

FARM 2000

FROM
TEISEN PRODUCTS

HT BOILERS

burn wood, straw and other biomass fuels.

FARM 2000 'HT' (High Temperature) Boilers are designed to operate heating, hot water and hot air systems by efficient and controlled combustion of solid fuels and biomass

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, refractory lined combustion chambers and a 2-stage fan operation to ensure these high temperatures are achieved, and clean and complete combustion results. *(Low temperature combustion produces smoke, tar and heavy fuel use).*

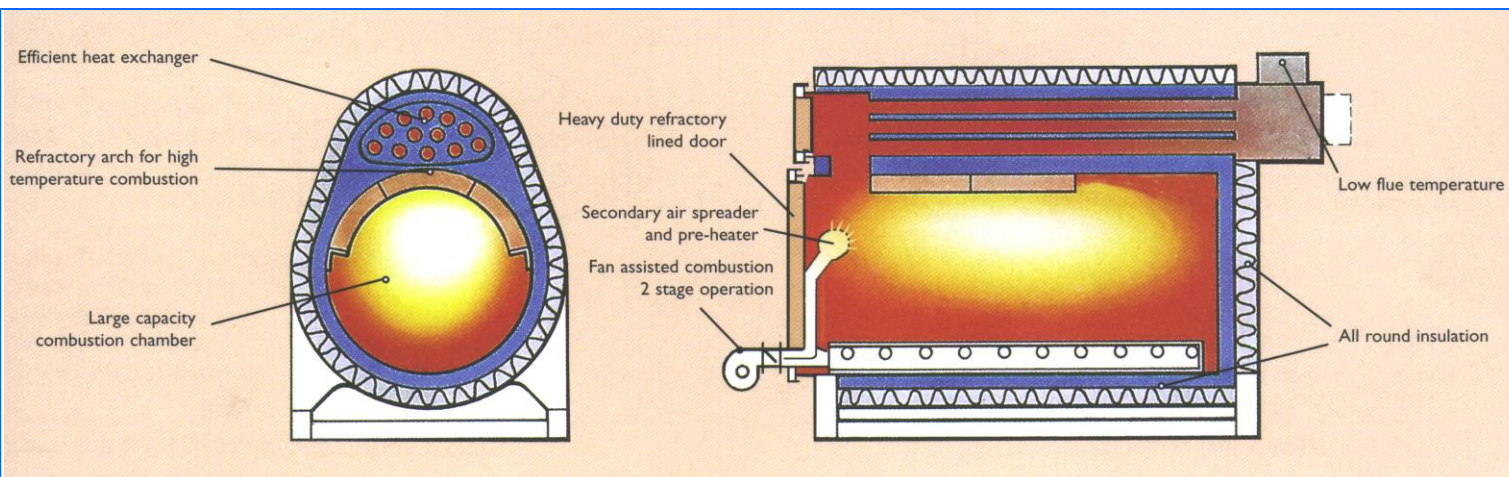
The high temperature waste gases pass through a multi-tube heat exchange system, transferring their heat to the water before exhausting to the chimney at low temperature. No wasteful heat is lost to the chimney. The entire combustion process is thermostatically controlled and fuel is only burned when required

'HT' Boilers are unique in their high efficiencies and large loading Capacities depending on boiler size. Re-fuelling is generally only required 2 - 3 times per 24 hours in winter.



