

# AITO SAUNA STOVE AK-68 INSTALLATION INSTRUCTIONS

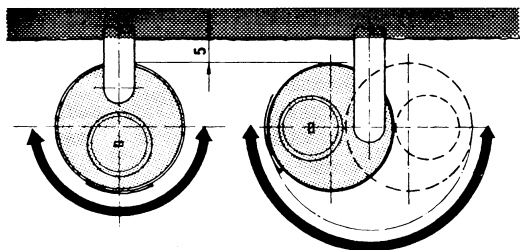
## 1. Technical information

|                                      |            |
|--------------------------------------|------------|
| Nominal effect kW                    | 36         |
| Diameter mm                          | 680        |
| Height mm                            | 1390       |
| Weight kg (without stones)           | 430        |
| Peridotite stones kg                 | 250        |
| Diameter of flue opening mm          | 150        |
| Center of flue opening from floor mm | 1770<br>1) |

1) The height to flue opening is valid when the stove is at a distance of 50 mm from the wall. **If the top cover of the stove is turned, the height is to be measured separately.**

## 2. Assembly

Minimum distance to a non-flammable wall should be 5 cm for air space. When installing the lower mantle cylinder you can determine the direction of the fire chamber. Please note that also the upper cover of the stove can be turned as shown in the picture.



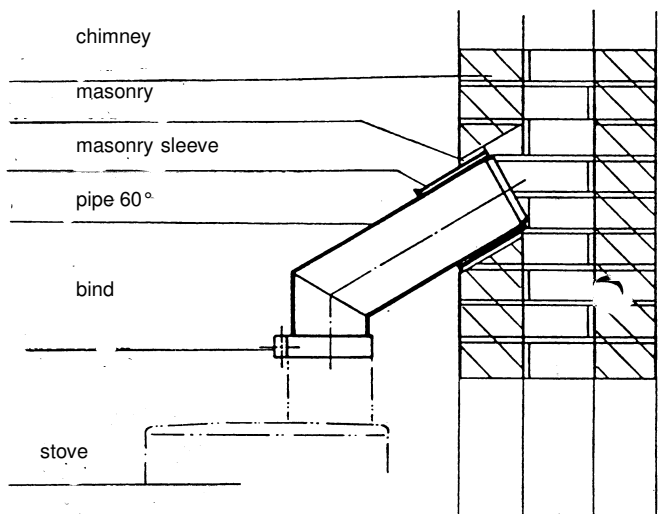
The masonry for the ash room and the fire chamber should be done with fireproof mortar with a thin seam. Follow the assembly drawing on page 3.

After the grates the front piece is put in place. When the upper mantle and the rock wool mat have been mounted, fill the stone space simultaneously with the bricks so the bricks stay upright. Rinse the stones before stacking. Put the large stones lowest and not very densely so that the fire gets evenly to the whole stone space. Put the smaller stones at the top.

Put loose rock wool between the cast iron cover and the enameled steel cover. Then mount the upper parts.

A masonry sleeve for pipe is delivered with the stove. Place the sleeve in the chimney to prevent thermal expansion from breaking the joint.

The pipe is connected to the connecting piece (2210-



391) with the bind (2210-395) so that the shorter end of the pipe is towards the stove.

The stove must be connected to a chimney, which fulfils the local building regulations. It is recommended that the height of the flue is at least 3 m. The flue diameter must be minimum  $\varnothing$  15 cm.

The first heating should be done with half effect and the stove should then be allowed to cool, so that the bricks and stones settle down. This first heating also removes any eventual humidity from the bricks. If the upper stones do not become evenly hot, small stones are added to the hot spots to get an even draught in the whole upper surface of the stone space.

## 3. List of parts

| No.      | Part  | pcs | weight kg |
|----------|---|-----|-----------|
| 2230-387 | Cast iron cover                                       | 1   | 20        |
| 2230-381 | Front piece for grate                                 | 1   | 1,5       |
| 1456     | Grate 243x315mm, cast iron                            | 2   | 5         |
| 2230-385 | Support, cast iron, for elements                      | 1   | 1,4       |
| 2230-705 | Precast support elements                              | 4   | 18        |
| 85152    | Fireproof brick 25x114x230mm                          | 62  | 1,3       |
| 85154    | Fireproof brick 65x114x230mm                          | 47  | 3,5       |
| 5527     | Peridotite stones:                                    |     |           |
|          | Stone No.1 5-10 cm, package                           | 2   | 30        |
|          | Stone No.2 10-15 cm,                                  | 5   | 30        |
|          | Stone No.3 over 15 cm                                 |     | 40        |
| 2230-749 | Rock wool mat   | 1   | 8         |
| 2230-221 | Mantle cylinder, lower                                | 1   | 19        |
| 2230-223 | Mantle cylinder, middle                               | 1   | 3         |
| 2230-222 | Mantle cylinder, upper                                | 1   | 23        |
| 2230-224 | Steel cover   | 1   | 4         |
| 2230-013 | Ash room door   | 1   | 1         |
| 2210-391 | Connecting piece for pipe                             | 1   | 1         |
| 2210-393 | Damper (inside connecting pcs)                        | 1   | 0,6       |
| 5334     | Pipe 60°  | 1   | 2,5       |
| 2210-395 | Bind (with pipe)                                      | 1   | 0,2       |
| 2210-394 | Masonry sleeve (with pipe)                            | 1   | 0,3       |
| 2230-016 | "Löyly" lid   | 1   | 1,6       |
| 2230-012 | Fire chamber door complete (fastened to lower mantle) | 1   | 16        |
|          | Ash scoop   | 1   | 0,5       |
|          | Ladle   | 1   | 0,2       |
|          | Service hook  | 1   | 0,2       |
|          | + fireproof mortar (not included in the delivery)     |     | 15        |

