



## **CHECKLIST FOR INSTALLING AND COMMISSIONING A FIREBIRD BOILER**

### **Pre-installation check:**

- Is the following documentation included with the boiler, Installation Manual, Boiler Passport, Burner Book?
- Is the base on which the boiler is to be installed solid?
- Allow sufficient room for future servicing of the boiler.

### **Where does the flue terminate:**

- Make sure there is no window, door or fence within 1 metre of the flue-terminal.
- If the flue terminates in a corner or into an allyway, re-circulation of the combustion gases in the air intake could occur. A plume dispersal may be required or an alternative flue arrangement might be available. Contact the Firebird technical department for advise.
- The appropriate class 1 flue must be used with a conventional flue installation. Contact Firebird if unsure.

### **Power supply:**

Is a timed and permanent power supply available, via a fused spur with a 5A fuse?

### **Oil supply:**

- The burner is set for 28 Second Class C fuel.
- Check that there is a good quality filter on the line with an isolating valve.
- There should be a remote sensing fire valve.
- If a deaerator is required, fit the bypass screw in the oil pump. Check that the second flexible oil line is approved by the manufacturer.
- Verify that the oil tank has been installed correctly as per building standards.



## COMMISSIONING A FIREBIRD BOILER

The boiler should be commissioned by an OFTEC registered, or competent, qualified engineer, familiar with Firebird products.

### Boiler check:

- All baffles should be installed correctly.
- Check that the condensate trap is fitted securely, primed with water and piped out into a suitable drain. *It is easier to check the trap when the boiler door is removed.*
- The boiler door should be refitted, complete with graphite seal and then tightened.

### Flue check:

- The flue must be fitted correctly, with a fall back to the boiler. *Note: internal fall of 2.5° within the flue.*
- For concentric balanced flue:
  - A cone should be installed on the end of the flue;
  - the wall plate should be fitted with an opening for air under the flue;
  - check that the flue guard is fitted.
- When installing a Heatpac or a Slimline Heatpac, the 90° bend should be fitted pointing up.

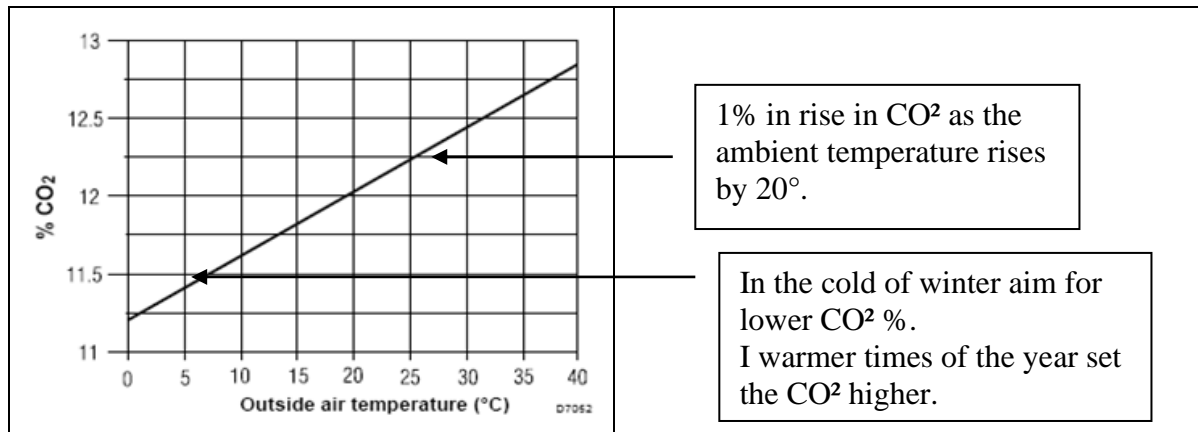
### Burner set-up:

- Check that the nozzle is the right size for the type of boiler and for the system heat demand.
- Set the air to what is required for the nozzle size +.5 on the dial - *example: the factory setting for a Firebird C26 has a Danfoss .65 80° ES nozzle with a pump pressure of 9 bar and air at 2.5. Set the air to 3 for the first start up. The final air setting to suit the boiler set up will be determined by using a flue gas analyser.*
- Check all connections for possible leaks.
- Turn on the oil supply and switch on power to the boiler.
- Set the thermostat at minimum.
- Use a smoke gun to check clean combustion.

## Flue gas analysis and fine tuning of burner:

- Ensure flue gas is over 50°C when setting CO<sup>2</sup>.
- Allow the boiler to run for a period of time before fine tuning to the Firebird settings.
- This fine tuning should be done with the boiler in the condition it is going to be operating at, that is, if a balanced flue is installed, the air hose is fixed on the burner. In the case of a Heatpac, ensure that the door is closed for a period of time before setting the analyser on the system.

*Note:* When fine tuning the burner with the flue gas analyser, adjustments in both the air and pump pressure may be required to achieve the desired CO<sup>2</sup> %.



- Print off a copy of the flue analysis and attach to the boiler passport.
- Make sure the flue gas analysis plug is replaced correctly into the flue when finished the flue analysis.

## HANDING OVER:

### *The householder should receive:*

- A clear and concise demonstration of the boiler operation and any system controls.
- The boiler manual, the burner manufacturer's manual and any other instructions.
- OFTEC forms CD10 and CD11.
- The Boiler Passport.

### *The householder should be advised to:*

- Service the boiler annually and to ensure that the service records within the Boiler Passport are completed.
- Read the terms and conditions of warranty.
- Keep all boiler documentation in a safe place.

**A commissioning record should be completed and a copy retained by the Engineer. This can be found in the Boiler Passport.**

*Please refer to the technical manual for further details.*



## **CLEANING A FIREBIRD CONDENSING BOILER HEAT EXCHANGER**

1. Remove all baffles, including the tubular baffles in the condensing section and clean them.
2. Remove the condense trap and clean it, place a tray under the connection for the trap. Vacuum out any loose debris from the chamber.
3. Clean the inside of the boiler with a vacuum cleaner.
4. Refit all the baffles, and refit the condense trap securely.
5. System pressure should not exceed 2 bar at full operating temperature. The expansion vessel should be checked during the annual service to ensure that it is operating correctly.