

Introduction

General

This Technical Booklet has been prepared by the Department of the Environment for Northern Ireland and provides for certain methods and standards of building which, if followed, will satisfy the requirements of the Building Regulations (Northern Ireland) 1990 ("the Building Regulations").

There is no obligation to follow the methods or comply with the standards set out in this Technical Booklet.

If you prefer you may adopt another way of meeting the requirements of the Building Regulations but you will have to demonstrate that you have satisfied those requirements by other means.

Other regulations

This Technical Booklet relates only to the requirements of regulation L2. The work will also have to comply with all other relevant Building Regulations.

British Standards and European Technical Specifications

In this introduction and throughout this Technical Booklet any reference to a British Standard shall be construed as a reference to a:

- (a) British Standard or a British Standard Code of Practice, or
- (b) national technical specification, of a Member State of the European

Community, which provides an equivalent standard of protection or performance.

Materials and workmanship

Any work to which a requirement of the Building Regulations applies must, in accordance with Part B of the Building Regulations, be carried out with proper materials and in a workmanlike manner. You can comply with the requirements of Part B by following an appropriate British Standard or you may demonstrate that you have complied with those requirements by other suitable means, such as an acceptable British Board of Agrément Certificate, Quality Assurance Scheme, Independent Certification Scheme or Accredited Laboratory Test Certificate.

Diagrams

The diagrams in this Technical Booklet supplement the text. They do not show all the details of construction and are not intended to illustrate compliance with any other requirement of the Building Regulations. They are not necessarily to scale and should not be used as working details.

References

Any reference in this Technical Booklet to a publication shall, unless otherwise stated, be construed as a reference to the editions quoted, together with any amendments, supplements or addenda thereto current at 31 December 1988.

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Section 1 — General provisions

GENERAL

1.1 This Section states requirements common to installations incorporating solid fuel, gas, or oil fired appliances. Sections 2, 3 and 4 state additional requirements, according to fuel type.

DEFINITIONS

1.2 In this Technical Booklet –

Appliance means a heat-producing appliance, excluding an incinerator.

Balanced flue appliance means a room-sealed appliance which draws its combustion air from a point adjacent to the point at which the combustion products are discharged.

Fire compartment means a compartment as defined in regulation E1.

Low level discharge appliance means an appliance designed to operate without a chimney and to discharge its products of combustion to the external air at a height less than that required for an appliance connected to a chimney.

Non-combustible means capable of being classified as non-combustible if subjected to the test for non-combustibility prescribed in BS 476 Fire tests on building materials and structures, Part 4: 1970 (1984): Non-combustibility tests for materials.

Open flued appliance means an appliance designed to operate with a flue that is open to the room or internal space at the appliance position, and which draws its combustion air from the room or internal space in which it is installed.

Room-sealed appliance means an appliance which, when in operation, has the combustion air inlet and the combustion products outlet isolated from the room or space in which the appliance is installed.

Solid fuel effect appliance means an open-flued appliance which burns gas so as to simulate the effect of an open solid fuel fire.

Air supply to appliances

1.3 Either the appliance shall be room-sealed or the room or space containing it shall have a ventilation opening. If this opening is to an adjoining room or space, then the latter shall have an opening of the same size direct to the external air.

Ventilation openings shall not be located in internal fire resisting walls.

Air extract fans

1.4 If an air extract fan is fitted in a building containing a heat producing appliance (other than a room-sealed appliance), then the appliance and flue shall be able to operate effectively whether or not the fan is running.

Flues

1.5 Provision shall be made to enable a flue to be inspected and cleaned. An opening shall only be made into a flue for the purpose of –

(a) inspection or cleaning, and an opening for this purpose shall have a rigid, non-combustible gas tight cover having equivalent insulation to that of the flue pipe or chimney in which it is fitted; or

(b) fitting an explosion door, draught stabilizer or draught diverter.

1.6 A flue shall not open into more than one room or space except for the purpose of inspection or cleaning.

Section 2 – Additional provisions for solid fuel burning appliances with a rated output up to 45 kW

Air supply to appliances

2.1 Any room or space containing an appliance shall have a ventilation opening of at least the size shown in Table 1.

Table 1 Air supply to appliances

Type of appliance	Ventilation area
Open-flued	An opening or openings with a total free area of at least 50% of the appliance throat opening area as defined in BS 8303: 1986 Code of practice for installation of domestic heating and cooking appliances burning solid mineral fuels.
<u>Other</u>	
Appliance rated output	Total free area of opening or openings
up to 6 kW	550 mm ²
above 6 kW	550 mm ² plus (550 mm ² per kW above 6 kW)

Where a flue draught stabilizer is used the total free area shall be increased by 300 mm² for each kW of rated output.

Size of flues

2.2 Flue sizes shall be at least that recommended by the appliance manufacturer, and

(a) for flue pipes at least equal to that of the flue outlet on the appliance, and

(b) for chimneys at least the size shown in Table 2.

