

# Installation of factory-made chimneys to BS 4543 for domestic appliances —

## Part 3: Specification for site installation

# Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee B/506, Chimneys, to Subcommittee B/506/5, Chimneys and their components having inner linings of metal, upon which the following bodies were represented:

Association of British Solid Fuel Appliances Manufacturers  
 British Coal Corporation  
 British Combustion Equipment Manufacturer's Association  
 British Flue and Chimney Manufacturers' Association  
 British Gas plc  
 British Precast Concrete Federation Ltd.  
 British Steel Industry  
 Building Services Research and Information Association  
 Clay Pipe Development Association Limited  
 Department of the Environment  
 Department of the Environment (Construction Directorate)  
 Health and Safety Executive  
 Institute of Domestic Heating and Environmental Engineers  
 National Association of Plumbing, Heating and Mechanical Services Contractors  
 National Federation of Master Steeplejacks and Lightning Conductor Engineers  
 National House-building Council

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

Department of the Environment (Building Research Establishment)  
 Institute of Vitreous Enamellers  
 Real Fire Association  
 Society of British Gas Industries  
 Vitreous Enamel Development Council

This British Standard, having been prepared under the direction of Technical Committee B/506, was published under the authority of the Standards Board and comes into effect on 15 July 1992

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The following BSI references relate to the work on this standard:  
 Committee reference B/506/5  
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## Amendments issued since publication

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# Foreword

This British Standard has been prepared under the direction of Technical Committee B/506, Chimneys, and together with Parts 1, 2 and 4 of BS 7566 supersede BS 6461-2:1984, which is withdrawn.

This Part of BS 7566 covers the installation of factory-made chimneys complying with the requirements of BS 4543. Masonry chimneys are covered by BS 6461-1:1984

BS 7566 is published in separate Parts to highlight the interfaces involved in the successful specification, design and installation of factory-made chimneys.

Part 1 of BS 7566 gives a method of specifying the information which should be supplied by the purchaser to the installation designer and the form in which that information should be presented.

Part 2 of BS 7566 specifies design instructions to be followed by the installation designer to take account of the purchaser's requirements and relevant standards, when developing a chimney design for the particular application.

This Part of BS 7566 specifies installation practices which are to be followed in order to ensure that the designers intentions are satisfactorily realised and which reflect good site supervision and working practices.

Part 4 of BS 7566 gives guidance to the purchaser, designer and installer on the options which have to be identified and the methods of achieving specified requirements in a manner that will ensure a safe and satisfactory installation. It also gives important guidance on matters such as maintenance and cleaning.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their 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 4, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

## 1 Scope

This Part of BS 7566 specifies the procedures to be followed when installing a factory-made chimney complying with BS 4543 using an installation design as specified in BS 7566-2.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

## 2 Definitions

For the purposes of this Part of BS 7566 the definitions given in BS 4543-1 apply.

## 3 Checking, handling and site storage of materials and components

### 3.1 Checking

#### 3.1.1 *On delivery of materials*

Delivery tickets and certificates shall be checked against the installation design. The condition of materials and components received shall be examined and if any item is damaged or not as specified refer to supplier immediately.

#### 3.1.2 *Pre-installation checks*

The installer shall check the following:

- a) that the manufacturer's instructions and the installation design are on site;
- b) that materials and components are clean, undamaged, dry and available in sufficient quantity for the task in hand;
- c) that all components required to complete the installation are available, including any not supplied by the chimney manufacturer.

### 3.2 Site handling and storage

Sections and components shall be handled in such a manner as to prevent breakage and deterioration.

Sections shall be taken from store in their original packaging to the location where they are to be installed and unpacked immediately prior to installation.

Sections and components shall be stored in their original packaging in a clean, dry area in accordance with the manufacturer's instructions. Sections shall be stacked in correct orientation on a firm, level base. On solid floors a sheet of polyethylene, pallets or timber shall be used prior to stacking sections to prevent any rising damp affecting the packaging.

## 4 Coordination of work

### 4.1 Installation programme

The installer shall ensure that access to the chimney route is available for a period sufficient to allow installation of the chimney.

NOTE The installer may achieve this by liaison with the site contractor and other trades, e.g. plumbers, electricians.

### 4.2 Pipes, conduits, etc.

The installer shall check that all conduits, pipes, electrical cables, electrical boxes, etc. that affect the chimney route have been suitably located.

