

• Traditional and hybrid conventional flues • Guide to flue clearances • Modular flue design service



Round **Low Level** balanced flue systems stainless steel

Low Level EZ-Fit flue kits Yellow system

Grant's low level balanced range of EZ-Fit flue systems have been developed to make the installation of Grant boilers both quick and simple, whilst ensuring trouble free operation – even in the most exposed site conditions.

Reduces installation time

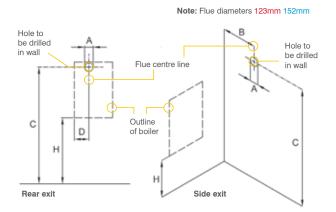
The round low level kits feature self-sealing ducts requiring no silicone or tape for joints, and the unique quick-fit connection arrangement ensures a perfect seal every time. In fact, the telescopic flue system requires only two simple operations to complete the installation. The kits are compatible with all Grant boilers, except external modules.

The Grant flue terminal

The flue terminal has a compact design, making it ideal for installations where the visual appearance is important. The cone design reduces the possibility of condensate, produced in the combustion process, staining external wall surfaces or patio slabs.

Low Level balanced flue hole cutting dimensions			
Model	Dimensions (mm)		
	A dia	В	С
Vortex Pro 15/21 & 15/26	127	115	768
Vortex Eco 12/21 & 21/26	127	115	768
Vortex Pro 26/36 & 36/46	162	115	780
Vortex Eco 26/35	162	115	780
Vortex Pro 46/58 & 58/70	162	112	1102
Vortex Pro Combi 21e & 26e	127	115	768
Vortex Pro Combi 36e	162	105	780
Vortex Eco Wall Hung 12/16 & 16/21	127	112	H + 765*

Note: *H is the height (mm) from floor to underside of boiler casing.



Note: Dimension 'B' is given with the boiler pushed back against the rear wall Any clearances must be added to 'B'.

Extensions

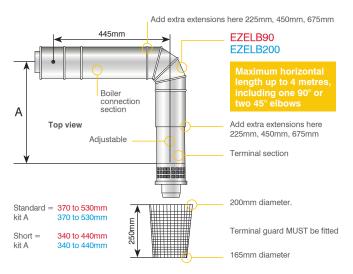
The flue kits are telescopic and available in short or standard options. For wall thicknesses greater than shown, three extensions are available which extend the flue by 225mm, 450mm or 675mm to a maximum of four metres. 90° and 45° elbows are also available to give a greater degree of flexibility when siting the boiler.

Plume diverter kits

Grant has developed a solution for existing low level flues where pluming causes a nuisance. The new plume diverter kits are designed to fit with our latest EZ-Fit Yellow Low Level balanced flue system. The kit comprises, a starter elbow, which fits over the already fitted flue terminal, 2 x 1m lengths of stainless steel flue pipe, a terminal elbow together with 2 x adjustable brackets. It is available in 80mm diameter for boilers up to 26kW and 100mm diameter for boilers from 26-70kW.

Low Level flue kit

with 90° elbow extension added



Low Level flue kit

(stainless steel)

Standard flue kit: EZ90 / EZ200 Short flue kit: EZ90S / EZ200S



Contents of Low Level flue kit:

Boiler connector section Terminal section Stainless steel flue guard

Dress plate (not shown)
Plugs and screws
Side outlet cover trim (not shown)

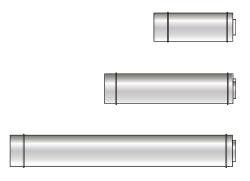
Lubricant (not shown) Snorkel clamp (not shown)

Low Level balanced flue kits



Standard flue kit		
EZ90	Models up to 26kW	
EZ200	Models 26 - 70kW	
Short flue	kit	
EZ90S	Models up to 26kW	

Low Level balanced flue extensions



Extension 225mm	
X90S	Models up to 26kW
X200S	Models 26 - 70kW
Extension	450mm
X90M	Models up to 26kW
X200M	Models 26 - 70kW
Extension 675mm	

Models up to 26kW

Models 26 - 70kW

X90L

X200L

Important

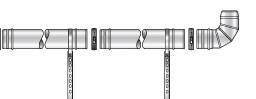
Flue extensions cannot be cut. Yellow system extensions are for horizontal use only and cannot be used vertically with Green, Orange, Red or White system components.

