KEDDY

Fireplace inserts

Model SK1000, SK2000

Installation instructions
Care and firing instructions

CONTENTS

GENERAL

Thank you for choosing our fireplace insert!

Keddy's fireplace inserts have a number of unique characteristics, for example:
* Flat-ground hatches
* Innovative selfclosing door
* Pre-heated combustion air
* Cast iron for long service life

Keddy fireplace inserts have the following accessories:
* Installation kit
* Guard, forged steel
* Guard, steel grate
* Frame for wall connection (for surround installation)
* Hot air grill, forged steel
* Steel pipe
* Outdoor air unit
* Stand (for surround installation)
* Reflection plate (for surround installation)

Important! Save these installation instructions and the associated firing instructions!

Quality approval
Keddy's fireplace inserts have been tested by a certified testing institute and have met the requirements of the Swedish Building Regulations and CE Marking. In addition to this, the fireplace inserts also meet the requirements for the Nordic Ecolabel.

Manufacturer's declaration
Keddy fireplace inserts have 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 you follow the care and firing instructions carefully, see pages 9-10.

* WARNING! Parts of the insert become very hot during operation and may cause burn injuries if touched. There is a glove in every insert delivered, use this when handling the door and damper.

* To guarantee the function and safety of the insert, 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.

PRECONDITIONS

BUILDING NOTICE
Building notice may be required for the installation of a fireplace insert. Contact the Planning and Building Committee in your municipality for up-to-date information.

FLUE
Keddy's fireplace inserts may be connected to a flue approved for a minimum of 350°C. The fireplace inserts are also approved for connection to older masonry chimneys with enclosing walls that are only half a brick thick. Naturally, fireplace inserts can also be connected to chimneys made of prefabricated elements, e.g. the Heda Chimney.

If you want to connect your insert to an existing chimney, you must ensure the duct is smoke-tight before installation. Contact your local chimney sweep or specialist before beginning installation.

For the installation to function satisfactorily, the negative pressure (draught) must be at least 12 pa during nominal operation. To achieve this, the chimney should be at least 3.5 m tall and have an area of approx. 120 cm2.

COMBUSTION AIR SUPPLY
For the combustion of wood air/supply air is required. Fireplace inserts can be supplied with outdoor supply air via an outdoor air unit. (Accessory) The aim of bringing outdoor air to the combustion is to counteract the negative pressure that can occur in houses with mechanical ventilation. This is not normally necessary for a fireplace insert as it is installed in an existing open fireplace, which is designed to work in the house atmosphere.

A sheet metal drum can be used to extend an outdoor air duct. The connection diameter of the supply air hose to the stove is 63 mm. If the duct is more than 1 m long, the diameter of the sheet metal drum must be increased to 100 mm. The drum can be connected from below or from the rear, see illustration. (The insert's maximum need for combustion air is approx. 15 m3/h)

Do not take the supply air 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

Check that all parts for your installation are included in the delivery.

Insert

Box inside insert containing:

