

Cooker Model:	_____
Serial Number:	_____
Colour:	_____

Technical Information	
Nominal heat output kW	???
Boiler heat output kW	???
Combustion air requirement m <sup>3</sup> /h	???
Air vent size cm <sup>2</sup>	???
Weight of appliance Kg	???
Minimum chimney draught Pascals	???
Mean flue gas temperature °C	???
Flue gas mass flow g/s	???
This appliance is not suitable for installation in a shared flue system	

# ESSE Woodfired Cooker

## INSTALLATION INSTRUCTIONS

MODEL: WN, WD, W25



THE ORIGINAL CAST IRON COOKER

Ouzledale Foundry Co. Limited, Long Ing, Barnoldswick, Lancashire BB18 6BN  
 Tel: 01282 813235 Fax: 01282 816876 Email: [essee@ouzledale.co.uk](mailto:essee@ouzledale.co.uk) Website: <http://www.essee.com>



THIS APPLIANCE MUST BE COMMISSIONED BY A CORGI REGISTERED ENGINEER  
 THE WARRANTY CARD MUST BE RETURNED TO ENSURE GUARANTEE VALIDITY

## GENERAL INFORMATION

In the UK, the installer has a responsibility under the Health and Safety at Work Act 1974 to provide for the safety of persons carrying out the installation. Attention is drawn to the fact that fire cement is caustic and hands must be washed thoroughly after use. The appliance is heavy (Max 350Kg) and care must be taken during handling. Although the appliance does not contain asbestos products, it is possible that asbestos may be disturbed in existing installations and every precaution must be taken.

These instructions give a guide for the installation of the appliance but in no way absolve the installer from responsibilities to conform to British Standards, in particular BS8303 and BS6461, relating to the installation of solid fuel appliances. The installation should also comply with local Building Regulations and Local Authority by laws.

Outside of the UK, the installer must comply with all local, national & european standards that apply.

Any adjacent combustible material should be far enough away from the appliance so as not to rise 60°C above the room temperature when the appliance is in operation. If necessary, any adjoining walls should be protected from the effects of heat.



## CHIMNEY AND FLUE INFORMATION

The successful operation of the cooking appliance relies on the adequate performance of the chimney to which it is connected. The following chimney guidelines must be followed:

- It should have an internal cross section of no less than 320 cm.sq (200mm dia.) (If a flueliner is used, it should be 6" diameter and be made of suitable material for burning wood).
- Voids in the chimney should be avoided, as these will prevent a steady fluedraught. The appliance flue pipe should pass beyond the narrowing of the chimney.

- Be terminated at least 1m above roof level so that the chimney does not terminate in a pressure zone.
- If the appliance is installed as a freestanding appliance, it should not support any part of the chimney.
- Be free from cracks, severe bends, voids and obstructions.
- Be connected to this one appliance only.
- New chimneys must be in accordance with local regulations.
- The chimney must be capped to prevent ingress of rain.
- A flue/chimney access point may also be required so that the state of the chimney can be checked and any fallen soot removed.
- External flues must be insulated to prevent heat loss.
- Do not fit an extractor fan in the same room as the appliance.
- Be a minimum 4.6m high from hearth level to pot.

## FLUE DRAUGHT

The chimney can be checked, before the appliance is installed, with a smoke match. If the chimney doesn't pull the smoke it may suggest the chimney needs attention.

**Note:** This test is only a guide as an apparently poor flue may improve once the appliance is installed, lit and the flue is warmed. If, once the appliance is installed, there is any doubt that the chimney is providing an adequate draught, a flue draught reading should be taken.

### FLUE DRAUGHT READING

Two flue draught readings should be taken, one with the appliance at minimum firing rate and one at maximum firing rate. The flue draught test hole must be drilled in the flue pipe as close to the appliance as possible and before any flue draught stabiliser.

Minimum reading: The appliance should be lit and allowed to warm the flue thoroughly. Close the air slider control and ensure fire door is fully closed. Allow the burning rate to become steady. The flue draught reading should now be taken, the minimum required is 12 pascals (0.05" w.g.).

