

## What is biomass?

Biomass covers a large range of organic fuels, we deal with wood chip, log and pellet and these breaks down into the following;

*Wood chip boilers (Commercial)*

*Wood pellet boilers (domestic, and small commercial)*

*Log gasification\* boilers – (Domestic and small commercial – working farms or centres with staff to deal with the day to day.*

*Pellet stove with back boilers (Small domestic and small commercial)*

*Pellet stove without back boiler – room heater (Small domestic and small commercial)*

*Traditional wood burning stove or cooker with / without back boiler (Small domestic and small commercial)*



## Is Biomass for me?

Budget price for fully installed and commissioned systems with manual and MCS certificate, and which includes flue (8m flexi liner) and either cylinder, thermal store or buffer tanks.

RHI\*\*

ROI\*\*\*

*Wood chip boilers*

TBC

Yes

TBC

*Wood pellet boilers*

From £18k

Yes

7-12%

*Log gasification\* boilers*

From £16k

Yes

10%+

*Pellet stove with back boilers*

From £8k

Yes

7%+

*Pellet stove without back boiler – room heater*

From £4k

No

*Traditional wood burning stove or cooker*

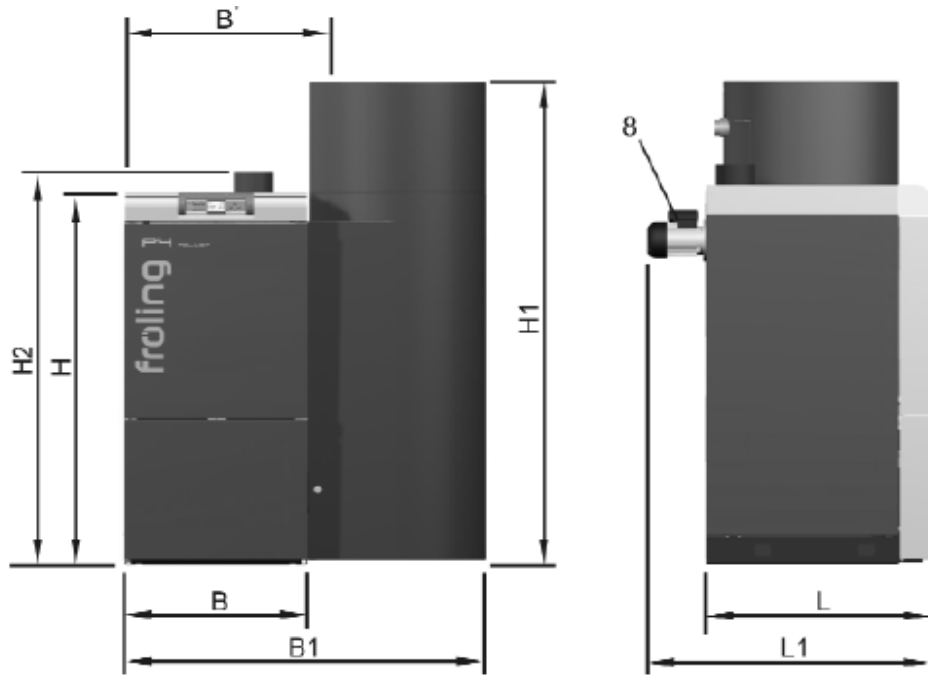
From £4k

No

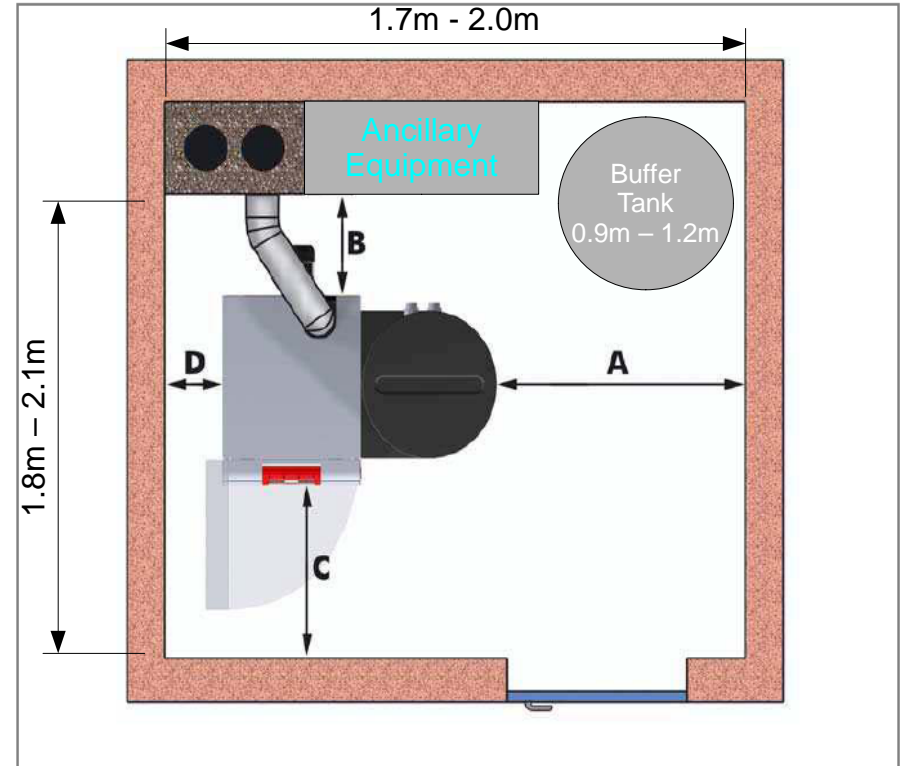
**2 Sandbed Hebden Bridge West Yorkshire HX7 6 PT - [sales@ecoheat.co.uk](mailto:sales@ecoheat.co.uk) - 01422 843414**

\*Gasification = high efficient combustion process. \*\* RHI = Renewable Heat Incentive. \*\*\* ROI = Return On Investment.

