

ENGLISH



ILD 12 ECO and ILD 13 ECO

EN 13240 - NS 3058/3059

Manual

VERSION NO. 4, 22.02.2024



**Model ILD 12 ECO and ILD 13 ECO**



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ILD is a range of safe, environmentally friendly and efficient high-quality stoves, which meet all requirements for a modern heating source. In order to get the best out of your stove, we recommend that you read this booklet carefully.

## Technical Data Sheet

Test in compliance with EN 13240	
Model ILD 12 ECO and 13 ECO	
CO Emission at 13% O <sub>2</sub>	0,050 %
CO Emission at 13% O <sub>2</sub>	630 mg/Nm <sup>3</sup>
Dust @ 13% O <sub>2</sub>	22 mg/Nm <sup>3</sup>
No <sub>x</sub> @ 13% O <sub>2</sub>	94 mg/Nm <sup>3</sup>
Efficiency	78 %
Energy efficiency index	103,1
Energy efficiency class	A
Nominal output	8,5 kW
Chimney temperature EN 13240	309 °C
Amount of smoke	6,7 g/sec
Sub-pressure EN 13240	11 Pa
Recommended sub-pressure in connecting piece	18 Pa
Required combustion air supply	20,1 m <sup>3</sup> /h
Fuel	Wood
Fuel consumption	2,6 kg/h
Amount of fuel	2,2 kg
Amount of fuel, max	4,0 kg
Refuelling frequency for nominal output	55 min
Weight	154 kg
Internal flue connection piece, internal diameter	156 mm
External flue connection piece, external diameter	149 mm
Max. fuel size diameter	10 cm
Max. fuel length	50 cm

## Before the Installation

Ensure that your Local registered installer can recommend wood stove installation.

Ensure that updated European, national and local standards can be fulfilled.

Ensure that the area can support the stove and installation weight.

Ensure that there will be sufficient space and access to service.

Ensure that the heat output of the stove is suitable for the room.

**Warning!** Do not make any unauthorized changing on the stove.

## Packing

The stove comes on a wooden pallet with a wood frame nailed down on vertical boards at the corners.

Consult local regulations on the disposal of these materials; the wood has been treated to repel vermin and may **not** be burnt in the stove.

## First Time Use

Before the stove is heated up for the first time, we advise you to open all the doors and windows in the room where the stove is installed, to ensure an optimal ventilation. When the stove has reached operating temperature, the surface treatment will harden and emit a strong odor for a short time.

## Mounting

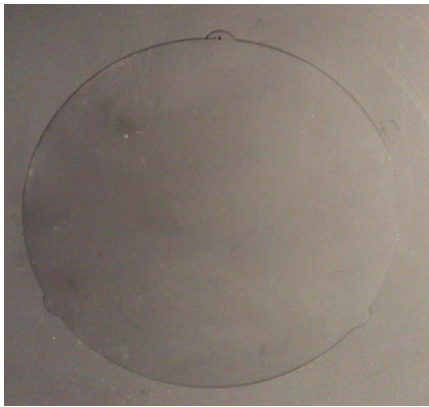
Before mounting, ensure that the base is even and secure. It has to be able to carry the weight of the stove as well as the chimney and any other equipment.

There must be a fire resistant floor or floor plate around the stove to protect the floor against damages from sparks. National and local regulations must always be respected.

If it is necessary to connect an elbow pipe, a curved rather than a sharp elbow pipe is recommended as this causes the least possible reduction in the chimney draught. See more under general directions and chimney.