Maximum reading: The air slider control can now be opened to allow the appliance to burn at maximum rate, and the fire door open on the first catch. Take a flue draught reading.

Ideally, the flue draught readings should range between 12 pascals, 1mm (0.04 in wg) and 24 pascals, 2.5 mm (0.1 in wg). Any readings significantly outside this range may indicate the need for remedial action. Low flue draught symptoms: difficult to light and smoke coming into the room.

### FLUE STABILISER

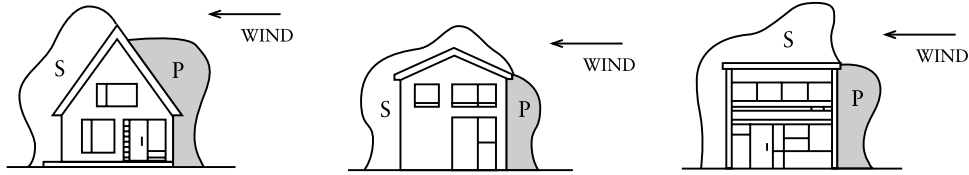
A flue stabiliser can be fitted to reduce the draught through the appliance if the flue draught is too high. The flue stabiliser should be fitted in the same room as the appliance and be the same size as the flue pipe.

### POSITIONING

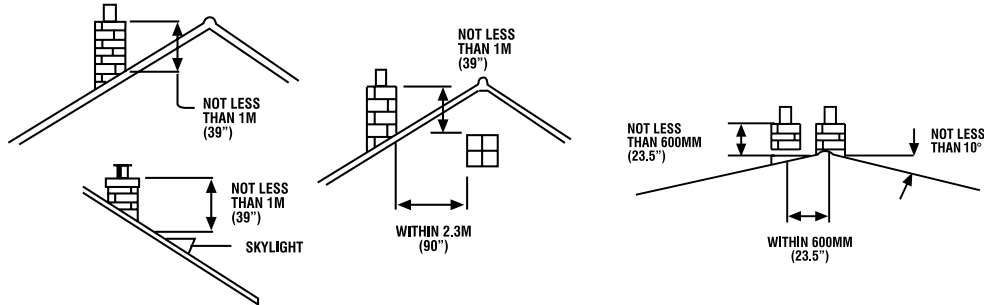
The appliance should be sited on non-combustible material.

## CHIMNEY AND FLUE

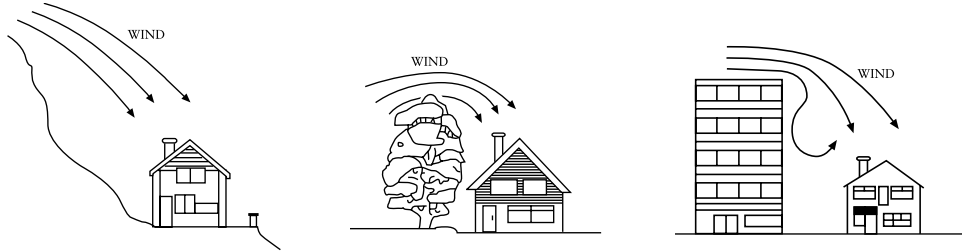
### 1) Pressure and suction zones created by wind



### 2) The position of chimney outlets



### 3) Potential causes of down draught



Low flue draught symptoms: difficult to light and smoke coming into the room.

Cause	Remedy
Cold chimney	Line the chimney
Chimney too short	Extend the chimney
Down draught	Relocate/extend chimney terminal. Fit an anti down draught cowl
Chimney diameter too large	Line the chimney
Chimney obstruction	Clear/sweep the chimney
Restricted air supply	Check for competing draughts (other chimneys, extractor hoods/fans). Fit an air vent if the room is sealed.

High flue draught symptoms: fire difficult to control, fuel will not last, cooking too hot, appliance damage, chimney fire.

Cause	Remedy
External wind conditions combined with chimney terminal	Fit stabilizer cowl. Fit flue draught stabilizer.

## INSTALLING THE APPLIANCE

### FLUE CONNECTION

The flue pipe used to connect the appliance to the chimney is 6" (150mm) in diameter.

The flue connection is on the top of the appliance, in the centre at the back.

