# Installation/Lighting INSTRUCTIONS



C 51L





# **EC** Declaration of conformity



MANUFACTURER

NIBE AB/Contura Name

Address Box 134, Skulptörvägen 10, SE-285 23 Markaryd

0,13%

Place of manufacture Markaryd, Sweden

**PRODUCT** 

Product type Stove fired by solid fuel

Type designation Contura SS-EN 13240 Standard

Intended for use Heating of living accommodation

**Fuels** Wood logs Special conditions None

**CE-MARKING** Contura 51L **Issued** 2006 5 kW Nominal output Fuel type Wood logs Flue gas temperature 275° C **Energy efficiency** 79%

**Appendix** 

Emission of CO

Lighting and installation instructions

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Business area manager NIBE STOVES



### Manufacturer's assurance

The stove is approved by the Swedish National Testing and Research Institute, SP SITAC and fulfils the applicable rules for CE marking. Manufacture of the product has taken place in accordance with those documents that are the basis for the relevant type approval certification and the required manufacturing checks.



## Contura 51L is a Swan marked wood burning stove.

NIBE was the first stove manufacturer in Sweden to commit to Swan marking stoves. The Swan mark is one aspect of our vision to be a company of the future, setting high quality standards regarding the environment. Certification number 378-001.

# A warm welcome to Contura.

A warm welcome to the Contura family. We hope you will get a great deal of pleasure from your new stove. As a new owner of a Contura stove you have secured a product with timeless design and long service life. Contura also has combustion that is both environmentally friendly and efficient for the best heat production.

Read through these installation instructions carefully before installation. Read how to best light your stove in the lighting instructions.

## Table of contents

General	2
Installation distance to walls and ceiling	5
Removing the loose components	6
Adjusting and connecting H51L	8
Connection to the chimney	9
Lighting Instructions	10

# NOTE!

# Report the installation of a stove to your local authority.

The owner of the house is personally responsible for ensuring compliance with the mandatory safety requirements and must have the installation approved by a qualified inspector. Your local chimney sweep must also be informed about the installation as this will affect the routines for regular chimney-sweeping services.

# **WARNING!**

# The stove becomes very hot

During operation, certain surfaces of the stove become very hot and can cause burn injury if touched. Be aware of the strong heat radiated through the hatch glass. Placing flammable material closer than the safe distance indicated may cause a fire. Pyre lighting can cause quick gas ignition with the risk of damage to property and personal injury.

# General

This manual contains instructions about how Contura 51L must be assembled and installed.

To guarantee the function and safety of the stove we recommend that it is installed by a professional. Our Contura agents can recommend a suitable installer.

The stove is type approved and must be connected to a chimney dimensioned for at least  $350^{\circ}$ C, The connector on the stove is suitable for pipes with an inner diameter of Ø150 mm and an outer diameter of maximum Ø154 mm. The room or space containing a stove shall have a permanent air supply sufficent to ensure proper combustion, to determine correct amount of air supply use current edition of Building Regulations.

# Technical data

Output	4 kW
Nominal output	5 kW
Efficiency level	79%

Model	C51L
Weight (kg)	124
Width (mm)	495
Depth (mm)	420
Height (mm)	630

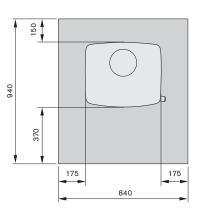
The connector's inner diameter is Ø154 mm
Type approved in accordance with:
European standard EN-13240
Swedish environmental and quality marking,
Swan marked No 378 001 and
P-marking cert. no. 22 03 16
(N) NS 3059, Cert.nr SINTEF 110-0257
(DE/A) DINplus, Art. 15a B-VG RRF-40 07 1261

# DEFRA exempted

The stove can be used in Smoke Control Areas. Smouldering, i.e. reduced air supply, are prevented by blocking the combustion damper of 4 kW output.

# Building application

Before installing a stove or erecting a chimney it is necessary for you to apply for planning permission from your local authority. Ask your local authority for advice regarding building regulations and the application.