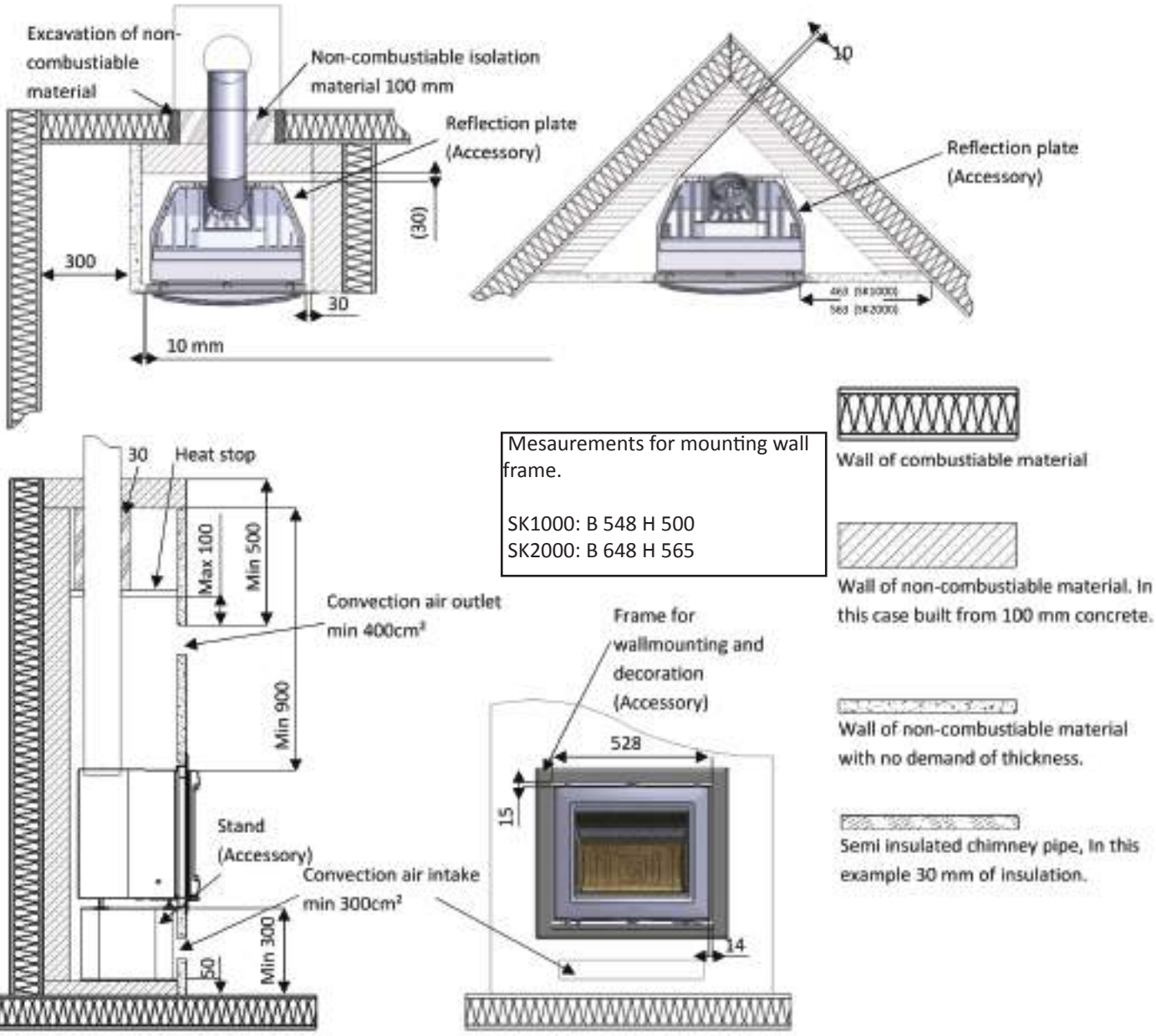
1 x Combustion air pipe (45 degrees)
1 x Vermiculite kit (6 sheets)
1 x Heat resistant sealant
1 x Glove
1 x log stopper

ACCESSORIES

Installation kit (Support leg, Pipe including top sleeve, pressure ring, insulation)
Angled combustion air pipe (for installation straight up or stright back)
Outdoor air kit (Outdoor air unit, 1 m hose, condensation insulation, façade grating
Steel pipe, dim. 125 mm
Cast iron hot air grill
Frame for wallconnection
Guard (grated steel) (Needs frame for mounting)
Stand
Reflection plate

SURROUND INSTALLATION

Keddys fireplace can be used as a fireplace where you build your own surround around it or you install it into an existing fireplace. We have gathered the nessecery measurements for building your own surround below.



PREPARATIONS

Before beginning the installation of an insert in an existing open fireplace, you must ensure that the existing chimney is smoke-tight. In this instruction, we describe typical installations of Keddy's fireplace inserts with this parameter fulfilled. Since existing open fireplaces vary in design, this should be considered as an installation guide and we will discuss two installation variants in the instructions.

Keddy's fireplace inserts are delivered as standard with a 45 degree angle connection sleeve. If you want to connect vertically or straight back, you need an angle sleeve (accessory). The installation guide begins on the next page. Alternative 1 is described first, followed by alternative 2.

