

# KEDDY

## K700

Installation Instructions  
Care and firing instructions



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# GENERAL

Thank you for choosing our wood burning stove!

The K700 has a number of unique characteristics, for example:

- \* Easy to install.
- \* Unique combustion system for greater safety and the best protection of the environment
- \* Modern innovative design
- \* Cast iron combustion chamber for long service life

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

Quality approval

The K700 has been tested at a certified testing institute and meets the requirements in the Swedish Building Regulations and for CE Marking. The K700 is intended for use as a secondary heat source.

Manufacturer's declaration

The K700 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.**
- \* Remember to carefully follow the instructions for the distance to flammable structural units, see p. 4.
- \* 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 10-11.
- \* **WARNING!** Parts of the stove become very hot during operation and may cause burn injuries if they are touched. A glove is enclosed with the delivery, use this when handling door and damper.
- \* 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](http://www.keddy.se).

\* "The Clean Air Act 1993 and Smoke Control Areas"

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area Application Pack unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here : <https://www.gov.uk/smoke-control-area-rules>

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements"

"The Keddy SK1000, K1100 and K700 have been recommended as suitable for use in smoke control areas when burning wood logs and fitted with a mechanical stop to prevent air control closure beyond the 30% open position."

# PRECONDITIONS

## BUILDING NOTICE

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

## DISTANCE TO FLAMMABLE STRUCTURAL UNITS

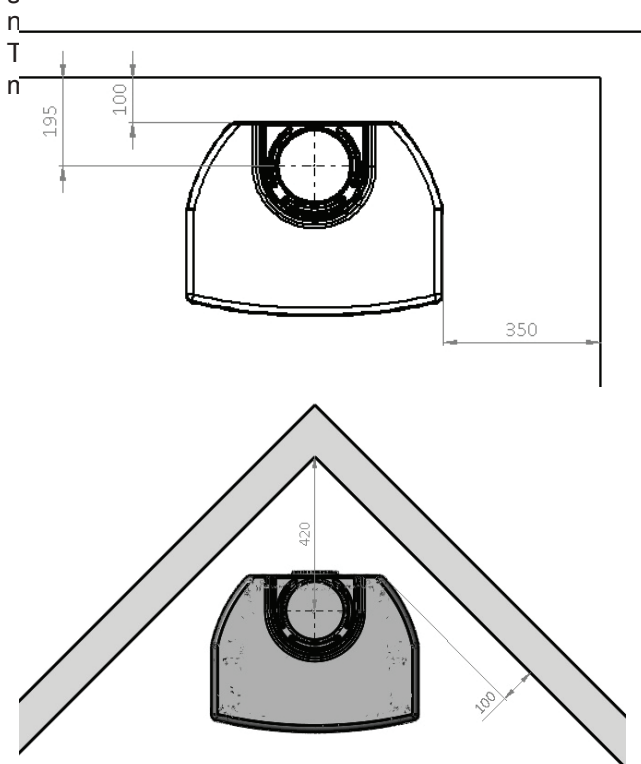
Before deciding where to place the stove, you must localise the beams in the ceiling and the roof in order to determine whether it is feasible to install a chimney in the desired place.

The K700 must be placed at a distance of 100 mm from flammable walls. To maintain the distance of 100 mm from flammable walls for top connected stoves, the chimney flue must be semi insulated. (For further info, see page 8, point 4.)

The distance from the side of the stove to a perpendicular wall must be at least 350 mm ventilated space. (See the illustration below).

For corner placement, the minimum distance to flammable walls is 100 mm. This is measured at an angle of 45 degrees from the rear corners of the stove. (See the illustration below).

The stove may be placed closer than the dimensions given above, if the wall is not flammable, however.



## LOAD-BEARING SURFACE

Check that the floor joists have sufficient load-bearing capacity. The stove and the chimney can normally be placed on an ordinary timber joist floor, if their total weight does not exceed 400 kg.

## FLOOR PLATE

A floor plate must be set in place to protect the floor from flying embers. The floor plate must extend at least 300 mm in front of the door. The width of the floor plate must be at least the width of the hearth plus 100 mm on each side.

The floor plate can consist of natural stone, concrete, clinker tiles or 0.7-mm steel plate.