## Flue Connection Pipe Top/Rear

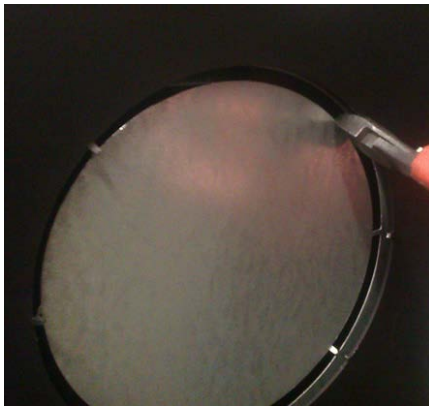
1. For a top flue outlet, remove the cover plate and mount the flue connecting piece with two pcs. bolts. (pic. 1/4)
2. For a rear outlet, remove the cover plate by cutting the "treads" with a nipper. (pic. 2)
3. Then do the same with the inside cover plate. (pic 3).
4. Finally you can mount the flue connecting piece in the rear outlet (pic. 4)  
(remember to move the inside bolted cover plate to the top outlet and mount it here). (pic. 5)



Picture 1



Picture 2



Picture 3



Picture 4



Picture 5

## Wearing Parts

When replacing or cleaning the combustion chamber's insulation (vermiculite), first remove the baffle plate.

Gently lift the plate and remove the pins in the side plates holding the plate in place. Push the front of the deflector plate upwards and turn it carefully making it possible to remove the plate from the burn chamber. Then remove the top deflector plate.

Now remove the ceramic stones placed on each side of the cast iron grate in the bottom of the stove. The side plates and finally the back plate can now be removed. Do this gently in order not to damage the plates.



## Closed Combustion System

In well-insulated houses, the air used up by the burning process has to be replaced. For this purpose you can mount the delivered fresh air connection piece (Ø 100 mm) at the bottom or at the rear of the stove and connect it to the outside.

The installation must have a maximum length of 6 m and consist of maximum 3 bends as well as a single inlet grate. The total counter pressure must not exceed 2 Pa., at a minimum chimney draught of 18 Pa, measured at the stoves connecting piece.

Special weather and geographical conditions mean that the installation must always be carried out and approved by a ventilation specialist.

We recommend the mounting of a valve, so that it is possible to close for the ventilation system. If the stove is not in use for a longer period, this valve can be closed to prevent draft.

## Chimney & Flue Connecting Piece

The chimney must have a minimum draught of 18 Pa. measured at the stove's connecting piece. If you are not sure of the stove's draught, a chimney sweep can measure it.

The chimney sweep will also ensure that the chimney is airtight, safe and equipped with a cleanout door. If there are any other connections to the chimney, the chimney sweep should also be asked for advice before installation.

Upon delivery, the flue pipe connecting piece is located inside the stove, for transport. The connecting piece can be connected directly to the stove's top outlet.

If a rear connection is required, move the cover plate to the top outlet and the connection piece from the top to the rear outlet. You will find more about this under installation.

The local building and housing authorities must always approve the installation.

The connecting pipe must be CE marked. The requirements to the chimney and the flue pipe in terms of safety distances must be met.

Remember always to ensure that the gasket between the stove and flue connecting piece is intact and airtight.

It is important that stove, flue pipe and chimney are situated with enough space for cleaning sweeping and emptying.



## Stoking and Overloading

The stove is approved as an intermitted heater which means that you must stoke the stove with a suitable amount of fuel (see data) which then burns down into embers before you stoke it the next time.

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

Any part of the fuel must not be placed at a higher level than the lower part of the metal piece in the backside of the burn chamber. Be careful not to overload the stove as this causes wear and tear to the stove and may, in serious cases, destroy the stove. The maximum amount of fuel specified, (see data) should not be exceeded, as overloading can cause excessive smoke. The recommended frequency for firing is 55 min.

## Fuel

Any dry and seasoned woods can be used. There are however major differences in density, tendency to spark, processing, time of seasoning and burning time.

Don't ever use wood treated with any chemicals

Don't ever use any liquid fuels

Don't ever use any kind of waste materials in the stove

## Use wood fuel only!

Type of wood	Dry wood Kg/m <sup>3</sup>	Compared to beech %
Hornbeam	640	110
Beech	580	100
Ash	570	98
Oak	570	98
Maple	570	98
Birch	540	88
Mountain pine	490	83
Spruce	370	65
Poplar	370	65

It is recommended to buy a moisture content meter. Make it a habit to check that your wood has less than 18% moisture content, preferably 16 %.

## Refueling on to a Low Fire Bed

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

As a result of the heating and due to the ensuing change in temperature, the stove may produce sounds which can be loud and varied.