HT60, HT70 & HT80 BOILERS ARE APPROVED FOR USE IN "SMOKELESS ZONES" WHEN BURNING CEREAL STRAW

- **Large Combustion Chamber**
Low stoking frequency
- **Fan Operation**
Rapid heat output from cold start, accurate control. (No requirement for heat leak when using straw).
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 225/275 °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



DIMENSIONS AND TECHNICAL DATA

FARM 2000 'HT' BOILERS

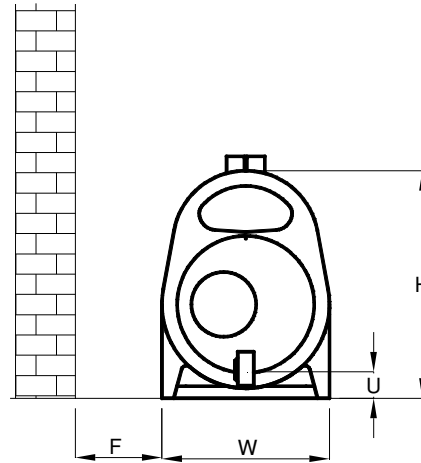
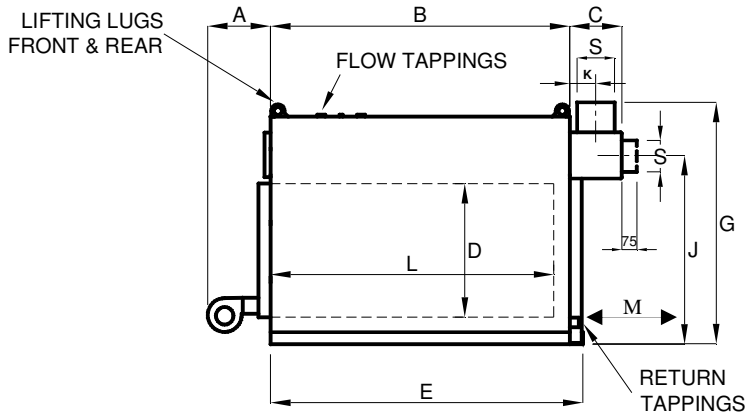
SIZING AND INSTALLATION

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. Installation into a sealed heating system can however be achieved by using a heat exchanger unit.

If you have any special requirements, you are welcome to contact us.

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	HT25	HT35	HT45	HT50	HT60	HT70	HT80
Max. Output with Wood 000 BTU (kW) *	-	90(26)	140(41)	185(54)	290(85)	410(120)	550(161)	735(215)
Max. Output with Straw 000 BTU (kW) *	-	-	40(12)	50(15)	100(29)	150(44)	200(59)	250(73)
Standard Bale Capacity (See below) † **	-	-	-	1	2	3-4	4-5	5-6
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	1230	1230	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	250	250	250	250	310	310	310
Height to top of Vertical flue spigot	G	1295	1295	1295	1565	1830	1830	1830
Height to Centreline Horizontal Flue Spigot	J	1035	1035	1035	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)	-	1 1/4, 1 1/4	1 1/4, 1 1/4	2, 1 1/4	2, 1 1/4	2 1/2, 1 1/4	2 1/2, 1 1/4	3, 2, 1 1/4
Return Tapping (Female Thread) (BSP)	-	1 1/4, 1 1/4	1 1/4, 1 1/4	2, 1 1/4	2, 1 1/4	2 1/2, 1 1/4	2 1/2, 1 1/4	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

Outputs are based on seasoned wood and straw with maximum moisture content 16%.

Excess moisture reduces efficiency.

† Check your bale sizes against our combustion chamber dimensions before specifying.

USE MEDIUM/LOW DENSITY BALES

**HT60/70/80 take:

New Holland bales 600 x 900 variable length

Massey Ferg. bales 800 x 800 variable length

USE MEDIUM/LOW DENSITY BALES

Max. Operating Pressure: 1.5 bar

Test Pressure: 3.0 bar

Special boilers made to order.

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

Generally, when cord wood or straw is used 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, and it may in some circumstances, be necessary to add an after burner.

See also our 'Economy' and 'Big Bale Boiler' leaflets.

The right to make amendments without notice is reserved.

TEISEN PRODUCTS LTD.

Bradley Green, Redditch. Worcs. B96 6RP, UK

Tel: +44 (0)1527.821621

Fax: +44 (0)1527.821665