Low Level balanced flue accessories









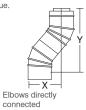
90° elbow kit		
EZELB90	Models up to 26kW	
EZELB200	Models 26 - 70kW	
45° elbow or	ly	
EZ45/90S	Models up to 26kW	
EZ45/200S	Models 26 - 70kW	
45° elbow kit		
EZ45/90	Models up to 26kW	
EZ45/200	Models 26 - 70kW	
Plume diverter kit		
GPDA90	Models up to 26kW	
GPDA200	Models 26 - 70kW	

Important

Horizontal lengths up to 4 metres can be accommodated, including one 90° or two 45° elbows.

Offset elbows

45° elbows can be used with Low Level kits to offset the flue. Extensions can be used between elbows.



Code	Χ	Υ
EZ45/90S	120	260
EZ45/200S	130	280

Important

Extended elbows allow telescopic adjustment for extensions or terminal sections.

Internal High Level balanced flue systems white powder coated

High Level balanced flue kits White system

High Level balanced flue kits feature the same EZ-Fit boiler connections as the low level flue. The unique connection system on the High Level flue ensures easy assembly thereby reducing installation costs.

Flexible design

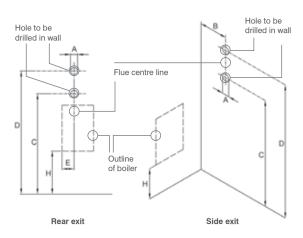
The kits may be extended horizontally and vertically. It is now possible to create offsets in standard High Level flue systems by using our 45° elbows and extension kits - increasing the versatility of this range.

Maximum flue length

High Level balanced flues can be extended to a maximum of 10 metres overall, using the extension kits illustrated on Page 5. Deduct one metre for each additional 45° elbow used (maximum 6 elbows).

High Level balanced flue hole cutting dimensions					
Model	Dimensions (mm)				
	A dia	В	C min	D min	D max
Vortex Pro 15/21 & 15/26	175	115	1215	1715	2115
Vortex Eco 12/21 & 21/26	175	115	1215	1715	2115
Vortex Pro 26/36 & 36/46	200	115	1280	1700	2020
Vortex Eco 26/35	200	115	1280	1700	2020
Vortex Pro 46/58 & 58/70	200	112	1595	2015	2335
Vortex Pro Combi 21e & 26e	175	115	1215	1715	2115
Vortex Pro Combi 36e	200	105	1280	1700	2020
Vortex Eco Wall Hung 12/16 & 16/21	175	112	H+1207*	H+1707*	H+2107*

Note: *H is the height (mm) from floor to underside of boiler casing.



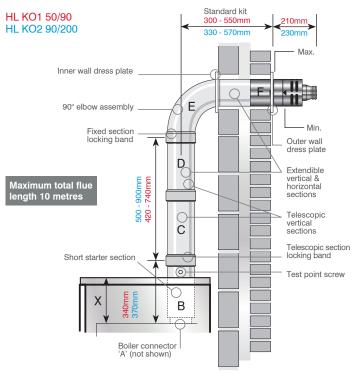
Note: Flue pipe diameter: 150mm 180mm excluding locking bands (see dimension 'A' opposite for hole size).

Dimensions

Section 'B' is the starter piece for the flue system and fits into the boiler connector 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 over elbow 'E'. The horizontal length can be extended using the extensions listed. The adjustable extension cannot be connected to the terminal section 'F' - a fixed extension must be used. The vertical height can be extended using the extensions or 45° elbows listed. For short heights sections 'C' and 'D' may be omitted and elbow 'E' fitted to starter section 'B'.