INSTALLATION GUIDE ALT. 1

In order to follow installation guide 1 the assesorie ”installation kit” is needed. If you find that the insert is to heavy to transport to the installation site it is easy to disassemble the body from the front/ door section of the insert. This is described later in the manual.

1.Decide where the mineral woll sealing is to be pplaced in the chimney. If nessecery, clean the inside of the stove from soot or any loose mortar using a steelbrush.

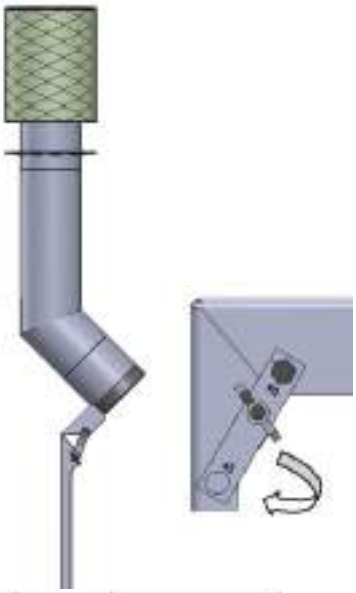
Measure the distance from the connection hole in the insert to the sealing point in the existing chimney.

Apply the mineral wool immediaetly under the top sleeve of the steel pipe with steelwire. Push the pressure ring on to the pipe so that it just makes contact with the mineral wool.

2. Assemble the pipes needed to reach the wool sealing point with heat resistant sealant to ensure no leaks in the joints.

In the case of a 45 degree smoke outlet (standard) adjust the support leg to 45 degree angle and screw it to the pipes 60 mm from the lower end of the pipes.

In case of a 90 degree smoke outlet (Accessory) adjust the support leg to 90 degrees and screw it in alignment with the underside of the pipes. Move the protection rod from the 45 degree smoke outlet to the 90 degree smoke outlet.

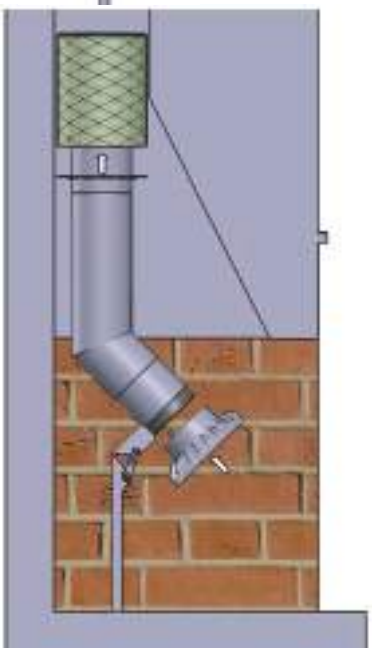


3. Use the supportleg to insert the pipes into the fireplace. Push the pressure ring upwards to expand the insulation against the chimney walls.

Ensure that the insulation seals tightly against the chimney walls to prevent heatloss through the chimney. If nessesary add mineral woll insulation achieve a tight seal.

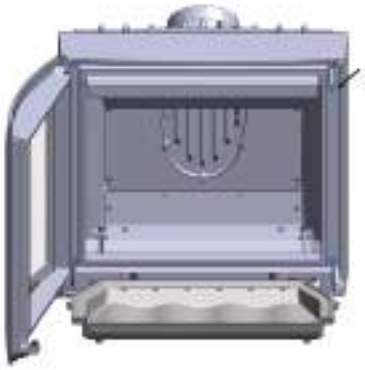
Important! Do not fix the pipes with putty or any kind of mortar as this can cause cracks to the chimney.

Apply the combustion air pipe to the steel pipes with sealent.



