

# Heating, Ventilation and Roofing

## Product Guide



# Contents



## Naturally superior

Terracotta is an extraordinary material that is naturally resistant to the effects of acid corrosion, extremes in temperature, weathering and other environmental factors.

And, at Hepworth, we have over a century of expertise in harnessing those properties in the manufacture of superior heating, ventilation and roofing solutions.

We offer a comprehensive range of products for the construction and ventilation of domestic flue and chimney systems, including a range of chimney pots, ventilation terminals, gas terminals, ridge tiles and air bricks.

Please see our Terracotta Trade Price List for descriptions of our complete range.

### Heating Solutions

Heating Solutions – Introduction	2
<b>Fireplace Opening Components</b>	<b>2-5</b>
Benefits	2
Product Selector – Fireplace	2-3
Standards and Approvals	4
Fireplace Construction	4
Installation	5
<b>Flue Liners</b>	<b>6-9</b>
Benefits	6
Product Selector – Flue Liners	6-7
Standards and Approvals	7
Flue and Chimney Stack Construction	7
Class A1 Flue Size Selector	8
Flue Liner Offset & Height Dimensions	9
<b>Chimney Pots, Flue Liner Terminals and Gas Terminals</b>	<b>10-12</b>
Benefits	10
Product Selector – Chimney Pots	10-11
Gas Terminals	12
Installation	12
Product Selector – Gas Terminals	12
Standards and Approvals	12

### Ventilation Solutions

Ventilation Solutions – Introduction	13
<b>Ventilation Terminals</b>	<b>13-14</b>
Benefits	13
Product Selector – Ventilation Terminals	13-14
<b>Airbricks</b>	<b>14-15</b>
Benefits	15
Product Selector – Airbricks	15
Standards and Approvals	15
<b>Roofing Solutions</b>	
Roofing Solutions – Introduction	16
Benefits	16
Product Selector – Roofing Solutions	16-17
Standard Ridge Angle Calculator	18
<b>Quality Assurance and Further Details</b>	<b>19</b>
Quality Assurance	19
Technical Advice Service	19
Literature	19
Availability	19
Notes	20

# Heating Solutions

## Heating Solutions – Introduction

A fireplace can be a beautiful, traditional focus for the living space of a home. However, the fireplace, flue and chimney must be properly constructed to ensure that the potentially harmful products of combustion are safely vented to the outside of a building and do not pass into habitable spaces. In addition, to ensure the long-term durability, structural integrity and proper functioning of a chimney, the internal components used to build it must withstand the effects of these corrosive combustion products.

Equally, the external components of a chimney or flue must not only resist the assault of acids and high temperatures but also resist the effects of weather and atmospheric pollution. The prevention of rainwater penetration is important as it can increase the corrosive effects of combustion products.

To ensure the correct choice of flue terminal is made, local wind conditions should also be considered in case strong downdraughts will affect the efficient dispersal of flue gases.

The principles to create a safe and efficient flued appliance are clearly laid down in Building Regulations Approved Document J: Combustion appliances and fuel storage systems, 2010 Edition.



## Fireplace Opening Components

The complete range of components (lintels, flue adaptors, firebacks, firebricks, throat restrictor and otty hood) provides effective solutions for building all sizes of domestic, recessed fireplace openings. Lintels and adaptors are made from concrete. Firebacks, firebricks, throat restrictors and otty hoods are made from refractory materials.

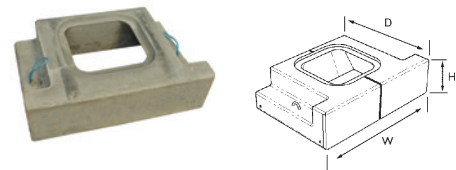


## Benefits

- Components are suitable for new build and refurbishment projects.
- Flexible combination of components offers varied construction opportunities.
- Fully compatible with flue liner range.

## Product Selector – Fireplace

### Fireplace Lintel 600



Cat No	Description	Width mm	Height mm	Depth mm
Y0600	Lintel 600	800	215	560

For use with fireplace openings up to 600mm wide.

**Note:** The Fireplace Lintel 600 must be used with the appropriate flue liner adaptor from 185mm to 300mm round or 185mm to 225mm square.

### Corbel Unit for Fireplace System



Cat No	Description	Width mm	Height mm	Depth mm
Y0800	Corbel Unit 800	1000	140	560
Y1000	Corbel Unit 1000	1200	140	560

Y0800 is for use with fireplace openings up to 800mm wide.

Y1000 is for use with fireplace openings up to 1000mm wide.

# Heating Solutions

## Product Selector – Fireplace (continued)

### Flue Adaptor for Fireplace System – Round



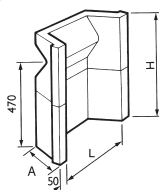
Cat No	Description	Width mm	Height mm	Depth mm
Y0185R	185mm Round	580	100	450
Y0210R	210mm Round	580	100	450
Y0225R	225mm Round	580	100	450
Y0250R	250mm Round	580	100	450
Y0300R	300mm Round	580	100	450

### Flue Adaptor for Fireplace System – Square



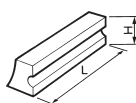
Cat No	Description	Width mm	Height mm	Depth mm
Y0185S	185mm Square	580	100	450
Y0225S	225mm Square	580	100	450

### Milner Scored Fireback



Cat No	Description	Width (L) mm	Height (H) mm	Depth (A) mm
Y124	Milner Scored F/back	380	570	210
Y125	Milner Scored F/back	430	570	210

### Throat Restrictor



Cat No	Description	Width (L) mm	Height (H) mm	Depth (A) mm
Y128	Throat Restrictor	440	125	–
Y129	Throat Restrictor	450	125	–

### Otty Hood



Cat No	Description	Width mm	Height mm	Depth mm
Y130	Otty Hood	400	140	–
Y131	Otty Hood	450	140	–

### Firebricks



Cat No	Description	Width mm	Height mm	Depth mm
Y132	Firebrick	230	25	114
Y133	Firebrick	230	38	114
Y134	Firebrick	230	52	114
Y135	Firebrick	230	64	114
Y136	Firebrick	230	76	114

### Fireclay



Cat No	Description	Size kg
Y137	Fireclay – bag	25

Note: Fireclay should not be used for jointing flue liners

### Chimney Notice Plate



Cat No	Description	Pack
YPLATE1	Chimney Commissioning Pack	1

Contents:

- 110mm x 105mm Aluminium Notice Plate
- Special Marker Pen
- Checklist Certificate and Explanatory Notes
- Class A1 'Flue Size Selector' – Guide and Technical Information

Note: (As required by the Building Regulations 2010 Approved Document J)

# Heating Solutions

## Standards and Approvals

### Lintels, corbel units and flue adaptors

are manufactured from reinforced and unreinforced concrete to BS 1251: 1987 'Specification for open-fireplace components' and have a minimum compressive strength of 17 N/mm<sup>2</sup> at 28 days after casting using the test method described in BS 1881: Part 116.