#### 4. Safety distances to combustible materials

|         |         |    |
|---------|---------|----|
| Front   | 1000 mm |    |
| Sides   | 500 mm  | 1) |
| Back    | 500 mm  | 1) |
| Upwards | 1200 mm | 2) |

1) The safety distances can be reduced by 50 % when using single light shielding and 75 % when using double light shielding.

2) The safety distances can be reduced by 25 % when using single light shielding and 50 % when using double light shielding.

Single light shielding can be provided by a non-combustible fiber-reinforced cement plate at least 7 mm thick, or a sheet metal plate at least 1 mm thick and attached with a sufficient number of fastenings.

Double shielding can be provided from two of the above plates.

The sheets should be attached to the back, and if necessary to each other, with screws for example. A space of at least 30 mm for ventilation must be left between the surface that needs protecting and the plate with pipe sleeves, for example, used as spacers.

Also the shielding must not extend to the floor or ceiling.

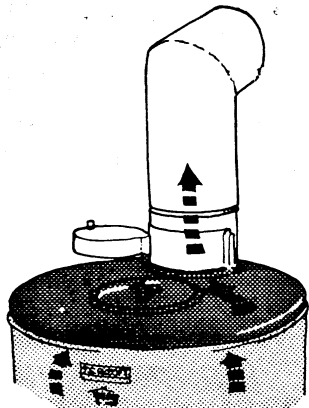
Brickwork 55 mm thick, detached at the edges and at a distance of at least 30 mm from the surface to be protected is equivalent to single light shielding. Similarly brickwork 110 mm thick and at a distance of 30 mm from the surface to be protected is equivalent to double light shielding.

The stove should be placed on a non-flammable immovable stand.

**REGULATIONS OF THE LOCAL FIRE AUTHORITIES MUST BE OBSERVED IN ADDITION TO THE ABOVE INSTRUCTIONS.**

#### 5. Heating instructions

Wood, peat briquettes and paper can be used as fuel. Chipboard, fiberboard and plastics are not allowed. The fuel should be stored so that the temperature of the fuel does not exceed 80 degrees C.



Open the smoke damper and draw the ash box open for 5-10 cm. See that sufficiently combustion air comes into the sauna either from the valve or through the door. Note that the sauna is not ready for bathing until the

heating has been stopped and the löyly shutter is opened.

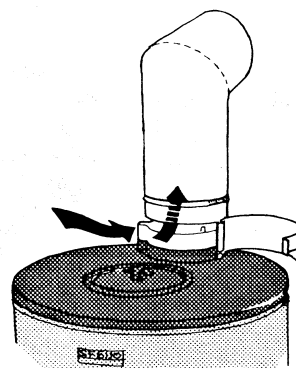
**Empty the ash box** and see that sufficient space for combustion air is left between the ashes and the fire grate and space for circulation air during bathing.

The fire chamber is filled with firewood (preferably small, dry birch wood) and set afire in the middle of the pile. During burning the fire chamber door is kept shut and the ash box open. When more than half of the wood has been burned, the fire compartment is refilled sufficiently often. Towards the end of heating the draught can be lessened by the help of the ash box.

**Heating is stopped, when the lower parts of the upper stones are red.** For the last fill it is advantageous to use small firewood, which burn up quickly and do not leave much embers. Note that a heat storage stove shall always be heated red hot to prevent soot problems.

When there are almost no embers left, the ashes from the grate are clattered to the ash box and the ash box, fire chamber door and smoke damper are closed. After this the redness spreads to the upper surfaces of the stones and the stones become sootless. The first löyly (to get the fumes out) is thrown with the smoke damper open to remove the dust from the stones. After this the sauna is ventilated.

The required löyly temperature is reached and adjusted by opening the löyly shutter somewhat or by removing it. The hot air circulation can be strengthened also by drawing the ash box slightly open.



