



**SCHIEDEL**

# Isokern Celsius

## Operating manual

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## Lighting and continuous firing in the Schiedel Celsius fireplace insert:

### Wood types

The fireplace insert is only approved for wood burning.

It is recommended to use split birch or beech wood that has been seasoned for at least 1 year, preferably 2 years, outdoors in a suitable covered log store. Wood stored indoors tends to become too dry and burn too fast. However, it is always a good idea to take the wood in 2-3 days before use.

Oak and pine must be stored for 2 years before being used, as the wood may contain resins or other substances harmful to the fireplace insert.

It is forbidden to burn chipboard, lacquered, painted, or treated wood

Treated or painted wood, plastic, liquid fuels, rubber, milk cartons and newspapers contain substances that can damage the glass.

### Fuel Overloading

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

### Refuelling on to a low fire bed

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 excess smoke

## Combustion air control lever

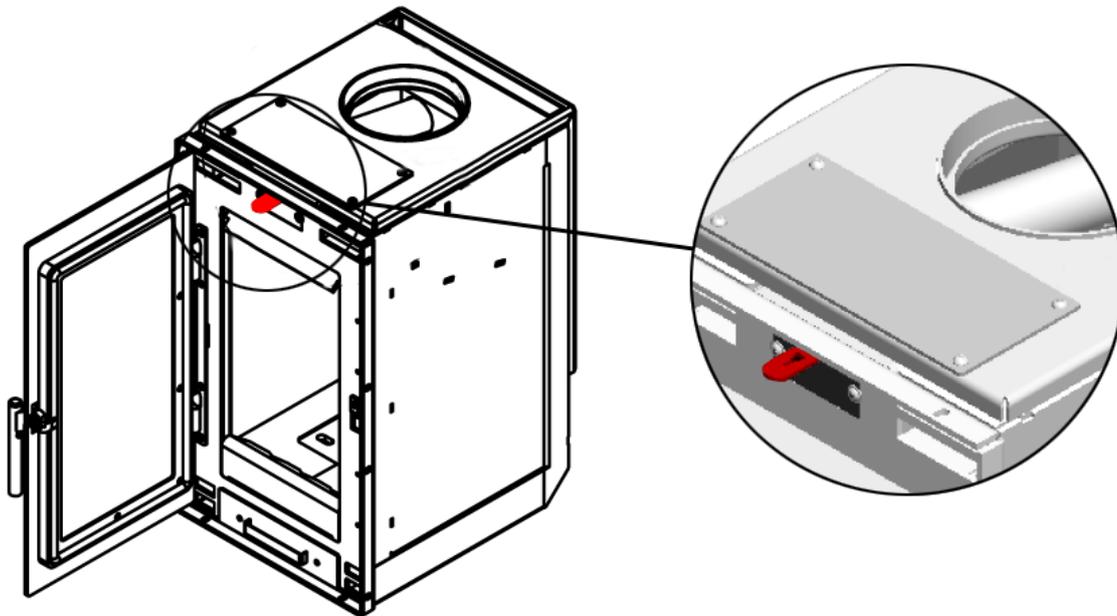
There is an adjustable air damper on the Celsius standard fireplace insert. It sits in the centre above the door. When the door is closed the combustion air control lever can be pulled out to increase air supply or pushed in to reduce air supply. This damper regulates the preheated air across the width of the entire door.

### Dampers left open

Operation with the air control or appliance dampers open can cause excess smoke. The

