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ST PETER'S CHURCH WELFORD ON AVON



DESIGN & ACCESS AND HERITAGE STATEMENT

for

Installation of New Boiler Flue

Prepared for

The Incumbent, PCC and Churchwardens

St Peter's Church, Welford

Dec 2019

Ref: C128/VFSB/D&A



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1. INTRODUCTION

- 1.1 This Design, Access, & Heritage Statement has been prepared on behalf of The Incumbent, PCC and Churchwardens, St Peter's Church, Welford, by Sarah Baldwin BA Dip Arch MA RIBA(SCA) AABC of Hawkes Edwards, Chartered Architects, in support of the application for planning permission with listed building consent for the proposed of a new boiler flue.
- 1.2 This statement describes the proposals whilst considering the history and nature of the building, site and surroundings, within which the application will be considered by the Local Planning Authority.



2. HISTORY AND EXISTING STRUCTURE

2.1 Introduction

St Peter's Church is located on Church Street in Welford-on-Avon. It is Listed Grade I.

Church. c1330-40 nave and lowest stage of tower, which has early C13 middle stage and C15 top stage; c1330-40 chancel; aisles altered late C14; 1866-7 restoration by Sir G G Scott.

MATERIALS: coursed limestone and sandstone rubble and ashlar dressings; machine tile roofs.

PLAN: 2-bay chancel with lean-to north vestry; 2-bay nave with lean-to aisles, west tower and south porch.

EXTERIOR: off-set buttresses and coped gables. Chancel has diagonal buttresses and renewed 3-light east window; north side has 2-light window and vestry with re-set 2-light C14 east window and north entrance; south side has 2 windows of 2 lights flanking wall tablet to Richard Rawlings d.1727, with worn inscription and segmental head with cherub; all windows with Decorated tracery and hoods. Nave has east gable with sanctus bellcote and coping swept down to original line of south aisle gable. North aisle has blocked C12 round-headed entrance and 3-light straight-headed window with traceried lights and label moulds; small C12 round-headed west light. South aisle has 3 restored off-set buttresses, cornice and coped parapet with 2 pinnacles; gabled porch with single-chamfered arch; C12 inner doorway altered C15 with zig-zag moulding and inset single-chamfered arch with battened doors; 3-light window to east of porch similar to that to north, but lacking tracery and with head stops; buttress to west has moulded off-sets, inset stone with shield and graffito: I R 1673; 2-light C15 east window and small C12 round-headed west light. Tower has tall lower stage with no buttresses and small C12 round-headed west light; middle stage with sill course to 2 lancets with roll-moulded jambs to continuous roll moulding and angle pinnacles, Y-tracery louvred bell-openings; clock to south face.

INTERIOR: chancel has scissor-truss roof with 2 king-strut trusses; sedile recess to south window and ogee-headed piscina; re-set vestry door. Nave has 2-bay arcades with single-stepped round arches on round piers with scallop capitals, arcade to north has later water-holding bases; C19 roof with king post trusses; tower arch with impost bands and west windows with wide splays.

FITTINGS: chancel has C19 stalls with tracery panels; c1920 war-memorial chancel screen with vine trail cornice and brattishing. Nave has early C17 timber pulpit with flared base and fielded panels, fluted top panels, incised frieze and cornice; C13 font bowl with caps and bases to 4 shafts, now with C17 balusters.

MONUMENTS: nave has slab indented for brass of C15 priest and slab to Anne and William Lakeman, d.1723 and 1735.



STAINED GLASS: pieces of late C14 or early C15 glass re-set in south chancel windows in 1936; some medieval glass to north chancel window.

(Victoria County Histories: Styles P: Victoria History of the County of Warwickshire: 1945-: 191-3; Buildings of England: Pevsner N: Warwickshire: Harmondsworth: 1966-: 467).

3. USE

- 3.1 The site is used as a place of worship, and will continue in the same use.

4. PROPOSALS AND IMPACT ASSESSMENT

- 4.1 The proposed works involve the installation of a new boiler flue which will project through the vestry roof on the north side of the church.