Table 2 Size of individual flues

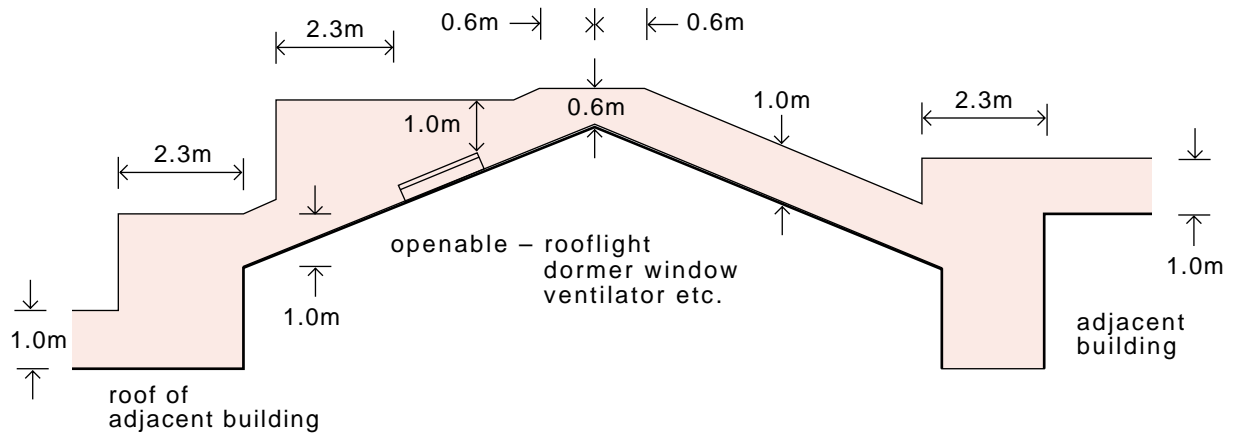
Installation	Minimum flue size
(a) Fireplace recess with an opening up to 500 mm x 550 mm	200 mm diameter or square section of equivalent area
(b) Inglenook recess appliances	a free area of 15% of the area of the recess opening
(c) Open fire	200 mm diameter or square section of equivalent area
(d) Closed appliance up to 20 kW rated output burning bituminous coal	150 mm diameter or square section of equivalent area
(e) Closed appliance up to 20 kW rated output	125 mm diameter or square section of equivalent area
(f) Closed appliance above 20 kW and up to 30 kW rated output	150 mm diameter or square section of equivalent area
(g) Closed appliance above 30 kW and up to 45 kW rated output	175 mm diameter or square section of equivalent area

NOTE: Should an offset be necessary in a flue run then the flue size may require to be increased.

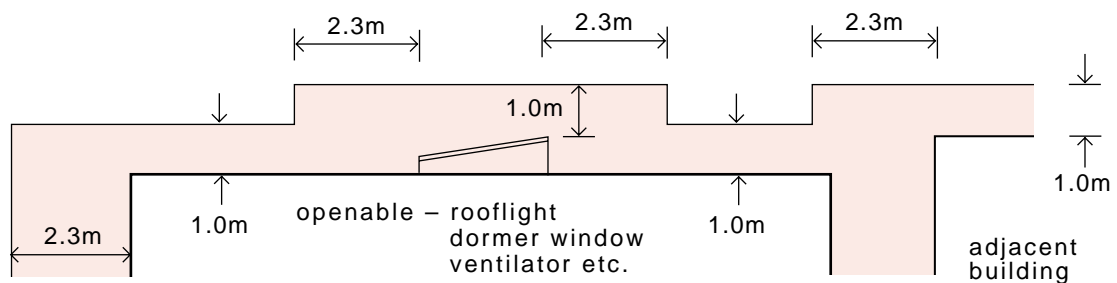
Outlets from flues

2.3 The outlet from a flue shall be positioned above the roof of a building in accordance with the minimum dimensions shown in Diagram 1.

Diagram 1 Flue outlets



Roof with a pitch of 10° or greater



Roof with a pitch of less than 10°

Note

Flue outlets shall terminate outside the shaded area.

Direction of flues

2.4 Flues shall be vertical wherever possible. Horizontal flue runs shall be avoided except in the case of a back outlet appliance, when the length of the horizontal section shall not exceed 150 mm.

2.5 Where a bend is necessary in a flue, it shall not make an angle of more than 45° with the vertical.

Flue pipes

2.6 A flue pipe shall only be used to connect an appliance to a chimney and shall not pass through any roof space, floor, or internal wall except –

- (a) a floor supporting a chimney so as to vertically enter that chimney; or
- (b) a wall forming part of a chimney so as to enter the side of that chimney.

2.7 Flue pipes shall be of any one of the following materials –

- (a) cast iron as described in BS 41: 1973 (1981) Specification for cast iron spigot and socket flue or smoke pipe and fittings; or
- (b) mild steel with a wall thickness of at least 3 mm; or
- (c) stainless steel with a wall thickness of at least 1 mm and as described in BS 1449: Steel plate, sheet and strip, Part 2: 1983 Specification for stainless and heat resisting steelplate, sheet and strip for Grade 316S11, 316S13, 316S16, 316S31, 316S33, or the equivalent Euronorm 88-71 designation; or
- (d) vitreous enamelled steel complying with BS 6999: 1989 Specification for vitreous enamelled low carbon steel flue pipes, other components and accessories for solid fuel burning appliances with a maximum rated output of 45 kW.