4. It is now time to assemble the insert.

Remove the box and the bottom plate from the firebox. If you want to disassemble the body and the front-door, open the door/doors max and unscrew the four bolts (see ill). Carefully pull the front towards you. (App weight of front and door mod 2001, 35 kg) **Important! The door/doors are not to be removed from the front.**

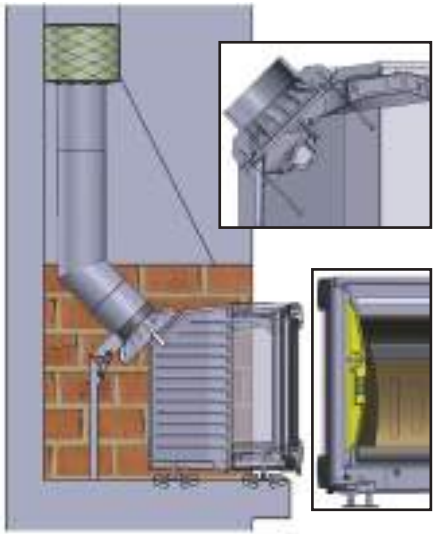


5. Put the insert in place (so that it touches the smoke oulet pipe) and adjust the insert to a level position with the adjustable feet. The rear two feet are adjusted inside the firebox and the two in the front are adjusted from below the insert.

Tip! Put a magnetic spirit-level on the grinded surface on the inside of the door. This is very important to enable the automatic closing and locking of the door.

Grab the smoke outlet pipe by the protective iron rod and pull it into position enabling you to fit the two screws.

Once again, check that the insert is level.



6.If nessesary assemble the front/door to the insert body. Be very careful to fit the screws firmly.

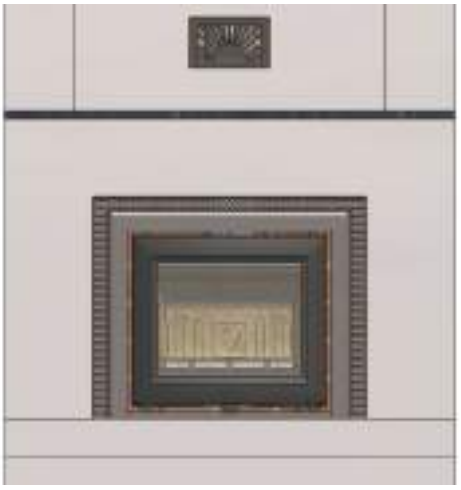
7. Fit the fireplace. Start with the bottom plate and the you assemble the vermiculite kit in the following order, 1. Back, 2. Rear Left, 3. Top, 4. Rear right (now you have to gently push the top piece upwards) 5. Forward left, 6. Forward right . The pieces must aligne with the inside sleeve on the bottom plate.

Finish the installation by placing the log stopper on the front of the bottom plate.

8. If the open fireplace is narrow you can improve the cirkulation by making a hole in the lintel of the open fireplace. This hole is accomplished with a powerdrill.

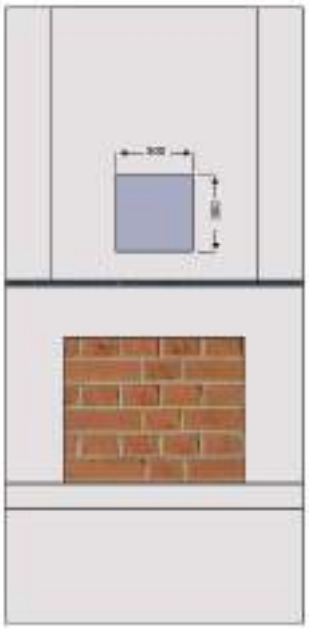
The hole can be decorated by a Keddy hot air grill. (Accessory)

If you want to cover the space between the insert and the original fireplace you can fit Keddys decorative frame for wall connection and guard. (Accessories)



INSTALLATION GUIDE ALT. 2

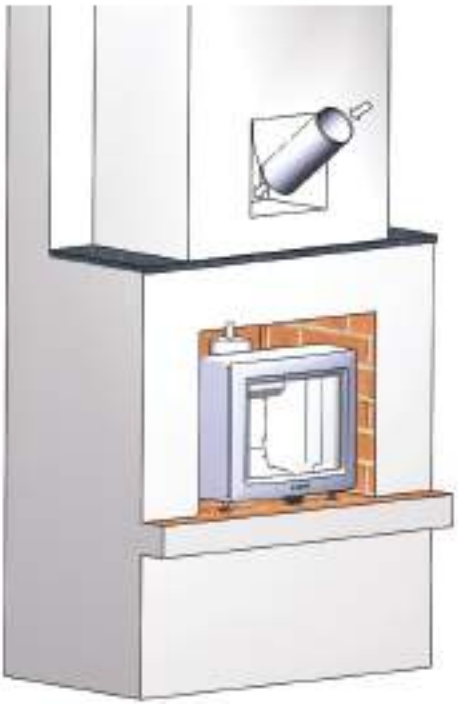
1. Make a hole in the existing lintel in such a way that you can insert the pipe and insulation. (approximately 300 x 300 mm)