## Hearth dimensions

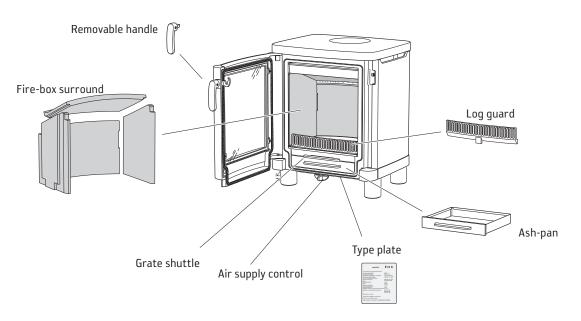
The stove must be placed on a constructional heart with the minimum dimensions shown beside, installations distances must also be according to diagrams on next page. Check that the building has enough bearing capacity for the heart, stove and chimney. The stove can be loaded with maximum 100 kg of chimney.

# Chimney

**Note!** The stove installation and connection to a chimney must be accomplished with the current edition of Building Regulations. We recommend that you consult a local chimney sweep before the installation to make sure that the chimney is in good condition.

The stove requires a draught in the chimney of at least –12 Pa. The draught is affected both by the length and area of the chimney, and by how well sealed it is. Minimum recommended chimney length is 3.5 m and a suitable cross section area is 150-200 cm² (140-160 mm in diameter). Carefully check that the chimney is sealed and that there is no leakage around soot hatches and flue connections.

Note that a flue with sharp bends and horizontal routing reduces the draught in the chimney. Maximum horizontal flue is 1 m, on the condition that the vertical flue length is at least 5 m. It must be possible to sweep the full length of the flue and the soot hatches must be easily accessible.

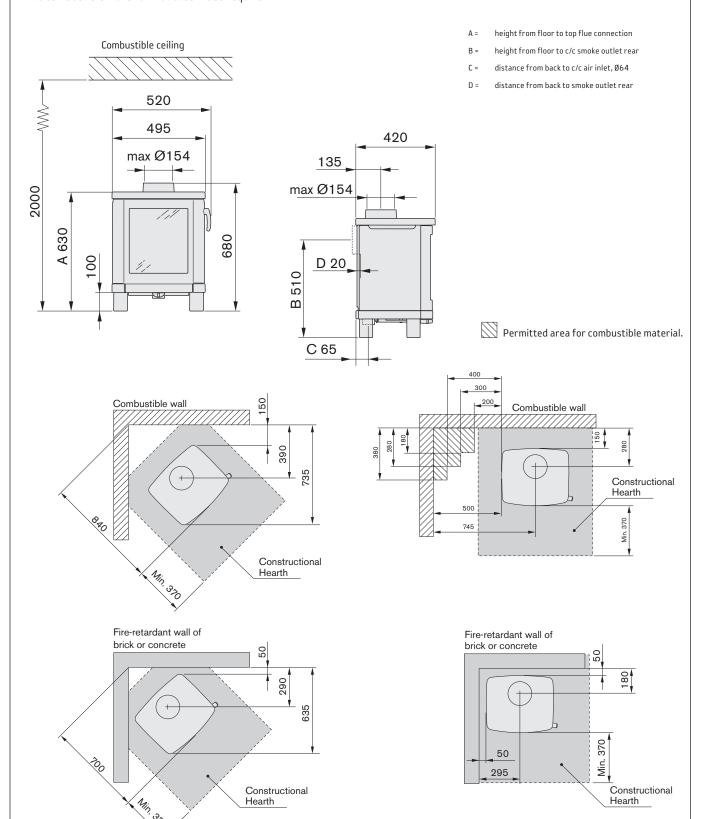


# Installation distance to walls and ceiling

C511

Move the stove in position and check that the installation distances given in the diagrams are met. The minimum distance between the stove opening and combustible parts of the building or décor must be at least 1 m.

When top connecting a steel flue please refer to the relevant manufacturer's installation instructions. Observe the safety distances to combustible material that steel flues require.