The existing boiler is located in a small cellar below the vicar's vestry, accessed via an external hatch and vertical ladder. The boiler has reached the end of its useful life and is to be replaced by a new oil boiler. To improve the accessibility on health and safety grounds, the new boiler will be relocated to the north-east corner of the vestry. The existing boiler is connected to the stone flue running up through the east wall of the north aisle. Current regulations relating to the installation and design of flues make the use of this existing flue for the new boiler impossible, so a new vertical flue is required, to discharge through the pitched tiled roof of the vestry.



Figs 1&2 - Views of the church from the north side showing the mono pitch vestry roof.

The flue will be positioned in the lower part of the pitch on the east side (left) and will project up approx. 610mm above the roof surface. It will be black, 180mm diameter, and will have a lead flashing where it passes through the roof tiles.



Fig 3 - Vestry roof

The flue is positioned on the rear elevation of the church rather than one of the principle elevations and will have limited visual impact. Should the boiler be removed in the future, the works are easily reversible.

5. ACCESS

5.1 Pedestrian access to the site will not be affected.

6. CONCLUSIONS

6.1 The flue will be located at the rear of the church and will have limited visual impact. The replacement of the boiler is essential if the church is to remain in use, and its relocation to the vestry will allow the boiler to be safely accessed for regular maintenance and general day to day use. Its current location in the cellar poses significant health and safety risks. The boiler has to be served by either an internal vertical flue, an external vertical flue, or a horizontal flue through an external wall. The 2 latter options would involve intervention into the stonework which would be of greater detriment to the fabric than the proposed option of passing through the roof.

6.2 In conclusion, the installation of the new flue will help support the continued use of the church as a place of worship, supporting the survival of the listed structure, and it is considered that the proposed works will have a very limited impact, and that this will be either neutral or slightly beneficial.



7. APPENDICES -

St Peter's Church Welford
C/O Mr I Grundy
2 Barton Fields
Welford on Avon
Warwickshire
CV37 8HH

4th October 2019

Our Ref: IC1019/2354

Dear Mr Grundy,

Please find detailed below my quotation for the work required at the church as follows;

1. Drain down and remove the existing boiler from site.
2. Supply and install a new Grant Vortex 58/70 kW Utility oil boiler in the vicar's vestry with vertical flue through the roof.
3. Alter the pipe work from the existing boiler and heating system and extend into the cellar and up to the new boiler position. Supply and fit a new Grundfos Magna 1 25-60 pump with new valves. Lag all new pipe work with Isover foil faced mineral wool pipe insulation with taped joints.
4. Supply and install a new radiator in the vicar's vestry to the cellar pipe work with thermostatic radiator valve and lock-shield valve.
5. Supply and install a new radiator in the choir's vestry on the wall of the disabled W/C with black iron pipe work connected onto the existing convector heater.
6. Supply and fit a new Teddington 90' KBB oil fire valve at the point of entry into the building. Extend new copper oil line from the point of entry to the new boiler position and pressure test.
7. Remove the existing header tank and pipe work. Install a new 50 litre expansion vessel in the cellar complete with filling loop and safety valve.
8. Flush the system and add Sentinal X500 inhibited anti-freeze to the system. Commission and register the boiler for Building Regulations compliance.
9. Supply and fit a new time clock and room stat with necessary wiring.

Total: £12,312.00 + VAT



Continued

Page 2

I trust that you find this to your satisfaction but if you have any queries concerning this quotation, please contact me.

Should you wish to proceed with this quotation, please refer to our Terms and Conditions on the reverse of page one and then complete and return the attached 'Quotation Acceptance' form

I await your further instructions.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'I Campbell', written in a cursive style.

I CAMPBELL



Part No. DOC30 REV04 October 2008

SUPPLEMENTARY INSTALLATION INSTRUCTIONS

Vertical Balanced Flue Kit All Internal Grant Boilers

**THIS SUPPLEMENT SHOULD BE READ IN
CONJUNCTION WITH THE INSTALLATION MANUAL
SUPPLIED WITH THE BOILER**

GENERAL

Flue sections cannot be cut.

