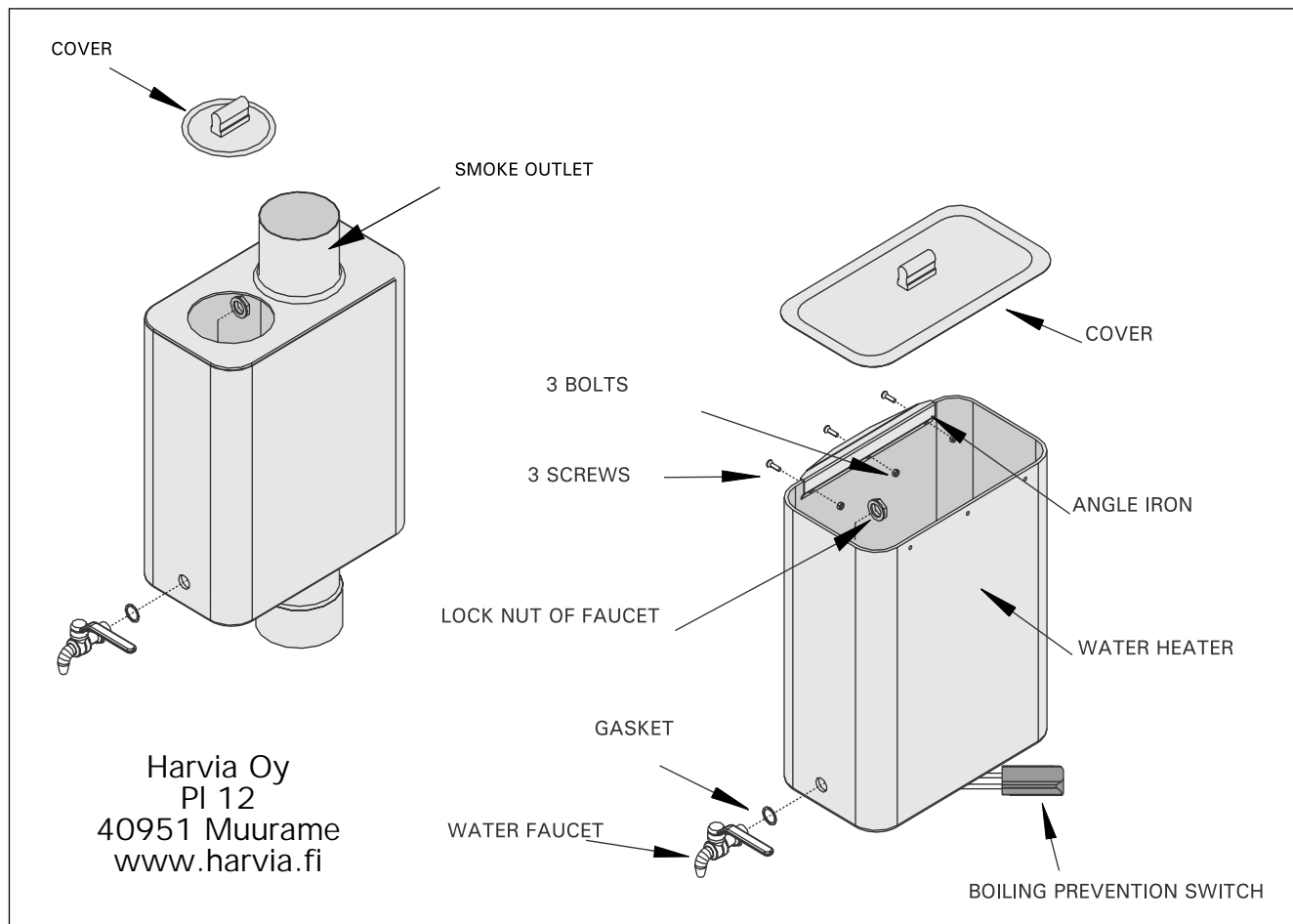


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# Instructions for the installation and use of water heaters



## Side and pipe model

Harvia's water heaters are made of high-quality stainless steel. The side model has a volume of 30 litres while the pipe model holds 22 litres. The side model can be mounted on either side of a wood-burning stove. The pipe model goes on top of the stove.