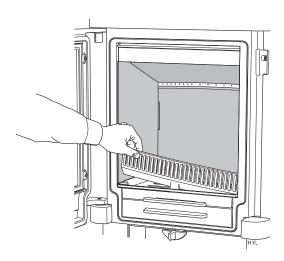


# 6

# Removing the loose components

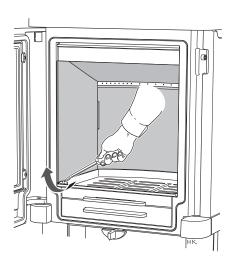
# Fire bars

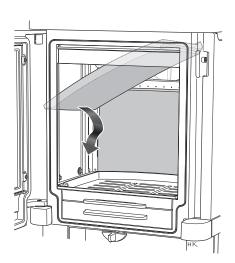
Lift the fire bars straight up, clean the ash from the guide groove in the stove base plate before repositioning it in position.

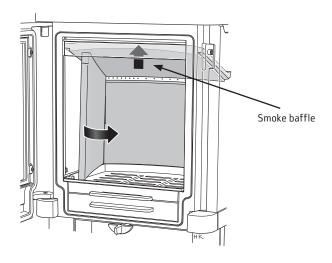


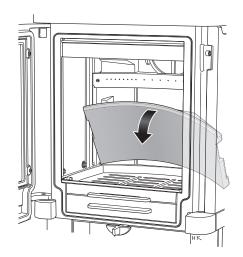
# Fire box surround

When sweeping, the smoke baffle must be lifted out, this can be done when one side has been dismantled.





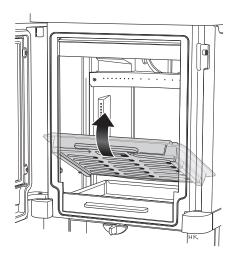


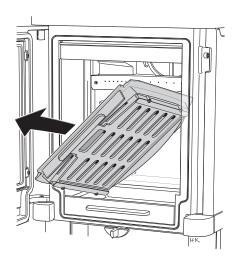


# Removing the loose components

# Stove base plate

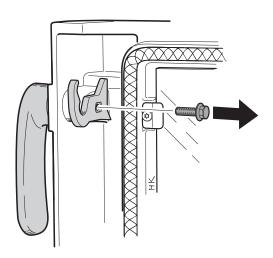
The stove base plate is lifted out when all the cladding has been removed.

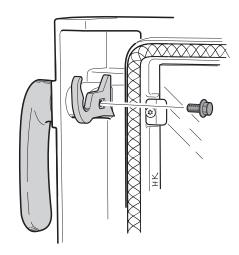




# Fixed or removable handle

The stove handle is fitted on delivery. To make the handle removable, replace the screw for the lock hook with the shorter screw supplied.



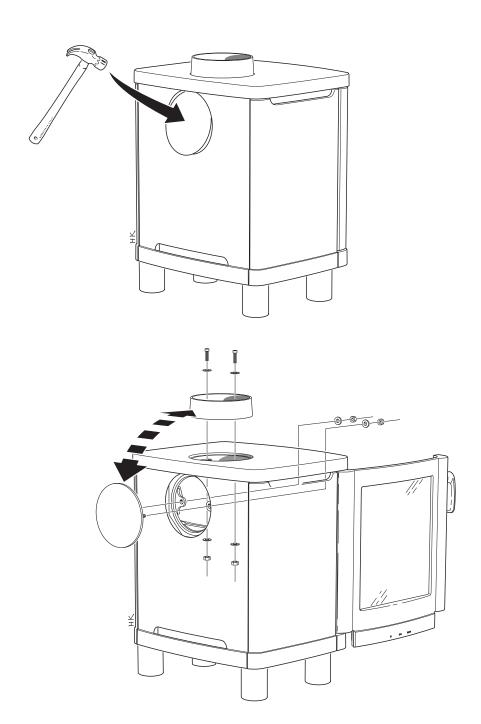


# Adjusting and connecting

# Preparations before rear connection

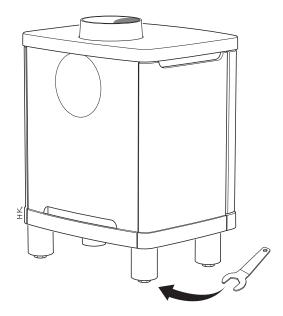
The stove is prepared for top connection on delivery. When connecting from the rear, the cover and connection must be swapped around.

