

FARM 2000

FROM

M&K Products

FARM 2000 'HT' (High Temperature) Boilers are designed to operate heating, hot water and hot air systems by efficient and controlled combustion of biomass, mainly wood (in solid pieces) and straw. They are generally not suitable for burning woodchip, sawdust or shavings.

Most of these fuels contain gases which represent half of the calorific value, and which can only be burned and release their energy at high temperatures. The boilers therefore have secondary air pre-heating and a 2-stage fan operation to ensure these high temperatures are achieved, and clean and complete combustion results.

The high temperature waste gases pass through a multi-tube heat exchange system, transferring the heat to the water before exhausting to the chimney at low temperature. No wasteful heat is lost to the chimney, and the entire combustion process is thermostatically controlled. 'HT' Boilers with their large loading capacities generally only require stoking 1 - 2 times per 24 hours.

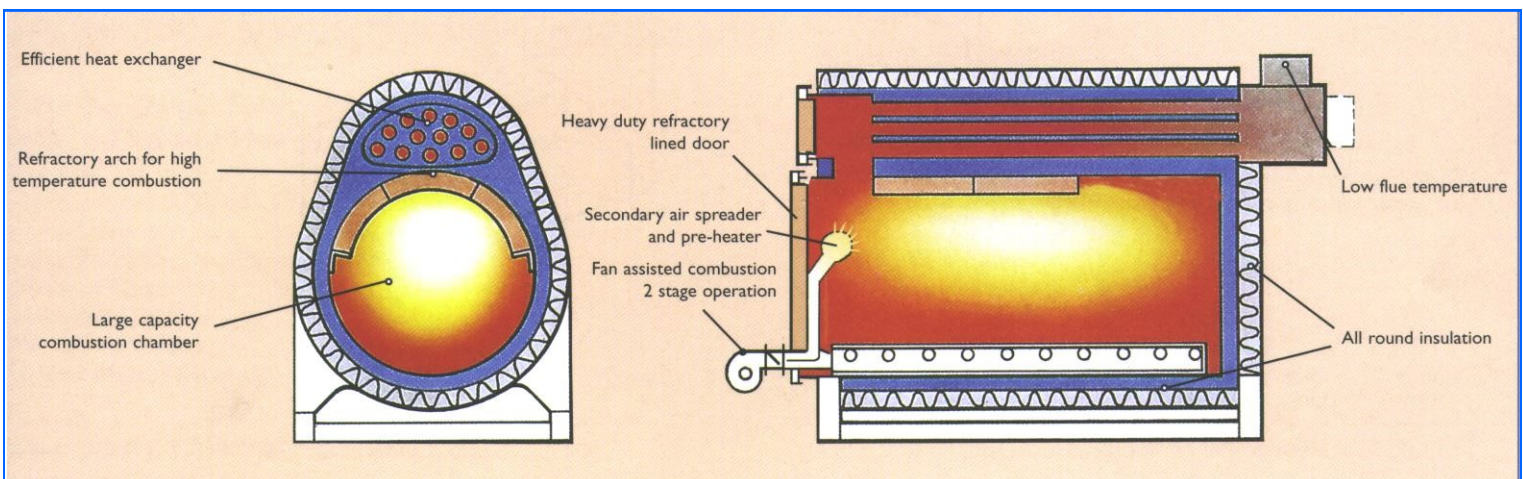
HT boilers are not suitable for burning coal or other fossil fuels.

- **Large Combustion Chamber**
Low stoking frequency
- **Fan Operation**
Rapid heat output from cold start, accurate control. Safety and economy
- **Refractory Lined Combustion Chamber, Pre-heated secondary air providing 2-stage combustion**
Clean and complete combustion. Low ash level. Minimum or no smoke.
- **Multi Tube Heat Exchanger**
Maximum heat output to water and minimal fuel consumption. Low working flue temperature 175/275 °C
- **Large Stoking Door**
Easy loading, additional smaller secondary door on all boilers for convenient "topping up" and inspection.
- **Vertical or Horizontal Flue Outlet**
Lower chimney costs, easy cleaning access
- **Patented Water Circulation & Accumulation system**
Prolonged output, providing heat between stoking
- **50mm Insulation**
Minimal heat loss
- **Designed & Manufactured in UK**
Prompt service and individual attention

HT BOILERS

burn wood, straw and other biomass fuels.

For RHI payments under the commercial scheme: HT46R, HT50R, and HT60R, are eligible using wood logs; HT70R and HT80R using straw and wood logs.



