



RECOHEAT INSTALLATION MANUAL

FCP 10.0

RECOHEAT – HEATING FROM THE HEART
Installation instructions for
Recoheat Heat Recovery Units
Published October 2020



Recoheat Installation Manual

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To the installer

This Recoheat unit is fabricated to European and British standards BS EN 1856-2:2009. The CE label is at the back of this manual.

The device must be installed in compliance with Building Regulations, and the flue signed off by a Building Control Officer or self-certified by a Hetas-registered engineer.

Please follow these instructions to ensure the unit is fitted correctly.

For any enquiries or for support with the installation, please telephone us on **01638 445 180** or email us at sales@recoheat.co.uk.



Introduction

Thank you for purchasing your Recoheat Heat Recovery System for solid fuel stoves.

Your Recoheat will significantly increase the effective heat output of your solid fuel stove with our standard air pump (flowing at 60 litres per minute) and will transform the warmth of the area around it. (Please see the website for details.)

The Recoheat unit recovers heat from the hottest part of the stove, just inside the bottom of the chimney, and pumps it into the room.

Safety Warning

The air expelled from the system is very hot within a distance of about 20 centimetres: do not put anything in front of the air flow within this distance.

Air released from the tube at the front of the flue is heated to around 300°C and maintains that heat for a short distance before it disperses into the room. A standard safety distance from the stove still applies, but you must be aware of this additional area of risk as it occurs above the stove itself.

The Recoheat unit will continue to pump hot air for three or four hours after the stove has gone out, and will produce warm air for six or seven hours.

Additional care should therefore be exercised around the stove, particularly when bending down to open the door of the stove for refuelling.

What's in the box

The system comprises:

- A Recoheat unit that fits between your stove and the flue
- A length of black high-temperature tubing that connects to the unit
- A length of standard tubing that connects to the air pump
- An air pump that connects to a mains or battery-powered electricity source

The Recoheat unit should be fitted by a qualified professional and the flue tested in line with local standards and regulations. In the UK, this means that a registered Hetas installer should fit and test the system if it is sited in a dwelling or your installation will need to be signed off by your local Building Control Officer.

Installation

Before installing

Before starting installation, please check that you have acquired the correct size unit for your stove.

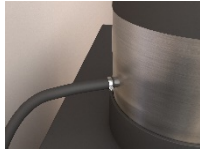
If you have a rigid flue system, please check that you have room for the Recoheat. The additional length of the Recoheat will mean you have to move or shorten at least one section of flue, in which case you might need to replace a section with a shorter piece.



Please also consider the design of your flue to ensure you can clean it, and consider purchasing additional elements to facilitate this if necessary. Please see the **Cleaning and Maintenance** section of this guide for further details.

Please note that it is generally easier to attach the black high-temperature tube to the unit before you fit the unit, as it is easier to access.

Attaching the air tube to the Recoheat unit



Place a clip over the end of the black high-temperature tube without tightening it.

Push the tube onto the longer nozzle on the back of the Recoheat unit, push the clip over the join to secure it, and tighten the clip. Do not over-tighten the clip as it does not need to be very tight.

Fitting the Recoheat on an existing flue system

If retro-fitting to an existing stove in situ, you'll need to move and/or shorten the flue to create space to fit the Recoheat. The flue will have brackets that can be loosened in order to move the flue up to create space to insert the Recoheat.

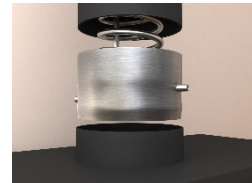
If the system starts with a rigid flue feeding into a flexible flue, only the rigid flue will need moving, as the flexible flue will simply compress to fit.

With a flue that is entirely rigid, you may need to exchange at least one section of flue for a shorter piece in order to fit within the existing design.

You should never force or change the angle of the flue in order to accommodate the Recoheat as this may damage the flue or alter the draw of the chimney.

Fitting to the stove

Place the Recoheat unit into the flue hole at the top of the stove where it will fit loosely, then insert the next section of flue pipe into the top, and build and secure the flue as normal.



Test the chimney draw as usual before sealing the Recoheat. If the draw is insufficient, add height or otherwise adjust the chimney.

Once all tests have been successfully completed, seal the Recoheat joints with fire cement.

Safety Warning

If sufficient draw cannot be achieved with the Recoheat unit in place, remove it and test the chimney without the Recoheat unit in place. This may improve draw on the chimney.

If draw is improved, either amend the chimney construction to create additional draw, contact Recoheat, or return the Recoheat system to Recoheat for a full refund.

If sufficient draw cannot be achieved with or without the Recoheat, the stove should not be commissioned or used.



Lighting the stove for the first time with the Recoheat installed

The Recoheat must not be used at full temperature until it is 'burned in'. This means you must have a series of at least three small fires, letting the system cool between each one. This will allow the heat-resistant paint and tube to cure and prevent damage. If you are using a new stove for the first time, following the stove burning-in procedure will be sufficient.