# Indicative Spatial Requirements for Froling Pellet boiler



Minimum distances in the boiler room



Please note that clearance dimension are absolute minimum and we would recommend more where ever possible.

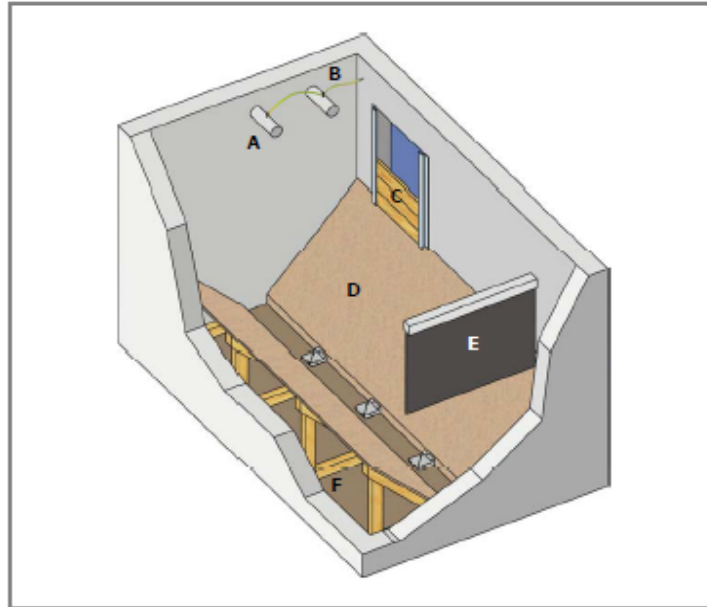
Dimensions		8	15	20	25	32	38
L	Total length of boiler	mm	740	740	740	740	740
L1	Total length including draught unit	mm	930	930	930	930	930
B	Total weight of Boiler	mm	600	600	770	770	860
B1	Total weight with suction unit only	mm	1185	1185	1355	1355	1445
B*	Weight without suction unit	mm	700	700	870	870	960
H	Total height of boiler	mm	1280	1280	1280	1280	1430
H1	Total height with suction unit only	mm	1660	1660	1660	1660	1900
H2	Height of flue gas pipe connection	mm	1350	1350	1350	1350	1530
H3	Height of flow connection	mm	460	460	460	460	460
H4	Height of return connection	mm	940	940	955	955	1085
AR	Flue gas pipe diameter	mm	130	130	130	130	150
	Boiler outfeed- and return connection	Sleeve	1"	1"	1 1/2"	1 1/2"	1 1/2"

Dimensions	Component	Unit	P4 Pellet		
			8/15	20/25	32/38
A	Minimum distance between suction cyclone and wall	mm	300	300	300
B	Maintenance range for ID fan		300	300	300
C	Space for insulated door		550	720	830
D	Minimum distance from side of boiler to wall		200	200	200

# Indicative Spatial Requirements for fuel storage

For the universal suction system, the pellet store must be built with an inclined floor!

The following picture shows the most important components:



A	2 Filler pipes
B	Earth wire
C	Planking on the storage area door
D	Sloping floor
E	Impact cushion
F	Under-floor structure for sloping floor

### Size of storage area

The storage area should be able to hold approximately 1.5 times the annual requirement. The exact amount of required space depends on the system's heating load.

**Rule of thumb formula: 1m<sup>3</sup> store / kW heating burden**



		Type I,II	Type III - V
H	Bag silo frame	195cm	200cm
H1	Height including filler coupling	215cm	220cm
H2	Required minimum room height <sup>1)</sup> Ideal store room height <sup>2)</sup>	225cm 240cm	230cm 240cm

1) Minimum room height for connection to filler pipe in installation room.

2) When full, the bag silo has a heap shape. Optimum height is for use of the whole capacity.

## What we can offer our prospective biomass customers

We can provide self survey forms to help us see if a system would be suitable and provide a budget costing.

We can provide a survey and locally, Calder Valley, we do these without charge.

For customers outside of the Calder Valley we charge a survey fee, please see below.

All paid survey fees are deductible from our final invoice if and when you proceed.

For domestic customers we provide a free design service.

For commercial customers we can provide full CAD design service, for which we will provide a written quote.

We are agents for Froling pellet and log boiler + MCZ pellet stoves.

We also install solar thermal, solar electric, hybrid heating systems as well as all Plumbing, Heating and Electrical systems.

### Survey fees

Local (Calder Valley)	Free	5 – 10 miles	£75 + VAT (5%)
10 – 20 miles	£100 + VAT (5%)	20 – 30 miles	£150 + VAT (5%)
30 – 60 miles	£200 + VAT (5%)	60 – 90 miles	£250-300+ VAT (5%)

We are sorry but we do not install beyond these distances as we feel that we will not be able to maintain our after sales service standards.

These distances will be determined by Multi-map route planner based on the distance from our post code to your post code.

As previously stated these survey fees are deductible from our final invoice if and when you proceed.

We do invest a lot of time and thought into our free design service and we would be most obliged if you decide not to proceed for what ever reason that you let us know of that decision, and if you feel able, the reason why.

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