**Note! Water heaters mounted on a wood-burning stove always heat the water to boiling point (+ 100° C). Caution must be exercised when handling boiling water as severe burns may result if it comes in contact with the skin.** Do not handle boiling water when other people are close by. When preparing warm water for washing, mix small amounts of hot water into cold water to reach the desired temperature. Instruct children about the dangers of hot water and tell them not to handle boiling hot water.

## Side model installation instructions

### 1. Remove the side plate from the stove.

The side-mounted water heater gets its heat energy from the hot steel surfaces of a wood-burning stove's heating chamber and stone chamber. Remove the stove's side plate on the side that you plan to mount the heater.

Remove the screw from the top of the plate. Use an edge tool, such as a screwdriver, to bend the bottom seam of the side plate so that the clamps come loose and the side plate is disengaged from the corner plate. Continue loosening the plate all the way to the top edge and repeat on the other side of the plate.

The side model water heater is delivered with a radiation protection plate, which is fitted under the water heater to replace the side plate removed from the stove (see figure 3, section C). The protection plate provides a safety distance of 500 mm. Its purpose is to protect combustible materials, such as benches and stools, near the stove from the intense heat radiating from the stove's heating chamber.

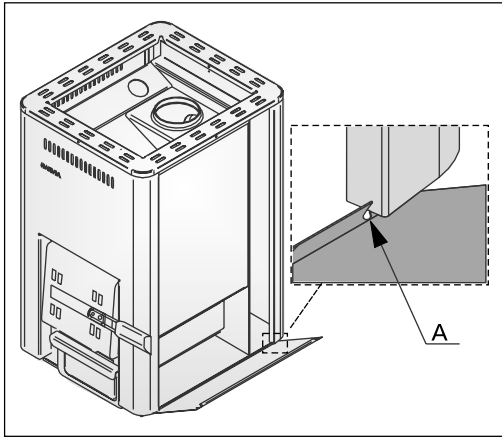


Figure 1.

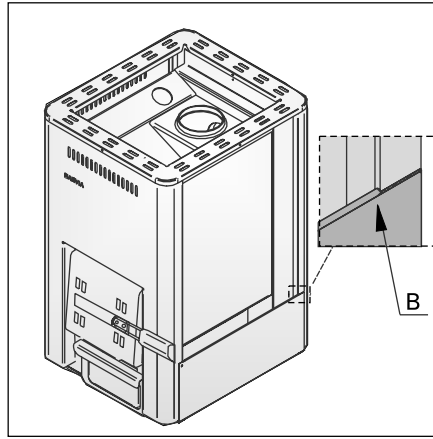


Figure 2.

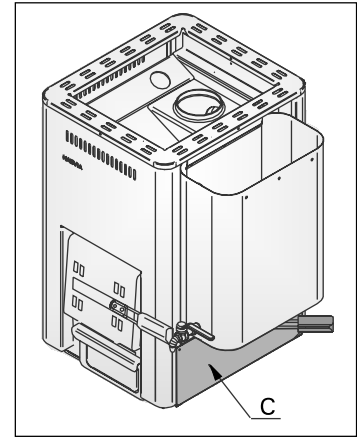


Figure 3.

The long sides of the radiation protection plate are bent to make it stiffer. The stiffened side with notches is fitted to the lower section of the stove's external casing (see figure 1, section A). The inward bent edge of each corner plate is fitted to the notches of the radiation protection plate as shown in figure 1. When the protection plate is placed upright against the corner plates, these are locked at a distance determined by the notches, which is equivalent to the width of the side plate that has been removed. The inward bent edge at the top of the radiation protection plate is fitted between the corner plates (see figure 2, section B). The top part of the protection plate has holes to fix it to the corner plates with self-tapping screws. Appropriately sized starting holes should be bored for the screws. It is a good idea to place some support, for example a piece of wood, between the corner plate and the internal casing to prevent the plate from moving while drilling. The drilling spots should be marked on the corner plates with, for example, a pin punch or nail. Once the protection plate is fitted, the water heater can be suspended against the stove's inner casing from an angle iron screwed into the stove's side.

