian market and also in the EU countries because of their great value for money factor

## Introduction

Dear customer, the SM Global company congratulates you on making the right choice. You have acquired the ETNA bathing stove designed for heating the steam room and establishing a microclimate that is comfortable for steaming.

This operating manual (OM) covers the ETNA steam bathing stoves and contains information on the design, product parameters, structure, and operation, as well as the rules for safe operation, maintenance, and storage .

### CAUTION!

*After purchasing the stove and before its installation and operation, please carefully read this OM. The persons who have not got acquainted with the OM, shall not be allowed to perform installation, operation and maintenance of the stove.*

The OM also includes the supporting documents that require filling in by the trading, installation and maintenance organizations. This is necessary for entry into force of the warranty liabilities.

### CAUTION!

*Please require the relevant sections of the OM to be filled by the trading, installation and maintenance organizations. Remember, if the purchase organization does not fill in the certificate of sale, the warranty shall be calculated from the day the equipment was manufactured*

## General information

The wood ETNA stoves are designed for heating of the steam rooms and water heating.

The stove design allows to establish the microclimate of a real sauna in the steam room while getting a comfortable combination of temperature and humidity.

The following basic stove models are commercially available:

- «ETNA 12» for the steam room with a volume of 6-12 cubic meters;
- «ETNA 18» for the steam room with a volume of 10-18 cubic meters;
- «ETNA 12 SN» for the steam room with a volume of 6-12 cubic meters;
- «ETNA 12 Pro» for the steam room with a volume of 6-12 cubic meters;
- «ETNA 18 Pro» for the steam room with a volume of 10-18 cubic meters;

The list of designations in the device name:

- Pro – the reinforced fire place made of 4 mm heat-resistant steel;

- SN – the stove is with the short neck intended for in sauna room use;

## Design and function

The ETNA stoves are developed based on the manufacturer's own experience and, most importantly, with due regard to the recommendations and wishes of numerous experts and connoisseurs of the steam sauna.

The stove has a remote fuel channel that allows to heat the furnace from the adjacent premises.

## Stove structure

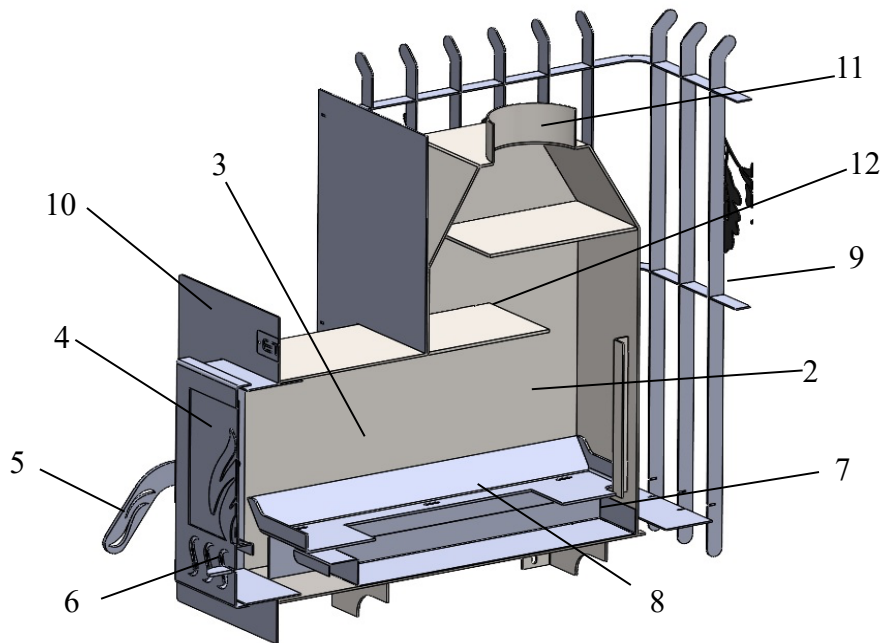


Fig.1 ETNA stove structure

1 - stove; 2 - firepot; 3 – fuel channel; 4 - door; 5 – door handle; 6 - air supply controller; 7 - ash storage box; 8 - castiron grill; 9 - decorative stone net; 10 - removable fuel channel panel; 11 - chimney output; 12 - flame reflector

The stove design is shown in Figure 1.