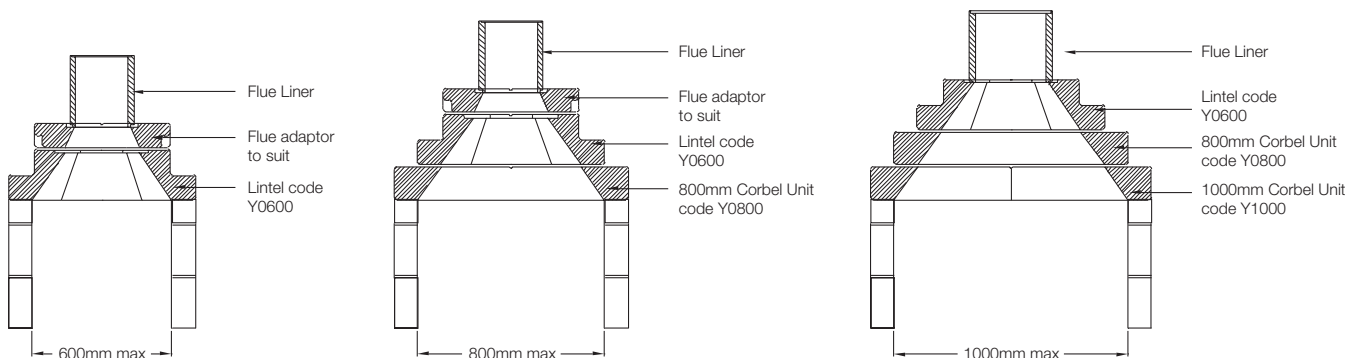
Hepworth **Firebacks** satisfy the heat resistance test given in Appendix A of BS 1251: 1987 in which a specimen is raised to 1280°C/1320°C at a rate not exceeding 250 K/hour, held for 1 hour, and cooled at a similar rate.

### Chimney Notice Plate

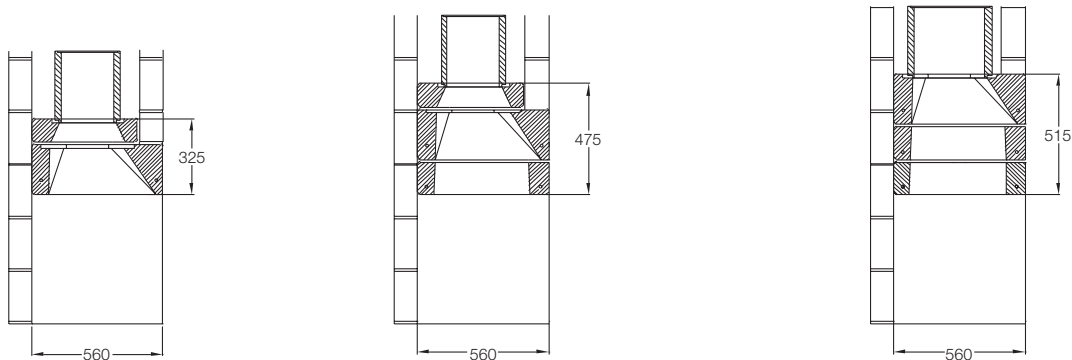
The 2010 Edition of Approved Document J (ADJ) of the Building Regulations for England and Wales specifies the need to provide a notice plate for chimney and hearth installations to comply with Requirement J5. Similar requirements apply in Scotland as referred to in F3.17.7 of the Building Standards (Scotland) Regulations.