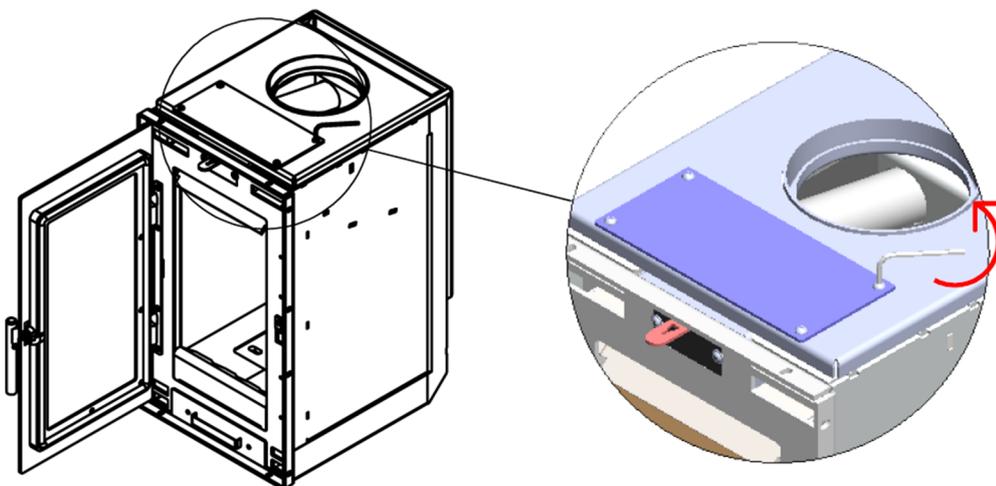
appliance must not be operated with air controls, appliance dampers or door left open except as directed in the instructions.

When using the appliance in a smoke-controlled area, the appliance must be set up with the combustion air control lever in place using the DEFRA settings.