Top casing height = X	
Model	Dimensions (mm)
Vortex Pro 15/21 & 15/26	170
Vortex Eco 12/21 & 21/26	170
Vortex Pro 26/36 & 36/46	205
Vortex Eco 26/35	205
Vortex Pro 46/58 & 58/70	225
Vortex Pro Combi 21e & 26e	170
Vortex Pro Combi 36e	205
Vortex Eco Wall Hung 12/16 & 16/21	165

Internal High Level flue kit (white powder coated)



Locking bands

Inner seals (red)

Outer seal (black)

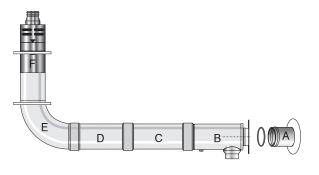
Contents of High Level balanced flue kit:

Boiler connector A Short starter section B Vertical telescopic section C/D Horizontal telescopic section (inc. terminal) E/F

Note: For height adjustment see chart left

Boiler connector Dress plates (inner & outer) Fitting Instructions

Internal High Level balanced flue kits



1.2 metre High Level flue kit		
HL K01 50/90	Models up to 26kW	
HL K02 90/200	Models 26 - 70kW	

Models 26 - 70kW

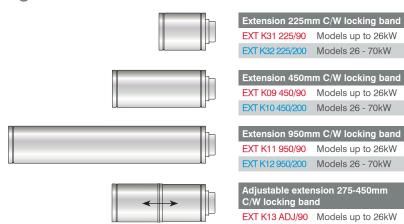
Models up to 26kW

Models up to 26kW

Important

If the terminal section executes below two metres, a terminal guard must be fitted.

Internal High Level balanced flue kits



Important

Flue extensions cannot be cut. White system extensions are for High Level, Vertical and Red system Internal use only and cannot be used with Yellow, Green or Orange system components.

High Level balanced flue accessories



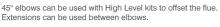
45° Elbow C/W	locking band
ELB K21 45/90	Models up to 26kW
ELB K22 45/200	Models 26 - 70kW

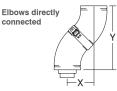
EXT K14 ADJ/200 Models 26 - 70kW

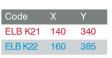
Important

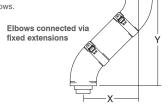
High Level balanced flues can be extended to a maximum length of 10 metres using the extension kits illustrated above. Deduct one metre for each additional 45° elbow used (maximum 6 elbows).



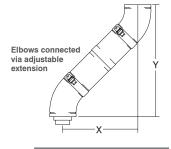








Code	Extension	Χ	Υ
ELB K21	EXT225	300	500
	EXT450	455	665
	EXT950	810	1010
ELB K22	EXT225	320	545
	EXT450	475	700
	EXT950	830	1055



Code	Χ	Υ
ELB K21	335-455	535-655
ELB K22	355-475	580-700

Important

A terminal guard is required when the flue terminates less than 2 metres above outside ground level (not supplied as standard).

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Internal **Vertical** balanced flue systems - white powder coated

Vertical balanced flue kits White system

Vertical balanced flue kits share the same EZ-Fit boiler connections as our High Level kits. The unique connection system on the Vertical balanced flue ensures easy assembly thereby reducing installation costs.

Flexible design

As with our High Level kits it is now possible to create offsets in straight flue runs by using our 45° elbows and adjustable extension kits – increasing the versatility of this range.

Maximum Vertical flue length

Vertical balanced flues can be extended to a maximum length of 12 metres in a straight run using the extension kits illustrated on Page 7. Deduct one metre for each additional 45° elbow used (maximum 6 elbows).

Dimensions

The dimensions shown are measured from the top of the boiler spigot, not the boiler case. The distance between the boiler flue spigot and the top of the casing should be taken into consideration (See boiler installation manual).