## Fireplace Construction

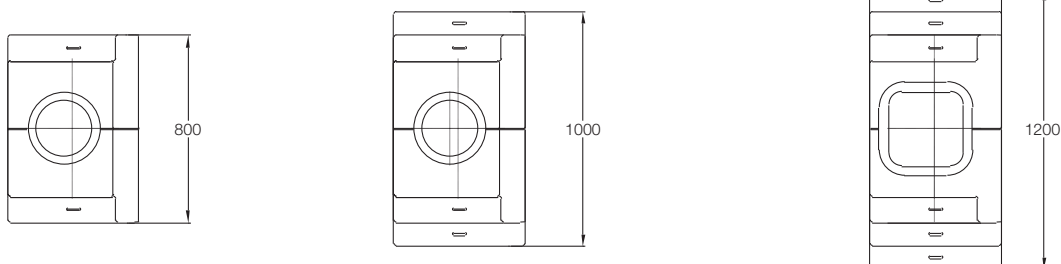
### Front section



### Side section



### Plan view

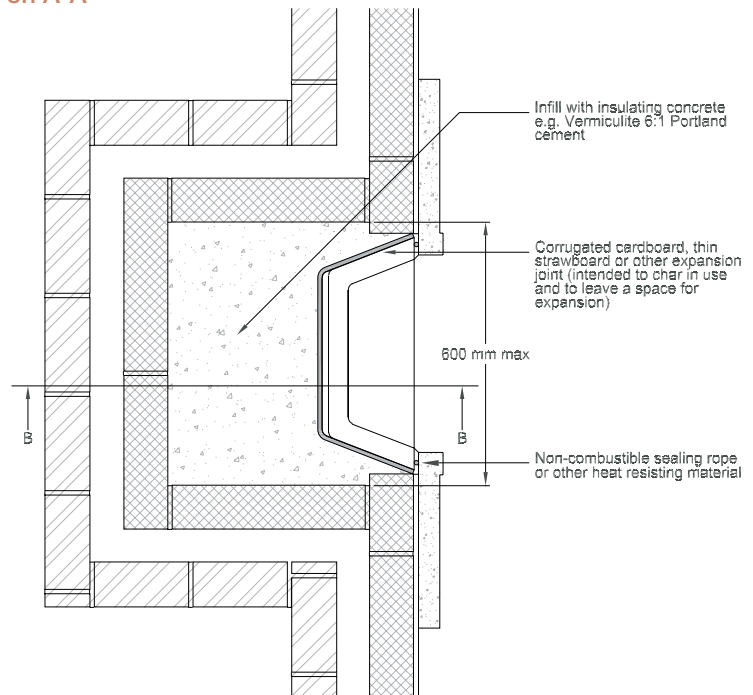


# Heating Solutions

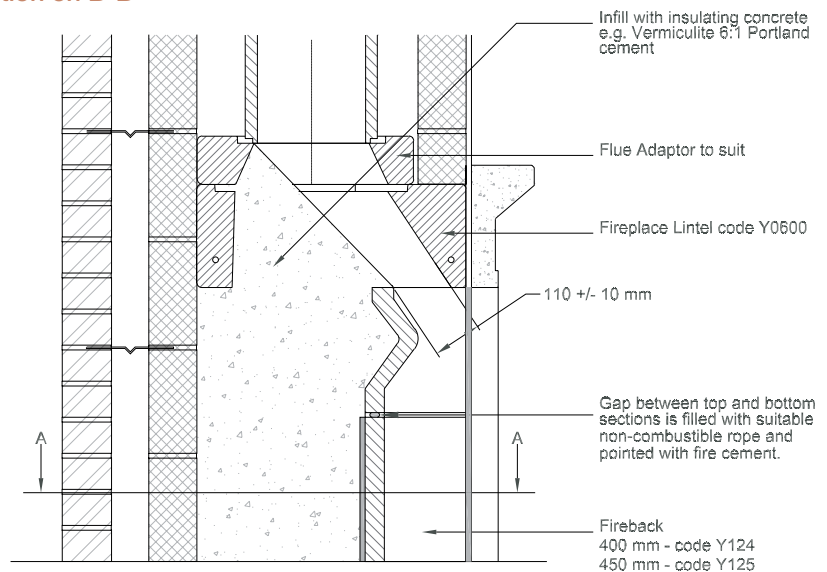
## Fireback Installation

- Construct the fireplace recess to the required dimensions to correctly support the fireplace lintel.
- Separate the upper and lower sections of the fireback along the scored groove, using a masonry saw or hammer and chisel.
- Insert the lower section of the fireback into the fireplace recess with the front level with the front of the builders opening. Place corrugated cardboard or thin strawboard against the rear and sides of the fireback (intended to char in use and to leave a space for expansion).
- Infill the gap behind the fireback with insulating concrete (e.g. Vermiculite 6:1 Portland cement).
- Place non-combustible rope along the top edge of the lower section of fireback. Place the upper section on top of the lower, preferably set back by 1.5 to 2 mm. Point up the joint with fire cement.
- Infill the gap with insulating concrete behind the upper section (no expansion gap required).
- Place the fireplace lintel in position on a mortar bed (rake out and point with fire cement where exposed directly to heat).
- Seal the front edge of the fireback to the fireplace surround using non-combustible rope.
- Allow at least 48 hours for fireback to dry out before lighting a fire. Longer in winter.
- Only small fires of short duration should be burnt for the first few days to help prevent cracking.

Section on A-A



Section on B-B





# Heating Solutions

## Flue Liners

Flue liners consist of a range of Terracotta components that line a flue way and protect the enclosing brickwork/masonry from the corrosive action of flue gases and moisture. They are designed to serve all types of open coal fire, decorative fuel effect gas fires or closed heating appliances fuelled by solid fuel, gas or oil.

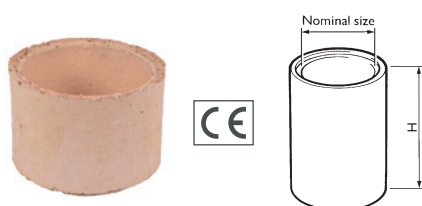
## Benefits

- Suitable for serving heating appliances using coal, wood, peat, gas and oil with a working temperature of 600°C. They can also withstand a soot fire of 1000°C.
- Manufactured to tight tolerances for easy and accurate assembly.
- Suitable for building new or for relining existing chimneys.
- HETAS Product Approval. HETAS No. DC033.
- Long term resistance to manual and powered sweeping.



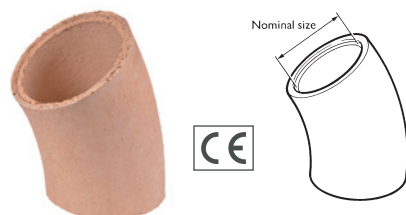
## Product Selector – Flue Liners

### Class A1 Round Straight Liners



Nominal Internal Diameter mm	Nominal External Diameter mm	Height (H) mm		Nominal Cross Sectional Area mm <sup>2</sup>
		180	300	
		Cat No	Cat No	
125	160	-	YC10C1	12260
150	190	-	YC16C1	17660
185	225	YD10C1	YD11C1	26870
210	250	YD17C1	YD18C1	34620
225	275	YE10C1	YE11C1	39740
250	300	YF10C1	YF11C1	49060
300	360	YF15C1	YF16C1	70650

### Class A1 Round Flue Liner Bends

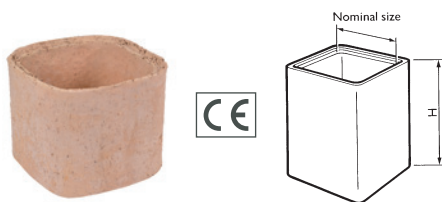


Nominal Internal Diameter mm	Degree of curvature			Nominal Cross Sectional Area mm <sup>2</sup>
	22.5°	30°	37.5°	
	Cat No	Cat No	Cat No	
125	YC13C1	YC14C1	-	12260
150	YC19C1	YC20C1	-	17660
185	YD14C1	YD15C1	YD16C1	26870
210	YD21C1	YD22C1	-	34620
225	YE14C1	YE15C1	YE16C1	39740
250	YF12C1	YF13C1	-	49060
300	YF17C1	YF18C1	YF19C1	70650

# Heating Solutions

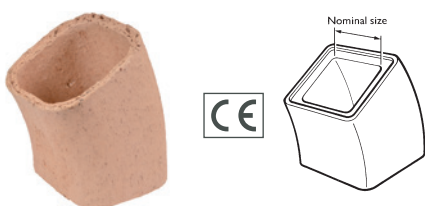
## Product Selector – Flue Liners (continued)

### Class A1 Square Straight Liners



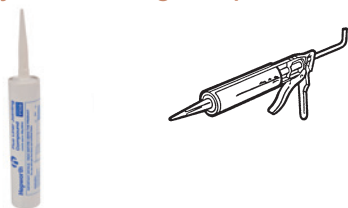
Nominal Internal Size mm	Nominal External Size mm	Height (H) mm		Nominal Cross Sectional Area mm <sup>2</sup>
		180 Cat No	300 Cat No	
185 x 185	225	YG10C1	YG11C1	31600
225 x 225	275	YH17C1	YH18C1	48000
300 x 300	360	YJ15C1	YJ16C1	87400

### Class A1 Square Flue Liner Bends



Nominal Internal Size mm	Degree of curvature			Nominal Cross Sectional Area mm <sup>2</sup>
	22.5° Cat No	30° Cat No	37.5° Cat No	
185 x 185	YG14C1	YG15C1	YG16C1	31600
225 x 225	YH21C1	YH22C1	YH23C1	48000
300 x 300	YJ17C1	YJ18C1	-	87400

### Flue System Jointing Compound



Cat No	Description
Y108	300ml cartridge, gun not included. Suitable for Clay Flue Liners and Gas Flue Blocks. Will make approx. 4 joints on 225mm diameter flue liners.

## Standards and Approvals

Hepworth Terracotta flue liners have been CE marked to the requirements of BS EN 1457-1:2012 and have been tested and certified by BSRIA testing services.