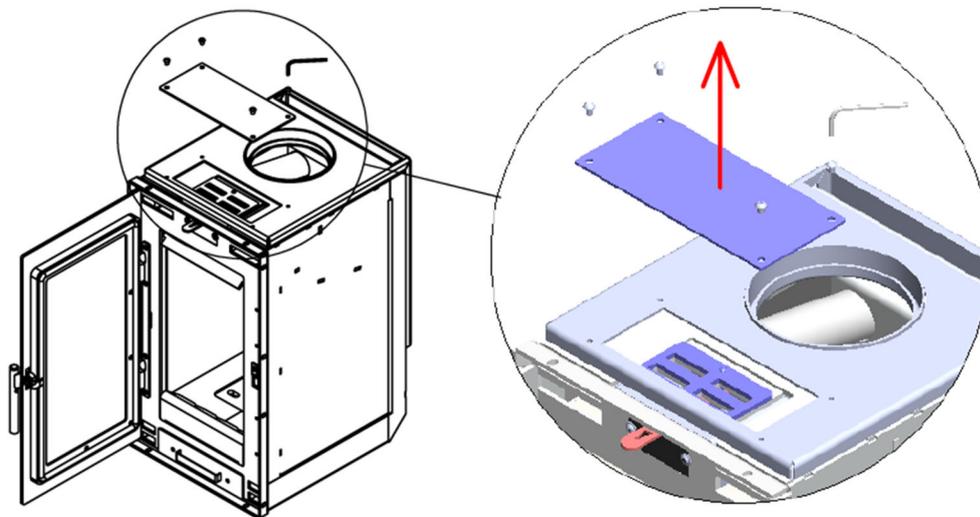


## DEFRA Compliance for Smoke Controlled Areas

Unscrew the 4 screws on the cover plate



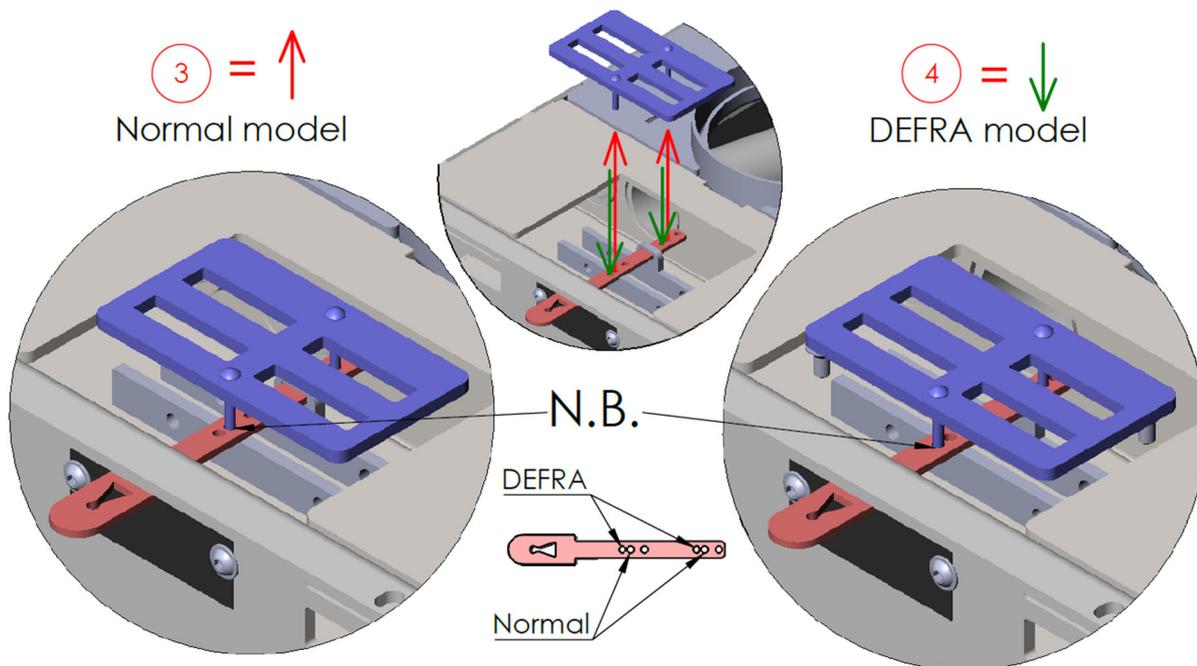
Remove the cover plate



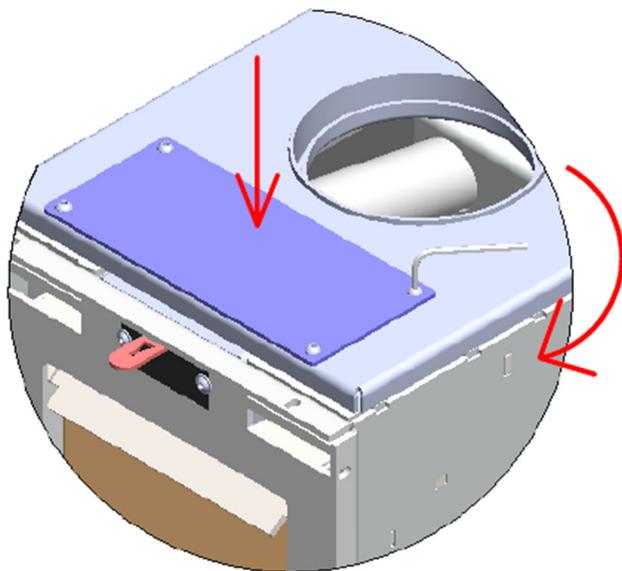
Lift the top plate.

This will allow you to see the air control lever.

Adjust the air control lever so that the holes shown as Defra holes in the images below are the ones which will be secured.



Replace the steel plate on top and fix it with the 4 screws



### Lighting the fire

When lighting the fire, we recommend that it be done using the "top down" method

Start by placing 2-3 pieces of wood at the bottom of the combustion chamber.

On top of these, lay approx. 1 kg dry split sticks, as well as 2-3 firelighters.

It is important that the combustion air control lever is fully open when lighting the fire. Keep the lever fully open for 10-20 minutes to avoid the glass getting misted, and at the same time create a good layer of embers for the right firing conditions to be in place. The fire will burn down to glowing embers with no flame.

The door should be opened carefully so that smoke and ash are not released, then redistribute the embers in a smooth layer, covering the bottom of the insert up to the glass door. Do not use printed matter or refuse to light the fire.

**Add new logs and wait for approx. 4 minutes, the combustion air control lever above the door must be completely open, as this is the control for the preheated air. When the fire has taken a good hold and when there is a consistent pattern of clear flames, the damper can be gradually adjusted, by pushing the lever in. Always maintain sufficient air flow to ensure a clean burn with a clear flame pattern.**

When the fire has burned down to the embers after approx. 45 min. repeat the cycle adding more logs. The amount of heat is regulated by the amount of wood in the boiler.