## 2. Attach the angle iron to the water heater.

The water heater is suspended from the edge of the stone chamber. The package includes an **angle iron, which is attached to the inner wall of the water heater with bolts and screws**. Pay attention to the direction of the water faucet when mounting the angle iron to the water heater: the faucet should face the same direction as the front end of the stove. **Push the screws in from outside the heater through the holes at the top. The bolts go on the inside.**

## 3. Attach the water faucet to the water heater.

The gasket is located between the faucet and the outer surface of the water heater. Push the spiral end of the faucet through the hole in the water heater (ensure that the gasket is in the right place) and attach the lock nut to the faucet from inside the heater. Tighten the lock nut and check the direction of the faucet.

## 4. Lift the water heater into place.

Put the water heater along with its angle irons into the opening created in the stove's side plate so that the heater hangs by the edge of the stone chamber. Check that the surfaces that the heater comes into contact with are smooth and that the heater hangs firmly in place.

## Boiling prevention switch

If the water starts to boil, use the switch to ease the water heater away from the stove surface. The switch adjustment graded.

**Note! Do not turn the switch abruptly as this may cause the heater to fall off the stove.**

## Pipe model installation instructions

The pipe-mounted water heater gets its heat energy from the hot combustion gases of a wood-burning stove, which are conducted to the chimney through the smoke pipe in the heater. As the pipe model is an efficient and fast water heater, water usually starts to boil when the stove is heated. To prevent boiling, remove some of the warm water from the heater and replace it with cool water. The heater should always be kept as full as possible.

### 1. Attach the faucet to the water heater.

The gasket is located between the faucet and the outer surface of the water heater. Push the spiral end of the faucet through the hole in the water heater (ensure that the gasket is in the right place) and attach the lock nut to the faucet from inside the heater. Tighten the lock nut and check the direction of the faucet.

### 2. Remove the blocking plug from the stove.

The pipe model heater is mounted on top of the stove. Remove the blocking plug (with a diameter of 115 mm) located on top of the stove toward the back of the stove chamber and use it to cover the smoke outlet at the back of the stove. Turn the fastening spring of the plug so that the plug tightly covers the outlet. Make sure that the plug stays in place by forcing the ends of the spring to the side through the upper smoke outlet. You can use, for example, the handle of a hammer as an aid.

### 3. Lift the water heater on top of the stove.

Place the heater so that the filling hole faces upward and the smoke outlet going through the heater fits the smoke outlet cone on top of the stove tightly. Support the water heater while mounting the other parts of the smoke outlet.

## Take the following into consideration when using water heaters:

### 1. Keep as much water as possible in the heater during heating and use.

The welded joints of an empty heater may crack due to the heat of the stove and the walls of the heater may bend.

### 2. Use salt-free household water in the heater.

The following quality requirements apply to household water:

- humus concentration < 12 mg/litre
- iron concentration < 0.2 mg/litre
- calcium concentration < 100 mg/litre
- manganese concentration 0.05 mg/litre.

High iron concentration corrodes the heater material, while limy water turns shiny surfaces a dull grey. Good-quality lake water can also be used in water heaters. It will not damage the heater materials as long as the heater is cleaned thoroughly every now and then.

### 3. Clean the water heater as required.

If water stands in the heater for a long time, it may turn slimy. Clean the heater with water and a soft cloth. Do not use strong detergents!

### 4. Mechanical cleaning.

If, for some reason, rust spots appear on the heater, remove them with 400 grit or rougher water sandpaper. Clean the heater carefully after sanding. Do not use steel wool to remove rust spots!

### 5. Prevent water from freezing in the water heater.

When water freezes, it also expands, which may damage both the heater and the faucet. Empty the heater through the faucet and leave the faucet open. You can also remove any small amounts of water remaining in the bottom of the heater using, for example, absorbent fabric. The side-mounted water heater is easy to lift off the heater and turn upside down.