Outer diameter of flue pipe: VTK05 - 150mm, VTK06 - 180mm.

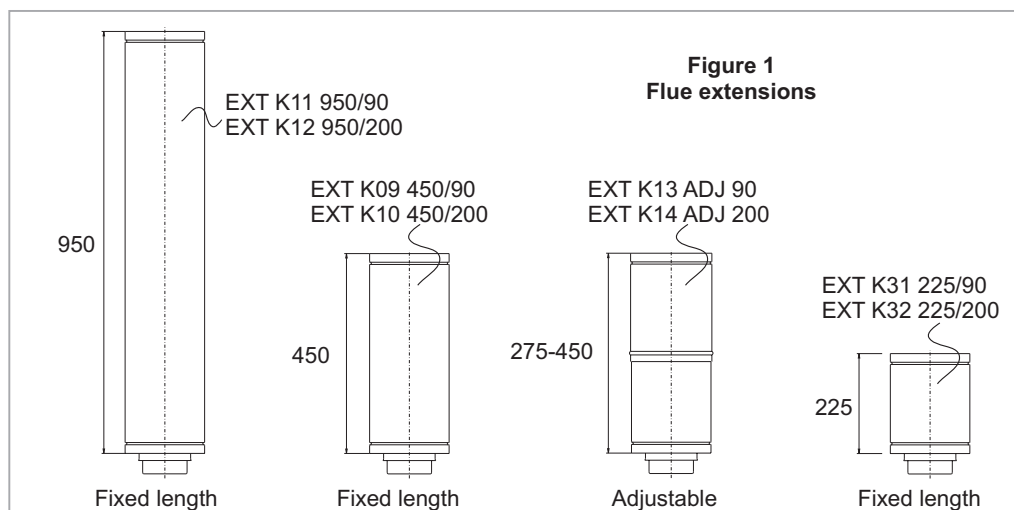
Adjustable sections. The adjustable extensions are telescopic. **Always adjust to the required length using a twisting motion.** The outer pipes must overlap by a minimum of 35mm.

The Vertical Balanced flue kit is supplied in 5 sections. For the purpose of clarity in these instructions the sections have been designated (A),(B),(C),(D),(E) and (F).

The flue pipe seals are factory fitted and must be lubricated with the lubricant supplied.

The standard flue kit adjusts between approximately 2.4 and 3 metres from the top of the boiler water jacket to the top of the terminal.

The height of the kit may be increased (up to a maximum height of 12 metres) using extensions . Four extensions are available from Grant UK (see Figure 1 below).

