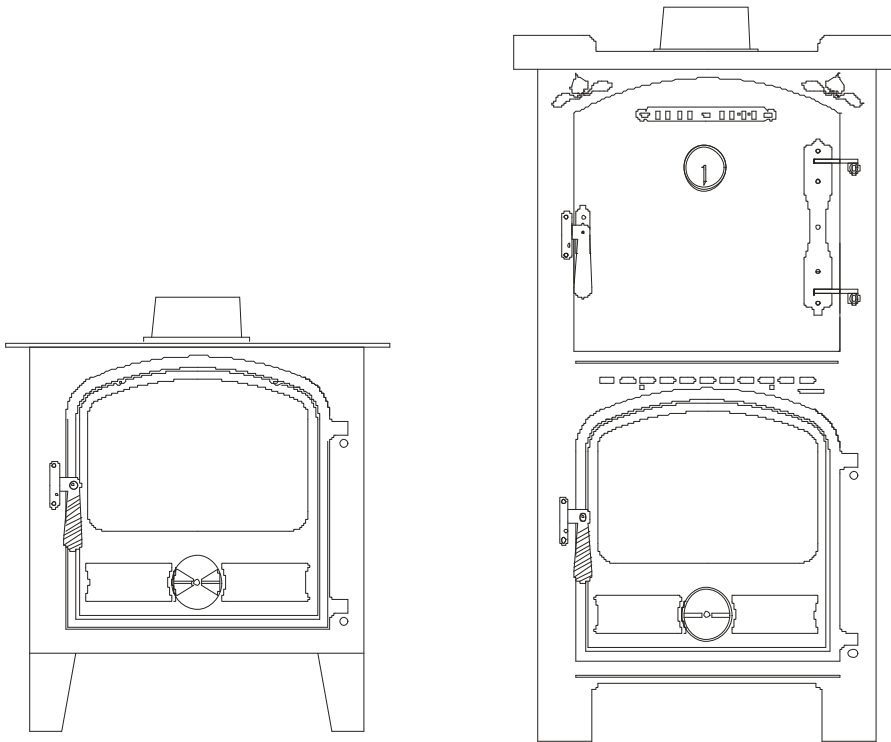




**WOOD BURNING STOVES
7 B USER INSTRUCTIONS
ISSUE 08-09-12**



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BEFORE ATTEMPTING TO LIGHT THE STOVE READ THESE INSTRUCTIONS FULLY AND MAKE SURE THAT YOU KNOW HOW TO CONTROL THE APPLIANCE.

Health, Safety and Warnings.

Flues

Before lighting the stove check with the installer that the work and checks described in the installation instructions have been carried out correctly and that the chimney has been swept and is free from obstructions, the appliance must not be connected to a shared flue.

Fireguard.

A suitable fire guard conforming to BS8423:2002 should be used with all Bubble solid fuel appliances.

Correct use of the appliance.

The appliance should not be used with the fire door open; the fire door must be kept closed at all times except when re-fuelling or de-ashing.

The appliance is suitable for intermittent operation.

Extractor fans.

Do not fit an extractor fan in the same room as the appliance as this can cause fumes to be emitted into the room

Inflammable materials.

Do not use or store aerosols or sprays or any other flammable materials near to the appliance when it is in use.

The appliance must not be connected to a shared flue.

Identification.

A serial number plate is fastened to the rear heat shield displaying information about the identification and documentation for the product. When ordering consumables and spare parts it will be necessary to quote the serial number.

FUEL

This appliance has been designed to Burn wood.

Only dry well seasoned wood should be burnt on this appliance, before any wood is burnt, it should have a moisture content of no more than 20%.

This can be achieved by drying outdoors for 12 months and then under cover for the second 12 months assuming that the wood has been cut, split and stored in such a way as to allow adequate air to circulate through the wood pile.

Ash is an exception to this rule as it can be cut early in the year and (providing it is stored correctly) burned in the autumn.

Hardwoods such as Ash, Birch and Oak are all better than softwoods such as Pine and Spruce.

