

# Inserts

Model 100, 200

Installation instructions Care and firing instructions



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### **GENERAL INFORMATION**

Thank you for choosing an insert from Keddy!

The inserts from Keddy has a number of unique characteristics, for example:

- \* Grounded doors
- \* Pre-heated combustion air
- \* Cast iron for long service life

There are the following accessories for the inserts:

- \* Guard of forged steel
- \* Guard of punched plate
- \* Inset frame
- \* Hot air grilles
- \* Cast-iron tubes
- \* Outside air unit
- \* Support leg

### Important! Keep these installation instructions and the associated firing instructions!

### Quality approval

The Inserts from Keddy has been tested by the Swedish National Testing and Research Institute and has met the requirements of the Swedish Building Regulations and CE Marking.

### Manufacturer's declaration

The Inserts from Keddy has been manufactured in accordance with the documents that form the basis for the respective certificates and their associated requirements for production inspections.

### **IMPORTANT POINTS**

- \* Contact the Planning and Building Committee in your municipality concerning the building notice.
- \* It is also recommended that you contact a certified chimney sweep prior to installation.
- \* NOTE! Read through all of the installation instructions before beginning the installation.
- \* Make sure that you get the right dimension and length of the flue, see p. 4
- \* The installation has to be inspected by a certified chimney sweep before you start firing.
- \* In order for the warranty to apply, it is important to follow the care and firing instructions carefully, see p. 7-8.
- \* WARNING! Parts of the stove become very hot during operation and may cause burn injuries if they are touched.
- \* To guarantee the function and safety of the stove, we recommend that a professional perform the installation. Our dealers can recommend suitable fitters. You can find information about our dealers on www.keddy. se

### **PREREQUISITES**

#### **BUILDING NOTICE**

When you install a stove and/or erect a chimney, you may have to give building notice to the local Planning and Building Committee. Contact the Planning and Building Committee in your municipality for up-to-date information.

### **FLUE**

Inserts from Keddy must be connected to a flue approved for at least 350°C.

When connecting the insert to an existing flue one must make sure that there are no leaks before installation. To ensure this you may contact your local chimney sweeper or a suited proffesional before starting the installation.

In order to enable a good function in your insert the pressure (chimney draft) needs to be at least 12 pa at nominell use. To ensure this we recommend that the chimney should be at least 3,5 m and that the flue has an area of 177 cm2.

### **COMBUSTION AIR**

The combustion of wood requires air/supply air. The inserts can be provided with an external air supply. Mainly for properties with mechanical ventilation. The main reason for using an external air supply is to counter the underpressure that can arise in houses with mechanical ventilation. Normally it is not necessary to use external air supply, since the installation takes place in an existing fireplace which is designed to perform in the atmosphere of the house.

A sheet metal drum is used as an outdoor air duct. The connection diameter of the supply air duct to the stove is 100 mm. If the duct is more than 3 m long, the diameter of the sheet metal drum must be increased to 125 mm. (A stove's maximum need for combustion air is approx. 20 m3/h)

The supply air must not be taken from crawl spaces. If there is a crawl space, the sheet metal drum must be extended to a valve in the foundation wall. If the space is heated, the supply air channel must be insulated against condensation.

#### STANDARD DELIVERY

- 1 st Insert
- 1 st Cast Iron foot 50 mm
- 2 st Cast Iron feet 45 mm
- 1 st Cast Iron handle
- 1 st Fire Plate
- 1 st Mineral wool
- 1 st Joint glue

### **ACCESSORIE**

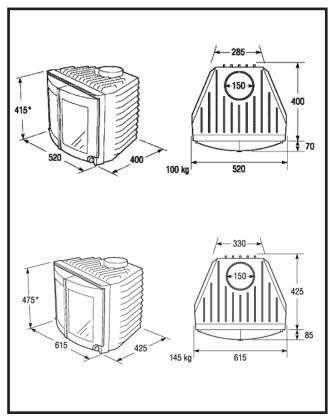
1 st Support leg

#### **DIMENSIONS**

(Measures in mm)

\* Add 50 mm to the height due to the cast iron feet.

The illustrations below are depicting the models 103 and 203. All models in the 100 and 200-series have the same measurments.



## **INSTALLATION INSTRUCTIONS**

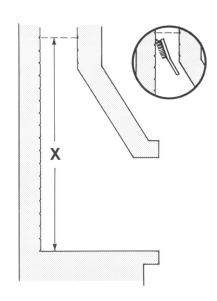
1. Before starting the installation, determine where in the flue the mineral woll seal should be placed.