## Environmental Use

It is important to us that our environment is protected in best possible way - first of all, it is an advantage to all, and as a bonus the fuel is exploited much better.

The air supply for the combustion is added through 2 valves controlled by 2 control handles.

The **left control handle is the primary air**, which is used for lighting the cold stove and when firing dense wood. Maximum air is added, when the control is in the furthest left position; when fire is established, gently close the primary control by sliding it towards the right.

The **right air control (secondary air)** is to be used when the stove is warm to control the fire. It is open when pushed to the right, and restricted when pushed to the left. The fire should be run efficiently, and the best indication of this is the color of the firebricks inside the firebox. If they are soothed up, then the fire is burning too cold, and this should be corrected.

Please also notice that the logs must be max. 50 cm long and no more than 10 cm in diameter; the moisture percentage must be lower than 18%.

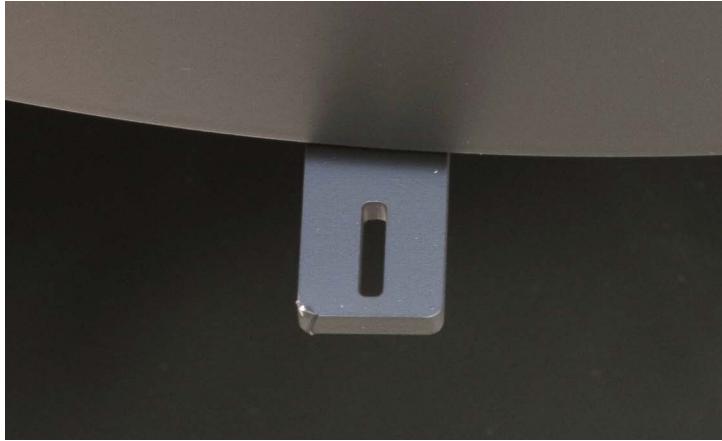
## Using Your Stove under Various Weather Conditions

Wind blowing on the chimney can have a great effect on how your stove reacts; you may need to adjust the airflow to achieve good burning results. Fitting a damper in the flue pipe may also help, as it will give you the ability to regulate the draught in changing wind conditions.

Fog can also have a great influence on how well a chimney draws; you may again need to adjust the airflow settings to achieve good burning results.

## Primary Air Control

During normal heating, the primary air control is typically open between 0 and 50%. 0% may be used for burning soft wood and 50% for hard wood. In unusual weather conditions causing poor draught, it may be necessary to start up the stove with full primary air open. As the stove heats up slowly, decrease the primary lever towards the right. See also passage for lighting the stove.



Far left: fully open primary air. Far right: closed primary air

## Secondary Air Control

During normal heating, the secondary air control is typically open between 50 and 100%. The secondary air control determines the performance of the stove. In addition to participating in the combustion, the secondary air will also prevent formation of soot on the glass.



Far left: closed secondary air. Far right: open secondary air

## Ash Drawer and Bottom Grate

Ash residues can occur from time to time, and it is recommended that the ash drawer area is periodically inspected and cleaned out using a suitable vacuum cleaner.

Make it a routine to check that the door gasket is firm and intact each time stove is cleaned.



## Cutting Out Ash Residues

At the front of the burn chamber there is a channel, which is designed to collect loose ashes when the stove is being used.

When cleaning the stove, use a suitable vacuum cleaner.

**IMPORTANT!!** Make sure that all ashes are cold, as there may still be embers present a long time after the fire has burned out.

## Dampers Left Open

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

## General Rules

There should always be at least 50 mm distance between the product and a fire wall, see Installation examples.

Report the installation to local building authorities and the chimney sweep.

Wood or other combustibles are not to be stored in the room under the burn chamber.

## Lighting the Stove Using a “Top-Down”-Lighting

“Top-Down”-Lighting provides an environmentally friendly lighting and helps keep the glass area optimally clean.