2. Fix the smoke outlet pipe to the insert and adjust the insert to be level with the adjustable feet.

After this, assemble the flue pipe up to the point where you want to insulate it against the existing chimney with mineral wool. Ensure that the insulation seals tightly against the existing chimney and that it is level with the upper edge of the pipe so no "soot pockets" can be created to the side of the pipe.

Important! Do not fix the pipes with putty or any kind of mortar as this can cause cracks to the chimney.



3. Then follow the previous instructions from point 6 to point 8. Finish by sealing the wall, or alternatively reduce the hole to fit a hot air grating.

CARE & FIRING INSTRUCTIONS

Keddy's fireplace inserts have been tested by an approved Testing and Research Institute. They have extremely good environmental values and a useful efficiency of 80%. For the fireplace insert to work optimally, it is of key importance that you follow the care and firing instructions below. Non-compliance will invalidate the warranty.

FUEL

Keddy's fireplace inserts must be fired with firewood. 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 moisture content between 15% and 20%. If the firewood is moist, an unnecessary amount of energy is used boiling the water away before it starts burning normally. This also forms large amounts of soot and tar, which are deposited on the walls of the hearth and chimney, 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. Hardboard or chipboard) or pressure-impregnated wood. It is also forbidden to burn plastic and other waste in the insert. 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 FIREPLACE INSERT IS NEW

During the first week, firing can be started carefully. Begin with one or two fires a day with half of the following prescribed amount of wood.

A particular smell will occur during the first firings in the insert. This is the cast iron's paint and rust proofing hardening. Ventilate as required and ensure that there is good air exchange. The smell will normally disappear after a few fires.

FIRING

When you optimise firing manually, you should measure the amount of burned wood per hour. The fireplace insert is not intended for an output exceeding 9 or 10 kWh, 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 insert and chimney. Suitable firewood sizes and quantities for the fireplace insert are:

Kindling:

Length approx.	25-35 cm
Diameter approx.	2-5 cm

Split logs:

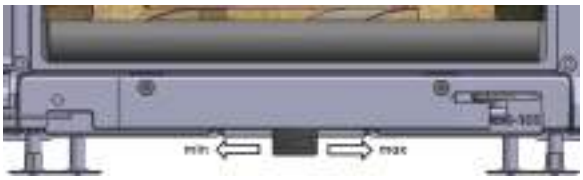
Length approx.	25-35 cm
Diameter approx.	6-10 cm

Amount (small model) approx. 1,5 kg per load
Max. amount (small model) approx. 2.7 kg per hour

Amount (large model) approx. 2.0 kg per load
Max. amount (large model) approx. 3.0 kg per hour

NOTE! Every load should burn down completely before you add new firewood. In which case, the insert works at its best and you avoid the inconvenience of possible blow back.

The damper is closed completely when it is turned to the left and is open to the maximum when it is turned to the right (see the illustration below).



The amount of air needed for burning for example 2 kg of wood in one hour depends on several parameters. The length of, and the draught in, your chimney, how hot the stove and chimney are, i.e. how long you have fired. The basic principle, however, is that the stove has to burn calmly and harmoniously and, for a hot stove, the damper control does not usually exceed 40% in order to achieve this with an output of 5-7 kW. (The damper control stands at 50% in the illustration above.)

As a rule of thumb, if you want to reduce the output, a load of 1,5 kg firewood should burn for 60 minutes. The insert will then be providing approx. 4 kW.

CARE & FIRING INSTRUCTIONS Cont...

Lighting a fire
1. Open the door using the fixed handle under the door frame. Lay kindling crosswise until you have a total quantity of wood of 1.5 kg (small insert) or 2,0 kg (large insert) (app 15 pieces). (See picture below).