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

Sections (B), (C) and (D) combine to form a telescopic length. Fixed extension (E) fits onto telescopic section (D). Terminal section (F) fits onto fixed extension (E).

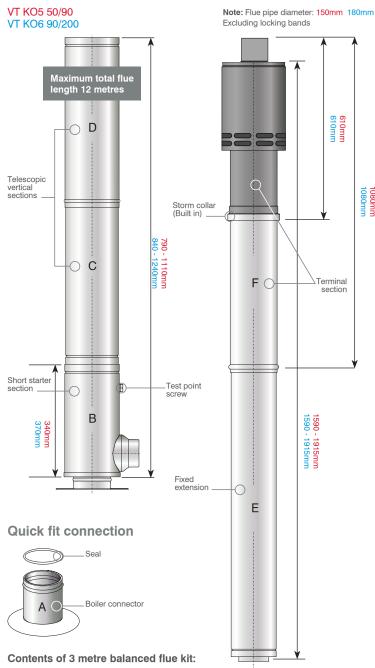
For short flue heights section (E) may be omitted and the terminal section (F) may be fitted directly to section (D). The terminal section (F) overlaps section (D) by 50mm.

New terminal extension

A new extended black terminal section for the Vertical flue systems is now available, which extends the flue extract section by a further one metre (VTTEXT90 / VTTEXT200).

This kit is useful, if for instance, there is a Velux roof window or opening too close to the terminal.

Vertical flue kit (white powder coated)



Boiler connector A

Short starter section B

Telescopic vertical sections \mathbf{C}/\mathbf{D}

Fixed section 950mm ${\bf E}$

Terminal section F (inc. storm collar)

Locking bands (not shown)

Inner seals (red)
Boiler connector

Ceiling dress plate (not shown)

Firestop spacers (not shown)

Wall bracket

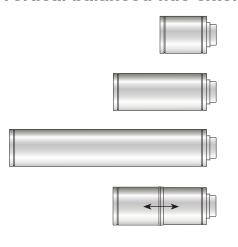
Fitting Instructions

Internal Vertical balanced flue kits



3 metre Vertical	l flue kit
VT K05 50/90	Models up to 26kW
VT K06 90/200	Models 26 - 70kW

Internal Vertical balanced flue extensions



Extension 225m	m C/W locking band
EXT K31 225/90	Models up to 26kW
EXT K32 225/200	Models 26 - 70kW
Extension 450m	m C/W locking band

Extension 450mm C/W locking band EXT K09 450/90 Models up to 26kW EXT K10 450/200 Models 26 - 70kW

Extension 950mm C/W locking band
EXT K11 950/90 Models up to 26kW
EXT K12 950/200 Models 26 - 70kW

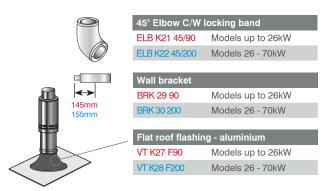
Adjustable extension 275-450mm C/W locking band

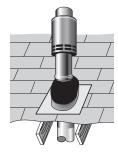
EXT K13 ADJ/90 Models up to 26kW EXT K14 ADJ/200 Models 26 - 70kW

Important

Flue extensions cannot be cut. White system extensions are for High Level, Vertical and Red system Internal use only and cannot be used with Yellow, Green or Orange system components.

Vertical balanced flue accessories



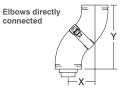


Note: Range of pitch 22°-45°.