- 4 pieces of wood approx. 25-30 cm long with a weight of approx. 0.5-0.6 kg per piece.
- 6-10 thin pieces of firewood of about 25-30 cm in length, with a total weight of approx. 0.6-0.8 kg.
- 3 fire lighters in bag or block form

Place the pieces of wood, firewood and fire lighters in the combustion chamber as shown below.



Set the primary and secondary air controls to maximum in the lighting phase. If the fire is too strong, you may throttle down the primary air damper.

**NOTE: The wood must never be placed higher than the tertiary holes at the rear of the burn chamber (this does not apply at a cold start)!**

**Warning!** All exposed surfaces of this stove will reach high temperatures. Remember always to use the glove provided during the operation.

After the lighting procedure, please see passage regarding primary and secondary air control for intermittent use. Do not use the stove with the door open. Unless you are refueling the fire, the door should be closed.

It is recommended to stoke no less than 2 pieces of wood at each refueling.

At the EN 13240-test the stove was fired as shown on the picture:

With 2 pieces of beech each 250 mm  
 - with a total weight of 2.2 kg.  
 Primary air damper 37 % open  
 Secondary air damper 65 % open



## Cleaning and Maintenance

The stove can be wiped with a dry and lint-free cloth. The ceramic glass can also be wiped with a dry cloth, or you can buy a special glass cleaner at your authorized dealer's. The glass cleaner must be used as directed. Never use cleaning agents with abrasive properties.

The combustion chamber lining is a wearing part that must be protected against knocks and shocks. The lining may be used in spite of small cracks, but if it begins to crumble, it must be replaced.

Prior to any required sweeping, the smoke deflector plates must be removed by gently lifting the plates and removing the pins.

With daily use, make sure that the seals are intact and ensure that they are replaced before they allow leakage.

Always remember to ventilate the room after repairs to painted surfaces and the use of care products.

If the stove is fitted with soapstone, it is recommended that the stove is washed with clean water and PH neutral soap.

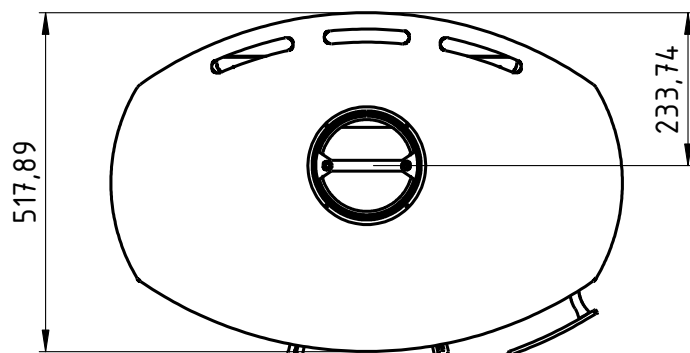
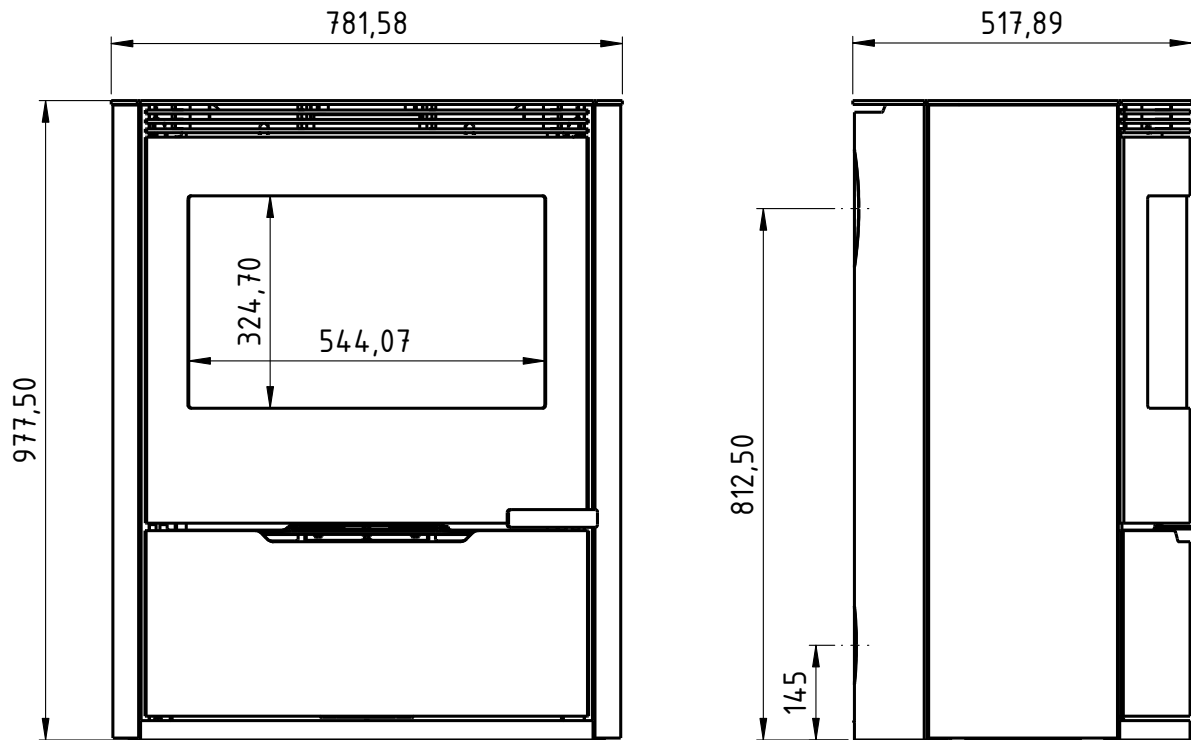
Once a year, or more, according to national and local rules, stove should be cleaned properly, in order to make sure that dust and ashes are cleaned out from the convection area. This service which must be undertaken by a qualified specialist, should include sweeping, leak test and service of the flue liner. If the stove has been out of use for longer periods, always perform this service.