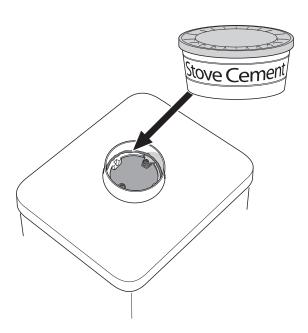
- Dismantle the cladding as instructed previously, see page 6-7.
- Tap out the knock out in the stove's back panel, remember to protect the floor.
- Then unscrew both the connector and the cover.
- Switch places and reinstall the screws.



# Adjusting the stove

- Position the stove on the hearth plate.
- Adjust the height of the four adjustable feet until the stove is horizontal.

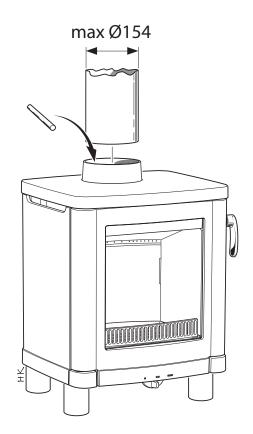




After the stove has been adjusted and positioned according to the installation distances, connection to the chimney is carried out.

Put stove cement inside the flue connection and press the start pipe into the connection.

Continue the chimney installation according to the chimney installation instructions.



# LIGHTING IN THE RIGHT WAY

It is important that the correct amount of wood is used, especially when lighting. If you are lighting the fire for the first time you should use a set of scales to see how much 2 kg kindling is. Also check what the normal and maximum weights look like.

The tiled stove is only intended for use with the door closed and it is only then that the hot air flushing of the glass surfaces occurs. Always open the door carefully and slowly to prevent blow back because of the changing pressure in the stove.

The function of stoves differs depending on the draught conditions in the chimney. Achieving the correct setting for the combustion air damper usually takes a few attempts.

In order to obtain a good bed of embers, there should always be a thin layer of ash and charred pieces in the tiled stove.

# LIGHTING FOR THE FIRST TIME

The first time that the stove is lit, lighting should be terminated after the initial fire has caught. This is so that the cement that is used as sealant is able to harden. After that the stove can be used according to the instructions below with lighting and log feeding.

# Correctly sized wood

Note that if too little kindling is used when lighting, or if the wood is too thickly cut, the fire box will not reach the correct operating temperature. Incorrect lighting can lead to poor combustion with heavy sooting and may result in the fire going out when the door is shut.

Kindling wood: Finely chopped wood

Length: 25-35 cm Diameter: 3-4 cm

Weight per lighting: 2.0 kg (approx. 10 - 12 finely chopped pieces)

Feeding Wood: Chopped wood

Length: 25-35 cm Diameter: 6-7 cm

Normal weight: 1.5 kg/hour

Max weight: 2.2 kg/hour (2-3 logs per load)

# Lighting

If your house has mechanical exhaust air ventilation you will need to open a window near the stove before lighting the fire. Leave the window open for a few minutes until the fire has caught.

- 1. Open the controls for the combustion air fully.
- Place some newspaper or a fire lighter block, and approximately
   kg kindling in the middle of the stove. The wood should be piled alternately across and lengthways.



- 3. Light the fire.
- 4. The hatch is set to the lighting position, that is the lower locking hook must be hooked securely around the lock reel. When the fire has caught fully after approx 10-15 minutes, close the doors completely (see figures to right). The first load of logs should not be put on until the start up fire has become a glowing bed of embers.

# Wood loading

- 1. Open the door handle slightly and let the vacuum in the firebox equalise for a few seconds before opening the door completely.
- 2. Add 2-3 logs of a combined weight of approx 1.5-2.2 kg. One log is placed diagonally and one or two logs are placed parallel to the back, see illustration to the right. Then close the door.