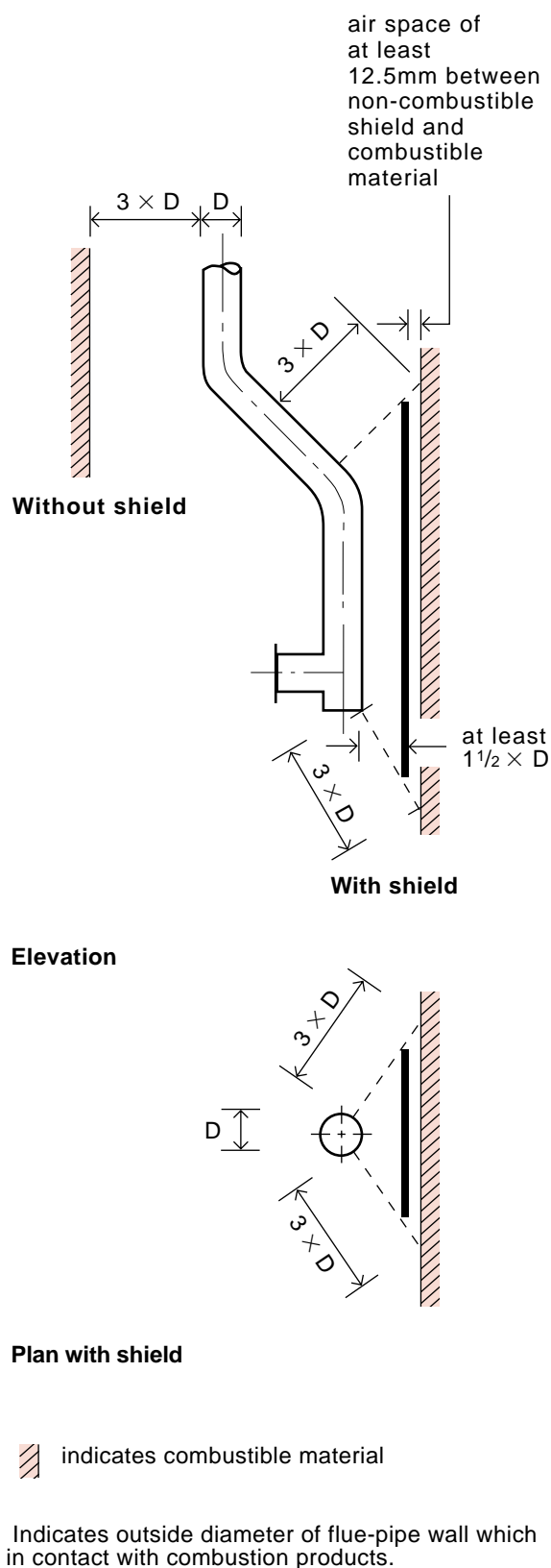
2.8 Flue pipes with spigot and socket joints shall be fitted with the sockets uppermost.

Shielding of flue pipes

2.9 Flue pipes shall be separated from combustible material by –

- (a) non-combustible material at least 200 mm thick; or
- (b) an air space of at least $3 \times D$ as shown in Diagram 2; or
- (c) an air space of at least $1\frac{1}{2} \times D$ where a non-combustible shield is positioned within the air space as shown in Diagram 2.

Diagram 2 Separation of flue-pipe from surface of adjacent combustible material



Chimneys generally

2.10 Chimneys for use with solid fuel appliances shall be capable of withstanding a temperature of –

- (a) 1100°C in the case of a factory-made chimney; or
- (b) 1000°C in the case of any other chimney; without any structural change which would impair the stability or performance of the chimney.

2.11 Where a chimney is not directly over an appliance, a debris collecting space shall be provided which is accessible for emptying.

Brick chimneys

2.12 Brick chimneys shall be lined with –

- (a) clay flue liners with rebated or socketed joints as described in BS 1181: 1989 Specification for clay flue linings and flue terminals, or
- (b) imperforate clay pipes with socketed joints as described in BS 65: 1981 Specification for vitrified clay pipes, fittings and joints, or
- (c) high alumina cement and kiln burnt or pumice aggregate pipes, with rebated or socketed joints.

The linings shall be fitted with the sockets or rebates uppermost. Liners shall be jointed with heat and shrink resistant cement, and any space between the liners and the brickwork shall be filled with weak mortar or insulating concrete.

Blockwork chimneys

2.13 Blockwork chimneys shall be made of refractory material, or a combination of high alumina cement and kiln-burnt or pumice aggregates. Otherwise they shall be lined as in paragraph 2.12.

Wall thickness

2.14 The thickness of the walls of a brick or blockwork chimney, excluding the thickness of any liner or insulating concrete referred to in 2.12 shall be at least –

- (a) 100 mm between one flue and another; or
- (b) 100 mm between a flue and the outside air or between a flue and another part of the same building (but not another part which is another dwelling or is constructed as a separate fire compartment); or

- (c) 200 mm between a flue and another fire compartment of the same building, another building or another dwelling.

Combustible material

2.15 Where the thickness of solid non-combustible material surrounding a flue in a brick or blockwork chimney is less than 200 mm, no combustible material, other than a floor board, skirting board, dado rail, picture rail, mantleshelf or architrave shall be so placed as to be nearer than 40 mm to the outer surface of the chimney. Metal fixings in contact with combustible materials shall be at least 50 mm from a flue.

Factory-made chimneys

2.16 Factory-made chimneys shall be –

- (a) constructed and tested to meet the relevant recommendations given in BS 4543 Factory-made chimneys, Part 1: 1990. Methods of test and Part 2: 1990 Specification for chimneys with stainless steel linings for use with solid fuel fired appliances and,
- (b) installed in accordance with the relevant recommendations of BS 6461: Installation of chimneys and flues for domestic appliances burning solid fuel (including wood and peat): Part 2: 1984 Code of practice for factory-made insulated chimneys for internal applications.

2.17 A factory-made chimney shall not –

- (a) pass through any part of the building forming a separate fire compartment, unless it is cased in non-combustible material giving at least half the fire-resistance of the fire-compartment wall or floor; or
- (b) be placed with its outer wall nearer to combustible material than a distance x ; or
- (c) pass through a cupboard, storage space or roof space, unless it is surrounded by a non-combustible guard at a distance of at least x from the outer wall of the chimney; or
- (d) incorporate joints within any wall, floor, ceiling or roof.