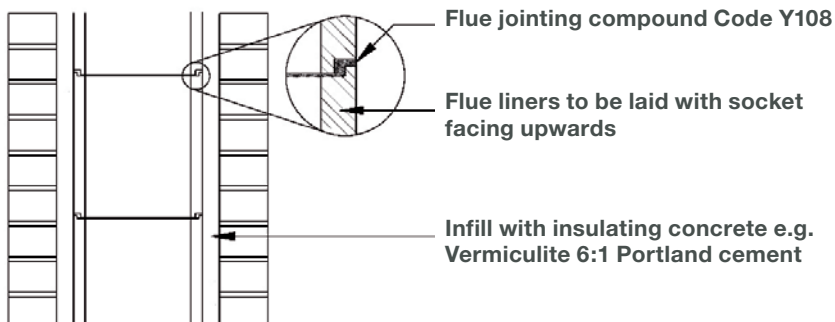
## Performance Data

Hepworth clay flue liners	A1N2 T600 N2 D 3 G
T600 Temperature	Nominal operating temperature 600°C
N2 Gas tightness	Negative pressure test at 20 Pascal
D Condensate resistance	For dry flue conditions
3 Corrosion resistance	For all domestic fuels
G Sootfire resistance	Tested at 1000°C for 30 minutes

A copy of the Declaration of Performance (DoP) and CE Mark certificate can be downloaded from [www.hepworthterracotta.co.uk](http://www.hepworthterracotta.co.uk)

## Flue and chimney stack construction

- Bed the spigot of the first flue liner into the socket on the top of the flue adaptor (or fireplace lintel if using 300 mm square liners) using jointing compound code Y108.
- Continue bedding each flue liner one above the other, ensuring that the socket of each liner is laid uppermost and all joints are sealed with jointing compound.
- During construction the chimney should be cored to remove any excess jointing compound, using a coring ball or other suitable method.
- Any voids between the flue liners and the chimney construction should be filled with a lightweight insulating concrete (e.g. Vermiculite 6:1 Portland cement).
- A period of 2 weeks should elapse before the flue is used for the first time after installation.





# Heating Solutions

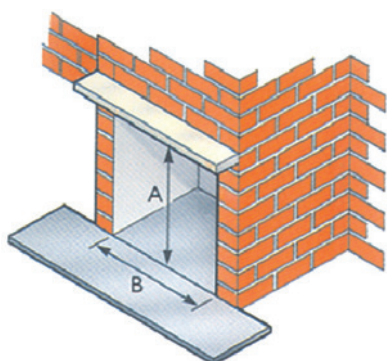
## Class A1 Flue Size Selector

For performance and safety it is important that the correct flue size is specified. This 'Quick Guide' Selector shows you how to specify the right flue size every time.

### Step One – Fireplace Size

The Building Regulations 2000 (Approved Document J) 'Combustion appliances and fuel storage systems - 2010 edition' specify that for fireplaces with openings larger than 500mm x 550mm the flue liner size is based on a nominal crosssectional area (NCSA) equal to 15% of the face area of the fireplace opening.

To calculate this figure, first multiply the Width (W) by the Height (H), then multiply this value by 15%.



#### Example:

W 550mm x H 550mm = 302,500.  
302,500 x 15% = 45,375 = NCSA.

### Step Two – Flue Size

Select the correct Flue Size from the table overleaf.

In the first column of the table find the next highest Flue Size to the NCSA you calculated in Step One.

Read across to Column Two to find the recommended Flue Size.

### Step Three – Clay Flue Liner

Select the correct Hepworth Clay Flue Liner product from the table.

A choice of different lengths and bends is available for each flue size.

Flue Size: NCSA mm <sup>2</sup>	Recommended Flue Size	Technical Notes	Hepworth Class A1 Flue Liner Products to BS EN 1457-1:2012	Description/ Specification YE
12,260	125mm internal dia round	Suitable for closed Oil/Gas appliances only. Not suitable for any solid fuel open fire or Decorative Fuel Effect (DFE) gas fire.	YC10C1 YC13C1 YC14C1	300mm high 22.5° bend 30° bend
17,660	150mm internal dia round	Suitable for closed Oil/Gas appliances only. Not suitable for any solid fuel open fire or Decorative Fuel Effect (DFE) gas fire.	YC16C1 YC19C1 YC20C1	300mm high 22.5° bend 30° bend
26,870	185mm internal dia round	Meets the minimum flue requirement for use with a Decorative Fuel Effect (DFE) gas fire; Not suitable for use with a solid fuel open fire.	YD10C1 YD11C1 YD14C1 YD15C1 YD16C1	180mm high 300mm high 22.5° bend 30° bend 37.5° bend
31,600	185mm square	Suitable for all multi-fuel applications	YG10C1 YG11C1 YG14C1 YG15C1 YG16C1	180mm high 300mm high 22.5° bend 30° bend 37.5° bend
39,740	225mm internal dia round	Suitable for all multi-fuel applications	YE10C1 YE11C1 YE14C1 YE15C1 YE16C1	180mm high 300mm high 22.5° bend 30° bend 37.5° bend
48,000	225mm square	Suitable for all multi-fuel applications	YH17C1 YH18C1 YH21C1 YH22C1 YH23C1	180mm high 300mm high 22.5° bend 30° bend 37.5° bend
49,060	250mm internal dia round	Suitable for all multi-fuel applications	YF10C1 YF11C1 YF12C1 YF13C1	180mm high 300mm high 22.5° bend 30° bend
70,650	300mm internal dia round	Suitable for all multi-fuel applications	YF15C1 YF16C1 YF17C1 YF18C1 YF19C1	180mm high 300mm high 22.5° bend 30° bend 37.5° bend
87,400	300mm square	Suitable for all multi-fuel applications	YJ15C1 YJ16C1 YJ17C1 YJ18C1	180mm high 300mm high 22.5° bend 30° bend

### Technical Advice

Advice should be sought when proposing to construct flues with an area of:

- more than 15% of the total face area of the fireplace openings; or
- more than 120,000mm<sup>2</sup>.

### Flue Liner Bends

Where bends are used they should be angled at no more than 45° to the vertical (max 4 no. 45° bends per flue). For further information please refer to paragraph 1.49 of Approved Document J. Straight lines are preferable as they offer least resistance to the passage of flue gases. This design also assists flue cleaning, sweeping and inspection.

### Clay Flue Liner Benefits

**Performance:** The Hepworth (Class A1) Clay Flue Liner provides enhanced thermal shock loading resistance in soot fire conditions > 1000°C. It also provides a significant barrier against acidic attack (life expectancy: in excess of 50yrs).

**Greater Range Offering:** All Chimney systems vary. The Hepworth Clay Liner Flue Range coverage is 60% greater than alternative concrete systems.

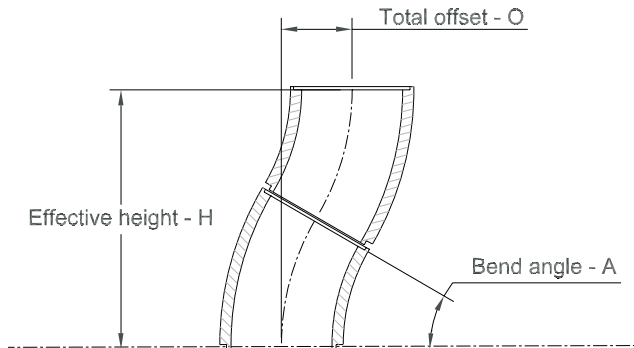
### Jointing the Flue Liner Sections:

The joints are sealed using a specially formulated thermal cement, Hepworth product code Y108. This cartridge contains sufficient cement to seal approx 4 x joints - based upon 225mm diameter flue liners.