DIMENSIONS AND TECHNICAL DATA

FARM 2000 'HT' BOILERS

SIZING AND INSTALLATION

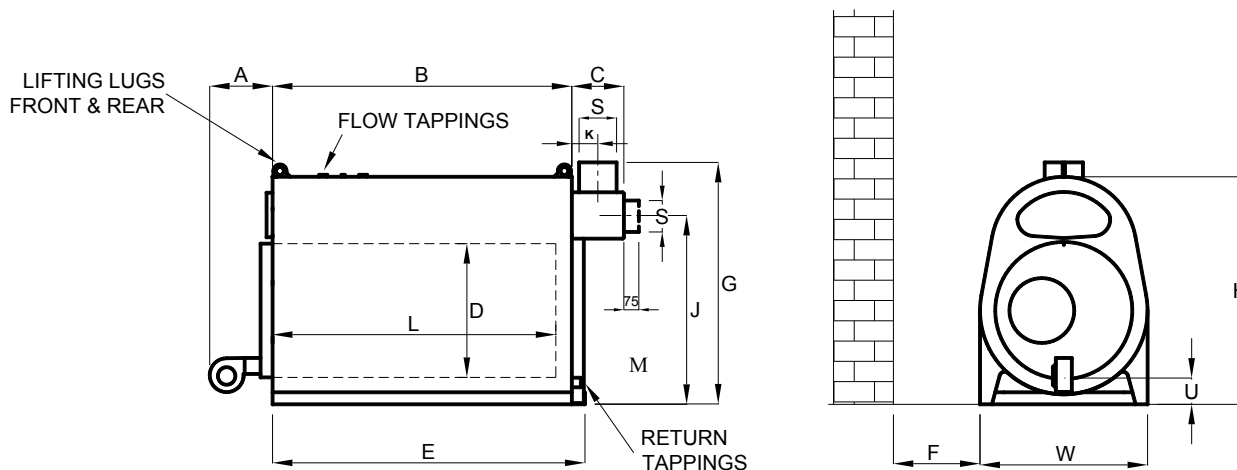
HT Boilers are designed for use in open vented indirect hot water heating systems and must be installed according to the current FARM 2000 Installation and Operating Instruction Booklet. Indirect installation into a sealed heating system can however be achieved by using a heat exchanger unit.

HT Boilers are not suitable for burning coal or other fossil fuels.

Wood waste should not be burned in boiler models larger than HT70

All boilers are supplied ready for installation and specification includes the following:

- Secondary air 'pre-heat'
- Boiler with all round insulation and cladding.
- Pre-wired fan, thermostat and electronic control unit.
- Temperature gauge.
- Integral support frame with skids for easy siting.
- Cleaning tools and instructions.
- Over-ride safety thermostat.
- Horizontal or vertical flue outlet (*Please specify*)
- Adjustable flue damper.
- Additional stoker door for easy inspection and "topping up".
- Unique patented internal guided water circulation.



BOILER MODEL	DIM	HT26	HT36	HT46R	HT50R	HT60R	HT70R	HT80R
Max. Output (kW)	-	26	41	54	85	120	161	195
Max. Bale Length (mm)	-	-	-	-	-	-	1400	1900
Max. Log Length (mm)	-	600	800	900	900	900	1300	1800
Combustion Chamber Length	L	950	1200	1450	1450	1450	1950	2450
Diameter Combustion Chamber	D	720	720	720	925	1200	1200	1200
Boiler Height	H	1230	1305	1305	1490	1790	1790	1790
Boiler Width	W	900	900	900	1120	1405	1405	1405
Flue Spigot Inside Diameter	S	180	180	180	203	203	255	308
Fan Clearance	A	365	365	365	365	430	430	430
Length	B	1010	1260	1515	1515	1515	2010	2510
Flue Box	C	260	260	260	305	305	355	410
Total Length	A+B+C	1630	1885	2140	2185	2250	2795	3350
Frame Length	E	1070	1320	1565	1565	1585	2085	2585
Min. Clearance from wall (to allow for fan)	F	550	550	550	625	770	770	770
Height to top of Vertical flue spigot	G	1295	1365	1365	1565	1855	1855	1855
Height to Centreline Horizontal Flue Spigot	J	1035	1055	1055	1271	1539	1539	1514
Distance to Centre of Vertical Spigot	K	130	130	130	160	160	185	210
Height to Lower Rim of Chamber	U	145	145	145	165	170	170	170
Flow Tapping (Female Thread) (BSP)	-	1¼, 1¼	2, 1¼	2, 1¼	2, 1¼	2½, 1¼	2½, 1¼	3, 2
Return Tapping (Female Thread) (BSP)	-	1¼, 1¼	2, 1¼	2, 1¼	2, 1¼	2½, 1¼	2½, 1¼	3, 2
Boiler Weight (Dry) (kg)	-	605	660	847	925	1210	1600	2905
Water Volume (Litres)	-	176	214	400	465	620	790	1335
Min. Clearance from Back of Boiler to Mast or Wall	M	260	260	260	300	300	330	390

Important notes:

1. These are maximum outputs for limited periods – usually 3-4 hours, depending on wood or straw. When choosing boiler for domestic and continuous outputs, refer only to FARM 2000 Boiler Selection Guide, and fit accumulator to allow prolonged heat output at required level.
2. RHI Certificates are based on using Wood Logs up to 25% moisture content, and Cereal crop straw in square bales up to 17% moisture content with density approx. 100-110kg/cu. metre
3. Using wood in HTRs, effective length of chamber is reduced by 550-600mm

HT46R, HT50R, & HT60R boiler models meet the RHI emissions requirements when burning logs.

HT70R & HT80R boiler models meet the RHI emissions requirements when burning logs and straw.

Max. Operating Pressure: 1.5 bar

Test Pressure: 3.0 bar

Special boilers made to order.

All dimensions in mm.

All FARM 2000 Boilers are manufactured in the U.K. Each boiler undergoes strict quality control and a pressure test before despatch.

Generally, when logs or straw is burned in the HT boilers the smoke emission from the chimney is nil or very light. However, it is not possible to guarantee the type of smoke emissions with different fuels, particularly joinery waste.

It is strongly recommended that wood waste is not burned in boiler models larger than HT70. Wood waste is not an eligible fuel for RHI

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