Naturally, you can use Keddy's own floor plate or floor glass. These are installed after completing the installation of the stove.

## OUTDOOR AIR SUPPLY

For the combustion of wood air/supply air is required. The K700 can be provided with an external air supply, which is recommended for properties with mechanical ventilation, see also under the heading "Good to know" on page 10.

A sheet metal drum is used for drawing an outdoor air duct. The connection diameter of the supply air hose 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. The drum can be connected from below or from the rear, see the illustration on page 5. (A stove's maximum need for combustion air is approx. 20 m<sup>3</sup>/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.

## FLUE

The K700 must be connected to a flue approved for at least 350°C. As the area, length and material of the flue are of great importance for the draught formed in the flue, it is important the flue is not under-dimensioned.

The minimum recommended chimney length is 3500 mm, measured from the top of the stove, and the suitable area is 115-175 cm<sup>2</sup> (approx. 125mm in diameter).

The K700 is also approved for connection to older masonry chimneys with enclosing walls that are only half a brick thick.

Naturally, the K700 can also be connected to chimneys made of prefabricated elements, e.g. the Heda Chimney.

## CHIMNEY CONNECTIONS

The illustration on page 11 shows the distance from the rear edge of the stove to the centre of the chimney. If you add the distance to the wall, you obtain the position of the flue in relation to the wall. There is an illustration on page 6 for connection to an existing flue.

Read the chimney's installation instructions before starting on the preparations for the chimney and its connection.

# PREPARATIONS

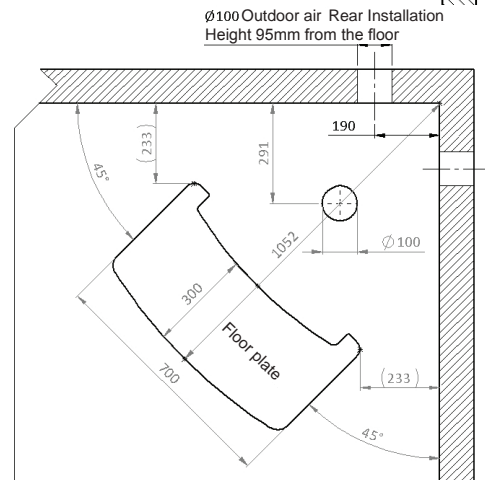
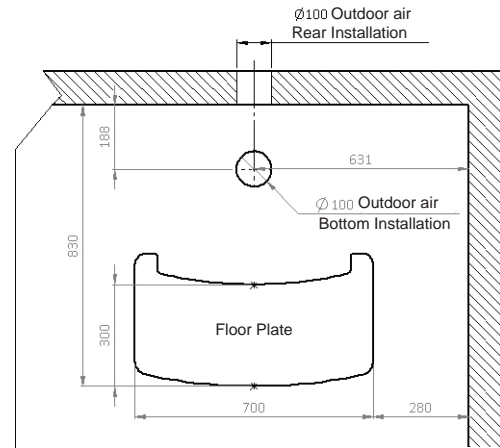
## 1. FLOOR PLATE AND OUTDOOR AIR CONNECTION

Arrange the floor plate according to the instructions on page 4 under the heading Floor plate. If you choose to make your own floor plate, the minimum dimensions stated in the above-mentioned point must be followed at all times.

The illustrations to the right show the dimensions of the ready-made floor plate, which is available as an accessory.

If a connection to the outdoor air is required, a sheet metal drum must be installed according to one of the alternatives illustrated, either below or through the rear wall.

**Please note that** all dimensions are given presuming the stove is placed at the minimum permitted distance from flammable structural units.



## 2. FLUE CONNECTION

There are two alternatives for connecting the flue.

