

This sub-technology category was removed from the ETL on 22nd March 2018.

Biomass Fired Warm Air Heaters

Date added to ETL 2010.

1. Definition of Technology

Biomass fired warm air heaters covers products that are specifically designed to provide space heating by using the heat generated by a continuously stoked biomass burner to raise the air temperature in the space(s) being heated.

2. Technology Description

Biomass fired warm air heaters are used to provide space heating for workshops, factories, warehouses, retail sheds, sports centres, and other buildings containing similarly large spaces. They contain a continuously stoked burner that is used to heat the air in the space indirectly by means of heat exchanger. A fan is used to distribute the warm air throughout the space(s) being heated.

Biomass fired warm air heaters are available in a range of different types and efficiencies. The ECA Scheme encourages the purchase of higher efficiency biomass fired warm air heaters.

Investments in biomass fired warm air heaters can only qualify for Enhanced Capital Allowances if the specific product is named on the Energy Technology Product List. To be eligible for inclusion on the Energy Technology Product List, products must meet the eligibility criteria as set out below.

3. Eligibility Criteria

To be eligible, products must:

- Be designed to burn wood, cereal straw, or solid fuels derived from them.
- Incorporate an automatic stoker that supplies a continuous flow of fuel into the combustion chamber at a rate corresponding to the rate of combustion.
- Incorporate a fan to distribute warm air within the heated space.
- Be CE marked.

Performance criteria

All products must have a net thermal efficiency when operating at 100% of their maximum continuous rating (MCR) that is greater than, or equal to, 82.0%.

For the avoidance of doubt net thermal efficiency test data should be presented to 1 decimal place. As an example, a biomass fired warm air heater with a net thermal efficiency of 81.9% at 100% of its maximum continuous rating (MCR) would be deemed to be a fail.

Required test procedures

The product's net thermal efficiency at 100% of its maximum continuous rating (MCR) must be determined in accordance with:

- The method in BS EN 1020:1998, "Non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW, incorporating a fan to assist transportation of combustion air and/or combustion products".

The product's flue gas losses must be determined in accordance with the procedures at BS EN 13240:2001, "Roomheaters fired by solid fuel. Requirements and test methods".

All tests must be done using either a biomass test fuel (designated A1, A2, B1, B2, C & D) in accordance with Table 8 of BS EN 303-5:1999, or using sawdust and/or shavings from woodworking operations.

All testing must be carried out, or witnessed and certified, by a contractor that is accredited by the United Kingdom Accreditation Scheme (UKAS), or other equivalent national accreditation bodies recognised via the European Co-operation for Accreditation, the International Accreditation Forum, or the International Laboratory Accreditation Co-operation (ILAC) agreements for the measurements made during the testing.

Representative Testing

Where applications are being made for products of the same constructional design to be included on the Energy Technology Product List (ETPL), test data may be submitted for a single representative model provided that the maximum rated output of the products being applied for is not more than twice, or less than half, the maximum rated output of the product tested. Where the range of rated outputs exceeds these limits, products should be grouped into size ranges that comply with these rules, and test data submitted for one representative model for each group.

It should be noted that:

- If a manufacturer voluntarily removes a representative model from the ETPL then other products linked with that representative model may or may not be permitted to remain on the ETPL.
- If any product submitted under these representative model rules is later found not to meet the performance criteria when independently tested, then all products based on the same representative models will be removed from the ETPL.

4. Scope of Claim

Expenditure on the provision of plant and machinery can include not only the actual costs of buying the equipment, but other direct costs such as the transport of the equipment to site, and some of the direct costs of installation. Clarity on the eligibility of direct costs is available from [HMRC](#).