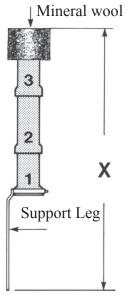
Clean the inside of the hood with a steel brush removing soot and loose mortar. Remove the old damper if it is an obstruction during installation.

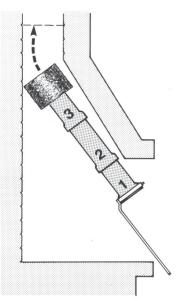
2. Fix the support leg to the flange of the first cast iron tube. Fix the other tubes with joint glue and make sure that the seals are tightly filled. Mount the mineral wool on the top tube and fix it with the steel wire. The top of the tube and the mineral wool must be level to avoid soot building up adjacent to the tube.

Tip! Fix the cast iron tubes upside down on the floor and wedge the seals with small roof nails for better stability.

3. Bring the mounted tube pack to it's designated place so that it rests on the support leg. It is normally possible to remove the support leg when the installation is finished and it can be used again in other installations, thats why it is an accessorie.







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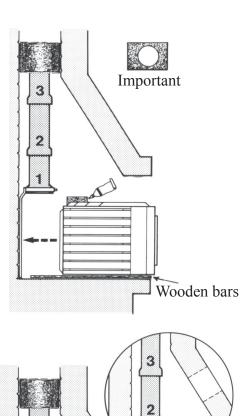
4. **Important!** Be thorough in placing mineral wool between the chimney walls and the upper tube. This ensures that no heat is lost up into the chimney. Place two thin wooden bars on the bottom of the open fireplace. Place the insert on the wooden bars and apply joint glue to the connection on top of the insert. Slide the insert into position directly beneath the tube pack.

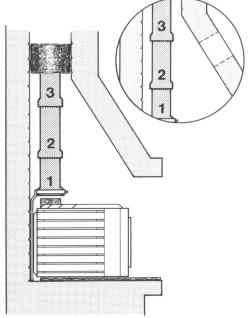
5. To improve the circulation of hot air through the fireplace one can open a hole in the hood of the open fireplace. This is accomplished by drilling a series of holes with a power drill and removing the bricks.

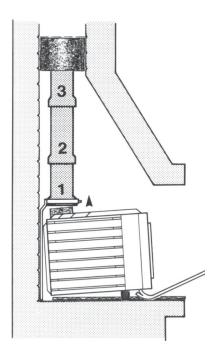
The hole can then be fitted with a hot air grill. (Accessory)

6. Use a crowbar to lift the insert and place the cast iron feet under the insert, the slightly higher one in the back and the two others in the front. Adjust the position of the feet until the insert is level.

The Fire plate wich is placed on the bottom of the insert when delivered, is to be placed on the two ledges near the inside ceiling of the insert.



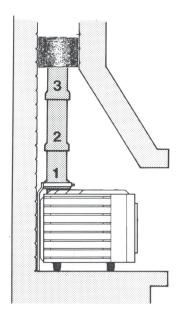




### 7. The installation is now finished.

Make a final check that joints are tightly sealed and that the mineral woll is in a correct position.

The space between the insert and the open fireplace can be fitted with the Keddy guard of punshed steel or forged steel.(accessories). Both guard systems can be adapted to most openings in open fireplaces.



### **CARE & FIRING INSTRUCTIONS**

Inserts from Keddy has been tested by the Swedish national Testing and Research Institute. It has met all adequate requirements and has a useful efficiency of not less than 70%. For the inserts to work optimally, it is of key importance that you follow the care and firing instructions below. Non-compliance will invalidate the warranty.

#### **FUEL**

Inserts from Keddy must be fired with wood. Most types of firewood can be used. The most suitable are birch, beech, ash and elm, but conifers and oak can also be used if they are mixed 50/50 with another type of hardwood. Oak contains acids, which may affect the stove and chimney during combustion.

The firewood must be dry, i.e. with a maximum moiusture content of 20%. If the fire wood is moist, an unnecessary amount of energy is used boiling the water away before it starts burning normally. Moreover, this forms large amounts of soot and tar, which are deposited on the walls of the hearth and chimeny, which in turn significantly increases the risk of a chimney fire.

Moist firewood also results in poor combustion, which leads to greater smoke generation with sooty glass and deterioration of the local environment as a consequence.