The components of the firepot and stove, bearing the greatest thermal, corrosion and mechanical stress, are made of steel with a thickness of at least 3 or 4 mm

A significant part of the heat-liberating stove surface is closed by the decorative stone net (item 9) that significantly accelerates the air heating in the steam room and adjacent premises due to the powerful circular convective stream formed by it. The decorative stone net shields the hard infrared radiation emanating from the hot walls of the firepot that establishes “soft” heat in the steam room. to the powerful circular convective stream formed by it. The convector shell shields the hard

A large number of high-quality stones ensures the temperature stability in the steam room.

The stove is equipped with a convenient ash storage box (item 7) that is also a combustion intensity regulator.

The grill (item 8) is made of cast iron that is a structural element and provides uniform steady combustion along the stove length.

All external surfaces of the stove are painted with two layers of heat-resistant thermal paint that

retains its properties at a temperature of 600°C.

All modifications of the ETNA stove can have a samovar-type water heating tank or a multi-purpose heat exchanger for the distance water heating made of stainless steel.

### CAUTION!

*The manufacturer shall reserve the right to make minor changes in a multi-purpose heat exchanger for the distance water heating made of stainless steel.*

## Technical specifications

Table 1

Stove model	Volume of the steam room	Stove dimensions, mm				Chimney diameter	Stove weigh	Weight of stones	Type of fuel
		Height	Width	Body length	Neck length				
	m3	mm	mm	mm	mm	mm	kg	kg	-
ETNA 12	6 – 12	670	423	650	200	115	50	80	Fire wood
ETNA 18	10 – 18	753	478	738	200	115	60	100	Fire wood
ETNA 12 SN	6 – 12	670	423	543	-	115	50	80	Fire wood
ETNA 12 PRO	6 – 12	670	423	650	200	115	50	80	Fire wood
ETNA 18 PRO	10 – 12	753	478	738	200	115	60	100	Fire wood

## Selection of stove

The stove selection is of paramount importance when equipping the sauna steam bath. It requires a particular consultation with a qualified specialist. The model that is suitable in a particular case depends on the volume and quality of thermal insulation in the steam room, the volume of adjacent premises that require heating, the temperature and humidity conditions, the required warm-up time for the steam room, and the number of people who simultaneously perform bath procedures.

## Selection of stones

Only the stones specially designed for such purpose and sold in the specialized stores shall be placed on the stove.

### CAUTION!

*The stones of unknown origin can contain harmful chemical compounds and radionuclides in large quantities that make them unsuitable and even dangerous for use in the sauna.*

Before placement, the stones shall be washed in the running water with a stiff brush. The large stones are installed on the stove bottom so that the flattest surfaces of the stones fit as closely as possible to the stove metal surfaces. Small stones are laid as tightly as possible between the large stones.