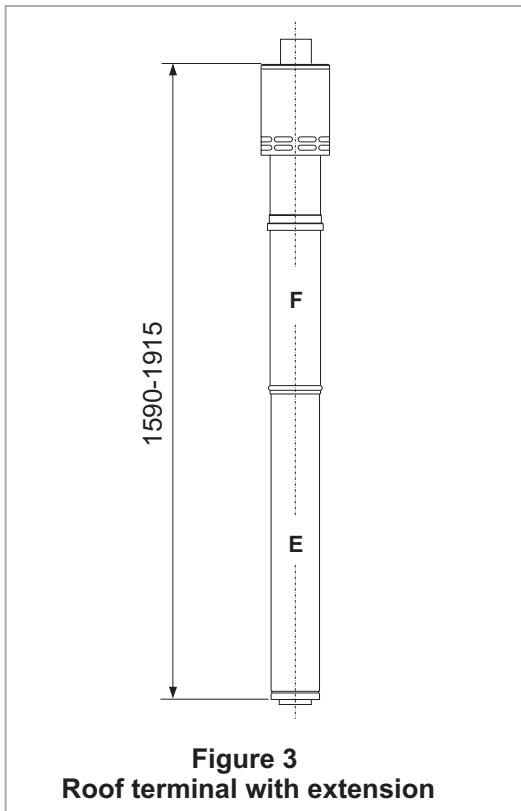




FITTING INSTRUCTIONS

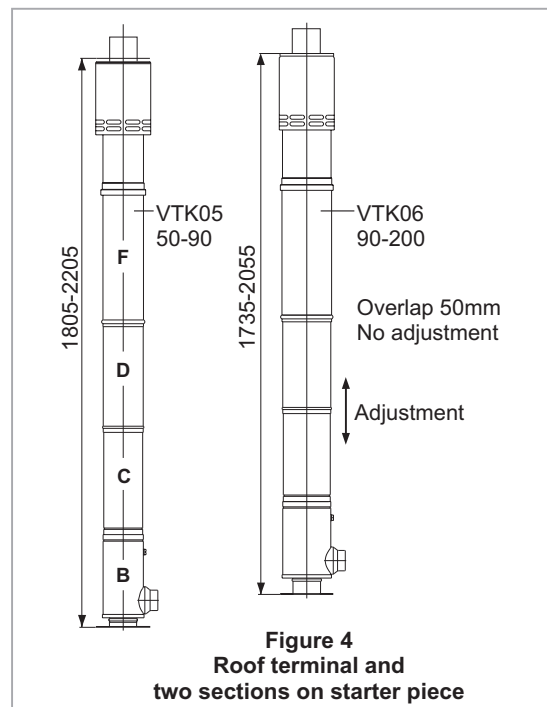
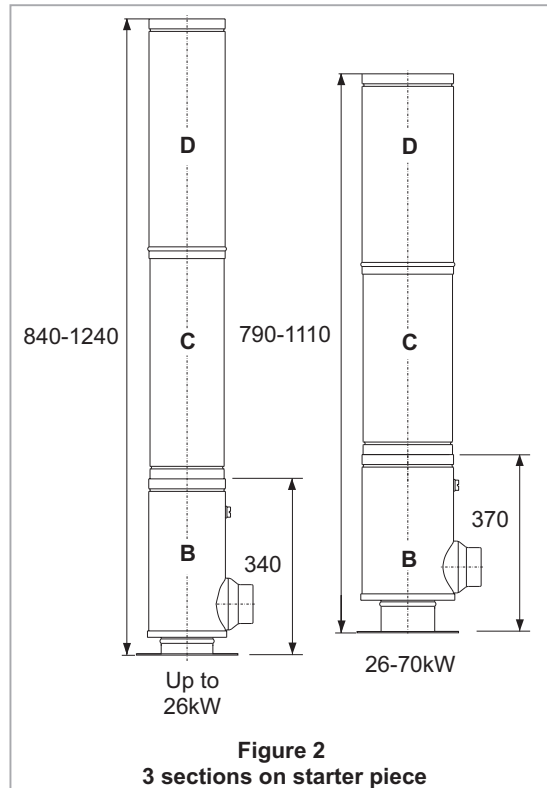
The dimensions shown are measured from the top of the boiler flue outlet, on cased models. The distance between the boiler flue outlet and the top of the casing should be taken into consideration.

Section (B) is the starter piece for the system and push fits into the boiler connector (A) supplied with the kit. Section (B) incorporates the air supply spigot and a combustion test point.



Sections (C) and (D) combine to form a telescopic length. Terminal section (F) slides telescopically over fixed length section (E).

For short flue heights (E) may be omitted and the terminal section (F) may be fitted directly to section (D) (see figure 4) The terminal section (F) overlaps section (D) by 50mm. Telescopic adjustment if required of the flue is still possible between sections (C and D).