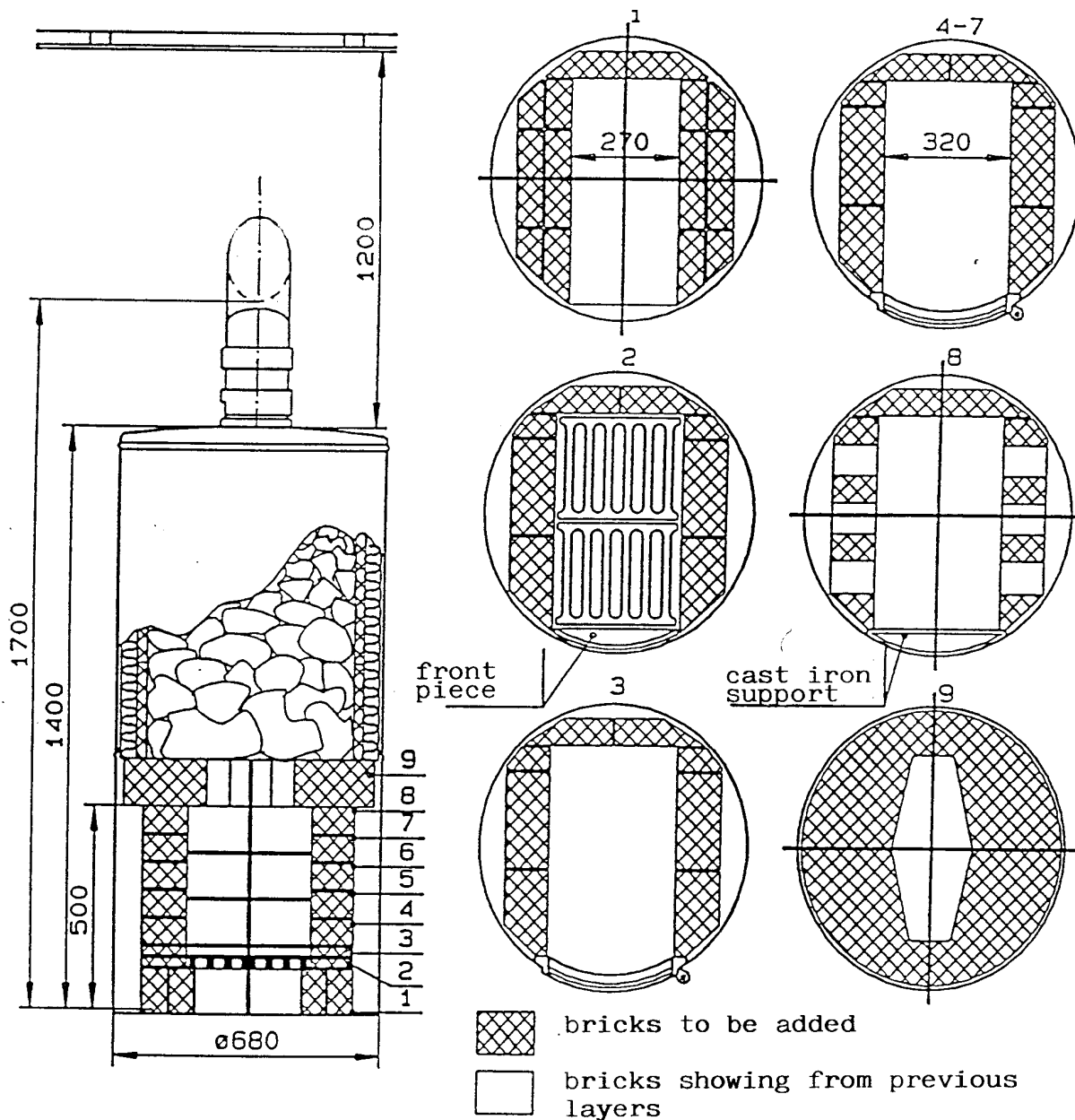
If there is no ventilation valve in the upper part of the sauna, the sauna can when necessary be ventilated by closing the löyly shutter and by opening the flap in front of the smoke damper. This can also be used for drying the sauna after bathing. The smoke damper must then be shut (picture).

The Aito stove can also be used as a smoke sauna stove. Towards the end of heating the stove is then heated with the smoke damper closed and the löyly shutter open.

The sauna stones should be checked from time to time and replaced if crumbled. AK-68 has the following amounts of peridotite stones:

|        |                 |
|--------|-----------------|
| 60 kg  | size 5-10 cm    |
| 150 kg | size 10-15 cm   |
| 40 kg  | size over 15 cm |

6. ASSEMBLY PICTURE



**NOTE:**

The bricks are cut to shape at the place of assembly

**BRICK LAYERS FROM BELOW:**

| Layer | Bricks                      |
|-------|-----------------------------|
| 1.    | 65 x 110 x 230              |
| 2.-3. | 25 x 110 x 230              |
| 4.-7. | 65 x 110 x 230              |
| 8.    | 65 x 65 x 110               |
| 9.    | Support elements for stones |

N.B. The bricks in layer 7 should be cut so that the foundation for the support elements is even.

**THE STRUCTURE OF THE PRODUCT IS NOT TO BE CHANGED AND OTHER ACCESSORIES THAN THOSE APPROVED BY THE MANUFACTURER ARE NOT TO BE USED WITH THE PRODUCT.**

**HAZARD OF FIRE OR DAMAGE TO THE PRODUCT CAN BE CAUSED BY NOT OBSERVING THE INSTRUCTIONS AND FIRE REGULATIONS.**

**Manufacturer:**  
 WOOD HEAT FINLAND LTD  
 FIN-27230 LAPPI FINLAND  
 Tel. 358-2-83872300  
 Fax 358-2-8260764