To be certain you will have dry wood when the heating season begins, it must be cut in the winter. The wood is then stored in a ventilated place under a roof and left to dry during the spring and summer. Before using the wood, you should keep it indoors for a couple of days so there is time for the surface moisture to evaporate.

WARNING! It is absolutely forbidden to fire the stove with painted, glued (e.g. Masonite or chipboard) or pressure-impregnated wood. It is also forbidden to burn plastic and other waste in the stove. The combustion of such fuels and substances releases acids and heavy metals, which are very harmful for both people and the environment.

#### BEFORE FIRING-WHEN THE INSERT IS NEW

After a week from installation you can start using your insert. Start with half the prescribed amount of wood for 1-2 hours the first two to three days. This is to allow the final hardening of the joint glue.

When you start using the insert there may be some smell from the paint hardening. Therefore see to it that you provide sufficent ventilation of the room by opening a window if necessary. If you experience smell it will normally go away when you have used the insert a few times.

### **FIRING**

In order to optimise the firing, you should measure the amount of burned wood per hour. The insert is not intended for an output exceeding 10 or 12 kwh respective, i.e. never exceed the maximum amount of recommended wood per hour. This not only impairs the efficiency, there is also a risk of overheating the stove and chimney.

Suitable size and quantity of firewood for the inserts as follows:

Kindling:

Length approx. 30-35 cm
Diameter approx 2-5 cm
Quantity approx 3 kg

Split logs:

Length approx 30-35 cm Diameter approx 6-10 cm

### CARE AND FIRING INSTRUCTION Continue.....

### Wood quantity at normal firing

Insert model 100 2 kg/hour Insert model 200 2,5 kg/hour

### Wood quantity at maximum firing

Insert model 100 3 kg/hour Insert model 200 3,5 kg/hour

### **Firing instruction**

- 1. Open the door. Put in some crumpled newspaper or firelighters.
- 2. Put in 3,0 kg of kindling. Pile up the wood crosswise.
- 3. Turn the dampers to startmode (see ill below) and light the fire.

(If the chimney is cold or if there are unfavourable weather conditions, you may need to keep the door ajar during the first five minutes in order to establish a satisfactory chimney draught.)

4. Let the first fire burn down with full damper. This is in order to allow the stove to reach its operating temperature quickly. Light a new fire of the desired size. Wait a couple of minutes until the fire has started burning properly. Then turn the damper to the left, until you have achieved a calm and harmonic fire.

Note! The reason why we want to achieve the optimum operating temperature in the stove quickly is that the stove works most efficiently at this temperature. This minimises the emissions and maximises the heat generation.



To reach the startmode position you need to push the damper knobs inwards and turn at max position.

### **GOOD TO KNOW**

Since it can take some time for a cold chimney to start working properly, i.e. to force the smoke in the right direction, you can light a couple of sheets of newspaper and hold them up in front of the smoke shelf in the hearth. In this way, you eliminate the downdraught and avoid the nuisance of smoke entering the room in the initial stage.

If the premises are equipped with mechanical ventilation, i.e. if there are one or more fans to evacuate the air from the building, there could be such a large negative pressure in the building that it could be difficult to light the stove. As a suggestion, you could turn off the ventilation temporarily or open a window until the negative pressure has dissipated.

Firing with too coarsely chopped wood or with too little oxygen supply, so-called smoulder combustion, will increase the amount of soot and tar wich in turn can lead to a fire in your chimney.

### **REMOVAL OF SOOT AND MAINTENANCE**

Soot must be removed at least once per season. The soot from the chimney and the connections should be removed by a chimney sweep. The smoke shelf must be removed during sweeping.

If the glass becomes sooty, it is best to use a special soot remover, which you can buy from your local stove dealer. Never use detergents containing abrasive materials. This damages the glass.

### TIP!

Soot stains on glass are easily removed as follows:

- 1. Moisten a piece of soft kitchen paper with water.
- 2. Rub some ash from the hearth onto the kitchen paper.
- 3. Remove the soot stain by rubbing with the kitchen paper.

When emptying the insert, the ash should be placed in a steel vessel. Pay attention to the risk of fire when you throw out the ash, as the ash may contain live embers for a very long time.

Important! If you experience a fire in your chimney you must close the doors and dampers. If needed call the fire department. After a fire in your chimney a chimneysweeper need to inspect your installation before taking it into renewed use.