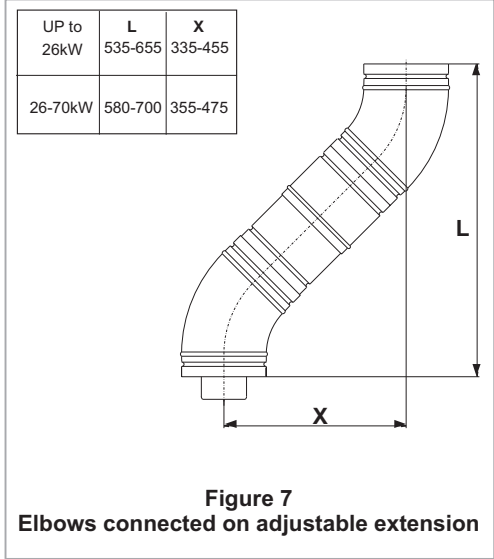
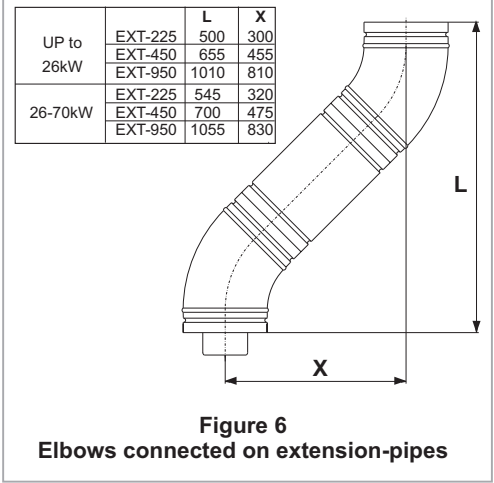
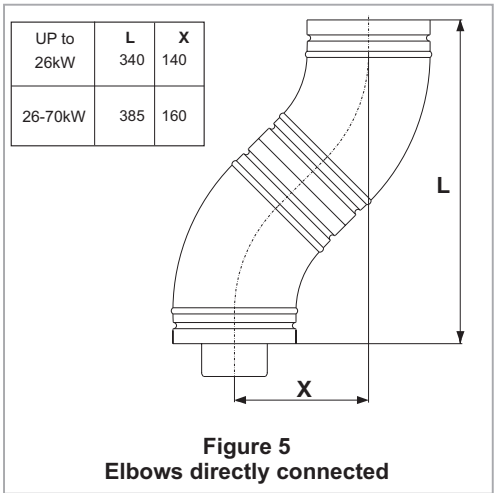
FITTING INSTRUCTIONS

Three types of locking band are supplied with the kit. One for sections that butt together, one for adjustable sections and one for the terminal section. The locking bands for the adjustable and terminal sections are labelled for easy identification.

The flue system may be offset using 45° elbows. Each elbow has an equivalent height of 1 metre which must be deducted from the maximum height of 12 metres. Only six elbows should be used per kit. The elbows may be connected together or used individually to connect to extra extensions to form offsets as shown below.

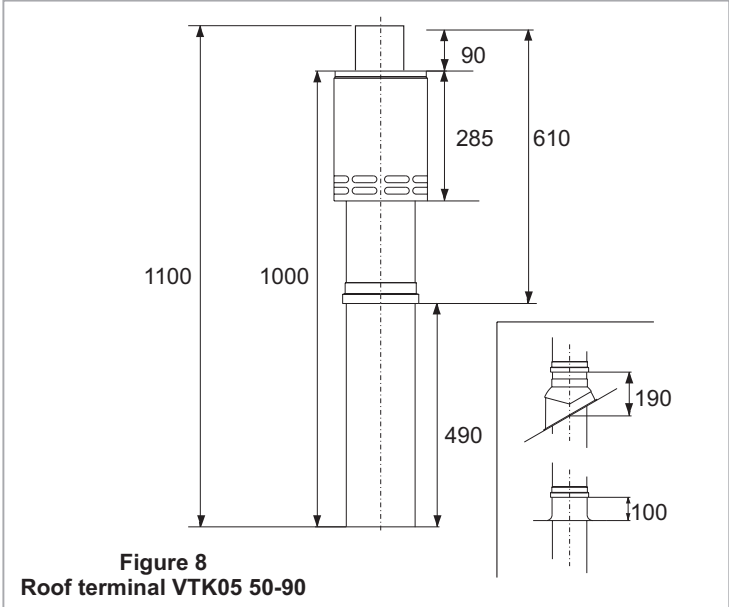
The vertical flue kits incorporate a coated terminal section with integral storm collar factory fitted. The terminal is designed to locate into The Grant pitched or flat roof flashing leaving a fixed length of approximately 600mm above the roof line.