For (b) and (c) above the distance x is to be found by test in accordance with BS 4543: Part 1: 1990.

Constructional hearths

2.18 A constructional hearth shall be provided of solid, non-combustible material at least 125 mm thick (which may include the thickness of any solid, non-combustible floor under a hearth), and at least the size shown in Diagram 3.

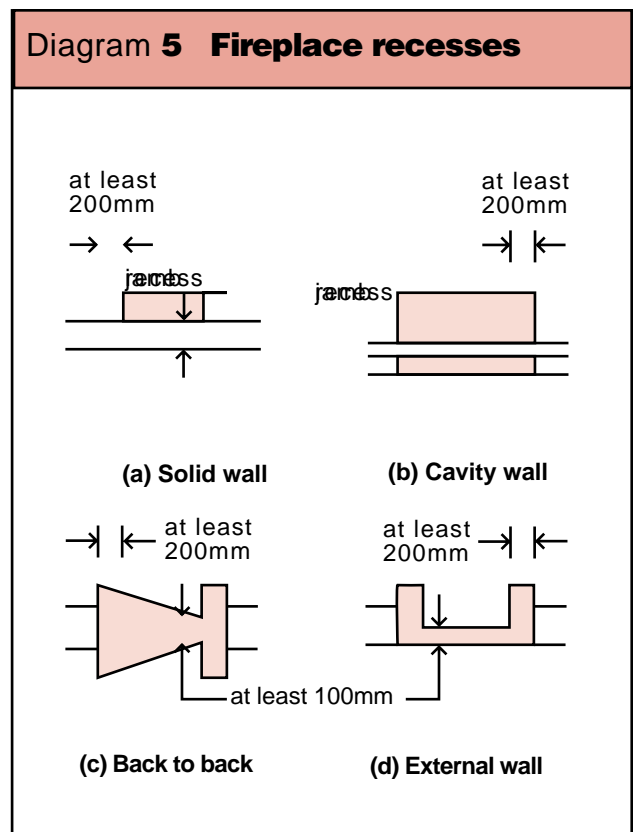
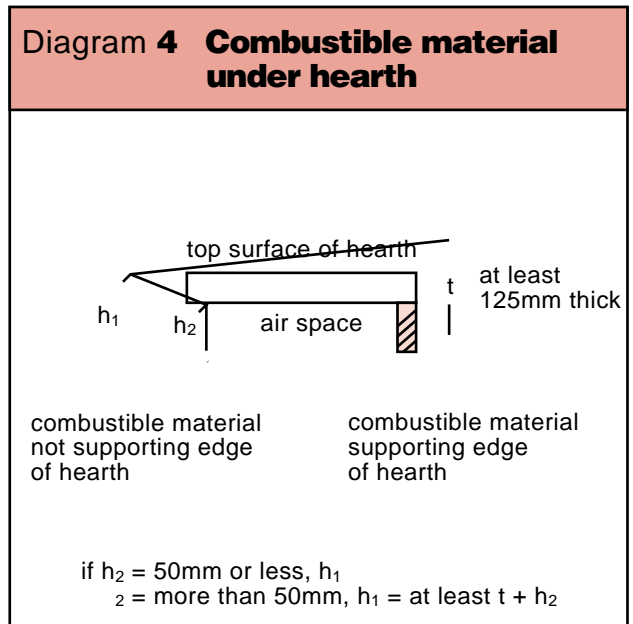
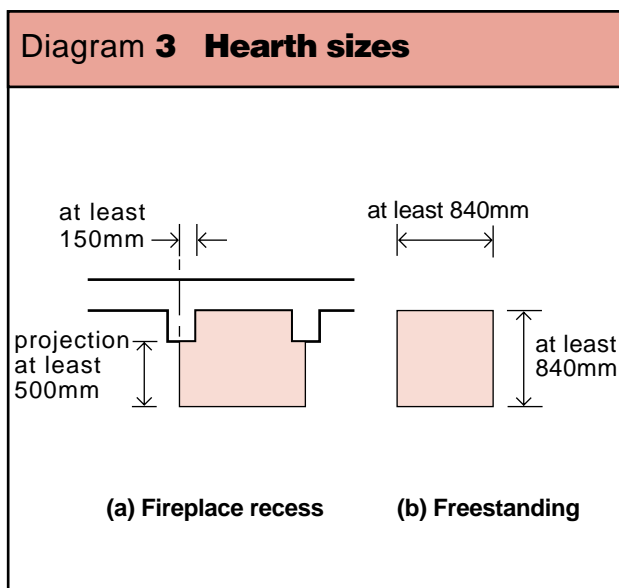
2.19 Combustible material shall not be placed under a construction hearth except where –

- (a) it is to support the edges of the hearth; or
- (b) there is a distance of at least 250 mm between the material and the top of the hearth (unless there is an air space of at least 50 mm between the material and the underside of the hearth) (see Diagram 4).

Fireplace recesses

2.20 Fireplace recesses shall be constructed using solid non-combustible material of the appropriate thickness given in Diagram 5.

The dimensions stated shall not include the thickness of any fireback or other material between an appliance and the fireplace recess.



Walls adjacent to hearths

2.21 Walls which do not form part of a fireplace recess and are closer than 150 mm to a constructional hearth shall be constructed as indicated in Diagram 6.

