



BSI Standards Publication

**Specification for selection,
installation, inspection,
commissioning, servicing and
maintenance of gas-fired
boilers of rated input not
exceeding 70 kW net**

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 May 2014. It was prepared by Panel GSE/30/-15, *Boilers of rated input not exceeding 70kW and hot water supply*, under the authority of Technical Committee GSE/30, *Gas installations (1st, 2nd and 3rd family gases)*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 6798:2009, which is withdrawn.

Information about this document

The structure of this document follows the approach used in other gas installation standards.

Requirements, with corresponding commentary (e.g. explanation/recommendation as appropriate), cover equipment selection and pre-installation, installation and post-installation, to which maintenance has been added as a specific detail.

In line with BS 5440-1, this revision acknowledges that European work on chimney standards has brought about the need in British Standards to redefine chimney concepts and adopt common terminology, consistent with the range of products used across the whole European Community, the general requirements for which are specified in BS EN 1443) where a chimney is treated as a structure containing a flue (the passageway) and might include a liner (inner wall), insulation and an outer wall. The common terminology in UK industry, which has regarded a chimney as a masonry structure generally associated with solid fuel appliances, has been superseded.

All websites referred to in this British Standard were last viewed on 28 May 2014.

Use of this document

The requirements of this specification are supported by recommendations in the form of Commentary. To comply with this specification, it is necessary to comply with all its provisions. The operative may depart from recommendations, but would be expected to have good reasons for doing so.

This standard recognizes that manufacturers' instructions (assessed at the time of CE type testing as resulting in at least an equivalent level of safety) might specify a method of installation, testing, commissioning, servicing or maintenance which differs in points of detail from this standard. It is important that the manufacturer's instructions are followed.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular, attention is drawn to the following statutory regulations.

- The Gas Safety (Installation and Use) Regulations 1998 [1];
- The Gas Safety (Installation and Use) (Northern Ireland) Regulations 2004 [2];
- The Gas Safety (Installation and Use) Regulations 1994, as amended and applied by the Gas Safety (Application) (Isle of Man) Order 1996 [3];
- The Health and Safety (Gas) (Guernsey) Ordinance 2006 [4];
- The Gas Appliance (Safety) Regulations 1995 [5];
- The Building Regulations 2010 (England and Wales), as amended [6];
- The Building Regulations (Northern Ireland) 2012 [7];
- The Building (Scotland) Regulations 2004, as amended [8];
- The Building Regulations 2007 (for the Isle of Man) [9];
- The Water Supply (Water Fittings) Regulations 1999, as amended [10];
- The Water Byelaws 2004 (Scotland) [11];
- The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009 [12].

1 Scope

This British Standard specifies requirements for the selection, installation, inspection, commissioning, servicing and maintenance of gas-fired boilers for central heating and other purposes, which have a total rated heat input not exceeding 70 kW based on net calorific value. This includes cookers with integral boilers used to provide central heating.

It applies to boilers utilizing 1st, 2nd or 3rd family gases designed to operate in the condensing or non-condensing mode for the heating of domestic dwellings or domestic dwellings in commercial premises by the circulation of heated water in open or closed systems.

This standard does not apply to:

- a) boilers with a rated input of over 70 kW; or
- b) groups of boilers with individual ratings of 70 kW or less, but with aggregate inputs of over 70 kW as specified in BS 6644.

NOTE 1 Groups of boilers with individual ratings of less than 70 kW, but with a maximum aggregate input of ≤ 70 kW, may be installed to this standard but specialist advice on the system design, installation and control needs to be sought from the appliance manufacturer.

It is not applicable to the detailed design and installation of the whole heating system, which is specified in BS EN 12828, BS EN 12828:2003 (incorporating corrigendum January 2009) and BS EN 14336:2004 (incorporating corrigendum January 2009).

NOTE 2 With the publication of BS EN 12828, BS EN 12831 and BS EN 14336, BS 5449 has been withdrawn. These Standards are not aligned to UK design and installation practices; they cover commercial as well as domestic heating systems and exclude hot water. Consequently, these standards include UK national annexes covering all the relevant material from BS 5449.

NOTE 3 The installation of boilers with a rated input greater than 70 kW is covered by BS 6644. Additional requirements for the installation of back boiler units are specified in BS 5871-1 and BS 5871-2.

This standard applies to boilers which carry a CE mark and also to previously-used boilers which do not carry the CE mark (see 6.2.1).

NOTE 4 In this standard, heat input is expressed in terms of net calorific values (CV), unless stated otherwise. The ratio of gross to net heat input is approximately 1.11:1 for natural gas, 1.09:1 for propane, and 1.08:1 for butane.

NOTE 5 It is essential that persons carrying out the installation of any gas appliance are competent to do so. Clause 4 gives information on competence.

NOTE 6 Some clauses of this standard might be appropriate for the installation of pool and spa heaters. The manufacturer's instructions might advise which parts are not appropriate. For example, for direct spa and pool heaters, no corrosion inhibitors or chemical cleaning are permitted.

NOTE 7 The general installation requirements for 3rd family installations specified by this standard also apply to gas installations supplied with LPG/air mixtures used in the Channel Islands or the Isle of Man, providing: any gas equipment being installed has been appropriately converted and is suitable for the gas being supplied, and the requirements of the standard do not conflict with local regulations or authorized local custom and practice.