Burning wet, unseasoned wood will give rise to heavy tar deposits in the stove, on the door glass and within the chimney and will also result in considerably reduced outputs

The stove will accommodate log sizes 350mm (13.5") long x 125mm (5") diameter.

Good Wood burning Technique

If wood is burned at high temperatures a more complete combustion occurs, complete combustion means that most of the volatile hydrocarbons locked in the wood are released in the form of heat generally displayed as long yellow flame combustion.

The higher the combustion chamber temperature, the more complete the combustion process.

Bad Wood burning Technique

If wood is burned at low temperatures then very little is achieved and incomplete combustion occurs.

Incomplete combustion is typified by wood tar deposits all over the internals of the firebox, flue ways and door glass.

The lower the combustion chamber temperature, the worse the combustion and the greater the build up of wood tar.

Good Wood burning Technique

Increases the efficiency of the burn process.

Decreases your running costs.

Increases the life expectancy of the boiler (If fitted)

Results in a clean appliance and chimney.

Bad Wood burning Technique

Decreases the efficiency of the burn process.

Increases your running costs.

Decreases the life expectancy of the boiler. (If fitted)

Results in a tar covered appliance and chimney.

LIGHTING

To ignite the stove, arrange the kindling as follows.

Fig 1 Arrange Kindling.



As you can see air is drawn into the stove in a straight line, through the valve (2 fig 1) at the bottom of the fire door.

This means that to get the stove ignited quickly, we have to create a corridor with wooden sides and a wooden roof, to allow the incoming air to be drawn through it.

Build two walls about 70mm (3") apart from the front door to the back of the stove

Place a firelighter in the centre of the corridor at the front of the stove and then put a roof across the top of the corridor with further kindling.

Open the air wash lever (1 fig 1) which means move it fully to the left and then open the spin valve (2 fig 1) at the bottom of the fire door to admit maximum air into the front of the kindling corridor.

Ignite the firelighter and the fire will rapidly take hold.

When the fire has established itself and all the kindling is well alight, close off the bottom spin valve slightly until the fire is maintaining a steady burn rate.

During the whole of the lighting process do not leave the stove unattended.

After 5 to 10 minutes the fire should be fairly well established and at this stage it is possible to add more fuel.

RE FUELLING

Refueling is a critical part of using your stove and there is a skill in doing it.

The first thing to remember is not to let the fire get too low, if it does when the new fuel is placed into the fire it dramatically lowers the operating temperature of the firebox.

A good indication of correct firebox temperature is when most of the soot or dark deposits have burned off the fireboard bricks inside the stove and the bricks are a nice light colour.

If the stove is up to the correct operating temperature and there is a good amount of glowing charcoal still in the firebed, rake the old fuel forward before refuelling and place the new fuel **behind** the established fire so that the air admitted through the front valve can be drawn across the established fire to ignite the new fuel placed behind it.

Remember this technique as it is the one that is used time after time when refuelling.

If the fire stalls after the new fuel has been loaded encourage it to flame by just give it a short blast of bottom air and then, when the flames are established, close the bottom air and run on top air (airwash), try to adjust the air to allow the new fuel to carry on flaming at the rate which you want in line with the required heat output.

CONTROLLING THE FIRE

There are only two air controls on the stove, the air wash, which are item 1 on Fig1 and the lower door control item 2 on Fig1.

Most of the control will come from the airwash control; the lower door air control will only be used to start and to boost the stove as detailed above in Re Fueling.

The airwash control is very sensitive and fine adjustment is carried out by gently tapping the lever either to the right to reduce airwash or to left to increase the airwash.

ASH CLEARANCE

On wood stoves an ash build up is required before the stove will start working to its maximum; from new it will take a day or so for ash to build up in the base of the combustion chamber.

Ash should be allowed to accumulate to a depth of around 40mm and thereafter it should be maintained at that depth, using a small shovel just remove enough to maintain the 40mm depth.

Air is allowed to enter the combustion chamber through the middle and lower cut outs in the front fret and wood ash should be gently moved from this area to allow air to feed into the fire.