Please also see passage: Ash drawer and bottom grate for regular service routine.

Don't ever use any spare parts not recommended by an authorised dealer.

Measurements

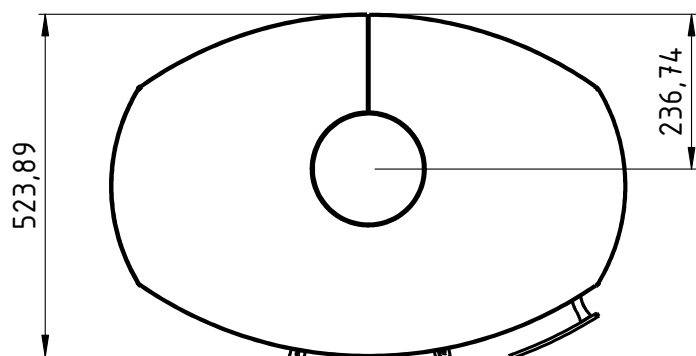
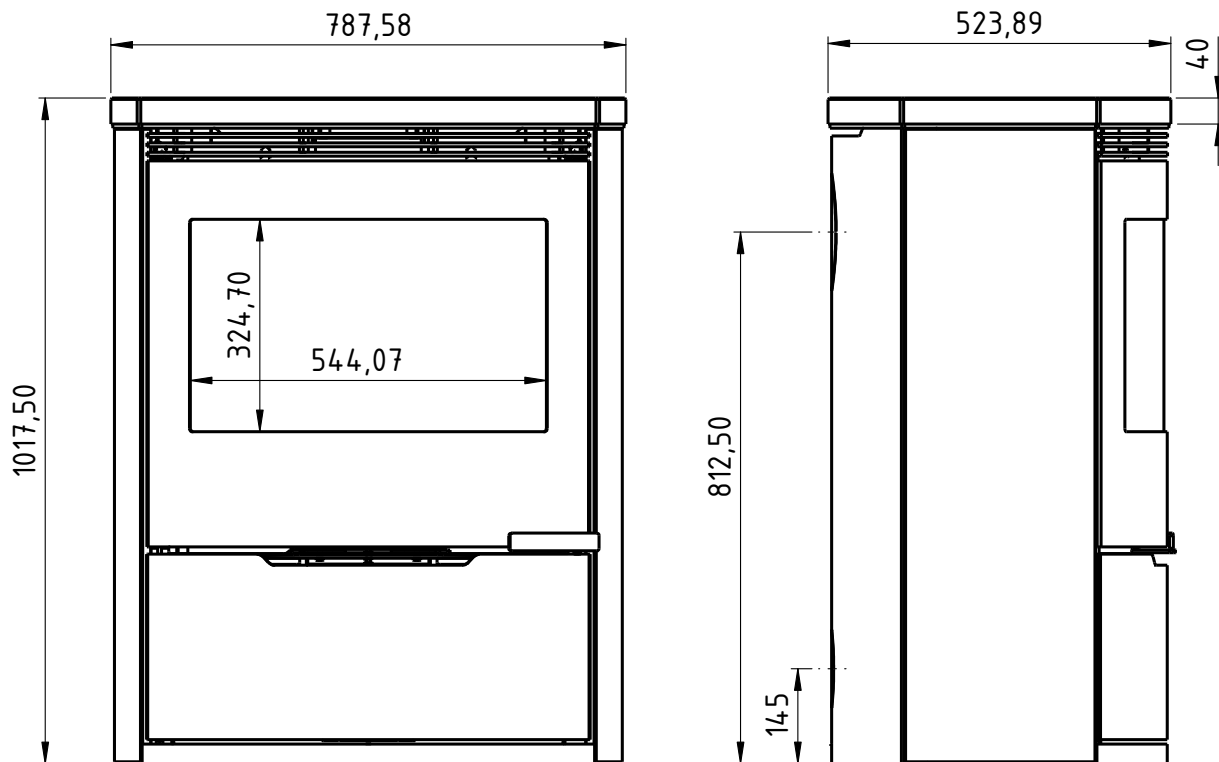
Ild 12 ECO