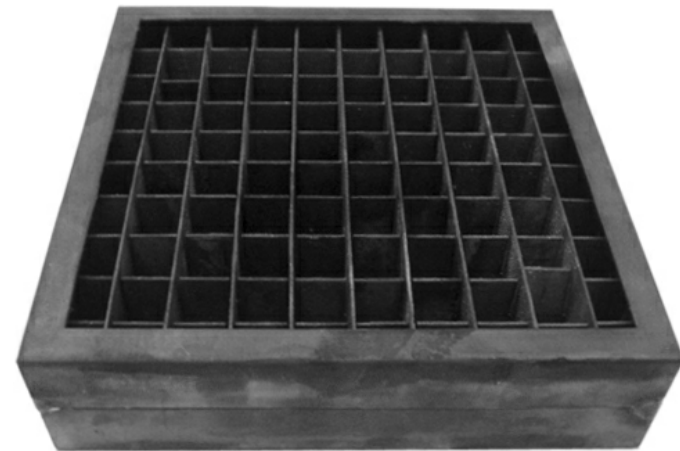
### IMPORTANT INSTALLATION NOTES

1. The installation must allow for adequate chimney sweeping.
2. Avoid using bends greater than 45° to the vertical. All flue pipe sections should be as close to the vertical as possible.
3. All joints in the flue system must be effectively sealed.
4. All flue sockets must face upwards. On completing the installation of the appliance, the chimney, hearth and walls adjacent to the cooker must conform to local or national regulations currently in force. In the United Kingdom, the appropriate sections of the Building Regulations must be conformed to.

### ADDITIONAL SERVICEABLE PARTS

1. Combuster
2. Brick Lining
3. Baffle & plug

Fig.6 - Combuster



## HOT WATER SYSTEMS

### WD & W25 MODELS

- A) There are two connections, both 1" BSP Female (Rp1) – on the left hand side for hot water. The storage cylinder should be 30-gallon nominal capacity insulated to prevent heat loss and as close to the cooker as possible. Follow general notes below, item (B) (6), (7) & (8).

### B. GENERAL NOTES ON WATER SYSTEM

- 1) The cooker will produce hot water at different rates depending on how it is operated. Heating control is manual, no thermostat is fitted.
- 2) The system must be designed to cope with loads between the maximum and minimum output. When the central heating is turned off there must be sufficient gravity load to absorb 15,000 Btu/h for periods when the oven is being used for cooking, e.g. Domestic hot water plus gravity operated radiator.
- 3) An indirect storage cylinder is essential for domestic hot water supply, irrespective of whether the water supply is hard or soft. Minimum capacity 30 gallons. Cylinder should be as close to cooker as possible.
- 4) The central heating circuit may be gravity circulation, but a pump system is preferred. To allow heat from the boiler to be absorbed should there be a pump stoppage on an accelerated circuit, the primary domestic supply must be gravity operated.
- 5) Installation as a central heating system alone, i.e. without a domestic supply, is not recommended as the boiler will produce heat when the cooker is in use, irrespective of central heating demand, and primary absorption must be provided.
- 6) Whichever system is chosen the layout must follow established heating engineering practice. To avoid trapping air in the boiler a 1" BSP connection must be used on the flow trapping, and any reduction in pipe size thereafter being made on a vertical rising pipe. The cooker must be level when fitted and the flow pipe must rise from the boiler. A drain cock must be fitted on the lowest point of the return pipe and a vent to atmosphere at the highest point of each circuit.
- 7) The cylinder and pipe work should be lagged to avoid heat loss.
- 8) The static head must not exceed 60 feet of water.
- 9) The static head must not exceed 2 bar.

### WD MODELS ONLY

The maximum output is 2.35 kw (8,000 Btu/l). Installation procedure should follow the above, the cylinder being as near the cooker as it is possible to avoid long pipe runs and subsequent heat loss.

### POWER FLUSH. WATER SYSTEMS

If the appliance is to be fitted onto an existing water system then it must be power flushed prior to the commissioning of the unit and inhibitor re-added. Failure to carry out this operation will seriously affect boiler performance and negate any warranty claim.

### Typical DHW Gravity System