A flat ash poker is provided for this purpose and it should be gently pushed in through the bottom air inlet and moved from side to side to clear away any ash build up from the air inlet route.

Fig2 Use Flat Poker through bottom air inlet vent.



REDUCED BURNING

Make sure that the combustion chamber is up to a high temperature and then reduce the firing rate of the appliance by reducing the air flow into the appliance.

Try to run the stove so that the fuel is gently flaming, if the air flow is reduced too much the appliance may go sooty, some experimentation may be required before the correct settings are established. **See notes in Re-Fueling.**

CLEANING AND MAINTENANCE

Before carrying out any cleaning and maintenance, if the appliance is warm or hot, always wear heat resistant gloves which are available from our sales department.

Removing the Front fret

Do not remove the front fret whilst the stove is alight.

Open the front door and using a pair of heat resistant gloves lift the front fret up vertically and twist it through 45 deg, the front fret can then be withdrawn through the front opening of the stove.

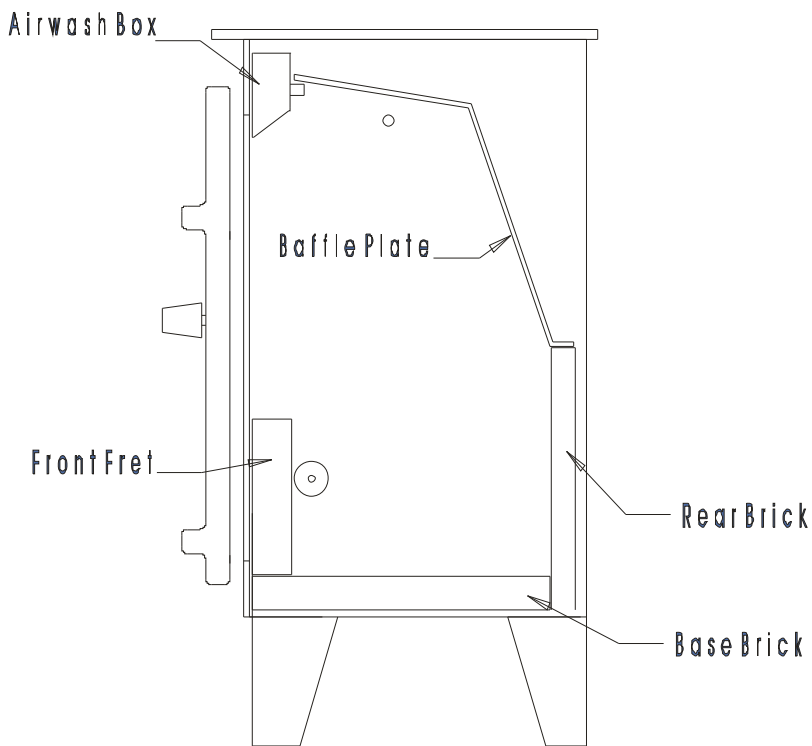
Reverse the procedure to replace the front fret.

Removing the Baffle Plate (Stoves without Boilers) Boiler stoves do not have baffle plates.

Do not remove the front fret whilst the stove is alight.

First remove the front fret as detailed above then remove the ash residue and keep it safe, when the service has been carried out some of the ash will need to be put back into the stove to a depth of 30mm (1¼")

Using both hands, push the front of the baffle plate upwards in a vertical position so that it rocks on the back firebrick



Then pull the lower edge of the baffle plate towards the front of the stove, off the rear brick allowing it to drop down onto the base of the stove.

Keep it standing vertically and rotate it through 45 degrees and then remove it across the widest diagonal opening of the door.

Reverse the procedure to replace that baffle plate.

CHIMNEYS

Chimneys and flue ways should be inspected and cleaned at least twice per year.

The flue pipe from the appliance should have an access plate fitted and it should be cleaned both up and down every 4 weeks.

Wood must not be burned on any appliance in a smoke controlled area unless the appliance is specially designed and approved according to statutory requirements.

On oven stoves the top plate can be lifted off and the appliance flue ways around the oven can be cleaned using a small brush with a flexible wire handle.