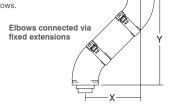
Pitched roof f	lashing – aluminium
VT MF 90	Models up to 26kW
VT MF 200	Models 26 - 70kW
Pitched roof f	lashing – lead
VT K25 P90	Models up to 26kW
VT K26 P200	Models 26 - 70kW
Vertical termii	nal extension
VTTEXT90	Models up to 26kW
VTTFXT200	Models 26 - 70kW

Offset elbows

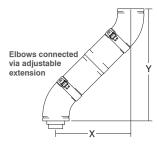




Code	Χ	Υ
ELB K21	140	340
ELB K22	160	385



Code	Extension	Χ	Υ
ELB K21	EXT225	300	500
	EXT450	455	665
	EXT950	810	1010
ELB K22	EXT225	320	545
	EXT450	475	700
	EXT950	830	1055



Code	Χ	Υ
ELB K21	335-455	535-655
ELB K22	355-475	580-700

Flexible Vertical balanced flue systems - stainless steel inner liner with polypropylene outer

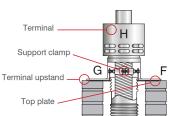
Unique Flexi Vertical balanced flue kits **Red system**

The Grant Red system is the flexible balanced flue solution to nuisance pluming and cold draughts. It is designed for Grant condensing boilers up to 26kW (90,000Btu/h) and allows an existing masonry chimney to be utilised rather than re-site the boiler and pipework.

Maximum straight flue length from the boiler to the top of flue terminal = 20 metres.

Note: Flexi flue pipe diameter: Inner diameter - 80mm Outer diameter - 125mm

Rigid to flexible balanced flue system



Red system kits

The Red system is supplied in two parts: Pack 1 consists of the boiler connector, adjustable extensions, bottom adaptor, terminal, plate and clamp. Pack 2 comprises two lengths of flexible vertical flue pipe (stainless steel and polypropylene) and is available in lengths for 6, 8, 10 and 12 metres.

Important

The Grant Red system shares extension pieces and elbows from the White system.

Extensions and elbows (from White system)

The Flexible Vertical balanced flue kits share the same EZ-Fit flue extensions and elbows as the Grant White system. This unique quick fit connection arrangement ensures easy assembly thereby reducing installation costs.

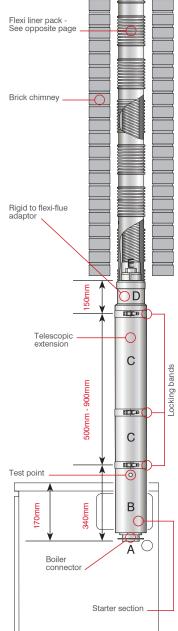
The maximum vertical straight length of the flue, from the top of the boiler to the top of the terminal, is 20 metres – using no more than four 45° elbows.

One metre of straight flue length should be deducted for every elbow used. If the flexible liner has to pass around an offset inside the chimney, two metres of straight flue length should be deducted to compensate for this i.e. equivalent two 45° elbows. Flue extensions cannot be cut, adjustable extensions should be used where required.

Optional extras

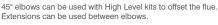
(from White system)

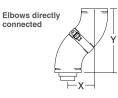




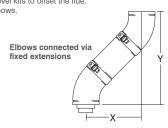
Boiler

Offset elbows

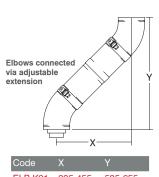




Code	Χ	Υ
ELB K21	140	340
ELB K22	160	385

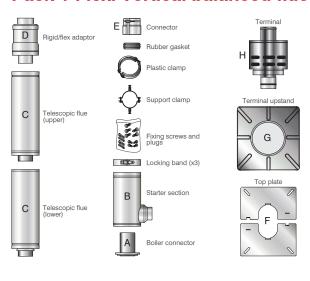


Code	Extension	Χ	Υ
ELB K21	EXT225	300	500
	EXT450	455	665
	EXT950	810	1010
ELB K22	EXT225	320	545
	EXT450	475	700
	EXT950	830	1055



Code	Χ	Υ
ELB K21	335-455	535-655
ELB K22	355-475	580-700

Pack 1 Flexi Vertical balanced flue connector



Red system connector pack

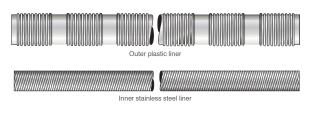
GFX CON KIT/26 Models up to 26kW

Important

Red system kit comprises pack 1 & pack 2 in required length.