Feed the fire regularly with small amounts of logs. Don't overfill the chamber. It is important that the wood is dry and well-cut so that the surface area of the logs is large. This gives the optimum combustion performance.

**NOTE** The MAX loading mark for logs is indicated by the row of holes in the back plate.

### **Operation with door left open**

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.

### **Combustion**

It is always a matter of firing so the flames are clear when you look through the glass, otherwise more air must be supplied. It is always sensible to have an ash layer lying in the bottom of the stove, it facilitates lighting, and at the same time insulates the bottom of the appliance. The ash is removed as needed.

**Warning:** The ash can contain embers and therefore must be transported and stored in suitable containers 2-3 days prior to disposal via domestic waste.

### **Faster or increased heat output**

This is achieved by burning more small logs or sticks.

### **Increased burning time**

This is achieved if few, larger pieces of wood are burned. Remember, sufficient air must always be supplied for the combustion, so that a clear flame pattern is maintained.

### **Low firing**

If the vermiculite in the combustion chamber is black after use, it is a sign that Combustion is not being optimised. This is both inefficient and bad for the environment. Always have sufficient airflow to ensure a bright clean flame in the combustion chamber. Maintaining higher temperatures in the combustion chamber releases all the gases from the wood, which are then burnt off.

Soot formation can be due to wet wood, poor draft in the chimney or incorrect firing. **Warning!** Parts of the fireplace, especially the exterior surfaces, will become hot during operation. Therefore, caution should be exercised.

# Maintenance of the fireplace insert

## External cleaning

This should only be done when the fireplace is cold. Daily maintenance is limited to a minimum. The easiest thing is to vacuum the fireplace outside with a small nozzle with soft brushes. You can also use a dry cloth or a soft dust brush.

## Service inspection

At least every two years, the insert should receive a thorough preventive service check. The inspection includes: Thorough cleaning of the fireplace, lubrication of the door hinges with copper grease, check of air seals, adjustment of handle / door, check of heat-insulating material and check of gaskets and possible replacement. This service inspection must be carried out by a qualified fitter. Use only original spare parts. Remember that the chimney and connecting flue pipe should be swept annually.

**NOTE:** Relating to using a new insert fire. Some smoke and odour, when the appliance is first used, are to be expected, as the steel plates on Celsius fireplace inserts are painted with a special heat-resistant paint. Therefore, ventilate the room well the first few times the insert is used. It is pointed out that there is no guarantee on glass and ceramic plates (also in the case of cracks) nor on glass fibre seals.

## Operational issues:

The fireplace inserts are approved according to the EN standard, which means, that the stove's design and combustion method meet the requirements of approval. However, it is important to be aware that the combustion itself in a fireplace insert is very individual and dependent on a combination of chimney, fuel, operation and firing technology, It is also important to be aware that a stove can expand during firing and cooling. This is due to the movements of the steel and does not affect the function of the fireplace insert.

We warn against any unauthorized alteration of the fireplace insert and the use of non-original spare parts

## Smoke in the living room

If the smoke does not go up the chimney, but comes out into the living room instead, it may be due to poor chimney draft and/or that the baffles are not positioned correctly. It is also

important to wait before adding new logs until there are only embers and no flames. Watch out for under pressure in your house, it can occur in both new and old houses because of the use of an extractor hood or dryer. Under pressure can also be created if the settings are incorrect on the ventilation system of a house.

### **Soot**

If a lot of soot is formed, it may be because: the temperature in the combustion chamber is not high enough, because of insufficient air, or the wood is wet. For the fire, use only firewood stored for a minimum of 12 months in a suitable covered log store and with a maximum 18% moisture content.

Soot on the glass can be removed with glass cleaner or a piece of damp kitchen cloth dipped in ash.

## **Useful information:**

### **Type approval**

The type approval is included in this installation and user guide, which specifies the required distances to combustibles according to legal requirements etc.

### **Serial number**

The serial number is located on the top of the fireplace in the upper left or right hand corner.

### **Vermiculite**

Vermiculite has an insulation value that is 8 times higher than chamotte clay.