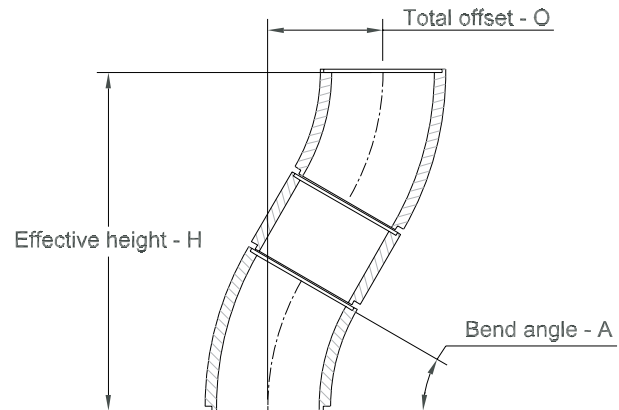
# Heating Solutions

## Flue Liner Offset & Height Dimensions

### Offset options -



Bends only



Bends plus one or more straight liners

### Flue Liner offset and height dimensions

Bend angle - A	Offset - O (mm)	Height - H (mm)	Additional offset per 180mm long liner (mm)	Additional height per 180mm long liner (mm)	Additional offset per 300mm long liner (mm)	Additional height per 300mm long liner (mm)
22.5°	88	437	69	166	115	277
30°	152	566	90	156	150	260
37.5°	233	685	110	143	183	238
45° (2 no 22.5°)	337	810	127	127	212	212

Please note - dimensions shown are subject to manufacturing tolerance.

### Example calculation - Required offset = 395mm

#### Using 22.5° bends -

395 - 88 (O - offset of two 22.5° bends together) = 307mm.

The nearest combination of straight liners to achieve this would be 1 no 180mm long plus 2 no 300mm long i.e.  $69 + (2 \times 115) = 299$ mm.

**Total offset =  $88 + 299 = 387$ mm. Effective height =  $437 + (2 \times 277) + 166 = 1157$ mm.**

#### Using 30° bends -

395 - 152 = 243mm. 1 no 180mm + 1 no 300mm i.e.  $90 + 150 = 240$ mm. **Total offset =  $152 + 240 = 392$ mm.**

**Effective height =  $566 + 156 + 260 = 982$ mm.**

#### Using 37.5° bends -

395 - 233 = 162mm. 1 no 300mm i.e. 183mm. **Total offset =  $233 + 183 = 416$ mm. Effective height =  $685 + 238 = 923$ mm.**

#### Using 45° offset -

Bends only (4 no 22.5° in total). **Total offset = 337mm. Effective height = 810mm.**

# Heating Solutions

## Chimney Pots

All of these items are used to terminate a flue lining above roof level.

Our chimney pot range includes a wide variety of designs from the functional to the highly decorative.

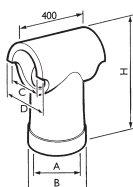
### Benefits

- Terracotta chimney pots and terminals are resistant to frost and the freeze/ thaw cycle.
- Available in red, buff and blue/black.
- Colours resistant to fading.



## Product Selector – Chimney Pots

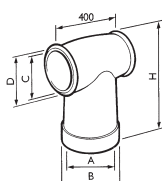
### Decorative Fuel Effect Pot



Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YK10	250	B	580	250	285	210	250

For installation details please refer to BS 5871-3:2005.

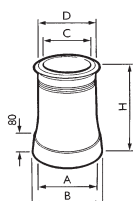
### Barrel Pot



Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YK12	250	B	600	250	285	210	250

Only available in Red.

### Cannon Head



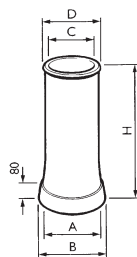
Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YM11	250	B	300	250	285	210	268
YM12	250	B	375	250	285	210	268
YM13	250	B	450	250	285	210	268
YM14	250	B	600	250	285	210	268

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Heating Solutions

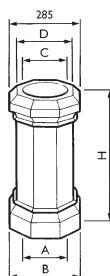
## Product Selector – Chimney Pots (continued)

### Roll Top



Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YM15	250	B	150	250	285	210	268
YM16	250	B	225	250	285	210	268
YM17	250	B	300	250	285	210	268
YM18	250	B	375	250	285	210	268
YM19	250	B	450	250	285	210	268
YM20	250	B	600	250	285	210	268
YM21	250	B	750	250	285	210	268
YM22	250	B	900	250	285	210	268

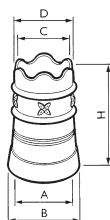
### Octagon Pot



Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YQ11	260	B	600	260	300	180	220
YQ12	260	B	750	260	300	180	220
YQ13	260	B	900	260	300	180	220

Only available in Buff.

### Rook



Cat No	Nominal Size Circular mm	BS 1181 Type A or B	H mm	A mm	B mm	C mm	D mm
YQ35	250	B	500	250	285	210	250

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Heating Solutions

## Gas Terminals

This range of Hepworth Terracotta gas terminals has been designed for conventional radiant convector gas-fired appliances.

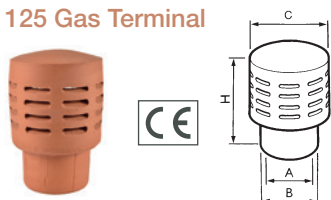
## Installation

For installation details, please refer to BS 5871-3:2005.



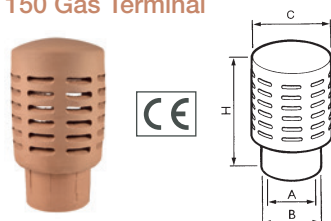
## Product Selector – Gas Terminals

### Stell 125 Gas Terminal



Cat No	Nominal Size Spigot Dia mm	H mm	A mm	B mm	C mm	Free Air Space mm <sup>2</sup>
YK18	160	345	130	160	230	25000
YK19	180	345	150	180	230	25000

### Stell 150 Gas Terminal



Cat No	Nominal Size Spigot Dia mm	H mm	A mm	B mm	C mm	Free Air Space mm <sup>2</sup>
YK22	180	450	150	180	245	35700
YK23	205	450	175	205	245	35700

YK23 not available in Blue/Black.

Stell Gas Terminals have been tested and certified by the BSi.

Refer to heating appliance manufacturer for ventilation area requirement, thereby assisting appropriate gas terminal selection.

**Warning:** Stell Gas Terminals are not suitable for use with solid fuel appliances or decorative fuel effect gas fires and inset live fuel effect gas fires, requiring a minimum 175mm diameter flue.