Alternative 1: Rear installation

Alternative 2: Top installation

Height from the floor to the centre of the flue at the rear: 665 mm

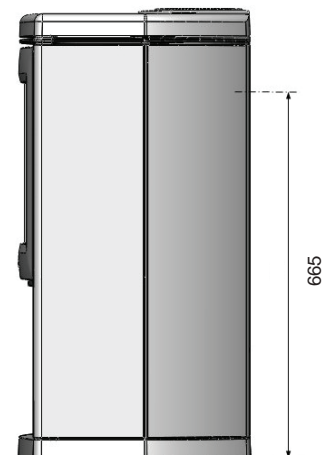
Height from the floor to the height of the connection top: 820 mm

Outer diam. of the rear/top sleeve connection:  $\varnothing 125$

For so-called top connection of the chimney, this has to be done after the stove has been installed. We will return to this at the end of the Installation instructions on p. 9.

For so-called rear connection of the stove, this has to be prepared before the stove is put into place. Note that side routing and long horizontal routing affect the draught negatively. For satisfactory function with a chimney pot of 3.5 m, the length of the horizontal flue may not exceed 0.5 m.

There are many different requirements and variants for the rear connection of stoves. We have chosen to show two different examples, A and B, on the next page.



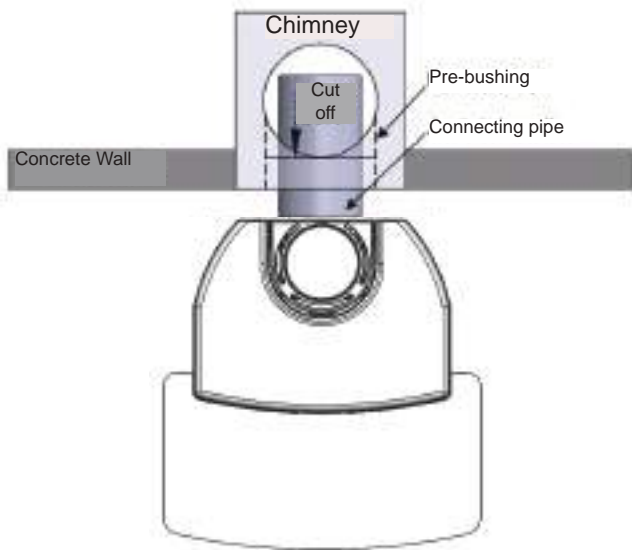
## EXAMPLE A

### Rear connection directly into a chimneybreast or a masonry chimney, e.g. a Heda Chimney.

Mark the centre for the hole in the wall for the flue. Check that the height agrees with the stove's connection height. Make a hole with a diameter of approx. 180 mm using a drill and a chisel.

Install a pre-bushing of approx.  $\varnothing 160$  (not included) using heat-resistant mortar. The connecting pipe (not included) is measured and cut, so the end of the pipe ends at the level of the chimney's flue after it is installed.

When the stove is installed, the pipe has to be connected to the stove's connection sleeve using a sealant and tightly caulked with oakum or mineral wool between the flue and the pre-bushing. **NOTE! Brick-ing the pipe into the chimney is not allowed.**



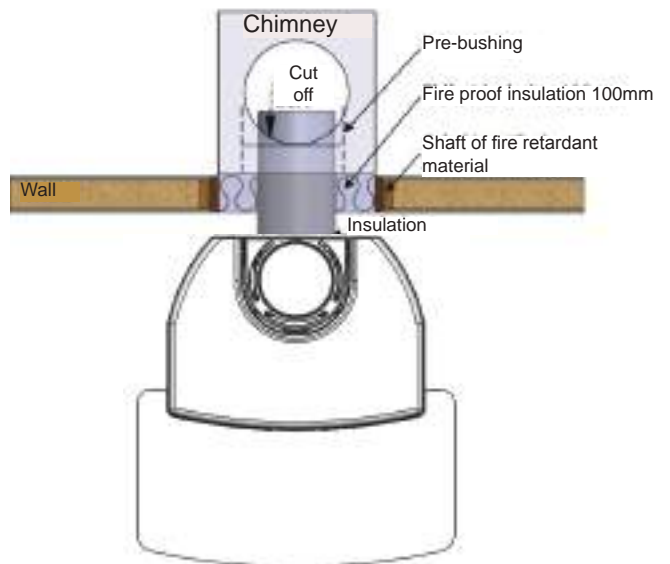
## EXAMPLE B

### Rear connection through a flammable wall

The connection is made in the same way as in example A, with the exception that the connecting pipe passes through a flammable wall.