2. Push the damper control as far to the right as it will go, place a couple of firelighters on top of the heap and light. In the majority of cases, you can close the hatch immediately after lighting.
(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.)

3. Let the first fire burn down with maximum air supply. This is 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 harmonious fire.
Note! The reason why we want to achieve the optimum operating temperature in the insert quickly is that it works most efficiently at this temperature. This minimises the emissions and maximises the heat generation.

SK1000/2000 are equipped with an innovative system for closing the door. When you put in firewood or take out ashes from the fireplace put the door gently in an 100-110 degree opening angle and the door will stay open. Give the door a gentle push back by the 100 degree angle and the door will automaticly close and lock itself in a secure position.

NOTE! For further information on firing in our fireplace insert, see the film "firing tips" on keddy.se.

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 may be such a large negative pressure in the building that it could be difficult to light the stove. We suggest that you 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, can be risky. In part, this increases the amount of soot and tar due to poor combustion, which could cause a chimney fire. It could also lead to small gas explosions, which may damage the insert. In addition to this, the smoke from the chimney will be unhealthy and cause inconvenience to your neighbours.

Depending on the weather conditions and the length and area of the chimney, among other things, you may also get smoke in the room when you open the door. In order to counteract this, open the door ajar and allow the hearth to stabilise in relation to the additional oxygen supply, and always wait before adding more wood until the old fire has burnt out.

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 firing plates should be removed during soot removal.

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 will damage the glass.

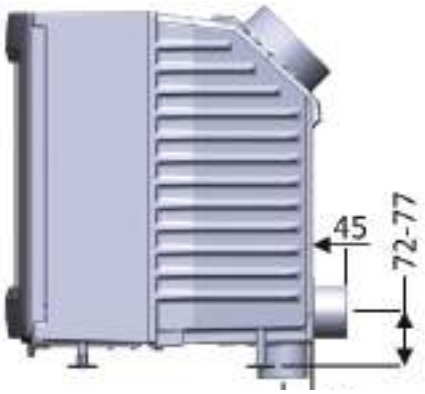
When emptying the insert, the ash should be placed in a sheet metal container. **Pay attention to the risk of fire when you throw out the ash, as the ash may contain live embers for a very long time!**

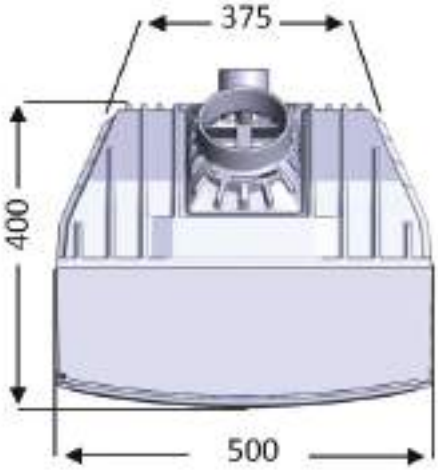
IMPORTANT! If there is a chimney fire, the stove door and the supply air control must be closed. If necessary, call the fire brigade. After a chimney fire, the chimney must be inspected and approved by a certified chimney sweep before the stove can be put into use again.

TECHNICAL SPECIFICATIONS

SK1000

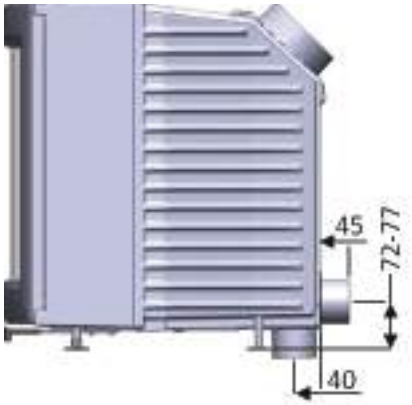
Height	470-475 mm
Width	500 mm
Depth	400 mm
Weight	100 kg
Flue pipe diameter	125 mm
Efficency	82%
Output	4-9 kw





SK2000

Height	535-540 mm
Width	600 mm
Depth	500 mm
Weight	125 kg
Flue pipe diameter	125 mm
Efficency	82%
Output	5-10 kw



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Svensk gjutjärnstradition.

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Rev. 1, 01/09/2013

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