Measurements

Ild 13 ECO



## Safety Distance

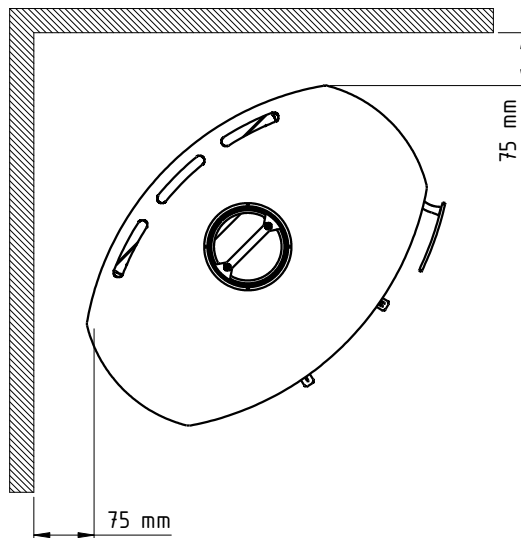
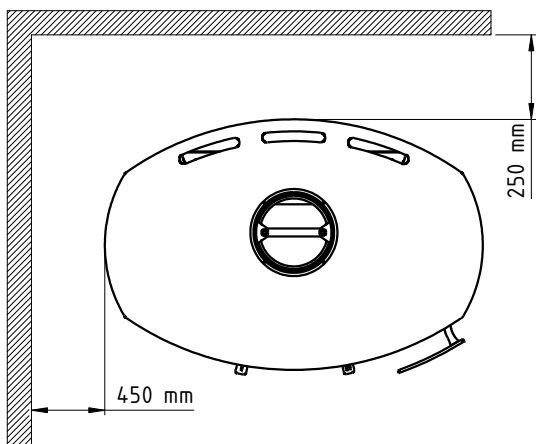
European, national and local regulations concerning safety distances for wood-burning stoves must be complied with.