This means that high temperatures can be achieved in the combustion chamber, and all the gases in the wood released and burned off. Over time, vermiculite can become worn, so the vermiculite tiles should be inspected during the bi-annual service and replaced where necessary.

## Guarantee

The Celsius insert passes through strict quality control during production before leaving the factory to go to the dealer. Therefore, a 10-year Warranty on manufacturing defects is provided.

The warranty does not cover-:

- Parts subject to wear and tear or fragile parts such as refractory tiles in the combustion chamber, glass, seals and gaskets.
- The appearance of the surface structure, etc. texture of vermiculite tiles etc.
- The appearance and colour changes of stainless-steel surfaces, as well as patina.
- Sounds linked to expansion and contraction during heating and cooling down.
- Transportation costs in connection with warranty repair of service and care.
- Labour costs involved in warranty repair.

The warranty is invalidated in the case of:

- Damage caused by incorrect use.
- Damage due to over firing
- Damage due to external factors and use of unsuitable fuels
- Failure to comply with statutory or recommended installation regulations, or in case of alterations to the factory design of the insert.
- Lack of service and care

Please contact your dealer in case of product damages, In the event of a warranty claim, we will determine the way the damage is rectified.

In case of repair, we provide professional support. If an item is returned to Schiedel Chimney Systems Ltd. and it subsequently turns out that the damage is not covered by the guarantee, the accrued costs fall on the customer.

Warranty claims do not result in an additional extended warranty period for either the original or replacement parts.

Nominal Heat Output	6,7	Kw
Recommended Chimney Draft	12	Pa
Weight	90	Kg
Smoke Departure	X	Ø150
Net Efficiency	83	%
Smoke gas mass flow	4,9	g/s
Temp	242	°C
PM Emission	3	mg/m <sup>3</sup>
CO Emissions	0,082	%
OGC	58	mg/m <sup>3</sup>
NOx	82	mg/ m <sup>3</sup>
Wood Capacity	7,6	kg

## CE Data Plate



0036 04	
Schiedel Skorstene ApS Industrivej 23 · DK-7470 Karup CPD 90219 001 DK014 DOP 23082019	
DS/EN 13240/A2:2004	
<p><b>Schiedel Isokern Celsius installed within an Isokern Pumice frame</b></p> <p>Use only recommended fuel (wood).</p> <p>Device approved for log burning only.</p> <p>Strictly follow construction and user manual.</p>	<p>Nominal heat output: 6,7kW CO emission at 13% O<sup>2</sup>: 0.082% Energy efficiency: 83% Flue gas temperature: 242 °C PM emission acc. to DIN+: 3 mg/m<sup>3</sup> OGC emission: 58 mg/m<sup>3</sup> NOx emission: 82 mg/m<sup>3</sup></p> <p>Minimum distances to combustible material</p> <p>Rear: 0mm Front: 1.000mm Side: 300mm Floor: 300mm</p> <p>Fuel: Dry wood</p>

# Clean Air Act

## **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 unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. Similarly, in Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014.

In Wales and Northern Ireland these are authorised by regulations made by Welsh Ministers and by the Department of the Environment, respectively.

Further information on the requirements of the Clean Air Act can be found here at:  
<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 Celsius has been recommended as suitable for use in smoke control areas when burning wood logs. The Celsius must be fitted with a permanent stop to prevent closure of the secondary air valve beyond 6mm open.**

## clearSkies Level 5

Celsius has achieved the highest level in clearSkies certification

clearSkies certified appliances meet the minimum performance level for Ecodesign regulations – the minimum legal requirement for an appliance manufactured in the UK from 1st January 2022.