The flammable wall therefore, must be furnished with a shaft with fire retardant lining (Masterboard, Minerit or equivalent) and be insulated with at least 100-mm-thick fireproof insulation around the connection pipe. Thus, there must not be any flammable material closer than 100 mm from the flue.

If the outer diameter of the flue is  $\varnothing 128$  mm, the shaft must be at least 328 mm x 328 mm.



## 3. UNPACKING

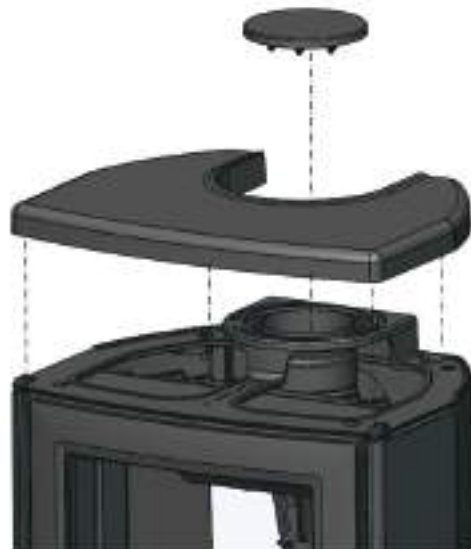
The K700 is delivered on a pallet broken down into the following parts:

Stove completely assembled	1x
Hearth plates, glove etc. (Box in hearth)	1x
Sleeve connector	1x
Cover plate	1x

(Not used with top connection or the hotplate accessory)

The stove is secured on the pallet via a fixing plate in the base. If you want, some parts of the stove can be dismantled to make installation easier. The procedure for this is described in the following steps.

1. Remove the cast iron/soapstone top



2. To dismantle the front/door, start by unscrewing the two front bolts that secure the inner roof to the cassette front. After this, loosen the centre screw at the centre of the inner roof's front edge.

Then open the door fully. Unscrew the four bolts in each corner.

After this, carefully pull the front towards you until it comes free from the two guide rails. Carefully put the front to one side, to avoid damage to the opening handle. The front and door weigh approx. 35 kg.



## INSTALLATION INSTRUCTIONS

Before starting on the installation of the stove, the following steps need to be fully completed:

### The chimney:

- Alternative 1 An existing chimney prepared for rear connection
- Alternative 2 A newly installed chimney prepared for rear connection
- Alternative 3 Preparation for a new top connection chimney

### Outdoor air supply (if so required)

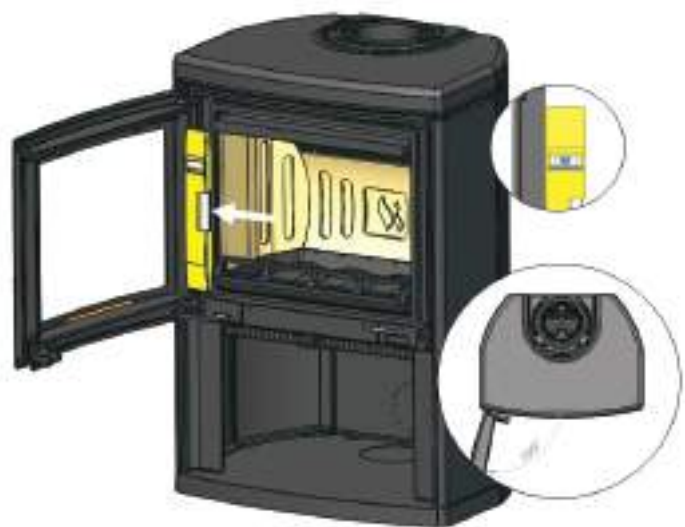
### Hearth floor plate (unless a floor plate or floor glass is to be installed afterwards)

1. Move the stove indoors and put it into position. Adjust the stove horizontally and vertically using the feet under the base by the floor.

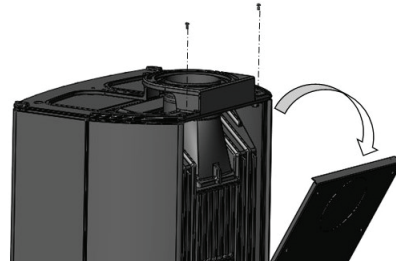
A suitable place to check horizontally and vertically with the help of a spirit level is on the hearth's sealing plate.