## Recommended Chimney Pot and Gas Terminal combinations

Chimney Pot Top ID	Gas Terminal Spigot OD
185mm	160mm
210mm	180mm
225mm	205mm

## Standards and Approvals

Hepworth Terracotta gas flue terminals have been CE marked to the requirements of BS EN 13502:2002 and have been tested and certified by BSI testing services.

A copy of the Declaration of Performance (DoP) and CE Mark certificate can be downloaded from [www.hepworthterracotta.co.uk](http://www.hepworthterracotta.co.uk)

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Ventilation Solutions

## Ventilation Solutions – Introduction

Ventilation Terminals are used to ensure airflow through redundant flues, to prevent condensation build-up within them. They also prevent access for nesting birds and shelter the flue from precipitation.

Open flued solid fuel, oil- or gas-fired heating appliances must have an adequate supply of air to ensure their safe and efficient operation. For established properties, airbricks can supply this. For recently-built homes, that are required to be airtight, ventilation for such appliances is commonly supplied by integrated ventilation systems.



## Ventilation Terminals

Ventilation terminals provide an aesthetic and durable weather protection method for redundant flues and chimneys.

They prevent rain from entering the flue and also provide a means for the free movement of air up through the flue from air grilles fitted into a disused fireplace

opening. This reduces the build-up of internal condensation that might mix with residual soot and eventually leak out of older flues which will cause unsightly staining of interior walls or exterior brickwork. This will also help to maintain the long term structural stability of the brickwork chimney.

Terracotta is made from an abundant natural material, that is highly resistant to the effects of acid corrosion. This is important because a form of sulphuric acid is produced when water and soot combine, this can affect some metallic flue and chimney components.

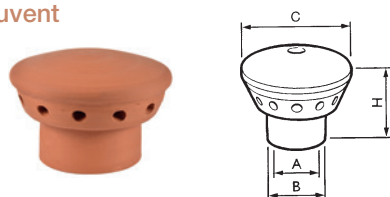
## Benefits

- **When fitted into the top of a chimney pot they look better than alternatives.**
- **Terracotta is naturally resistant to acid corrosion.**
- **Easy to install, requiring minimal or no maintenance.**
- **Maintains the structural integrity of a redundant flue and chimney with ventilation.**
- **Available in Red, Buff or Blue black to match most existing flat topped pots.**
- **Colours resistant to fading.**
- **Terracotta is resistant to the freeze thaw cycle and frost.**
- **Prevents entry to nesting birds.**
- **Minimises the possibility of rain or snow entering the flue.**

**Warning:** These terminals are not approved for use on operational flues (i.e. gas, oil, solid fuels). If a flue or chimney is brought back into operation and has a ventilation terminal in place, it should either be removed or replaced with a suitable pot or terminal appropriate to its new use and fuel type.

## Product Selector – Ventilation Terminals

### Fluvent



Cat No	Nominal Size Circular mm	H mm	A mm	B mm	C mm
YL10	135	175	105	135	275
YL11	160	175	130	160	275
YL12	180	175	150	180	275
YL13	205	175	175	205	340
YL14	235	175	205	235	340

**Ventilates redundant flues only.**

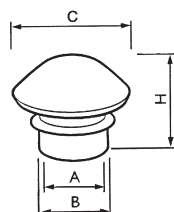
The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black



# Ventilation Solutions

## Product Selector – Ventilation Terminals (continued)

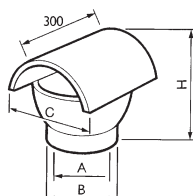
### Mushroom Top



Cat No	Nominal Size Circular mm	H mm	A mm	B mm	C mm
YL15	180	240	150	180	275

Ventilates redundant flues only.

### Bonnet Insert



Cat No	Nominal Size Circular mm	H mm	A mm	B mm	C mm
YL17	135	285	105	135	250
YL18	160	285	130	160	250
YL19	180	285	150	180	250
YL20	205	285	175	205	250

Ventilates redundant flues only.

**Warning:** These terminals are not approved for use on operational flues (i.e. gas, oil, solid fuels). If a flue or chimney is brought back into operation and has a ventilation terminal in place, it should either be removed or replaced with a suitable pot or terminal appropriate to its new use and fuel type.

## Recommended Chimney Pot and Ventilation Terminal combinations

Chimney Pot Top ID	Ventilation Terminal Spigot OD
150mm	135mm
185mm	160mm
210mm	180mm
225mm	205mm
250mm	235mm
300mm	N/A

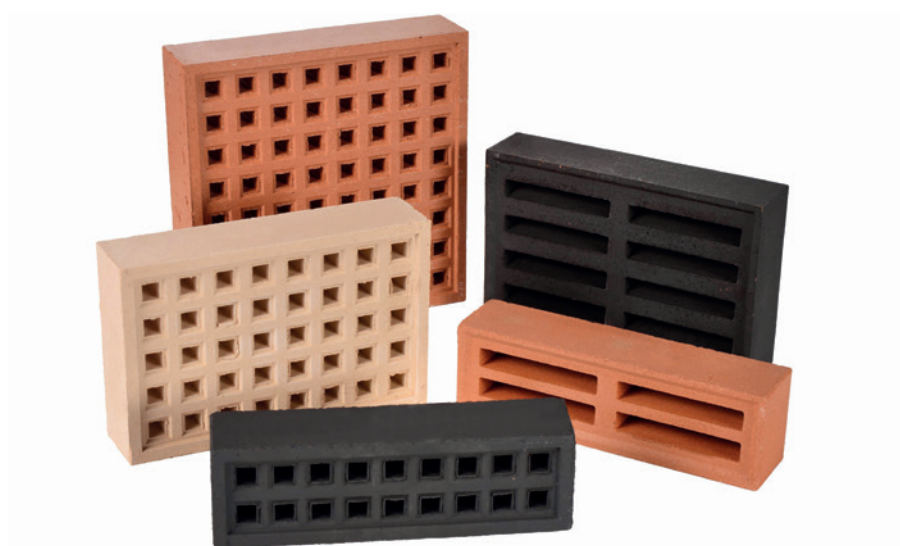


## Airbricks

Ensuring a suitable airflow for the operation of solid fuel, oil or gas-fired heating appliances is an essential requirement as set out in Building Regulations Approved Document J: Combustion appliances and fuel storage systems, 2010 Edition. It is not sufficient to rely on air leakage around doors and windows, particularly with the need to conform to increasingly stringent legislation for reducing heat loss and the consequent requirement for double glazing and draught proofing.

A fixed window vent or an appropriately located airbrick of the correct size will provide a simple and adequate source of permanent ventilation for open-flued heating systems.

Cold roof voids and suspended ground floor voids also require permanent ventilation to prevent conditions leading to the rotting of the building fabric through



the build-up of condensation. Gable ended roofs can benefit from permanent through-ventilation by the simple insertion of an airbrick (and cavity liner where appropriate) in each gable.

Cavity Liners are used in conjunction with airbricks, to bridge the depth of the wall, where necessary.

The airbricks can be used internally or externally in the construction of housing and commercial projects.