## Installations Examples

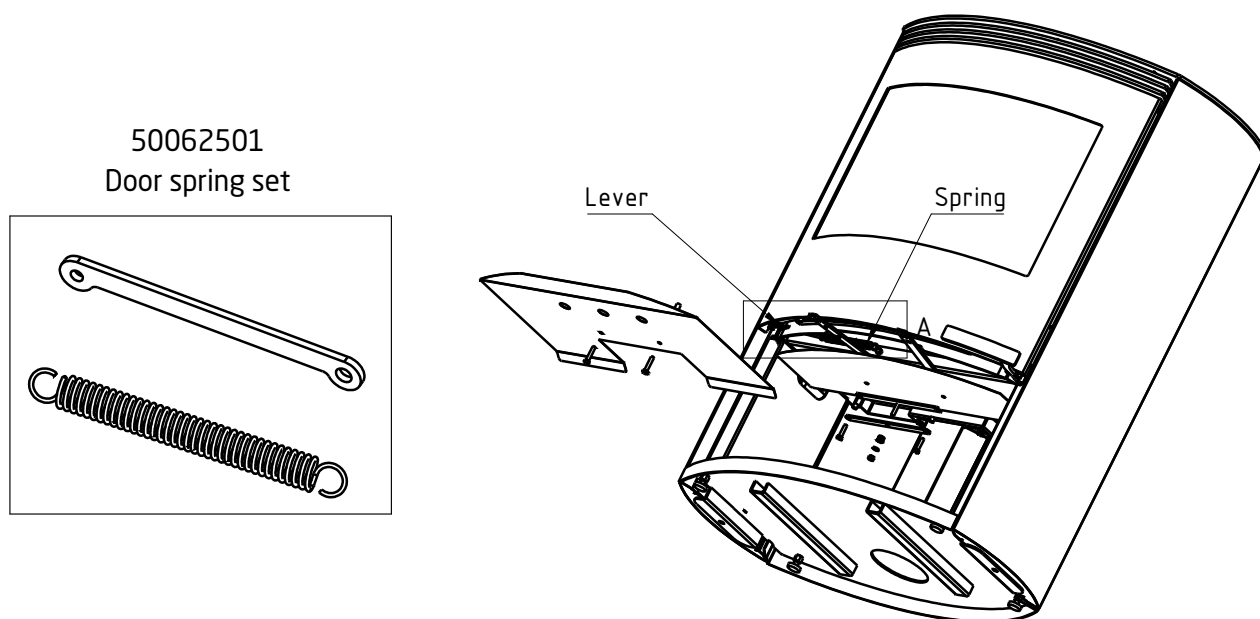
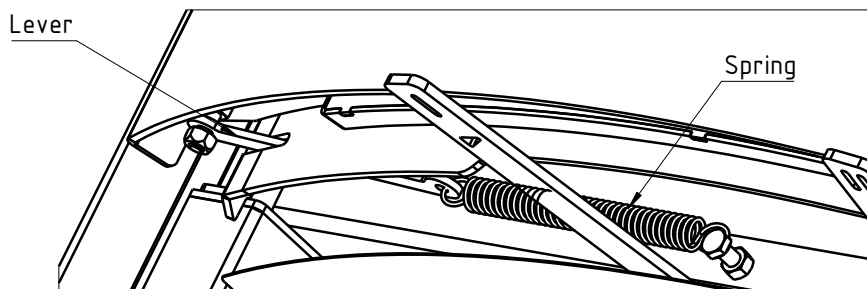
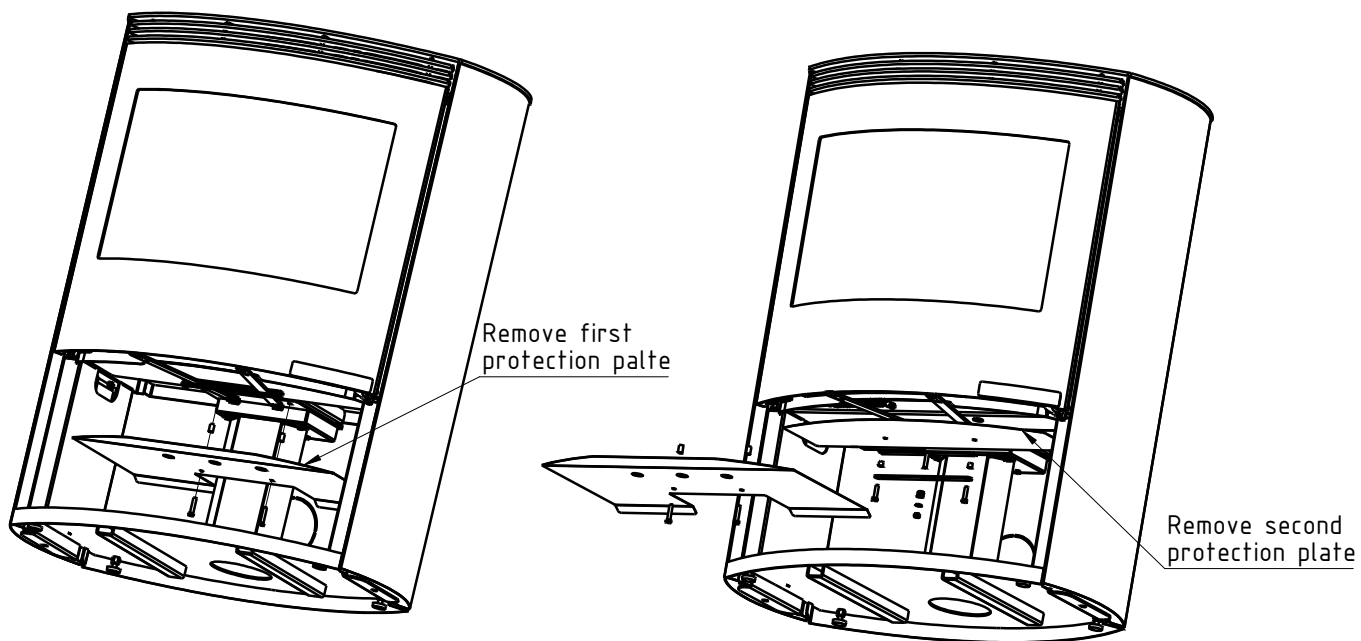