Location of appliances

2.22 An appliance –

(a) shall not be placed closer to the edges of a constructional hearth, or any combustible material laid on the hearth, than shown in Diagram 7, and

(b) shall be separated from combustible materials as shown in Diagram 8.

Diagram 6 Wall adjacent to hearth

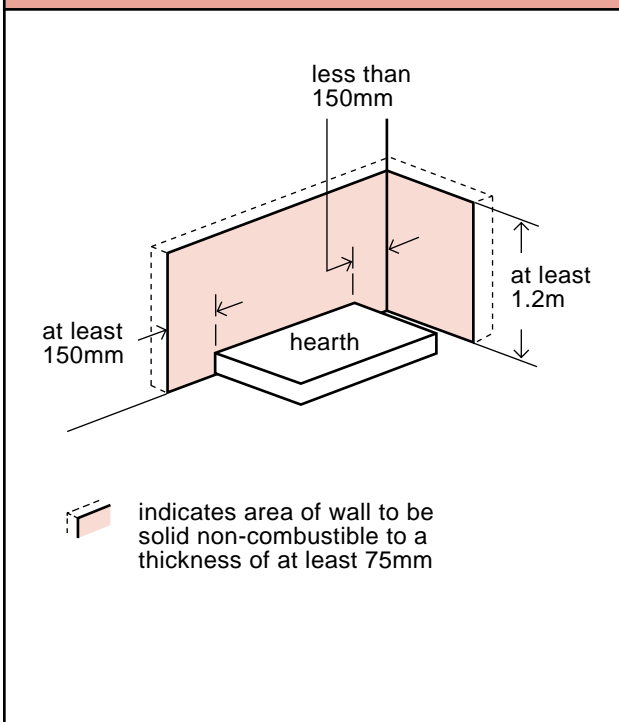


Diagram 7 Placing appliance on constructional hearth

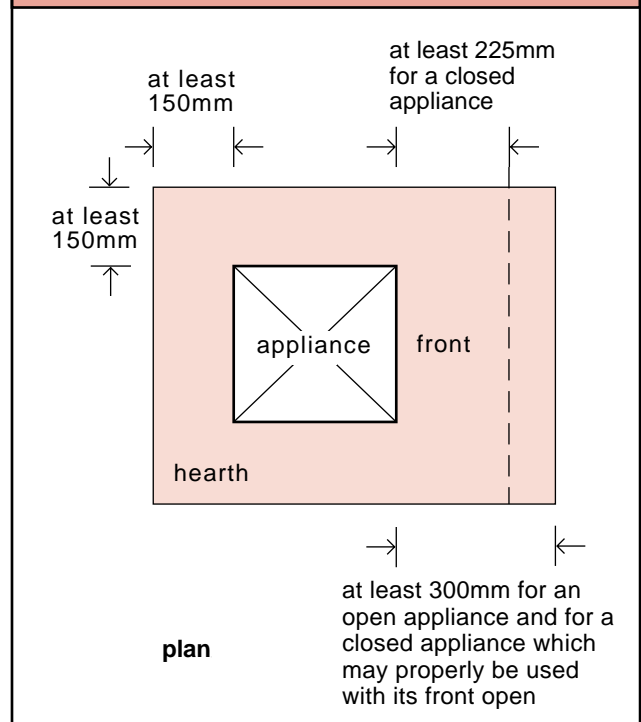
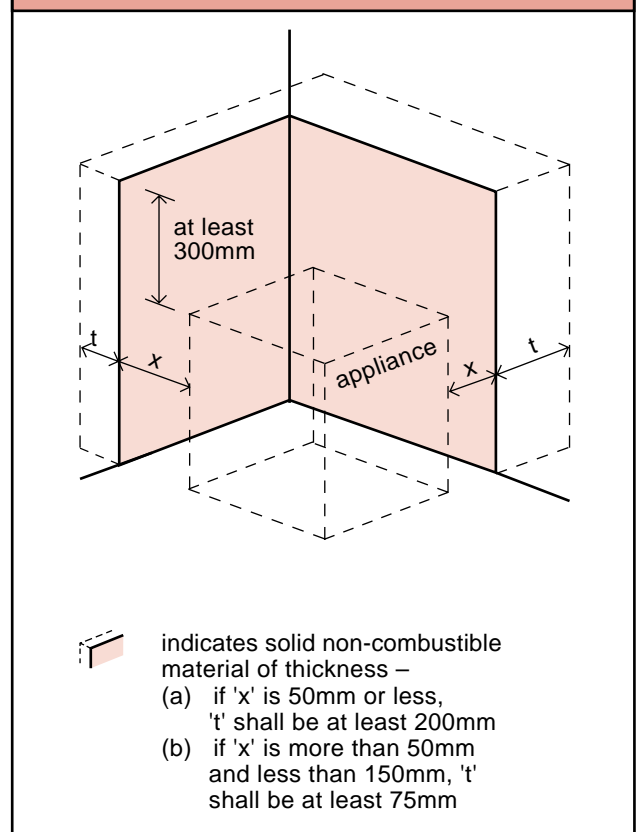


Diagram 8 Separation of an appliance from combustible material in walls



Section 3 — Additional provisions for individually flued (non-fan assisted) gas burning appliances with a rated input up to 60 kW and air supply for cooking appliances

General

3.1 Appliances shall be suitable for the classification of gas which they will burn.

Gaseous fuels are classified in families and appliances are classified in categories in BS 5386: Part 3: 1980.

