

## Hot Water Boilers up to 400kW

Date added to ETL 2001 (Revised 2009).

### 1. Definition of Technology

Hot water boilers are products that are specifically designed to heat water by means of a heat exchanger that transfers heat from combustion into the water as it passes through the product. Up to 400kW means products that have a rated output up to, and including, 400kW.

### 4. Technology Description

Hot water boilers are used to produce hot water for space heating, process heating and domestic uses. They are available in a wide range of different designs and efficiencies.

The Enhanced Capital Allowance scheme aims to encourage the purchase of higher efficiency, condensing, gas and oil fired hot water boilers, including products that are designed to use liquid and gaseous biofuels.

Investments in hot water boilers up to, and including 400kW 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.

### 5. Eligibility Criteria

To be eligible, products must:

- Be gas-fired and/or oil-fired.
- Have a nominal maximum rated output less than or equal to 400kW.
- Conform with the requirements of Boiler (Efficiency) Regulations 1993, as amended by the Boiler (Efficiency) (Amendment) Regulations 1994.

### Performance Criteria

Products must have the minimum net thermal efficiencies at the full and part load conditions as set out in Table 1 below, which depend on the type of fuel used.

**Table 1 Performance test points for hot water boilers up to 400kW**

| Fuel | Test point<br>(% of Maximum Rated Output) | Net thermal<br>efficiency % |
|------|---|-----------------------------|
| Gas  | 100                                       | >= 95.0 %                   |
|      | 30  | >= 105.0 %                  |
| Oil  | 100                                       | >= 95.0 %                   |
|      | 30  | >= 101.0 %                  |

">=" means "greater than or equal to"

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For the avoidance of doubt test data should be presented to 1 decimal place. As an example a product with a net thermal efficiency of 94.9% at 100% of its rated output would be deemed to be a fail.

#### **Required test procedures**

Products performance must be demonstrated in accordance with the Boiler (Efficiency) Regulations 1993, as amended by the Boiler (Efficiency) (Amendment) Regulations 1994.

#### **Note**

The Boiler (Efficiency) Regulations 1993 (as amended) implements the EU Boiler Efficiency Directive 92/42/EEC within the United Kingdom.

#### **6. 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](#).