

FARM 2000

www.farm2000.co.uk

STRAW AS FUEL - Frequently asked Questions

FARM 2000 have been producing straw-fired boilers since 1977. They have gradually evolved over 35 years, are reliable and well proven.

When considering a straw fired boiler the following needs to be understood:

A. What sort of straw can I burn?

All types of straw can be burned including cereal straw, linseed straw, rape-seed straw, bean haulm, and miscanthus. However for rhi purposes only cereal straw can be burned, and bales (square/round) should have an average density of 100-110 kg/cu metre.

B. Does the straw need special treatment if being used as fuel?

1. Most definitely Yes! It must be dry – max 17% water content
2. If possible use straw from light sandy soil. Straw from heavier/clay soils tends to produce more ash which means more frequent cleaning out of the boiler, and reduced output. In addition, it is imperative that the straw is 'weathered' for a several days before baling - the longer the better i.e. do not bale behind the combine!
3. Straw burns even better if it has been rain washed, and then left to dry again. This also helps to wash the potash out of the straw and back into the soil. Grey straw burns better than yellow straw.
4. Baling should be undertaken when the humidity is low – i.e. no early morning baling with dew on the ground! Medium to low density 100-110 kg/cu metre.
5. Straw bales must be stored inside a building, not outside or under a tarpaulin, even if they are net wrapped.

C. How much straw will I burn, and how frequently is the boiler stoked per day?

If the boiler is used for domestic heating only, then refer to FARM 2000 BOILER SELECTION GUIDE to select a boiler that may only need average stoking once or twice per day. If however, the boiler is being used for process heating, e.g. grain drying, etc, then it is safest to base fuel consumption and therefore stoking frequency on approx. 2.75 kWhs produced for every kg of dry straw burned.

Under test conditions heat output averaged 3.2 kWhs/kg, but we recommend you base your fuel consumption on average 2.75 kWhs/kg.

Bear in mind the boiler cannot be re-stoked until the previous bale has completely burned out. This means the boiler will be producing little if any heat for the last hour or so of the burning cycle. Hence the need for large accumulator tank so that continuous output can be maintained.