The type of flashing required must be specified at time of order and is not included with the flue kit.

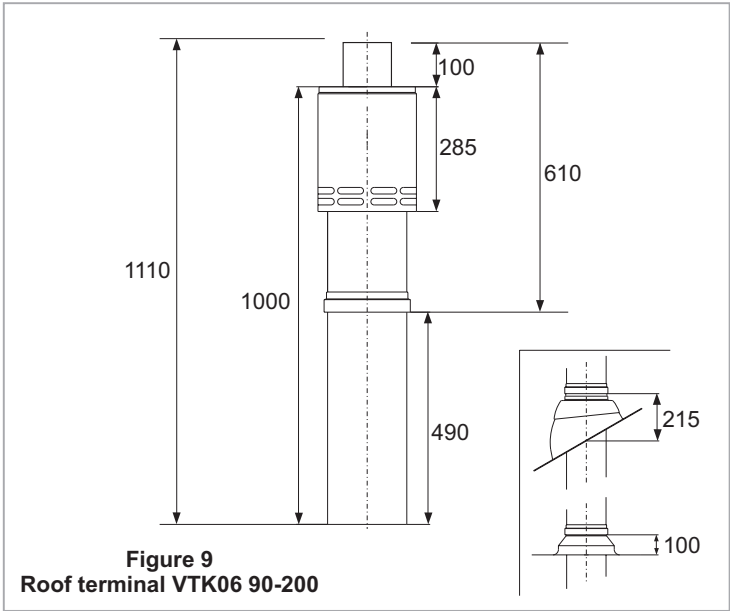




FITTING INSTRUCTIONS



Note: The position of the storm collar. The storm collar locates into the top of the Grant pitched and flat flashing.





FITTING INSTRUCTIONS

TO FIT A VERTICAL BALANCED FLUE

Unpack the flue kit

Decide upon the position of the boiler and determine exactly where the flue will pass through the ceiling and roof. Check that there are no roof members or obstructions in the way of the intended flue route.

VTK05 50/90, cut clearance holes of 175mm diameter through the ceiling and roof.

VTK 06 90/200, cut clearance holes of 200mm diameter through the ceiling and roof.

Unpack the accessory pack.

Remove the boiler top panel or panels, depending on the model being installed.

Grant Vortex Condensing Models only: Clamp the boiler connector (A) to the neoprene gasket fitted to the boiler flue outlet using the stainless steel bolt supplied with the boiler.

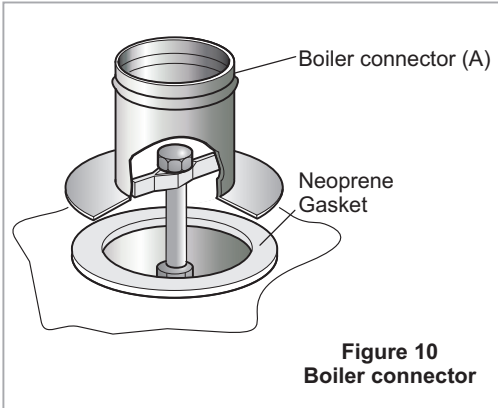


Figure 10
Boiler connector

Locate the boiler connector (A) centrally into the gasket on the top of the boiler. Tighten the bolt to fix the connector in place (see figure 10).

Ensure the factory fitted red seal is in position in the swage in the boiler connector (see figure 11).

Take the starter section (B) of vertical flue pipe and check the seal is fitted as shown (see figure 12).

Apply lubricant to lip of the red seal in the boiler connector.

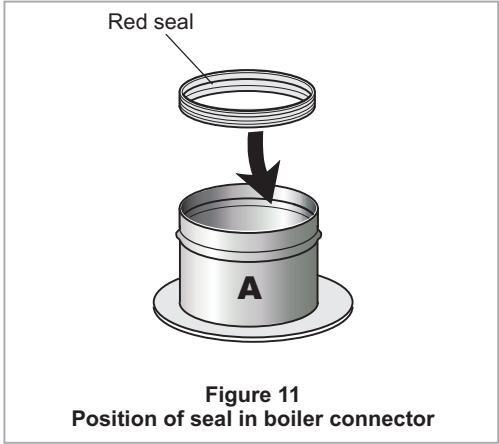


Figure 11
Position of seal in boiler connector

Push fit starter section (B) of flue pipe into the boiler connector. Ensure that the test point screw is orientated for easy access for flue gas analysis and combustion testing.