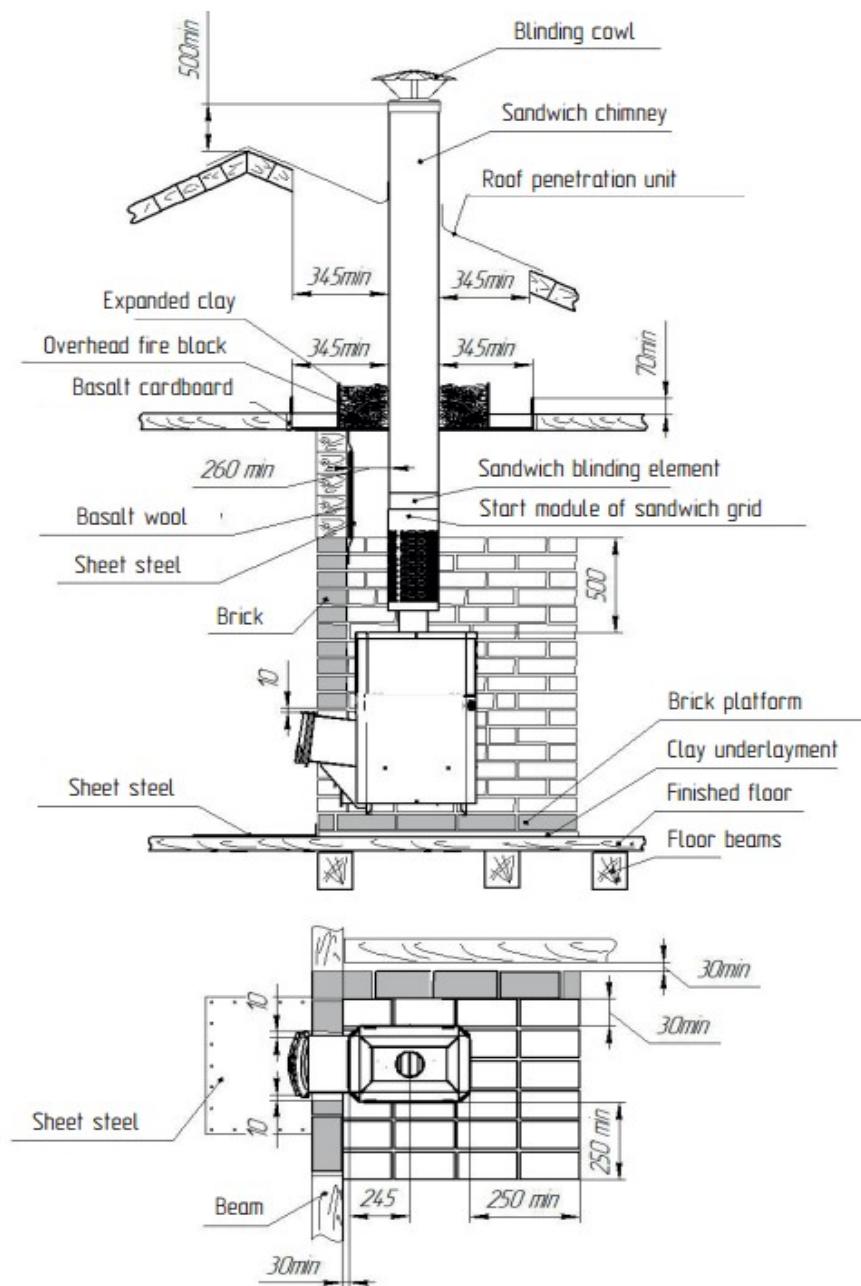
## **CAUTION!**

*Do not stack stones above the upper level of the stove. They will not be able to warm up to the temperature required for high-quality steam formation.*

### **Safety requirements**

**In order to prevent incidents and damage to the stove, IT IS PROHIBITED:**

- to switch on the stove in the absence of draft;;
- to switch on a stove by the children and persons who have not been briefed for
- to place the inflammable objects on the stove and pipelines, to store them nearby (paper, rags, etc.)
- to repair and re-install the stove by the owner, as well as to make any changes to the design;



**Fig. 3 Stove installation diagram**

## Stove operation

### Commissioning

Before the first stove firing, please carefully read this description and recommendations, and do not forget to remove the protective films from the decorative panels on the stove body.

### CAUTION!

*During the first stove firing, the industrial oils applied to the metal and light volatile components of paint can release an odor that will disappear in the future*

The first stove firing shall be performed with the doors and windows fully open (or outdoors) within at least 1 hour with a maximum load of the firepot, an empty stove and a water-filled tank. Please ensure the normal functioning of all components of the stove and protective structures. After

the first firing, thoroughly ventilate the room and drain the water from the tank. The stove is painted with heat-resistant paint that reaches maximum strength only upon the first heating, therefore, the stones shall be loaded when the stove is completely cooled down and the paint is finally solidified.

### **CAUTION!**

*During the stove operation process, deformation of the inne side walls of the firepot are possible, and at the most thermally loaded areas of the firepot, the smoke box and the stove can have disturbed organic silicone coating (burnout, peeling) that does not affect the life and performance specifications of the stove.*

## **Operating modes**

### **CAUTION!**

*Before the stove firing, make sure that there are no combustible objects near the stove and chimney in the steam room and attic room.*

The stove is fred using the chips and fnely chopped dry wood, when fling the 2/3 volume of the frepot and placing the wood on the grate bar with full opening. It is prohibited to stack fuel in the external fuel channel and use construction waste with paint and lacquer coatings, plastic, crossties, rubber as fuel.