These criteria are the minimum energy efficiency of the appliance and the maximum levels of emissions permitted

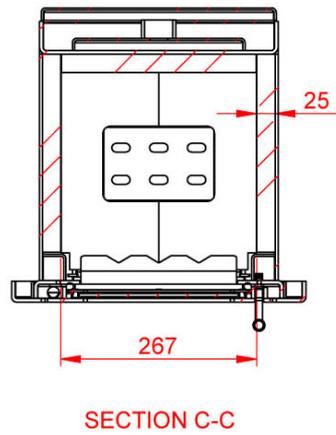
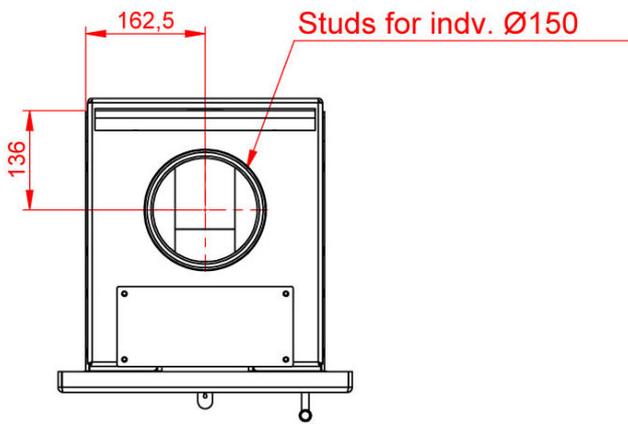
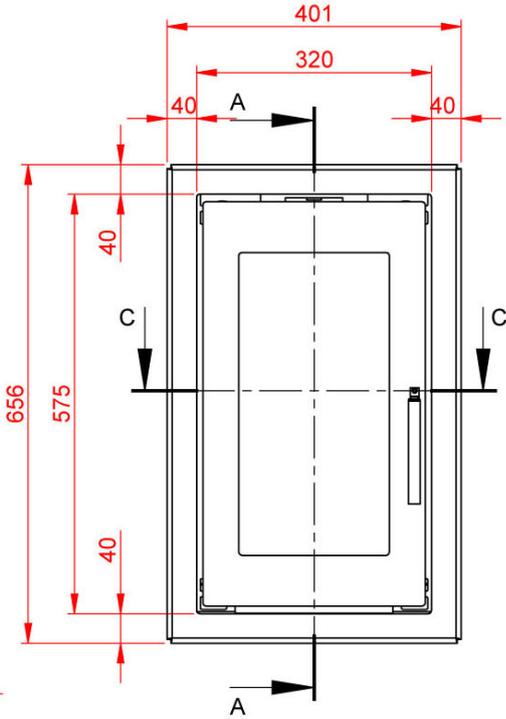
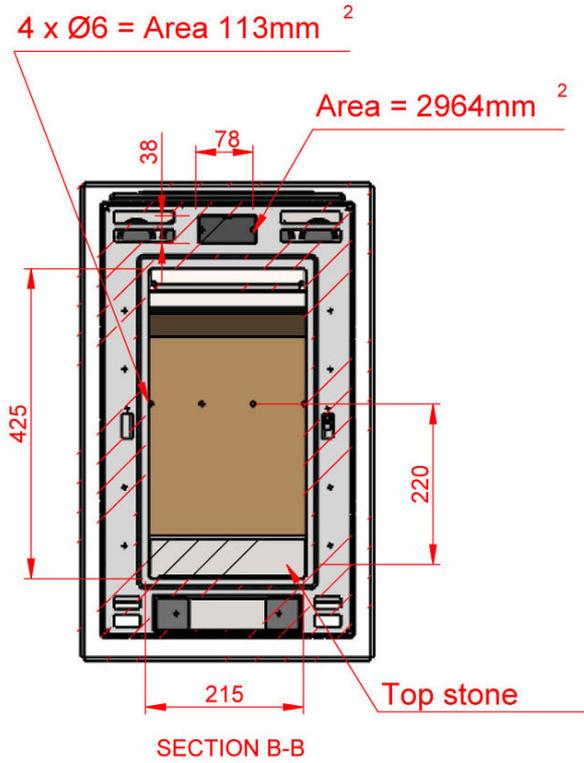
These new Ecodesign Regulations represent a significant tightening of these criteria over the current CE requirements.