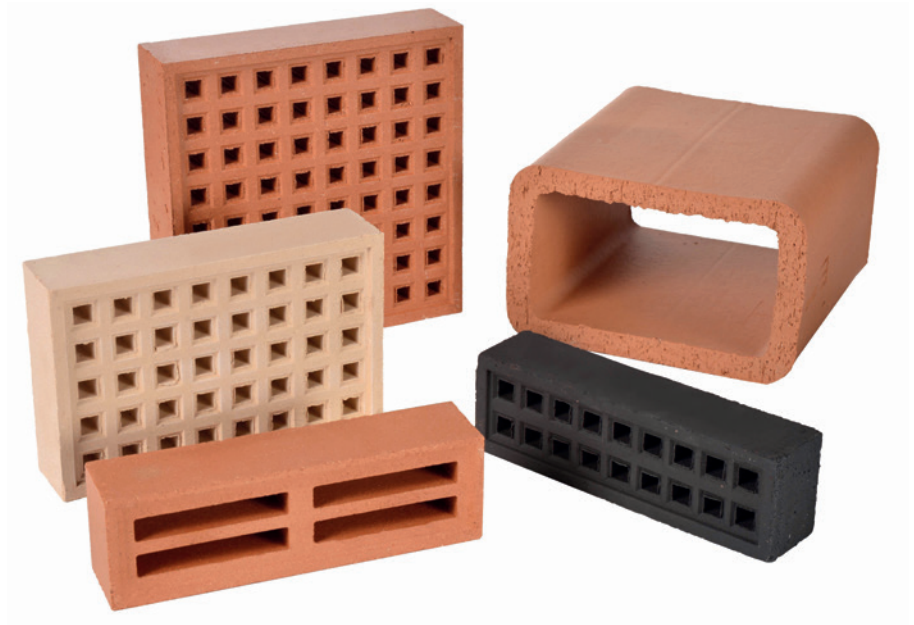
Terracotta airbricks can complement the external finish of a property and will weather well with the surrounding brickwork.

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Ventilation Solutions

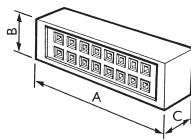
## Benefits

- Components are suitable for new build and refurbishment projects.
- Available in red, buff and blue/black.
- Colours resistant to fading.
- Airbricks are resistant to frost and the freeze/thaw cycle.
- Complement the building finish.
- Holes sized to prevent vermin entry.



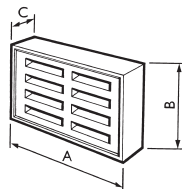
## Product Selector – Airbricks

### Square Hole



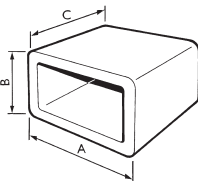
Cat No	A mm	B mm	C mm	Free Air Space mm <sup>2</sup>
YA13	215	65	50	1300
YA14	215	140	50	2890
YA15	215	215	50	4624

### Louvered Hole



Cat No	A mm	B mm	C mm	Free Air Space mm <sup>2</sup>
YA16	215	65	50	1290
YA17	215	140	50	2580
YA18	215	215	50	3650

### Cavity Liners



Cat No	A mm	B mm	C mm
YB11	215	65	200
YB13	215	140	200
YB15	215	215	200

## Standards and Approvals

Hepworth Terracotta **airbricks** comply with BS 493: 1995 'Specification for airbricks and gratings for wall ventilation'.

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Roofing Solutions

## Roofing Solutions – Introduction

Ridge tiles are located at the most vulnerable positions of pitched roofs where they must prevent rain penetration at changes of roof plane and be able to resist wind uplift forces. They must also remain stable when subjected to atmospheric pollution, the effects of frost and potentially corrosive combustion products from nearby chimney pots and terminals. When used as part of the overall measures taken to resist the passage of moisture, Hepworth Terracotta ridge tiles meet the requirements of The Building Regulations 2000, Approved Document C: Site preparation and resistance to moisture.

Ideally ridge tiles should both match the roof finish and also reflect the character of the locality.

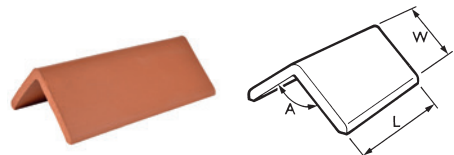


## Benefits

- **Components are suitable for new build and refurbishment projects.**
- **Ridge tiles offer wide opportunities to add distinctive features to pitched roofs.**
- **Available in red, buff and blue/black.**
- **Colours resistant to fading.**

## Product Selector – Roofing Solutions

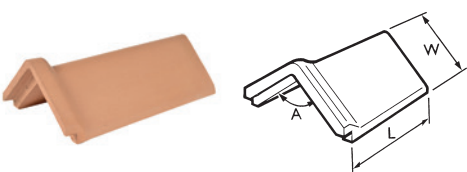
### Plain Angle



Cat No	Nominal Angle° A	L mm	W mm
YR16	75	450	150
YR17	90	450	150
YR18	105	450	150
YR19	115	450	150
YR20	125	450	150
YR21	135	450	150
YR67*	90	450	150
YR68*	105	450	150
YR69*	115	450	150

\* Available in Red and Blue/Black only. For bulk purchase only (pallet quantities of 100).

### Capped Angle



Cat No	Nominal Angle° A	L mm	W mm
YR52	75	450	150
YR53	90	450	150
YR54	105	450	150
YR55	115	450	150
YR56	125	450	150
YR57	135	450	150
YR73*	90	450	150
YR74*	105	450	150
YR75*	115	450	150
YR76*	125	450	150

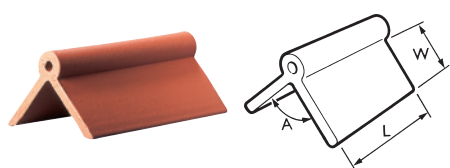
\* Available in Red and Blue/Black only. For bulk purchase only (pallet quantities of 100).