Upon occurrence of a stable draft and burnout of 50% of the loaded firewood, the firewood is placed with a filling of 2/3 of the volume of the firepot and a full opening of the ash storage bin.

When the optimal temperature in the steam room is reached, the necessary temperature of stones and air in the steam room is maintained by closing the ash storage bin and using the large chopped firewood. The optimal number of billets is 3-4 pieces.

### **CAUTION!**

*When placing the next batch of frewood, it is necessary to completely close the ash storage bin and then smoothly open the door.*

Occurrence of a strong draft after the stove fring requires some time. Therefore, when the door of a recently fred stove, operating in the set temperature mode is open, a slight entry of fume into the premises is possible.

As a recommendation, after the bath procedures, it is necessary to additionally heat the stove to dry the steam room and the washing room by opening the door and ventilation openings in the steam room.

## **Troubleshooting**

### **CAUTION!**

*When installing the chimney, it is necessary to ensure the possibility of its dismantling for maintenance and repair.*

The following malfunctions may occur during the stove operation:

- absence of stable draft in the chimney;
- intake of fume from the fuel channel.

Table 2

REASONS	FAULT ELIMINATION
Ask sticking on the chimney walls or pipe walls	Clean the chimney from the roof side with a stiff



in the tank.	metal brush using the multiple forward movements.
Ash collection in the stove manifold.	Clean the manifold through the structural opening on the side of the fuel channel using a flat metal object or through cleaning holes on the top part of the stove.
If the stove functioning has not improved, remove the tank and clean the manifold and pipe inside the tank manually.	

As a precaution, it is possible to periodically heat the stove with an empty tank using the dry aspen wood. It is possible to use the “chimney sweep billet» (for the chemical chimney cleaning).

### **Warranty liabilities**

1. The manufacturer guarantees the normal operation of the product during the entire warranty period, provided that the consumer complies with the operating rules provided for by this manual
2. The warranty period of the product is 24 months from the date of sale.
3. The extended warranty is applied to the stove frepot (integrity of the material and welded joints)
4. The warranty period of the product shall commence from the date of sale. During the warranty period, all defects due to the fault of the manufacturer found by the consumer shall be eliminated free of charge.
5. The warranty does not apply to the products and its components, if the failure is caused by mechanical damages incurred during operation due to the unqualified repair and other interference resulting in changes in the product design.
6. If this manual is lost, the warranty period shall commence from the date of manufacture indicated on the technical name plate.

### **Transportation and storage**

The stove shall be transported in a vertical position by any means of transport.

It is necessary to store the stove in a dry room, not allowing the precipitation ingress.

The air temperature at the storage location can vary in the range from 5 to 35°C, the relative humidity of the air shall be no more than 80%.

#### **CAUTION!**

*The heat-resistant paint used for the stove painting, becomes durable after the first heating of the stove. Prior to such heating, the painted surfaces shall be handled with care.*

### ***Disposal***

Upon the end of the service life and occurrence of the stove extreme limit state (depressurization of the frepot), it is necessary to dismantle the stove. Disposal of the failed stove and its parts shall be performed according to the rules for disposal of the ferrous steel scrap.

### ***Technical data sheet***

### Scope of delivery

Table 3

	ETNA 12	ETNA 18	ETNA 12 SN	ETNA 12 PRO	ETNA 18 PRO
Stove	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Fuel channel door	<b>1</b>	<b>1</b>	-	<b>1</b>	<b>1</b>
Joint pin for the fuel channel door	<b>1</b>	<b>1</b>	-	<b>1</b>	<b>1</b>
Ash storage bin box	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Cast iron grate bar 100x300	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

### List of spares and components supplied according to the separate order

	ETNA 12	ETNA 18	ETNA 12 SN	ETNA 12 PRO	ETNA 18 PRO
ETNA door with the door joint pin in the package	*	*	*	*	*
Ash storage bin box	*	*	*	*	*
Grate bar 100x300 in the package	*	*	*	*	*

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