Running your stove with a Recoheat

Follow standard best practice when running your stove with a Recoheat. This means:

- Only burn approved fuels including wood with a moisture content below 20%.
- Build a good fire with plenty of fuel before you light it, to ensure it will clear cold air from the flue when it starts, and burn cleanly from the outset.
- Switch on the air pump as soon as the fire is lit: it will begin pumping hot air in about 30 seconds.
- Maintain a heat of between 150° and 250° in the stove to ensure it is burning cleanly.
- Once the stove itself is hot, you can reduce the amount of fuel so that the optimum temperature is maintained but the stove is damped down to the minimum burn rate. The Recoheat will ensure the stove is producing significantly more heat than you'll achieve without it.
- You can let the stove die out at least two hours earlier than you would normally and just leave the pump running: hot air will continue to pump for hours after this point, replacing the heat normally provided by refuelling.

Fitting a timer to the air pump will allow you to leave your pump on and leave it so that warm air continues to circulate. Depending on the size and efficiency of your stove, this can be effective for at least 8 hours. Neither the standard pump nor the unit will suffer if you leave the pump running as they are designed for continuous operation, and the process costs very little because the standard pump only consumes 37 watts.

Siting the air pump

Safety

- The air pump does not extract air from the room, so may be used in a room with a combusting stove.
- The air from the pump does not combine with exhaust gases from the stove flue, so does not pose any risk from fumes.
- The air pump should not be sited within the direct radiant heat of the stove.
- The air pump may be sited outside as it is waterproof.
- The electrical supply to the air pump must be protected from heat and water.

Considerations for siting the air pump

The air pump is designed for silent operation, but its noise can be noticeable in a quiet living room, so placing it where noise will be minimised will enhance your enjoyment of it.

The air pump needs to be placed within a reasonable distance of the stove, but as it is not pumping air under any pressure, this can be a distance of several metres where necessary to fit the layout of your home and stove. Placing it in an enclosure such as a cupboard or wood storage unit works well, as long as there is a plentiful supply of air to the pump.



The air will be pumped around the room, so you should ensure it is as clean as possible. There is a filter on the pump which should be checked and cleaned regularly.

Having the pump draw cooler air will improve the efficiency of the heat exchange, so placing the pump low down will help achieve that.

The air pump can be placed outside as it is waterproof.

Fitting the air pump

The air pump just needs to be connected to the other end of the clear tube.

- Fit a hose clip loosely over the end of the tube.
- Push the tube over the outlet connector on the pump.
- Tighten the clip gently to prevent it falling off. Do not over-tighten.
- Connect the air pump to an electrical supply.



Cleaning and maintenance

Your Recoheat will need cleaning in line with your regular chimney maintenance routine, but please note that it may increase the retention of soot within the chimney, and necessitate more regular cleaning therefore.

You are advised to have your chimney checked and cleaned within six months of commissioning, and that you follow your Hetas-approved chimney sweep's guidance on the period between sweeping the chimney, which will depend on your usage and the many variables that impact on your flue's performance.

Your Recoheat coil has been designed to allow the flue to be brushed through it using traditional brushes. Some brushes with a large central boss will not pass through the coil, and you will need to by-pass the Recoheat unit in order to clean the chimney.

If you have a rigid flue that is difficult to disassemble to remove the Recoheat to access the chimney, there are two options to make regular maintenance easier:

- You can add a flue section with a hatch that can be removed to give access to the flue. This should be fitted above the Recoheat.
- You can add an adjustable section of flue to your chimney immediately above the Recoheat. In this instance, the adjustable section can be loosened, lifted, and removed to give access to the flue length and to the Recoheat below. In some cases, problems with clearance might make it easier to remove the Recoheat itself. If the Recoheat unit is removed, the fire cement or high temperature sealant must be replaced and cured in position when the flue is recommissioned after cleaning.



Advice and support

For advice and support on installing and maintenance, please phone us on 01638 445 180, email us at sales@recoheat.co.uk or check our website at www.recoheat.co.uk.

We can also help you to locate a Hetas-registered installer or chimney sweep.

Returns and Refunds

If you find that your Recoheat does not work with your stove or flue set-up, please simply remove and return it to us for a full refund. While the device provides enormous benefits and efficiencies, it cannot overcome deficiencies with draw caused by chimney design or siting and should not in any circumstances be used if your chimney does not have sufficient draw to be safe.

If you encounter problems, please contact us for help, but if in doubt – take it out!

Contact Us

You can get help and advice through our website at www.recoheat.co.uk

Email us at sales@recoheat.co.uk

Phone us on **01638 445 180**

Write to us at:

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Moulton
CB8 8SR



CE

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EN 1856-2:2009

Metal rigid connecting flue pipe with fixed metal rigid coil insert

T400 – N2 – D – Vm – L 40045 – G (16) M or G (16) NM

Nominal size: 280mm height x 100mm width
280mm height x 125mm width
280mm height x 150mm width

Compressive strength

Maximum load: equivalent to 3m of flue liner

Flexural strength

Tensile strength: Maximum load of the flue liner suspended:
equivalent to 2m

Non vertical installations: No

Thermal shock resistance: Yes

Coefficient of flow resistance

Mean roughness: 0,5mm

Freeze thaw: Yes



Recoheat

**stove heat pump
more heat – less fuel**

www.recoheat.co.uk