- 3. The combustion damper must be completely open for 3-5 minutes until the logs turn black and catch fire. If you wish for slower combustion, the supply of combustion air can now be reduced. The conditions for controlling combustion vary depending on the temperature in the stove and the draft in the chimney.
- 4. The lowest output of 4 kW is usually obtained when the combustion damper is 30% open and two logs are lit. In this operating mode it is important that the combustion air damper is fully open for the first 3-5 minutes so that the wood has the chance to ignite fully before the supply of combustion air is reduced. A condition of being able to control the heat output is a thick bed of embers and a high temperature in the firebox. When the fire has burnt down to embers is the time to add more wood.

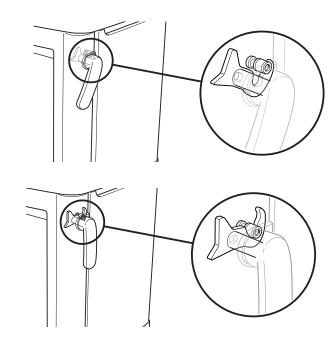
### **DEFRA** exempted

The stove can be used in Smoke Control Areas. Smouldering, i.e. reduced air supply, are prevented by blocking the combustion damper of  $4\,\mathrm{kW}$  output.



# QUICK LIGHTING

It is important that the wood catches fire quickly. Quick lighting is achieved by opening the combustion air damper fully or by leaving the door in the lighting position for a moment. Smouldering, i.e. reduced.



# CHOICE OF FUEL

All sorts of logs, such as birch, beech, oak, elm, ash, conifers and fruit trees can be used as fuel in the stove. Different types of wood have different density, the higher the density the higher the energy value. Oak, beech and birch have the highest density.

# The wood's moisture content

Fresh wood is about 50 per cent water. Some of the water circulates freely between the

fibres and some of the water is bound in the cells. The wood must always be dried so that the free water evaporates. The timber is ready for use when the moisture content has fallen below 20 %. If wood with a higher moisture content is lit, a large part of the energy content of the wood is used boiling off the water. If the wood is damp, the combustion is also poor, layers of soot and tar



build up in the chimney and could, at worst, lead to a chimney fire. In addition, it causes the glass of the tiled stove to soot and may cause discomfort to those living nearby.

To ensure thoroughly dry wood, the wood should be cut in the winter and stored, well aired, under a roof. Never cover the wood pile with a tarpaulin to the ground. The tarpaulin will then act as a sealed cover and the wood will be prevented from drying. Always store a small amount of wood indoors for several days before use, so that the surface moisture has time to evaporate.

# You must NOT burn the following

Under no circumstances may pressure impregnated wood, painted or glued wood, chipboard, plastic or colour brochures be used as fuel. All these materials can create hydrochloric acid and heavy metals that are damaging both to the environment and the stove. Hydrochloric acid can also attack the steel in the chimney or the mortar in a stone built chimney.

# STOVE MAINTENANCE

The glass may be come sooty with use, even if the fire is lit with dry wood with a moisture content of 15-20%. Wiping with dry paper is often sufficient when cleaning regularly. If the soot has been on the glass for longer it can be removed using cleaning agent or a specific soot removal agent. These cleaning agents can be purchased at your local supermarket or your local stove dealer.

Never use cleaning agents that contain any abrasives, these can damage the class.

Ensure that no embers remain when removing ash from the stove. The ash must be stored in a fireproof container with a lid for for at least a week before being disposed of.

Soapstone can be cleaned using washing-up liquid or wiped with pure acetone. Do not place flammable objects or candles on the soapstone.

The grate and other cast iron components can be cleaned using a wirebrush

It is important that the gaskets are checked from a combustion point of view, because worn gaskets reduce combustion because the stove draws additional air.

Painted parts of the stove can be cleaned with a damp cloth and, if necessary, a little washing-up liquid. Damage, such as scratches, to painted parts can be repaired using Contura touch up paint. Contact your dealer.

Because there is a constant flow of air though the stove, cold room air is drawn in and hot air released, dust can gather behind and under the stove. Therefore, one should regularly clean under and behind the stove.

# AVOID TOO LARGE A FIRE

The fire should not be too big. Large fires are uneconomic and also produce high smoke temperatures that can damage the stove and the chimney. The recommended amount of wood is 1.5 kg/hour and the maximum permitted is 2.2 kg/hour and then refers to burning split birch or other broadleaf wood

with 18% moisture content. When lighting the same weight of conifer wood, significantly higher stove temperatures are reached. Maximum fire for long periods reduces the life of the stove and exceeding the permitted wood amounts can lead to damage to parts of the stove and the warranty being invalidated.





