



## ***Sophel* COMBINATION BOILER**

### **OPERATING INSTRUCTIONS**

**DANGER:** THE *SOPHEL* BOILER MUST BE OPEN VENTED TO PREVENT THE SYSTEM BECOMING PRESSURED – CONTACT A QUALIFIED INSTALLER.

The operation of the “*SOPHEL*” Boiler, like all Metal Dynamics products has been kept simple.

The *Sophel* has four main **Air Intake Spinwheels** located on the ashpan area. The two centre knobs are fixed and the two outside knobs are adjustable. **To operate the outside spinwheels**, simply turn the control knobs anticlockwise to open and therefore increase the intensity of the fire, or clockwise to close and slow the fire down.

An additional air control is positioned at the top of the glass door. This allows an air wash to be drawn over the door which aids in keeping the glass clean. To open this air control, lift the black knob located on the R.H.S. of the door, up. Pushing the knob fully down closes the air control. This (along with the spinwheels) should be closed for extended burn times.

If during the slow burn the fire goes out without burning the fuel load, which can occur in low draught situations or with poor or wet wood, you may need to allow a small amount of combustion air into the boiler at all times through one of the spinwheels.

The **Two Sided *Sophel*** has air controls on both sides which can be operated independently or in conjunction with each other. If operating the unit from both sides simultaneously, you **WILL NOT** need to open the spinwheels as wide as when only operating from the one side only. **Doing so could produce extreme heat and prove dangerous.**

Never leave the *Sophel* unattended with all the air controls fully open. **THIS IS TO PREVENT A DANGEROUS OVER-FIRING SITUATION.**

**Note:** The glass will soot up whenever the airflow over the glass is reduced or when closed down to achieve extended burn times.

The **Ashpan** is fully removable to allow for disposal of ash which has passed through the grate. This should be checked and emptied as required. If the ash pan becomes over full the fire may not burn as well, as air may be restricted from reaching the fire.

Always leave a minimum of 25mm of ash in the firebox “well” surrounding the grate. This acts as a good thermal insulator and helps extend burn times.

#### **LIGHTING THE *SOPHEL* (DAMPER & AIR CONTROL OPERATION)**

**(Check for correct clearances from combustibles, correct flue installation, and the system is full of water before commissioning the *Sophel*)**

Set and light the fire using paper and kindling (fire-lighters may be used). Have the air controls open. As the fire becomes established set the air control to the desired position to maintain the required fire to heat your area. The position will vary depending on the area being heated, the draught capability of the *Sophel*, quality of the fuel being used and desired temperature required. Let experience be your guide.

**NOTE: Open the firebox door slowly when refuelling the *Sophel* to prevent smoke being drawn into the room.**

For extended burn times reduce or close the door air flap/s and all the spinwheels. If the fire goes out leave one spin wheel slightly open. This will vary from installation to installation.

#### **OPEN FIRE OPERATION (if fitted)**

Note: The operating efficiency of the *Sophel* is reduced in this operating mode.

To convert to **Open Fire Mode**, pull the two black knobs found on the bottom lower left and right hand side of the door support frame inwards. This will release the door and a counter weight will allow the door to lift and disappear behind the door fascia. To reposition the door simply pull the door assembly by the locking knobs down over the locating pins and refasten the door by pushing the black knobs outwards.

**CAUTION: GLOVES MAY BE REQUIRED TO PREVENT BURNS AS SURFACES MAY BE HOT.**

#### **ADJUSTABLE PUMP THERMOSTAT OPERATION**

The hydronic circulating pump should be controlled by a thermostat which ideally should sense the hot water temperature leaving the boiler. The sensor should be placed before any tee off points. If the *Sophel* is providing domestic hot water as well as central heating – we recommend the thermostat be set between 60°C. (min.) to 75°C. For hydronic only applications – we recommend the thermostat be set between 45°C. and 55°C.

For variations to the above settings, ask your installer or contact Wise Living.

#### **GENERAL INFORMATION**

- Rake grate and clean ashpan out regularly (rake and cleaning tool provided).
- Avoid wet or green wood – these will cause maintenance problems in any boiler.
- Briquettes or coal may be used in the *Sophel* Boiler and will give good overnight operating temperatures.
- Check and clean flues and smokeways at top of boiler at least every 6 months.
- A hot fire burning slowly produces little or no smoke. A cold fire smouldering produces maximum smoke.

**Check rust inhibitor every 6 months or after any major boiling or water loss. The boiler is made of mild steel and will give years of trouble free operation providing “Thermablend” anti-rust and if required hardness conditioner levels are maintained. If water supply is acidic, add sodium bicarbonate (baking soda) – ask your dealer or contact Wise Living.**