Baffle plates are fitted at the top and bottom of the oven and these are held in place by three fasteners, if necessary remove the baffle plates to gain better access to the oven flue ways.

TROUBLE SHOOTING

Fire Will Not Burn

Check that:

- a) The air inlet is not obstructed in any way,
- b) Chimneys and flueways are clear,
- c) That a suitable fuel is being used,

- d) That there is an adequate air supply into the room,
- e) That an extractor fan is not fitted in the same room as the stove.
- f) There is sufficient draw in the chimney. Once the chimney is warm a draught reading of (0.08 inches) water gauge should be obtained.

Door Glass Blacks Up

Differences in chimney draughts mean that the best settings of the air controls will vary for different installations. A certain amount of experimentation may be required; however the following points should be noted:

- a) Using wet or unseasoned wood will cause the glass to blacken.
- B) The airwash relies on a supply of heated air to keep the glass clean, therefore, when lighting the stove allow the firebed to become well established before closing the air control. This may also be necessary when re-fuelling the stove.
- d) Do not completely close the air control.

If blackening of the glass still occurs, check that all flue connections and the blanking plate are well sealed. It is also important that the chimney is not affected by downdraught.

Fume Emission

Warning Note:

Properly installed and operated this appliance will not emit fumes. Occasional fume from de-ashing and re-fuelling may occur.

Persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate actions should be taken:

- a) Open doors and windows to ventilate the room.
- b) Let the fire out and safely dispose of the fuel from the appliance.
- c) Check for flue or chimney blockage, and clean if necessary.
- d) Do not attempt to re-light the fire until cause of fume has been identified, if necessary seek professional advice.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean.

Fire blazing out of control

Check that:

- a) The door is tightly closed.
- b) Both of the air controls are fully closed.
- c) A suitable fuel is being used.
- d) Door seals are intact.

Chimney Fires

If the chimney is thoroughly and regularly swept, chimney fires should not occur.

If a chimney fire does occur close all of the air inlet controls, (1 & 2 in fig 1) and tightly close the door of the appliance.

This should cause the chimney fire to go out in which case the controls should be kept closed until the stove has gone out. The chimney and flueways should then be cleaned.

If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately.

After a chimney fire the chimney should be carefully examined for any damage. Expert advice should be sought if necessary.

Co Alarm

Your installer should have fitted a CO alarm in the same room as the appliance. If the Alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