# WHAT DOES THE SWAN MARK MEAN?

- A Swan marked stove affects the environment considerably less than other stoves.
- A Swan marked stove has proven efficient combustion and the whole production process from raw material to waste is taken into consideration.
- The Swan mark places stringent requirements on, among other things, the efficiency and emissions of particles, hydrocarbons and carbon monoxide.
- A fire in an environmentally adapted stove with high efficiency also means lower wood consumption to heat the home.
- The Swan mark makes it easy for you to be part of building a sustainable future.

# POSSIBLE CAUSES OF OPERATIONAL INTERFERENCE AND HOW TO RECTIFY THEM

Poor draught in the stove after new installation

- Check the length of the chimney so that it meets NIBE's recommendations, that is a total length of at least 3.5 metres.
- Check that there is nothing in the chimney to restrict the smoke and that no nearby buildings or trees affect the winds around the chimney.
- Check the area of the chimney (applies to existing stone built chimneys), which should be 150-200 cm<sup>2</sup>.

It is difficult to light the fire and the fire dies after a short time

- The wood may not be dry enough, check the wood.
- Another reason is that there may be negative pressure in the house, for example when using a kitchen extractor fan or other mechanical ventilation. Open a window near the stove before lighting the fire. Also try lighting some newspaper and holding it up inside the stove to get the draft going.
- The air supply duct from the outside may be completely or partially blocked. Disconnect the hose and try lighting the fire with combustion air from the room
- · Perhaps the combustion air damper is not open.
- The smoke outlet of the stove may be blocked with soot, which can occur after sweeping. Lift the smoke baffle out and check.
- Finally go through the lighting instructions again. Perhaps
  the amount of kindling was too small and therefore the base
  embers were too weak and cold to light the next load of wood.

- The wood is damp, which causes poor combustion and generates a lot of smoke as a result.
- Too low temperature in the firebox, which causes incomplete combustion and poor draught in the chimney.
- Incorrect procedure, the door was not in the lighting position for approximately 15 minutes.

Check the moisture content of the wood, ensure that you have good base embers and go through the lighting instructions once again.

Smoke odour around the stove for periods

This can occur when wind blows down the chimney and most often occurs when the wind is from a particular direction. Another cause is the door was opened when it is burning hard.

### Painted parts have become discoloured

If painted parts have discoloured it is due to an excessive temperature in the stove. The reason for the excessive temperature can be that the maximum amount of wood has been used, inappropriate fuel has been used (for example building waste, large quantities of finely chopped off cuts). The warranty does not cover damage of this type.

If a problem occurs that you cannot rectify yourself, contact the dealer or a chimney sweep.

We hope that these words of advice will help you to enjoy pleasant, economic and problem free use of your Contura stove.

## WHEN THE STOVE IS NEW

When the stove is new, a particular smell may be detected, which indicates an oil coating and excess paint on the panels.

After a number of fires the smell will disappear. A particular lingering smell may occur after some use. The smell comes from the insulation in the chimney. This can be relieved by burning wood at 2.2 kg/hour for a period of 5-8 hours.

### **SWFFPING**

Sweeping the chimney ducts and chimney connections should be carried out by a chimney sweep. The stove can be scraped down and/or swept. A soot vacuum cleaner is most appropriate however.

If a chimney fire occurs or is suspected, the combustion damper and the door must be closed. If necessary, contact the fire brigade to extinguish it. The chimney must always be inspected by a chimney sweep after a chimney fire.

# Warning

- During operation, certain surfaces of the stove become very hot and can cause burn injury if touched.
- Be aware of the strong heat radiated through the hatch glass.
- Placing flammable material closer than the safe distance indicated may cause a fire.
- Pyre lighting can cause quick gas ignition with the risk of damage to property and personal injury.



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Contura reserves the right to change colours, materials, dimensions and models at any time without special notice. Your dealer can give you the most up to date information. Stoves shown in brochures may have optional extras.