**Tip!** The stove is vertical and horizontal when the door stays open at an opening angle greater than 90-95 degrees and when it closes automatically at an opening angle less than 85-90 degrees.

Where applicable, connect outdoor air to the hearth.



2. If the stove is to be connected at the rear, the back plate has to be removed by loosening the two Torx screws on the top.



Then, loosen the flue connection using the two bolts inside the hearth. After this, turn the connection round and reassemble it again.

3. Dismantle the internal protective plate that sits on the inside of the back plate by pushing it up. (For rear connection, this plate must not be replaced.) Remove the thrust washer on the back plate by turning it backwards and forwards and then reinstall the back plate. Then, connect the stove connection to the flue (not included in the delivery) that connects to the chimney. Place the cover plate on the top of the stove to hide the chimney hole or, alternatively, a turned hotplate, (accessory). In which case, the cover plate is surplus to requirements.



4. If the chimney is to be installed on top, the chimney must be installed now. Connect the start module using sealant. Make sure that the joint is sealed.

**NOTE! Always leave at least 10 mm of ventilated space between the top of the stove and the chimney's insulation/outer steel jacket. (see illustration)**



The first section of the chimney is normally half-insulated (approx. 30-mm insulation). However, where it passes through the joists, the chimney becomes fully insulated (approx. 60 mm of insulation). To maintain the distance of 100 mm from flammable walls, the chimney flue must be semi insulated. For additional information about the installation of the chimney, please, refer to the installation instructions for the brand of chimney you have selected.

5. Install the hearth fittings. Begin with the hearth base and then install the vermiculite plates in the following order: 1. Back, 2. Rear left, 3. Baffle, 4. Rear right (now you need to push up the baffle), 5. Front left, 6. Front right. The hearth plates should line up with the inside of the flange on the hearth base.



Finish by installing the enclosed log guard by hooking it firmly to the front edge of the hearth base.

**You have now made your stove ready for use. In order for the sealant to harden properly, you must leave the stove for at least three days before firing it for the first time.**



# CARE & FIRING INSTRUCTIONS

Keddy's K700 has been tested by a certified testing institute. It has extremely good environmental values and a useful efficiency exceeding 80%. For the stove to work optimally, it is of key importance that you follow the care and firing instructions below. Non-compliance will invalidate the warranty.

## FUEL

The K700 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 moisture content of 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 STOVE IS NEW

During the first week, firing can be started carefully. Start with one to two fires during the first couple of days.

A particular smell will occur during the first firings in the stove. 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 stove is not intended for an output exceeding 9 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 and an output of excess smoke. Suitable firewood size and quantity for the K700 are:

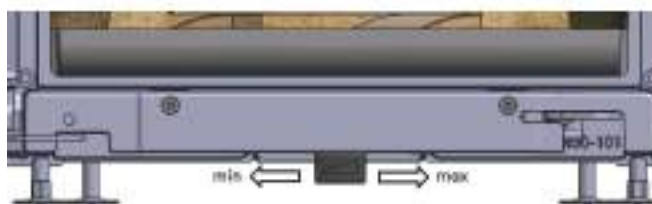
Kindling:	
Length	approx. 25-35 cm
Diameter	approx. 2-5 cm

Split logs:	
Length	approx. 25-35 cm
Diameter	approx. 6-10 cm

Amount	approx. 1.5 kg per load
Max. amount	approx. 2.7 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 30-40% in order to achieve this at 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 about 60 minutes. The stove will then provide approx. 4 kW.

## CARE & FIRING INSTRUCTIONS Cont...

### Lighting a fire

1. Open the door by pulling on the fixed handle under the door edge. Then, lay kindling crosswise until you have an approx. total quantity of wood of 1.5 kg. (Approx. 15 pieces of kindling) (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 couple of 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 and close the door. 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 stove quickly is that it works with the best efficiency at this temperature. This minimises the emissions and maximises the heat generation.**

The K700 is equipped with an innovative self-closing and self-locking door. When putting firewood in or removing ash, carefully place the door at 90 to 95 degrees opening angle, so the door will stay open. Give the door a light push, back past the 90 degrees position, and the door closes automatically and locks.