Fig 1

7B Wood Stove

1 = airwash control, 2 = overfire air

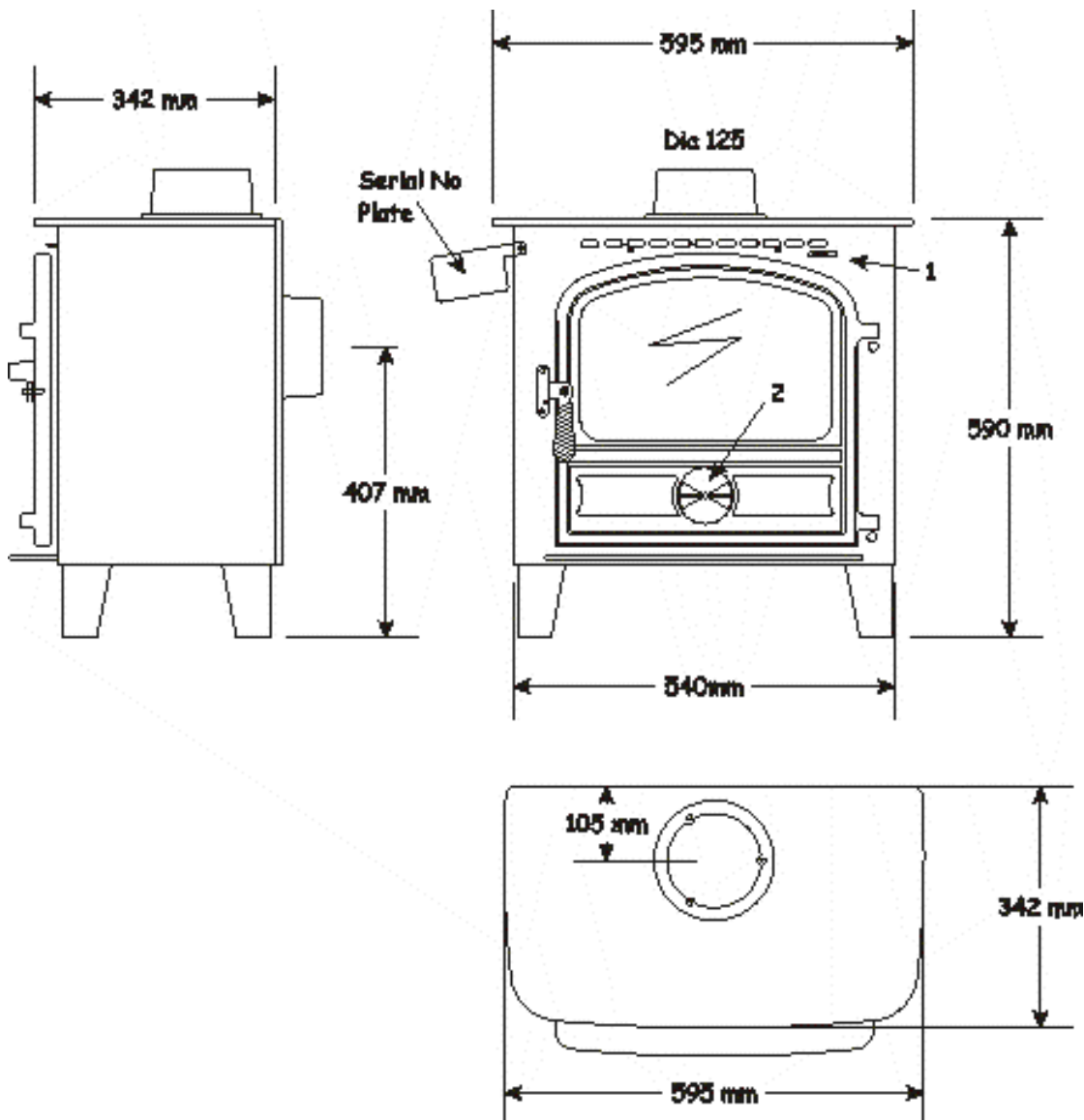
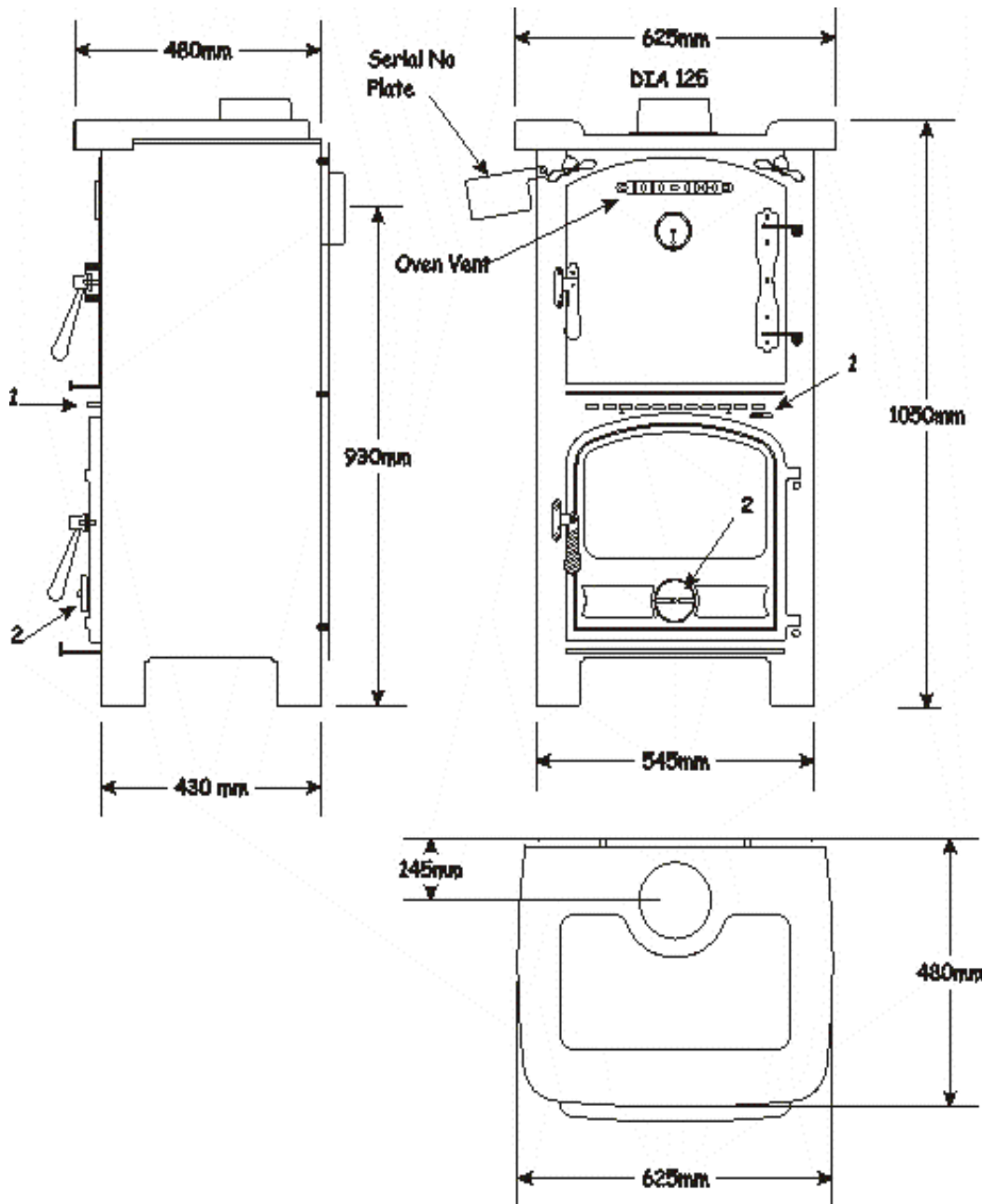