ILD 12 and ILD 13 ECO  
Distance to furniture: 1400 mm

**Distance to Flammable Materials, with Uninsulated Flue Pipe**



### Mounting of the Self-closing Door Spring



## Troubleshooting

Problem	Cause	Manual passage reference
Smoke escapes to the room	Fuel too wet	See: Fuel
	Closed air controls	See: Primary/secondary control
	Chimney draft insufficient, dimensions, height diameter or blockages	See: The chimney effect and cleaning
	Vacuum in room	See: Closed combustion
Wood burning too quickly	The air valves are set incorrectly	See: Primary/secondary control
	The baffle plates are incorrectly mounted or missing	See: Installation
	Improper firewood (waste wood, pallets etc.)	See: Fuel
	Chimney too large	See: The chimney effect and cleaning
Soot build-up on glass	Incorrect secondary airflow setting	
	Excessive primary air	
	Fuel too wet	See: Fuel
	Wood pieces too large	
	Improper firewood (waste wood, pallets etc.)	See: Fuel
	Chimney draft insufficient, dimensions, height diameter or blockages	See: The chimney effect and cleaning
	Vacuum in room	See: Closed combustion
Excessive soot build-up in chimney	Fuel too wet	See: Fuel
	The air valves are set incorrectly	See: Primary Secondary control
The surface of the stove is turning grey	Overheating	See: Environment and Primary/secondary control
Poor heating performance of stove	Insufficient air flow	See: Installation and cleaning
	Incorrect fuel	See: Fuel
	Baffle plate position	See: Installation
Odour or noise from stove	Paint hardening	See: First use
	Material distressing	See: First use

## **Warranty**

Our warranty does not cover repair or replacement of parts that are subject to normal wear and tear during the warranty period or to items that may require replacement in connection with normal maintenance.

These items include (but are not limited to) burn plates, fire grates, firebricks, concrete, flue baffles, gaskets and similar items, ceramic insulation blankets, glass (ceramic glass is warranted against thermal breakage only), glass clips and seals for doors, lids and glass, brazier, ash drawer and ash drawer seals.





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