Note: Longer Flexi balanced flue liner kits are available by special order. Liners are directional and should be installed with the arrows facing upwards.

Pack 2 Flexi Vertical balanced flue liner



6 metre Flexible liner pack

GFX BF 6/26 Models up to 26kW

8 metre Flexible liner pack

GFX BF 8/26 Models up to 26kW

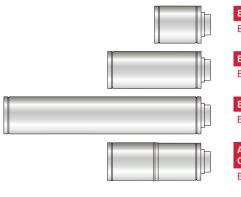
10 metre Flexible liner pack

GFX BF 10/26 Models up to 26kW

12 metre Flexible liner pack

GFX BF 12/26 Models up to 26kW

Rigid flue extensions & elbows (from White system)



Extension 225mm C/W locking band

EXT K31 225/90 Models up to 26kW

Extension 450mm C/W locking band

EXT K09 450/90 Models up to 26kW

Extension 950mm C/W locking band

EXT K11 950/90 Models up to 26kW

Adjustable extension 275-450mm C/W locking band

EXT K13 ADJ/90 Models up to 26kW

45° elbow C/W locking band

ELB K21 45/90 Models up to 26kW

Important

Flue extensions cannot be cut. White system extensions are for High Level, Vertical and Red system Internal use only and cannot be used with Yellow, Green or Orange system components.

External **High Level/Vertical** flues - stainless steel

External High Level/Vertical EZ-Fit flues Green system

Grant's range of EZ-Fit flue systems have been extended to include External High Level and Vertical options for all Grant condensing models. These systems are supplied in a modular form, enabling most installations to be accommodated and are manufactured from high grade stainless steel.

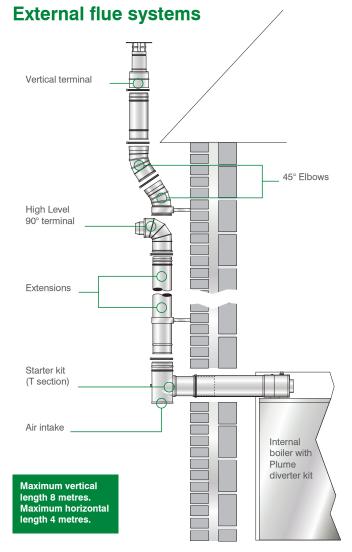
Starter flue kits (Plume diverter)

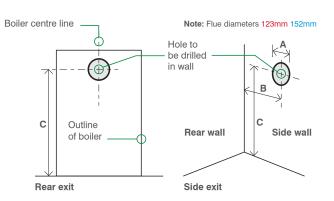
The starter flue kit enables all internal boilers to be connected to an External High Level or Vertical flue system, whilst maintaining the room sealed operation of the boiler. It is even possible to convert an existing EZ-Fit Low Level balanced flue kit to an External High Level or Vertical arrangement without any additional building work. This is particularly useful when pluming from a low level flue terminal is a nuisance.

Flue hole cutting dimensions

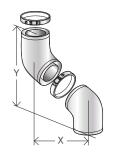
A dia	В	С
127	115	768
127	115	768
162	115	780
162	115	780
162	112	1102
127	115	768
162	105	780
127	112	H + 765*
	127 127 162 162 162 162 127	127 115 127 115 162 115 162 115 162 112 127 115 162 105

Note: *H is the height (mm) from floor to underside of boiler casing.





Offset elbows

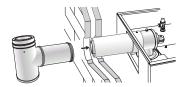


Code	Χ	Υ	
GE45/90	126	304	
GE45/200	142	343	

45° elbows can be used with high level flues to create off-sets. Extensions can be used between elbows.