Fig 2

7B Wood Pod



WOOD FUEL LOGISTICS

Do I know how much wood I will need to burn?

Roughly 1 lb of wood equals 1Kw of energy; therefore if you need 30Kw of energy per hour you are going to have to burn about 30 lbs of wood per hour.

Pine and Oak have different density therefore a tonne of Pine will take up substantially more volume than a tonne of Oak.

If you work out how many Kilowatt hours are required to keep your property warm then you should be able to work out the weight of wood required for a seasons heating.

Do I have a reliable and proven supplier of wood and do I know the cost?

Once you have established your seasons requirement you can order your supplies from a local wood fuel supplier.

Do I know how to store the wood?

Before any wood is burnt, it should have a moisture content of no more than 20%.

This can be achieved by drying outdoors for 12 months and then under cover for the second 12 months assuming that the wood has been cut, split and stored in such a way as to allow adequate air to circulate through the wood pile.

Ash is an exception to this rule as it can be cut early in the year and (providing it is stored correctly) burned in the autumn.

Equipment to help me get the best from my wood burning appliance

There are many factors which will affect the running of your wood burning appliance but the most common problems are:-

WET WOOD

RUNNING THE APPLIANCE AT THE WRONG TEMPERATURE

INCORRECT INSTALLATION

INCORRECT CHIMNEY

The main problem here is knowing.

How do I know that the wood fuel is at the correct moisture content for burning?

How do I know if I am burning the wood at the correct temperature?

Two pieces of equipment will help here, a moisture meter will tell you what the moisture content of your wood is and a stove top thermometer will tell you what temperature your appliance is running at.

Both of these are available from us or your retailer.

ABOUT STOVES WITH BOILERS

Running a Boiler Stove, Dry.