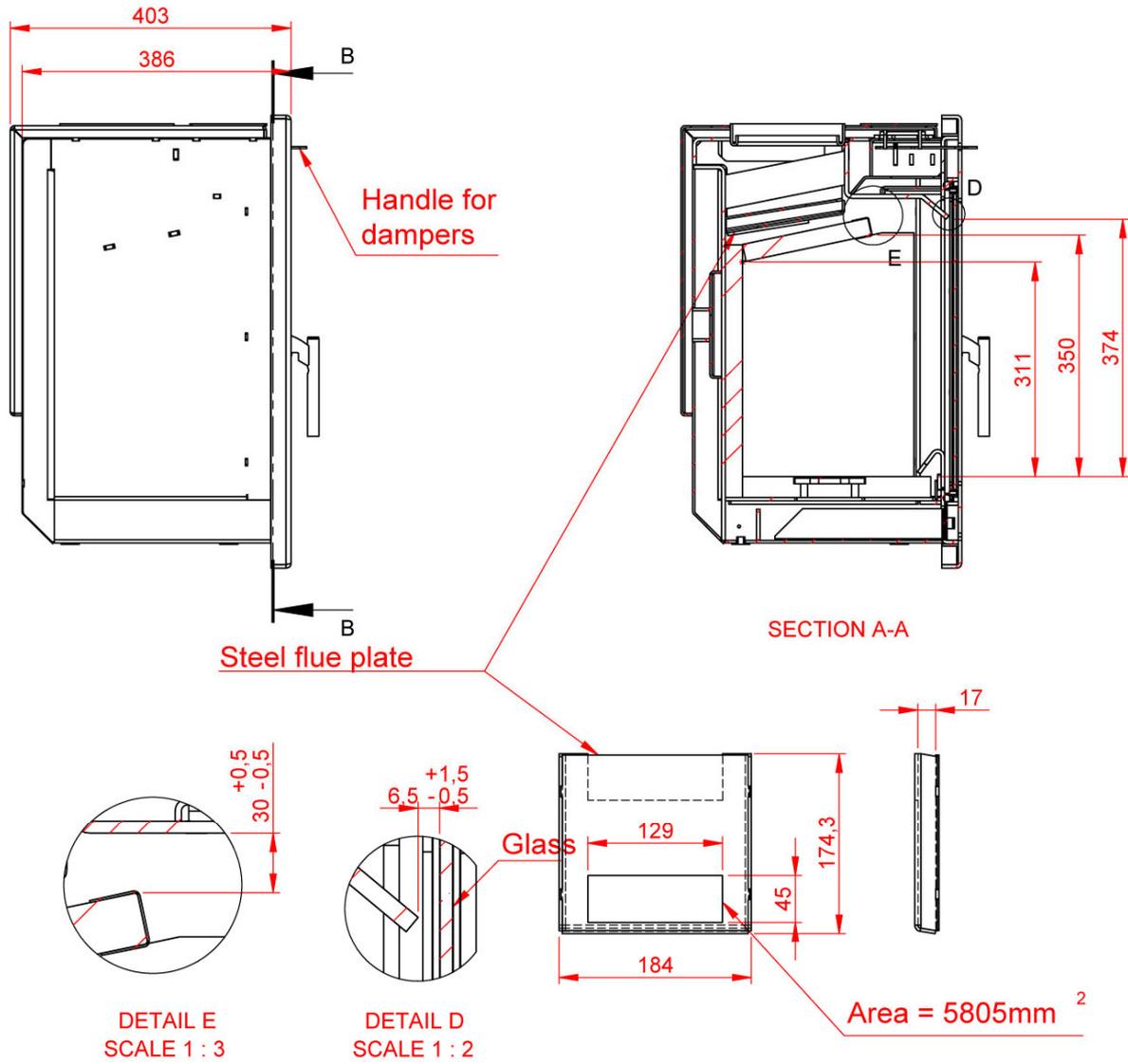
## DEFRA exempt

In addition to meeting the requirements of Ecodesign for efficiency and emissions, all clearSkies certified appliances at Level 3 or above will also have been verified by the scheme administrator as meeting the requirements for Defra exemption.

Therefore, you can be assured that Celsius exceeds the minimum requirements and is future proofed as well as approved on the Defra website to be installed in Smoke Control Areas

# INSERT DIMENSIONS





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