

# KING OF ITS KIND

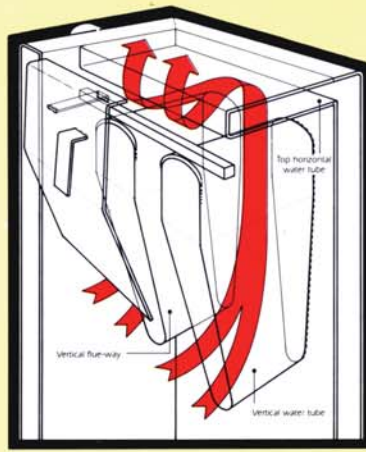


## FIREBIRD

### 'SUPREME'

The unique back-boiler with  
the secret of continuous  
high heating power

# The Secrets of Firebird back-boiler constant



# the Unique 'Supreme' with its high-efficiency

**SECRET NO. 1** is how the 'Supreme' achieves its very high efficiency rating, even though some heat must always be lost to flue. This is necessary to ensure that chimney draught is maintained and that acid-corrosion of the chimney flue is prevented.

This efficiency is due to three design features:-

- a) Simplified straight-through flue-ways. The tapered vertical shaping is designed to extend the flame to cover the complete heat exchanger surfaces (see diagram).
- b) Top water tube. This heating tube, positioned horizontally above flue-ways, collects much of the heat which would otherwise be lost into chimney.
- c) Dry-back, lift-off, radiant panel. Can rise to a higher temperature than the normal type cooled by water.

**SECRET NO. 2** is the ease with which the 'Supreme' can be cleaned. The lift-off radiant panel allows immediate access to the unique layout of flue-ways which can be regularly and easily cleaned (1.5 mm soot = 25% less efficiency).

**SECRET NO. 3** is the balanced performance of the 'Supreme'. This is achieved by the dry-back radiant panel/damper. The panel can rise to a higher temperature than one cooled by water and the increased radiant heat minimises the drop in room-heating when the damper is opened to heat water/radiators – see performance details.

## PERFORMANCE DETAILS

The Firebird 'Supreme' has been tested by the National Coal Board for the Domestic Solid Fuel Appliance Approvals Scheme (D.S.F.A.A.S. LTD.) and the Irish Institute for Industrial Research and Standards. These laboratory tests, carried out in accordance with BS4834, have proved the 'Supreme' to have a very high efficiency rating, but not so high as to cause condensation of acidic gases within the normal chimney flue. The following results have been achieved using a 16" model 'Supreme', fitted with a Firemaster Firestar overnight burner. **Please note in particular the high heat output to room when burning both coal and smokeless fuel.**

(a) When burning bituminous housecoal at 1.81 kg/h i.e. 4lbs.-hr.

Heat output	Direct room heating		Water heating	
	kW/hr	BTU/hr	kW/hr	BTU/hr
Damper closed (HRO)	2.1	7,165	5.0	17,060
Damper open 20 mm (HBO)	1.8	6,140	7.3	24,910

(b) When burning smokeless fuel at 1.36 kg/h i.e. 3lbs.-hr.

Heat output	Direct room heating		Water heating	
	kW/hr	BTU/hr	kW/hr	BTU/h
Damper closed (HRO)	2.1	7165	5.0	17,060
Damper open 10 mm (HBO)	1.6	5459	6.5	22,178

## DIMENSIONS

### OVERALL BOILER DIMENSIONS

Height.....	– 22 <sup>3</sup> / <sub>8</sub> "
Depth.....	– 12 <sup>3</sup> / <sub>8</sub> "
Width of 16" model.....	– 20 <sup>1</sup> / <sub>2</sub> "
Width of 18" model.....	– 22 <sup>1</sup> / <sub>2</sub> "
Width of 20" model.....	– 24 <sup>1</sup> / <sub>2</sub> "
Width of 22" model.....	– 26 <sup>1</sup> / <sub>2</sub> "

### MIN. BUILDER'S OPENING DIMENSIONS

Height.....	– 23" (585 mm)
Depth.....	– 14" (355 mm)
Width for 16" model.....	– 25" (635 mm)
Width for 18" model.....	– 27" (685 mm)
Width for 20" model.....	– 29" (735 mm)
Width for 22" model.....	– 31" (790 mm)

### PATENT

This appliance is fully protected by patents in Great Britain, Ireland and abroad. All rights are reserved and copyright appropriately applies. Our policy is one of continuous research and development. We therefore reserve the right to change, without prior notice, the design or specification of our products at any time and be without obligation to make similar changes in products previously produced.

For further details contact your local stockist, or the manufacturer



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