Do not use an appliance which has a boiler fitted to it, without connecting it up to a correctly designed, fully functioning, central heating system.

Along with everything else that has been mentioned, correct plumbing installation is absolutely critical.

There are several important objectives that the plumbing system must achieve and we list them as follows:-

Safety

Convenience

Effectiveness

Control of Condensation

Control of Condensation is critical; if it is not effectively dealt with then the results can be catastrophic.

Remember that on the initial light up of the appliance, large amounts of water may run from the appliance, this is quite normal and caused by massive condensation due to the fact that the boiler is cold and the newly established fire is hot.

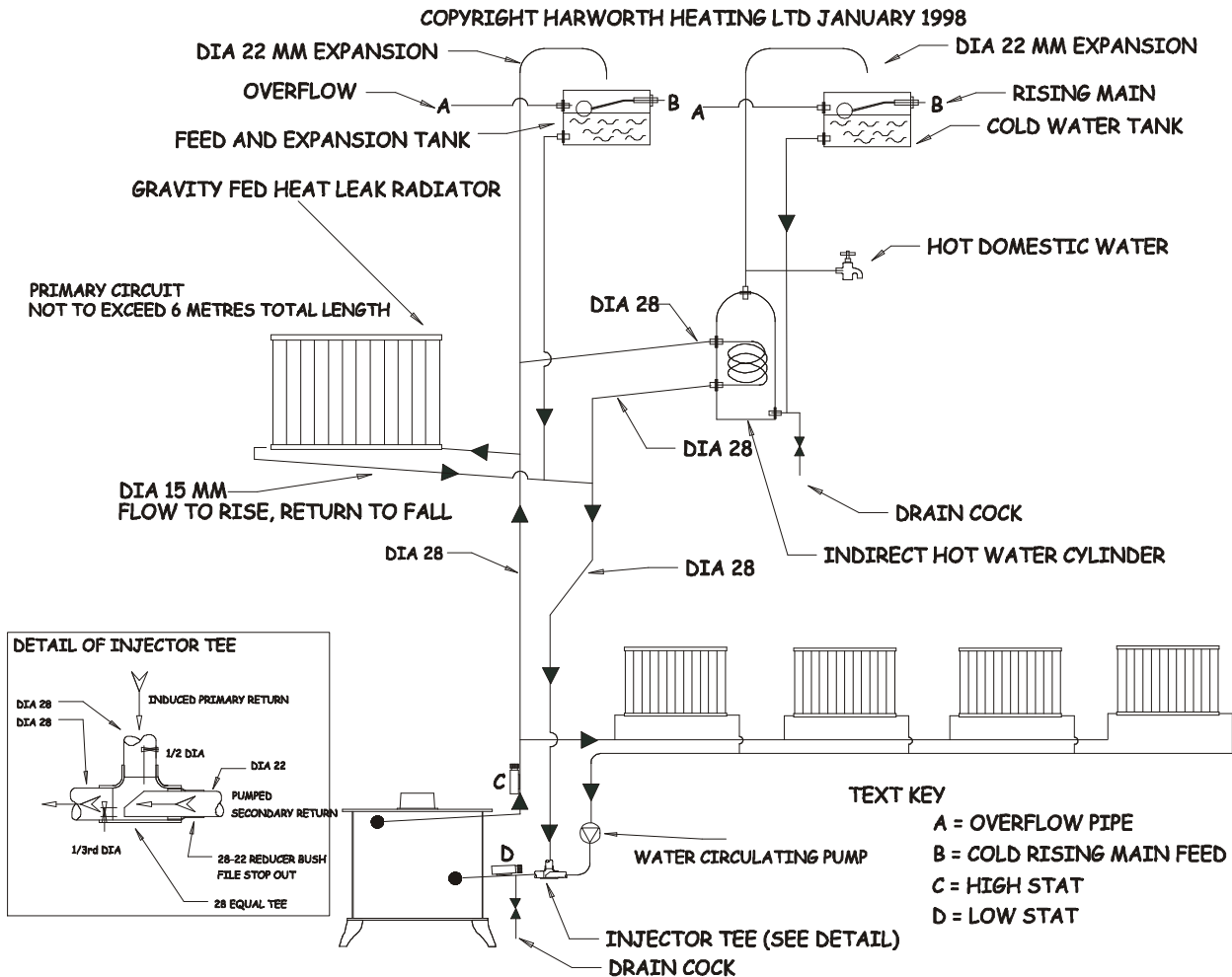
Once the water temperature in the boiler starts to increase the temperature difference starts to decrease and so does the initial condensation, the quicker the temperature differential starts to decrease then the quicker the condensation stops occurring.