**NOTE! For further information on firing in our stove, see the film "firing tips" on [keddy.se](http://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 place a firelighter on the baffle and light it. 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.

If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in the instructions.

Operation with the air controls or appliance dampers open can cause excess smoke. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in the instructions.

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 vermiculite baffle 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 stove, 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.

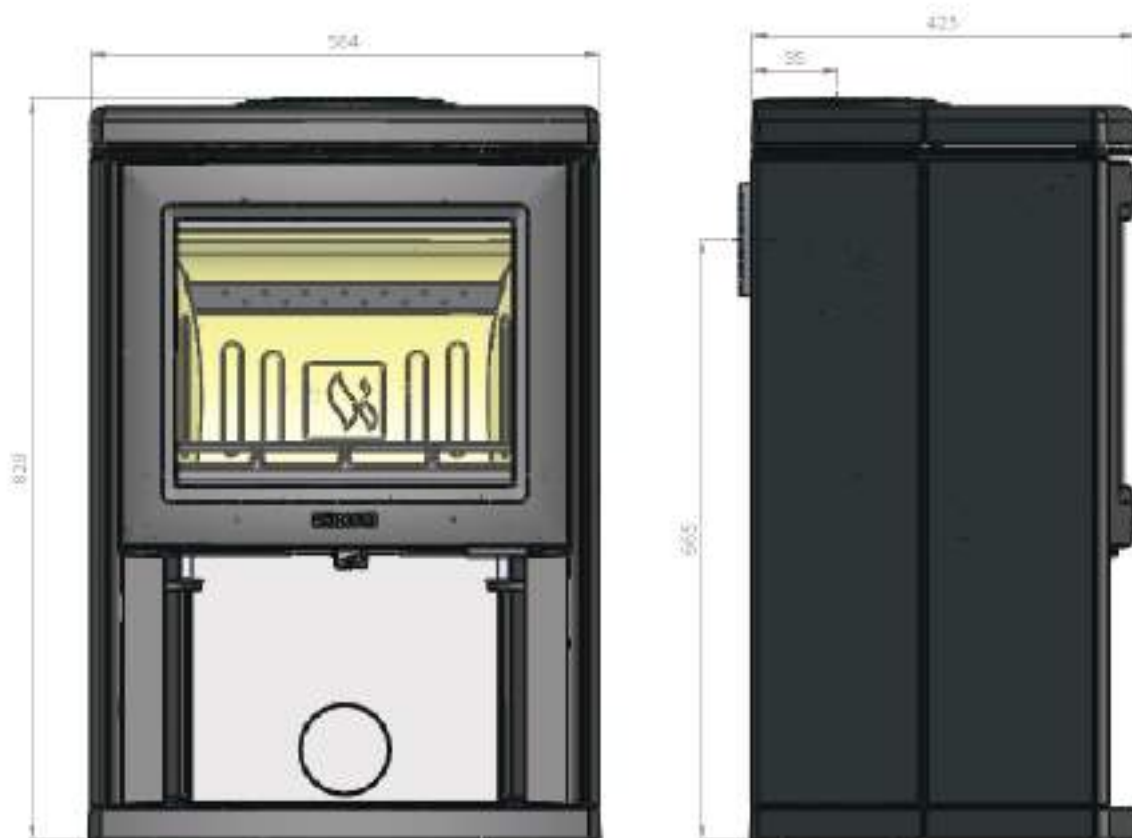
### PACKAGING

The stove is delivered on an untreated wooden pallet, which can be sorted as combustible material or burned in the insert. Other packaging is corrugated paper or paperboard, which should be sorted and disposed of in the intended container at your nearest recycling centre.

# K700 TECHNICAL SPECIFICATION

## DIMENSIONS AND PERFORMANCE

Height	820 mm
Width	564 mm
Depth	425 mm
Weight	170 kg
Height, centre rear connection	665 mm
Height, top connection	820 mm
Outer dimensions: connection sleeve	Ø125 mm
Useful efficiency	80 %
Rated output	6 kW
Output	4-9 kW





[www.keddy.se](http://www.keddy.se)