

Specification for metal flue boxes for gas-fired appliances not exceeding 20 kW

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Committees responsible for this British Standard

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- Federation of Master Builders
- British Flue and Chimney Manufacturers Association
- BSRIA — Building Services Research and Information Association
- Society of British Gas Industries

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Foreword

This British Standard has been prepared by Technical Committee GSE/4. Together with BS EN 1856-1 and BS EN 1856-2, it supersedes BS 715:1993 which is withdrawn.

This edition retains the requirements for metal flue boxes formerly in BS 715:1993, updated to reflect current practice. All requirements and recommendations relating to metal chimneys can now be found in BS EN 1856-1 and BS EN 1856-2.

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

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 12, an inside back cover and a back cover.

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1 Scope

This British Standard specifies the dimensional, material and performance requirements for metal flue boxes to enable gas fire flues to be installed against or within a wall which does not have a fireplace or flue.

The flue boxes are intended to be used with metal flue pipes conforming to BS EN 1856-1 and BS EN 1856-2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 1251:1987, *Specification for open-fireplace components*.

BS 1449-1, *Steel plate, sheet and strip — Carbon and carbon-manganese plate, sheet and strip*.

BS 7977-1:2002, *Specification for safety and rational use of energy of domestic gas appliances — Part 1: Radiant/convectors*.

BS EN 509:2000, *Decorative fuel-effect gas appliances*.

BS EN 1559-1, *Founding — Technical conditions of delivery — General*.

BS EN 1559-2, *Founding — Technical conditions of delivery — Additional requirements for steel castings*.

BS EN 1856-1, *Chimneys — Requirements for metal chimneys — Part 1: System chimney products*.

BS EN 1856-2, *Chimneys — Requirements for metal chimneys — Part 2: Metal liners and connecting flue pipes*.

BS EN 10088-1, *Stainless steel — Part 1: List of stainless steels*.

BS EN 10327, *Continuously hot-dip coated strip and sheet of low carbon steels for cold forming — Technical delivery conditions*.

3 Terms and definitions

For the purposes of this British Standard, the following terms and definitions apply.

3.1

flue box

device that provides a substitute open fire place to which a gas fire and flue can be installed

4 General

4.1 Materials

4.1.1 Construction materials

Flue box materials shall be selected so that in combination they will not cause corrosion, including bimetallic corrosion, and hence adversely affect the integrity of the flue box.

NOTE This includes any fastenings used in the construction.

4.1.2 Inner wall

Except as specified in 9.1 and 10.1, the inner wall in contact with flue gas (this includes the base sheet where the design of the box permits free circulation of flue gases within the box design) shall be made of aluminium or stainless steel conforming to Table 1 and shall be not less than 0.30 mm thick.

Table 1 — Inner wall material specification

Material	Material type	Material number	Symbol
Aluminium	10	EN AW-4047A	EN AW-Al Si12(A) and Cu <0.1 %, Zn <0.15 % (cast aluminium)
	11	EN AW-1200A	EN AW-Al 99.0(A)
	13	EN AW-6060	EN AW-Al MgSi
Stainless steel	20	1.4301	X5CrNi18-10
	30	1.4307	X2CrNi18-9
	40	1.4401	X5CrNiMo17-12-2
	50	1.4404 ^a	X2CrNiMo17-12-2
	60	1.4432	X2CrNiMo17-12-3
	70	1.4539	X1NiCrMoCu25-20-5
NOTE This information has been taken from BS EN 10088-1 and BS EN 573-3.			
^a Equivalent for material number 1.4404 is 1.4571 (symbol X6CrNiMoTi17-12-2).			

4.1.3 Outer wall

The outer wall shall be of one of the following materials:

- a) aluminium or aluminium alloy conforming to Table 1;
- b) stainless steel conforming to BS EN 10088-1;
- c) aluminium/zinc alloy coated steel of grades DX51D with coating AZ 185 or AZ 150 conforming to BS EN 10327;
- d) hot-dip zinc coated steel sheet of steel grade DX51D with coating type Z600 as specified in BS EN 10327;
- e) hot-dip zinc coated steel sheet of steel grade DX51D or DX52D with coating type Z275 as specified in BS EN 10327;
- f) aluminium coated steel, consisting of steel base conforming to the appropriate section of BS 1449-1, with a hot-dipped coating of alloy conforming to BS EN 1559-1 and BS EN 1559-2 of thickness not less than 13 µm;
- g) roll-bonded aluminium coated steel base conforming to the appropriate section of BS 1449-1 with a minimum coating thickness of 20 µm.

4.1.4 Insulating material

Any insulating material shall be of mineral base, be non-combustible and have substantially uniform density.

4.2 Construction

The flue box shall be either single-walled with insulation or double-walled with or without additional insulation. The flue box shall be generally rectangular in plan, and the front shall be open.

The outlet shall be in the top of the flue box and shall accept a flue pipe conforming to BS EN 1856-1 or BS EN 1856-2 of the diameter specified by the gas fire manufacturer.

Seams shall be sound and mechanically strong when tested in accordance with 5.1. They can be either, folded, riveted, welded, or joined by other mechanical methods, except for vitreous enamelled components which shall have welded seams. Welded seams shall be continuous and shall not form internal or external projections that will detract from the appearance of the finished article, causing difficulty in joining pipes and fittings, or give rise to corrosion.