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Roofing Solutions

## Product Selector – Roofing Solutions (continued)

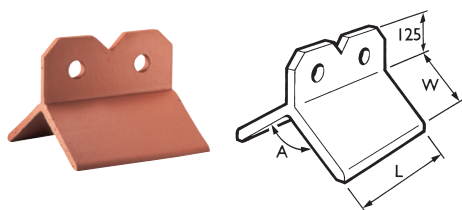
### Roll Top Ridge



Cat No	Nominal Angle° A	L mm	W mm
YT16	75	450	150
YT17	90	450	150
YT18	105	450	150
YT19	115	450	150
YT20	125	450	150
YT21	135	450	150

Available in Red and Blue/Black

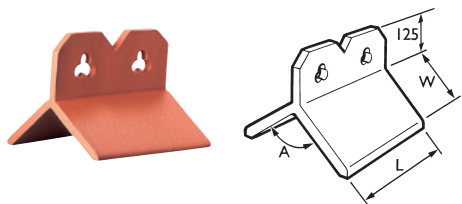
### Two Hole Crested Ridge



Cat No	Nominal Angle° A	L mm	W mm
YU17	90	300	150
YU18	105	300	150

Available in Red only

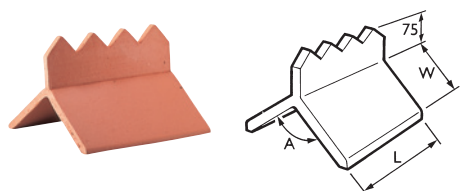
### Club Crested Ridge



Cat No	Nominal Angle° A	L mm	W mm
YU23	90	300	150
YU24	105	300	150

Available in Red only

### Coxcomb Crested Ridge



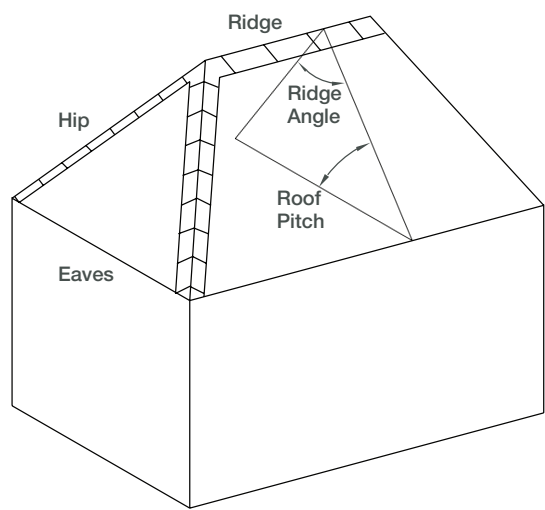
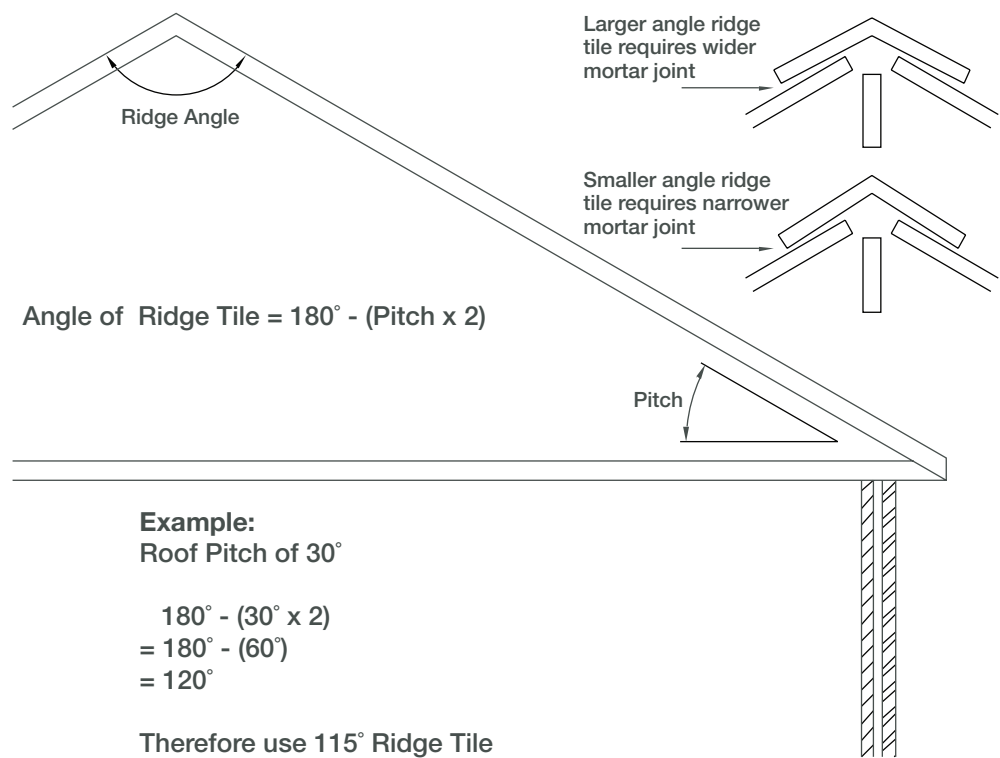
Cat No	Nominal Angle° A	L mm	W mm
YU29	90	300	150
YU30	105	300	150

Available in Red only

The products on pages 10-17 are available in a choice of colours.  
Please add the following suffix to the product code: R - Red, B - Buff, X - Blue/Black

# Roofing Solutions

## Standard Ridge Angle Calculator



Ridge Angle	Hip Angle
$75^\circ$	$105^\circ$
$90^\circ$	$115^\circ$
$105^\circ$	$125^\circ$
$115^\circ$	$135^\circ$
$125^\circ$	$135^\circ$
$135^\circ$	N/A

# Quality Assurance and Further Details

## Quality Assurance

Hepworth Terracotta **fireplace components, flue liners, flue liner terminals, gas terminals and chimney pots** will meet the requirements of Building Regulations Approved Document J: Combustion appliances and fuel storage systems, 2010 Edition. For gas appliances, the Building Regulations also require that the gas installation must be undertaken by a Gas Safe registered installer.

All Hepworth products are manufactured under a quality management system which is approved to BS EN ISO 9001:2008 Quality Management Systems Requirements.

All Wavin manufacturing sites operate Environmental Management Systems which comply with the requirements of and are certified to BS EN ISO 14001, Certificate No 42231.

## CE marking has changed

**As of the 1st July 2013, the Construction Products Regulation (CPR) came into force.**

It is mandatory for any construction product covered by a harmonised European Norm (hEN) to have a Declaration of Performance (DoP) and an accompanying CE mark.

The product standards and ranges covered by the CPR and identified in this product guide are:

### **BS EN 1457-1:2012**

Round and square flue liners

### **BS EN 13502:2002**

Stell Gas terminals

## Technical Advice Service

For help with all aspects of Hepworth Terracotta Products, from design through to maintenance, or regarding other Wavin products, please call the Wavin Technical Advice Service on:

**Tel: 0844 856 5165**

## Literature

For details of other products in the Hepworth range or other Wavin brands, please email our Literature Service at:

**[literature@wavin.co.uk](mailto:literature@wavin.co.uk)**

## Availability

The Hepworth Terracotta range is available through a network of builders merchants. For further details please telephone our customer services hotline on:

**Tel: 0844 856 5152**



# Hepworth

## TERRACOTTA

Hepworth Terracotta products from Wavin are high quality chimney pots, ventilation terminals, air bricks and ridge tiles. These products range from the practical to the highly decorative in three colours; red, buff and blue/black. Manufactured from highly durable material, Hepworth Terracotta products will look good for years to come.

Wavin Limited  
Edlington Lane  
Edlington  
Doncaster  
South Yorkshire  
DN12 1BY

T: 0844 856 5152  
E: [terracotta@hepworth.co.uk](mailto:terracotta@hepworth.co.uk)  
[www.hepworthterracotta.co.uk](http://www.hepworthterracotta.co.uk)