Solid fuel effect appliances

3.2 These appliances simulate the burning of coal and wood with a live flame.

Their installation and associated constructions shall be in accordance with the relevant recommendations of BS 6714: 1986

Specification for installation of decorative log and other fuel effect appliances (1st, 2nd and 3rd family gases) and with Section 2 of this Technical Booklet.

Appliances in bathrooms

3.3 Any appliance in a bathroom or shower room shall be of the room-sealed type.

Air supply to appliances

3.4 Any room or space containing a cooker shall have an openable window or other means of providing ventilation. If the room or space has a volume less than 10 m³, then, in addition, a permanent ventilation opening of at least 5000 mm² shall be provided.

Any room or space containing an open-flued appliance shall have a permanent ventilation opening of at least 450 mm², plus an additional 450 mm² for each kW of appliance input rating exceeding 8 kW.

Air supply to other appliances shall comply with the relevant recommendations of BS 5440 Installation of flues and ventilation for gas appliances of rated input not exceeding 60 kW (1st, 2nd and 3rd family gases) Part 2: 1989 Specification for installation of ventilation.

Size of flues

3.5 Other than for balanced flue appliances, the flue size shall be at least –

(a) in the case of a gas fire, a cross-sectional area of at least 12000 mm² if the flue is round, or 16500 mm² if the flue is rectangular, and have a minimum dimension of not less than 90 mm; or

(b) for any other appliance a cross-sectional area of at least that of the outlet on the appliance.

Direction of flues

3.6 For other than balanced flues, horizontal flue runs shall be avoided and if a bend is necessary in a flue it shall not make an angle of more than 45° with the vertical.

Outlets from flues

3.7 The outlet from a balanced flue appliance shall be:–

(a) so situated externally as to allow free intake of air and dispersal of products of combustion, and

(b) at least 300 mm from any opening into the building which is wholly or partly above the terminal, and

(c) protected with a terminal guard if persons could come into contact with the terminal or if it could be subject to damage, and

(d) designed so as to prevent the entry of any matter which might restrict the flue.

3.8 The outlet from any other appliance shall be –

(a) so situated, at roof level, that air may pass freely across it at all times, and

(b) at least 600 mm from any opening into the building, and

(c) except in the case of a gas fire, fitted with a flue terminal if any dimension across the axis of the flue outlet is less than 175 mm.

Flue pipes

3.9 Flue pipes shall be of any one of the following materials –

- (a) sheet metal as described in BS 715: 1986 Specification for metal flue pipes, fittings, terminals and accessories for gas-fired appliances with a rated input not exceeding 60 kW; or
- (b) asbestos cement as described in BS 567: 1973 (1984) Specification for asbestos-cement flue pipes and fittings, light quality, or BS 835: 1973 (1984) Specification for asbestos-cement flue pipes and fittings, heavy quality; or
- (c) cast iron as described in BS 41: 1973 (1981); or
- (d) any material described in Section 2 of this Technical Booklet.

Flue pipes with spigot and socket joints shall be fitted with the sockets uppermost.

Shielding of flue pipes

3.10 Flue pipes shall –

- (a) be at least 25 mm from any combustible material; and
- (b) where passing through a wall, floor or roof, be separated from any combustible material by a non-combustible sleeve enclosing an air space of at least 25 mm around the flue pipe; and
- (c) where passing through a fire-compartment wall or floor, be cased with non-combustible material having at least half the fire resistance needed for the wall or floor.

For a double-walled flue pipe, the 25 mm distance may be measured from the outside of the inner pipe.

Brick chimneys

3.11 Brick chimneys shall be lined with –

- (a) clay flue liners with rebated or socketed joints as described in BS 1181: 1989;
- (b) imperforate clay flue pipes as described in BS 65: 1981; or
- (c) any material described in Section 2 of this Technical Booklet.

Linings shall be fitted with the sockets or rebates uppermost to prevent condensate running out and to prevent any caulking material from being adversely affected. Joints between the liners and brickwork shall be filled with mortar.

Blockwork chimneys

3.12 Blockwork chimneys shall be made of refractory material or a combination of high alumina cement and kiln-burnt or pumice aggregates. Otherwise they shall be lined as in paragraph 3.11.

Flue block chimneys

3.13 Flue blocks shall be as described in BS 1289: Flue blocks and masonry terminals for gas appliances: Part 1: 1986 Specification for precast concrete flue blocks and terminals and Part 2: 1989 Specification for clay flue blocks and terminals.

Flexible flue liners

3.14 A flexible flue liner may be used in a chimney if –

- (a) the liner complies with the requirements of BS 715: 1986, and
- (b) the chimney –
 - (i) is lined as described in paragraph 3.11 or constructed as described in paragraph 3.13, or
 - (ii) is not so lined or constructed, but was erected under former control.

Debris collection space

3.15 If the chimney is not lined as described in paragraph 3.11, or not constructed as described in paragraph 3.13, then a debris collection space shall be provided at the bottom of the chimney having a volume of at least 0.012 m³ and a depth of at least 250 mm below the point of connection of the appliance with the chimney.

The space shall be readily accessible for the removal of debris.

Wall thickness

3.16 The wall thickness of a flue block chimney shall be at least –

- (a) 25 mm in the case of precast concrete flue blocks, or
- (b) 20 mm in the case of clay flue blocks.

Where a chimney wall is part of the wall of a fire-compartment of the same building, another building or another dwelling, it shall have at least the fire resistance needed for the fire compartment or fire separating wall.

Any chimney wall which passes through a fire compartment wall or floor, shall have at least half the fire resistance needed for the fire compartment wall or floor.

If the fire-compartment wall or floor is masonry material, it may also form the chimney wall.