Low Level starter kits

Standard kit = 370 to 550mm 370 to 550mm Short kit = 270 to 350mm 270 to 350mm



Contents of Low Level starter kit:

- Boiler connector section
- Tee section
- Side outlet cover trim
- Snorkel clamp (not shown)
- Dress plate
- Fixing clamp and gasket
- Lubricant (not shown)

External High Level/Vertical starter flue kit



Models up to 26kW
Models 26 - 70kW
it

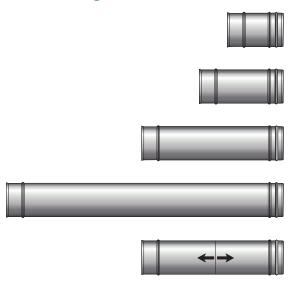
Models 26 - 70kW

Important

Starter flue kits can be extended horizontally using extensions or elbows from the Low Level balanced flue, Yellow system only. See page 3.

External High Level/Vertical stainless steel flue extensions (double skin)

GK200S



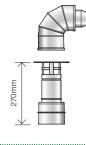


GXA250/90 Models up to 26kW GXA250/200 Models 26 - 70kW

Important

Flue extensions cannot be cut. Green system extensions are for horizontal or vertical use with conventional flue systems only and cannot be used with Yellow or White balanced flue components.

Terminals stainless steel





Important

Extension lengths given are effective lengths i.e. When fitted in a flue system.

Accessories stainless steel





45° elbow 0	C/W locking band	
GE45/90	Models up to 26kW	
GE45/200	Models 26 - 70kW	
Extended v	vall bracket	
GEB90	Models up to 26kW	
GEB200	Models 26 - 70kW	
Wall bracke	et	
GWB90	Models up to 26kW	
GWB200	Models 26 - 70kW	

Conventional flue systems - stainless steel

Conventional flues for Grant Vortex condensing boilers Orange system

As many older oil fired boilers are traditionally connected to conventional flue systems, updating to a modern condensing boiler often results in the appliance needing to be relocated. The Grant EZ-Fit Conventional flue system (Orange system) has been specifically designed to enable the existing chimney to be re-used and the boiler retained in its original position.

EZ-Fit Flexi packs

Grant have developed a range of EZ-Fit Flexi packs containing all the components required to utilise the existing chimney, including a smooth bore stainless steel flue liner, terminal, clamp plate and connectors for both the flex and boiler. All that is required to complete the installation is extension pipes or elbows from our Orange system accessories range.

Please note: the flexi liner should be installed with the directional arrows pointing upwards only.

Pluming

Condensing boilers operate at extremely high efficiencies with cool flue gas temperatures, resulting in a plume of vapour being visible at the flue terminal. This pluming (steam) is a normal condition of condensing boilers and indicates that the appliance is working efficiently. As an alternative to a Low Level, High Level, or Vertical balanced flue kit, utilising the original chimney with a Grant conventional Flexi-pack moves the plume of vapour above roof level.

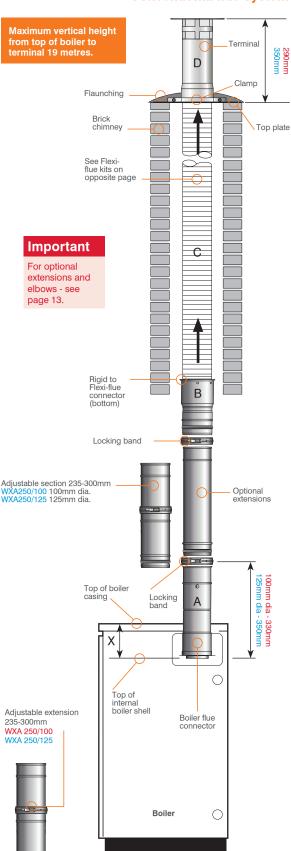
Combustion air and ventilation

An adequate permanent air supply is required for the safe operation of all open-flued (conventional flued) oil-fired appliances. For new or replacement boilers in properties built prior to the latest change to the Building Regulations (pre Approved Document L1A 2006) in England and Wales this ventilation must be in accordance with BS5410: Part1:1997. For installations in properties built or refurbished under the above current Building Regulations, the first 5kW of output should no longer be omitted for the purposes of calculating the ventilation area required.