### 4.3 Alteration to structural timber

If the installation design requires structural timbers, such as joists, to be altered, the installer shall arrange for this work to be undertaken by others in accordance with BS 5268-3.

## 5 Chimney route

5.1 The installer shall check that the proposed route of the chimney through the building is unobstructed.

5.2 Openings in ceilings/roofs shall be prepared to provide the manufacturer's specified distance  $X$  mm (see BS 4543-1) from combustible matter identified by the installation designer (see BS 7566-2).

## 6 Assembly

The chimney shall be assembled as follows.

- a) Assemble chimney sections in correct sequence in accordance with the designed route. Assemble chimney sections in the correct orientation in accordance with the manufacturer's instructions. Chimney sections shall not be modified. Joints shall not occur within joist spaces.
- b) Sleeve any section passing through a wall.
- c) Position the cleaning access to facilitate cleaning.
- d) Allow the chimney to project at least 150 mm below the ceiling level.
- e) Secure jointing and fixings.
- f) Fit lightning protection where specified (see BS 7566-2 and BS 7566-4).
- g) Fit fire-stops and spacers or ceiling supports as specified (see BS 7566-2 and BS 7566-4).

## 7 Enclosure

A rigid enclosure and framework shall be erected around the chimney to ensure that combustible matter is kept at the manufacturer's specified distance  $X$  mm away from the chimney (see BS 7566-4).

## 8 Chimney flue outlet

The chimney flue outlet shall be positioned in accordance with 7.1 of BS 7566-2:1992.

## 9 Weatherproofing

The chimney shall be weatherproofed where it penetrates the roof using only cover flashing and sealing material specified by either the installation designer or the chimney manufacturer.

## 10 Pre-commissioning inspection

The installation shall be inspected prior to commissioning as follows.

- a) The chimney route shall be in accordance with installation design (see BS 7566-2).
- b) Openings for testing, cleaning and maintenance shall be accessible (see BS 7566-4).
- c) All components, joints, connections, locking bands, etc. shall be secure.
- d) Any combustible material shall be at least the manufacturer's specified distance  $X$  mm from the chimney.
- e) All fire-stops, fire-stop spacers and ceiling supports shall be in position.
- f) The weatherproofing shall be in accordance with clause 9.
- g) The enclosure shall be clear of all rubbish and extraneous matter.
- h) No aerial, etc. shall be attached to the chimney structure.

## 11 Commissioning

On completion of its installation the chimney and flue pipe is fitted, shall be tested in accordance with Appendix A and shall not show any signs of major leakage.

## Appendix A Smoke test

The appliance, if fitted, should not be alight at the time of test.

Before commencing, it is recommended that the chimney flue be warmed by a gas blow lamp or similar heating device for about 10 min.

Close the ashpit door of the appliance and thermostat (if fitted) position. Close any soot doors or flue pipe access doors.

Place two smoke pellets in the appliance firebox or the bottom of the chimney or the appliance recess and ignite. When smoke starts to form, close the heating appliance or appliance recess or the bottom of the chimney, and allow smoke to drift upwards. When smoke is observed rising from the chimney, seal the terminal. An inflatable rugby ball bladder is ideal for this as it will accommodate any variation in dimensions; alternatively place a polyethylene bag over the terminal and sealed around the edges.

Observe the chimney and flue pipe (if fitted) throughout its length to check for major leakage. Allow the smoke test to continue for at least 5 min.





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## Publication(s) referred to

BS 7566, *Installation of factory-made chimneys to BS 4543 for domestic appliances.*

BS 7566-1, *Method of specifying installation design information.*

BS 7566-2, *Specification for installation design.*

BS 7566-4, *Recommendations on installation design and installation.*

BS 4543, *Factory-made chimneys.*

BS 4543-1, *Methods of test.*

BS 4543-2, *Specification for chimneys with stainless steel flue linings for use with solid fuel fired appliances.*

BS 4543-3, *Specification for chimneys with stainless steel flue linings for use with oil fired appliances.*

BS 5268, *Structural use of timber.*

BS 5268-3, *Code of practice for trussed rafter roofs.*

BS 6461, *Installation of chimneys and flues for domestic appliances burning solid fuel (including wood and peat).*

BS 6461-1, *Code of practice for masonry chimneys and flue pipes<sup>1)</sup>.*

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<sup>1)</sup> Referred to in the foreword only.

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