Factory-made chimneys

3.17 Any factory-made chimney shall be as described in Section 2 or Section 4 of this Technical Booklet.

Hearths

3.18 A hearth shall be provided for an appliance unless –

- (a) every part of any flame or incandescent material in the appliance will be at least 225 mm above the floor, or
- (b) the appliance complies with the recommendations of the appropriate parts of BS 5258 Safety of domestic gas appliances, or BS 5386 Specification for gas burning appliances for installation without a hearth.

3.19 In the case of a back boiler the hearth shall be constructed –

- (a) of solid, non-combustible material at least –
 - (i) 125 mm thick, or
 - (ii) 25 mm thick placed on non-combustible supports at least 25 mm high, and
- (b) to the size given in Diagram 9.

3.20 In the case of any other appliance, the hearth shall be constructed of solid, non-combustible material at least 12 mm thick and to the size given in Diagram 9.

Shielding of appliances

3.21 Unless the appliance complies with the relevant recommendations of the appropriate Parts of BS 5258 or BS 5386, the backs, tops and sides of appliances, and any draught-diverters shall be separated from any combustible material by –

- (a) a shield of non-combustible material at least 25 mm thick, or
- (b) an air space of at least 75 mm.
(See Diagram 10)

Diagram 9 Hearth size

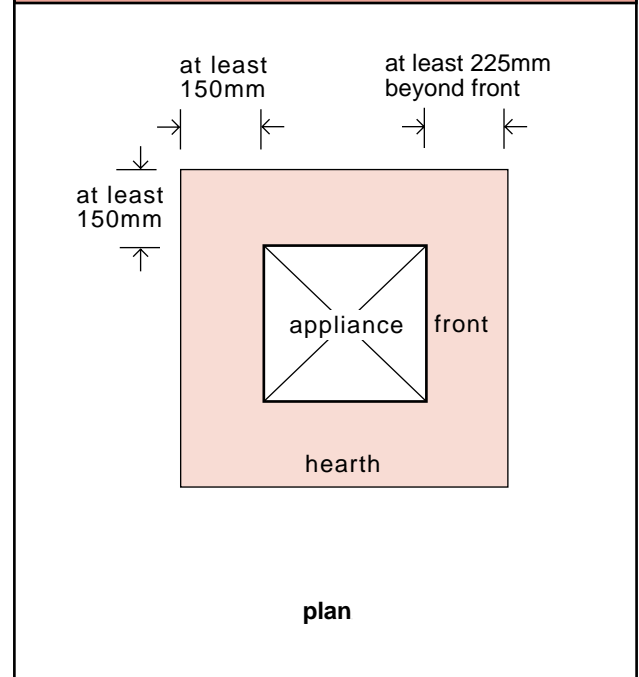
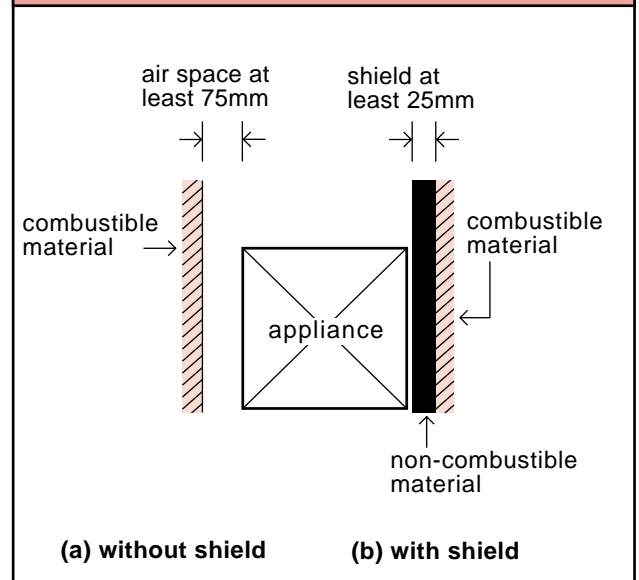


Diagram 10 Separating appliances from combustible material



Section 4 — Additional provisions for oil burning appliances with a rated output up to 45 kW

Air supply to appliances

4.1 Any room or space containing an appliance (other than a room-sealed appliance) shall have a permanent ventilation opening of free area at least 550 mm², plus an additional 550 mm² for each kW of rated output above 6 kW.

Size of flues

4.2 Other than for balanced flue and low level discharge appliances, the flue size shall be at least –

- (a)** for a flue pipe, the same as for the flue outlet on the appliance, and
- (b)** for a chimney: 100 mm diameter for an appliance with a rated output up to 20 kW; 125 mm diameter for an appliance with a rated output between 20 kW and 32 kW; 150 mm diameter for an appliance with a rated output between 32 kW and 45 kW. If the flue is of square section, it shall have a cross-sectional area equal to that of the required circular flue.

Direction of flues

4.3 Other than for balanced flue and low level discharge appliances, horizontal flue runs shall be avoided and if a bend is required in a flue, it shall not make an angle of more than 45° with the vertical.

Outlets from flues

4.4 The outlet from a balanced flue or low level discharge appliance shall be –

- (a)** so situated externally as to allow the dispersal of the combustion products and in the case of a balanced flue the free intake of air, and
- (b)** at least 600 mm from any opening into the building, and
- (c)** protected with a terminal guard if persons could come into contact with it or if it could be subject to damage, and
- (d)** designed so as to prevent the entry of any matter which might restrict the flue.

4.5 The outlet from a flue serving a pressure jet appliance may be terminated anywhere

above the roof line, provided it does not create a hazard.