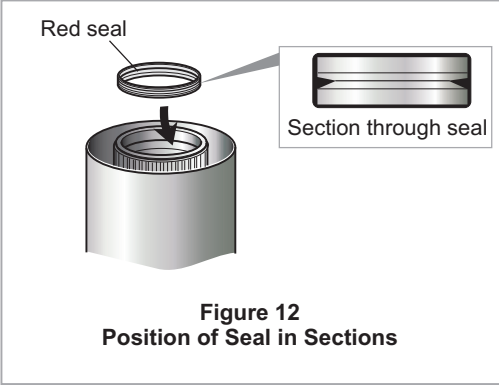


Figure 12
Position of Seal in Sections

Connect the flexible air tube to the air inlet spigot on section (B) and secure with the hose clamp supplied (see figure 13).

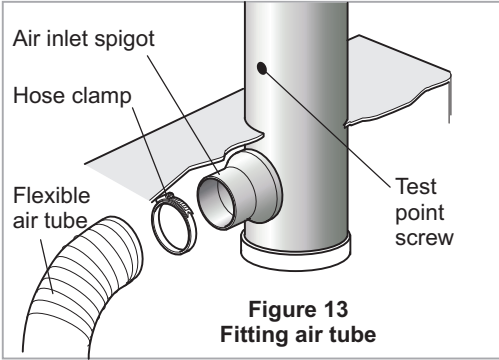


Figure 13
Fitting air tube



FITTING INSTRUCTIONS

Remove the test point screw.

Fit top panel over the flue pipe and fit to the boiler casing. Take an outer flue locking band for the fixed sections and place over the top of the first section of flue ready to clamp the next section of flue.

Ensure the red seal is fitted into the swage in the inner pipe of the starter section (B). Lubricate the seal. Take the lower section of the vertical flue pipe (C) and push fit into starter section (B) using a twisting motion.

Fit a fixed section locking band to join the outer pipes.

Ensure the red seal is fitted into the swage in the inner pipe of the lower section (C). Lubricate the seal. Take the upper section (D) of the vertical flue pipe and push fit into lower section (C), using a twisting motion, ensuring the outer pipes overlap by a minimum of 35mm.

After locating the upper section of an adjustable flue section and after assembly of the complete system ensure that the adjustable section is fixed using the screws provided. This applies to the bottom section of the roof terminal and any telescopic extension. Place the special locking band for adjustable sections over the outer pipe joint (see figure 14).

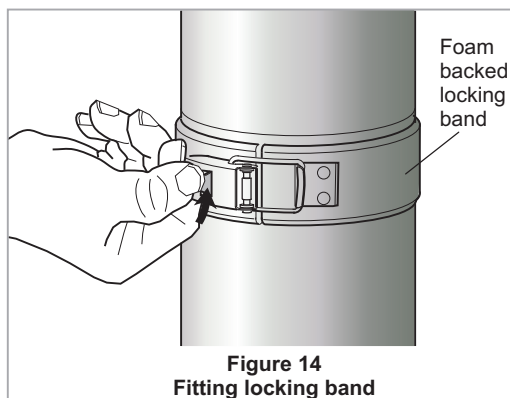
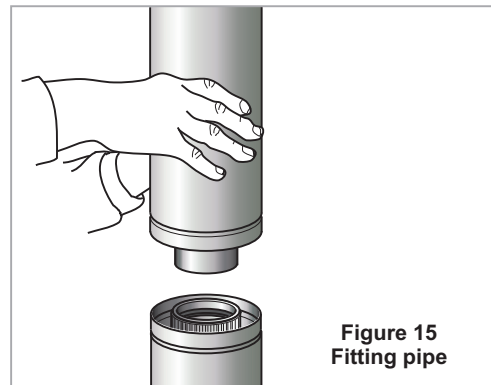


Figure 14
Fitting locking band

Take the fixed section (E) of flue pipe and check a red seal is in position in the swage. Lubricate the lip of the red seal in the top of section (D). Fit



the section of flue pipe (E) in the top of section (D). The outer pipes butt together.