To make sure that this condensation is kept to an absolute minimum the plumbing system must have certain design features built in to it, if it doesn't your appliance warranty will be null and void.

The critical temperature is 61 deg C: this means that water returning back into the appliance must be at a temperature of 61 deg C and there are several ways to achieve this, the most common being a return water thermostat attached to the return water pipe near to the appliance set at 61 deg C.

Another way is to fit a thermostatic valve designed to maintain the return water temperature at 61 deg C.

Typical plumbing schematic.



Description of plumbing schematic

(Pipe sizes will vary according to appliance output)

There are several important features in the design of this circuit; one of them is use of an injector tee, which allows primary gravity circulation to occur when the pump is not running and induced gravity flow to occur when the pump is running.

To reduce the necessity of running four pipes from the boiler, it is possible to fit the injector tee at first floor level and then to fit a flow and return only to the boiler connected diagonally as shown.

Another feature is the use of adjustable clip on pipe thermostats.

Item D is an adjustable, clip on pipe stat set at 61 deg C. LOW STAT

The low stat is designed to switch the pump off when the return water is lower than 61 deg C

Item C is an adjustable clip on pipe stat set at 85 deg C. HIGH STAT

The high stat is designed to switch the pump on when the flow water is over 85 deg C

Both of these pipe stats are wired in with the water circulating pump.

Be Wise before the Event

This is an extract from a report sent to a customer who made a warranty claim after a boiler failure.

The appliance was just two years old.

1. The boiler is completely contaminated by a substantial thickness of condensed wood tar from top to bottom and is displaying typical signs of misuse and incorrect installation.
2. The wood tar condensate has caused a restriction in the cross sectional area of the flue way.
3. The wood tar condensate in the flue pipe and chimney has caught fire.
4. Substantial fire damage has occurred to the boiler water jacket.
5. Substantial fire damage has occurred to the outer flue panel.
6. Substantial fire damage and metal distortion has occurred to the internal baffle system.
7. There are no manufacturer faults on the fabrication of the boiler.
8. There are no water leaks in the main firebox area the only water leaks found were those illustrated in the photographs where tar contamination and fire damage had occurred.
9. The appliance has not been used correctly
10. The appliance has not been installed correctly.
11. The appliance has not been commissioned correctly.

The warranty claim is rejected.

GUARANTEE

Conditions of Guarantee

Your Bubble appliance is guaranteed against defects arising from faulty manufacture for a period of one year subject to the following express conditions.

Failure to comply with these conditions will invalidate the guarantee.

1. The Bubble appliance must be installed by a suitably qualified engineer.
2. Upon installation the receipt must be kept as proof of purchase.
3. The guarantee lasts for one year from the date of purchase.
4. The guarantee does not cover parts deemed to be replaceable in the normal use of the appliance, these parts are:-

Grates, Ash pan, Side and Back Bricks, Baffle Plates, Door Rope Seal and Door Glass.

HOW TO PROCEED WITH A COMPLAINT

If you have cause for dissatisfaction with your Bubble appliance you should first contact the Bubble dealer or whoever you purchased the appliance from.

Your supplier should bring your concerns to our attention and we will assess the nature of the complaint.

We will either send replacement parts or nominate a regional engineer to inspect the appliance and carry out any remedial work that may be required.

If the fault or problem is not due to faulty manufacture but some other cause such as:-

Misuse, failure to install correctly, failure to service at regular intervals, a charge will be made to cover the cost of the visit and any new parts required.

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