4.6 The outlet from a flue serving any other appliance shall be positioned above the roof line as shown in Diagram 1 in Section 2 of this Technical Booklet.

Flue pipes and brick and blockwork chimneys

4.7 The provisions for flue pipes and brick and blockwork chimneys depend on the temperature of the flue gases under operating conditions. If this temperature (as determined in BS 4876: 1984) –

- (a)** exceeds 260°C, then the provisions of paragraphs 2.6-2.8 and 2.10-2.14 of Section 2 of this Technical Booklet shall be applied where relevant;
- (b)** does not exceed 260°C, the provisions of paragraphs 3.9-3.16 of Section 3 shall be applied where relevant.

Factory-made chimneys

4.8 Factory-made chimneys shall be –

- (a)** constructed and tested to meet the relevant recommendations given in BS 4543: Part 1: 1990 and Part 3: 1976 Specification for chimneys for oil fired appliances, and
- (b)** installed so as to meet the requirements of BS 6461: 1984: Part 2.

4.9 A factory-made chimney shall not –

- (a)** pass through a part of a building forming a separate fire compartment unless it is cased in non-combustible material giving at least half the fire resistance of the fire compartment wall or floor; or
- (b)** be placed with its outer wall nearer to combustible material than a distance x ; or
- (c)** pass through a cupboard, storage space or roof space, unless it is cased in non-combustible material at a distance of at least x from the outer wall of the chimney; or
- (d)** incorporate joints within any wall, floor, ceiling, or roof.

For (b) and (c) above the distance x is determined in accordance with BS 4543: Part 1: 1990.

Hearths

4.10 If the surface temperature of the floor below the appliance (as determined in BS 4876: 1984) –

(a) exceeds 100°C, then a constructional hearth shall be provided as described in paragraphs 2.18 and 2.19 of Section 2 of this Technical Booklet;

(b) does not exceed 100°C, the appliance may stand on a rigid, imperforate sheet of non-combustible material without a constructional hearth.

Shielding of appliances

4.11 If the surface temperature of the sides and back of an appliance (as determined in BS 4876: 1984) exceeds 100°C, the appliance shall be shielded as described in paragraph 3.21(a) or (b) of Section 3 of this Technical Booklet.

Appendix — British standards and codes of practice

BS 41: 1973 (1981) Cast iron spigot and socket flue or smoke pipes and fittings.

BS 65: 1981 Specification for vitrified clay pipes, fittings and joints, AMD 4328 and AMD 4394.

BS 476: Fire tests on building materials and structures, Part 4: 1970 (1984) Non-combustibility tests for materials, AMD 2483 and AMD 4390.

BS 567: 1973 (1984) Specification for asbestos-cement flue pipes and fittings, light quality.

BS 715: 1986 Specification for metal flue pipes, fittings, terminals and accessories for gas-fired appliances with a rated input not exceeding 60 kW.

BS 835: 1973 (1984) Specification for asbestos-cement flue pipes and fittings, heavy quality.

BS 1181: 1989 Specification for clay flue linings and flue terminals.

BS 1289: Flue blocks and masonry terminals for gas appliances, Part 1: 1986 Specification for precast concrete flue blocks and terminals; Part 2: 1989 Specification for clay flue blocks and terminals.

BS 1449: Steel plate, sheet and strip, Part 2: 1983 Specification for stainless and heat resisting steel plate, sheet and strip, AMD 4807.

BS 4543: Factory made chimneys, Part 1: 1990 Methods of test; Part 2: 1990 Specification for chimneys with stainless steel linings for use with solid fuel fired appliances; Part 3: 1976 Specification for chimneys for oil-fired appliances, AMD 2981 and AMD 3476.

BS 4876: 1984 Performance requirements for domestic flued oil burning appliances (including test procedures).

BS 5258: Safety of domestic gas appliances, Part 1: 1986 Specification for central heating boilers and circulators; Part 4: 1987 Specification for fanned-circulation ducted-air heaters; Part 5: 1975 Gas fires, AMD 4076 and AMD 4745; Part 7: 1977 Storage water heaters; Part 8: 1980 Combined appliances: gas fire/back boiler; Part 12: 1980 Decorative gas log and other fuel effect appliances (2nd and 3rd family gases), AMD 5434; Part 13: 1986 Specification for convector heaters.

BS 5386: Specification for gas burning appliances, Part 1: 1976 Gas burning appliances for instantaneous production of hot water for domestic use, AMD 2990; Part 2: 1981 (1986) Mini water heaters (2nd and 3rd family gases); Part 3: 1980 Domestic cooking appliances burning gas, AMD 4162, AMD 4405, AMD 4878 and AMD 5220; Part 4: 1983 Built-in domestic cooking appliances.

BS 5440: Installation of flues and ventilation for gas appliances of rated input not exceeding 60 kW (1st, 2nd and 3rd family gases) Part 1: 1990 Specification for installation of flues and Part 2: 1989 Specification for installation of ventilation.

BS 6461: Installation of chimneys and flues for domestic appliances burning solid fuel (including wood and peat), Part 2: 1984 Code of practice for factory-made insulated chimneys for internal applications.

BS 6714: 1986 Specification for installation of decorative log and other fuel effect appliances (1st, 2nd and 3rd family gases).

BS 6999: 1989 Specification for vitreous enamelled low carbon steel flue pipes, other components and accessories for solid fuel burning appliances with a maximum rated output of 45 kW.

BS 8303: 1986 Code of practice for installation of domestic heating and cooking appliances burning solid mineral fuels, AMD 5723.