Fit a locking band with foam seal to the outer pipes ensuring that the band locates into the recess on the outer pipes (see figure 14). Ensure that an airtight seal is made between seals and locking bands as before.

A ceiling dress plate is supplied and may be fitted at this stage.

Push fit any additional extensions or remaining sections using the locking bands as before.



FITTING INSTRUCTIONS

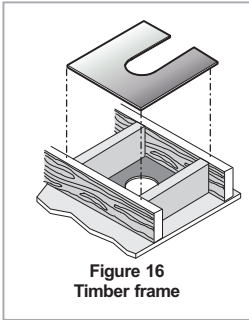


Figure 16
Timber frame

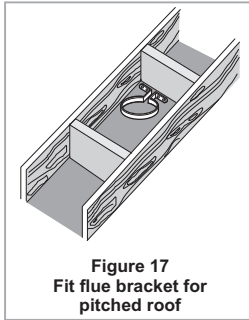


Figure 17
Fit flue bracket for pitched roof

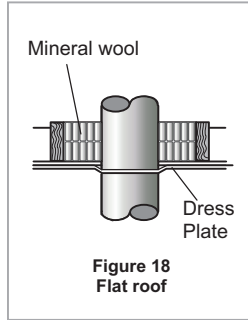


Figure 18
Flat roof

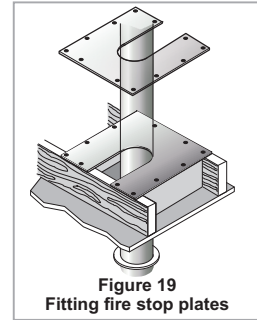


Figure 19
Fitting fire stop plates

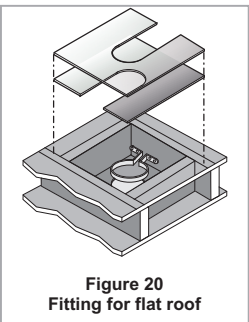


Figure 20
Fitting for flat roof

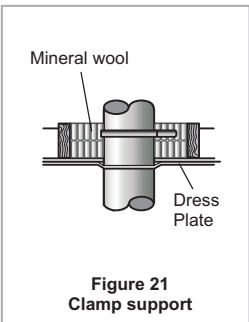


Figure 21
Clamp support

If required fit the fire stop kit as shown in Figures 16 to 21. Construct a boxing as shown. Fill the void around the flue pipe with rockwool or glassfibre insulation.

Fit the flat or pitched roof flashing as required (see Figures 22 and 23) ensuring that a watertight seal is made between the flashing and the roof.

The sliding cap of the pitched flashing can be used in two positions depending on the pitch angle of the roof. Ensure that the sliding cap fully covers the spigot of the flashing to provide a watertight seal.

Fit the terminal section (F) ensuring that the integral storm collar locates correctly over the flashing. The terminal section slides telescopically over the section below it (except when fitted to section (D), fit the bracket ensuring that the weight of the terminal is carried by the clamp supplied and not by the flashing.

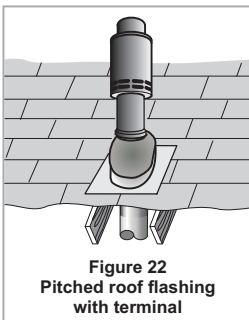


Figure 22
Pitched roof flashing with terminal

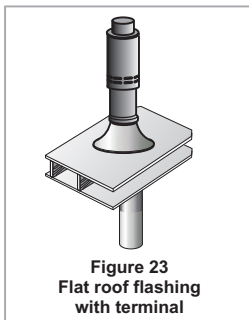


Figure 23
Flat roof flashing with terminal