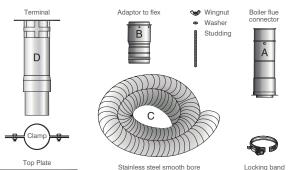
Top casing height = X	
Model	X dimensions (mm)
Vortex Pro 15/21 & 15/26	170
Vortex Eco 15/21 & 21/26	170
Vortex Pro 26/36 & 36/46	205
Vortex Eco 26/35	205
Vortex Pro 46-58 & 58/70	225
Vortex Pro Combi 21e & 26e	170
Vortex Pro Combi 36e	205
Vortex Eco Wall Hung 12/16 & 16/21	165



Rigid to Flexible **Conventional flue system**



Smooth Bore Flexi-flue kits stainless steel (to suit Grant Vortex condensing boilers only)



Note: Silicone sealant

and lubricating grease not shown.

For assembly, see diagram on page 12. 6 metre Flexible flue kit GF KIT 6/100 Models up to 46kW GF KIT 6/125 Models 46 - 70kW 8 metre Flexible flue kit GF KIT 8/100 Models up to 46kW GF KIT 8/125 Models 46 - 70kW 10 metre Flexible flue kit

GF KIT 10/100 Models up to 46kW GF KIT 10/125 Models 46 - 70kW

GF KIT 11/100 Models up to 46kW GF KIT 11/125 Models 46 - 70kW

12 metre Flexible flue kit

GF KIT 12/100 Models up to 46kW GF KIT 12/125 Models 46 - 70kW

14 metre Flexible flue kit

GF KIT 14/100 Models up to 46kW GF KIT 14/125 Models 46 - 70kW

16 metre Flexible flue kit

GF KIT 16/100 Models up to 46kW GF KIT 16/125 Models 46 - 70kW

Flue extensions white powder coated (single skin)

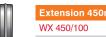


Extension 150mm C/W locking band WX 150/100



Models up to 46kW WX 150/125 Models 46 - 70kW





WX 450/125

Extension 450mm C/W locking band Models up to 46kW



Extension 950mm C/W locking band Models up to 46kW

Models 46 - 70kW

Models 46 - 70kW WX 950/125



WXA250/100 Models up to 46kW WXA250/125 Models 46 - 70kW

Important

Flue extensions cannot be cut. Orange system extensions are for vertical use only and cannot be used with Yellow or White system components.

Accessories white powder coated



45° elbow C/W locking band

WE 45/100 Models up to 46kW WE 45/125 Models 46 - 70kW

Important

Wherever possible incorporate one adjustable section. No more than two 45° elbows can be used.

Extension lengths given are effective lengths i.e. When fitted in a flue system.

Offset elbows

45° elbows can be used with High Level kits to offset the flue. Extensions can be used between elbows.



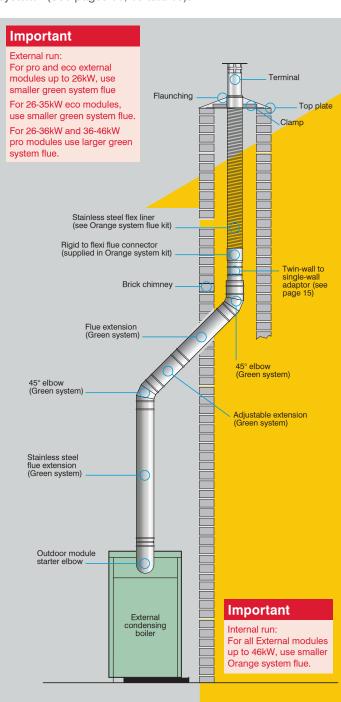
Code	Х	Υ
WE45/100	126	304
WE45/125	142	343

Hybrid **Conventional** flue systems - interconnecting flues

Using components from the Grant Orange and Green flue systems it is possible to construct bespoke flue systems to overcome specific boiler siting problems. For further information contact the Technical Department on 01380 736920.

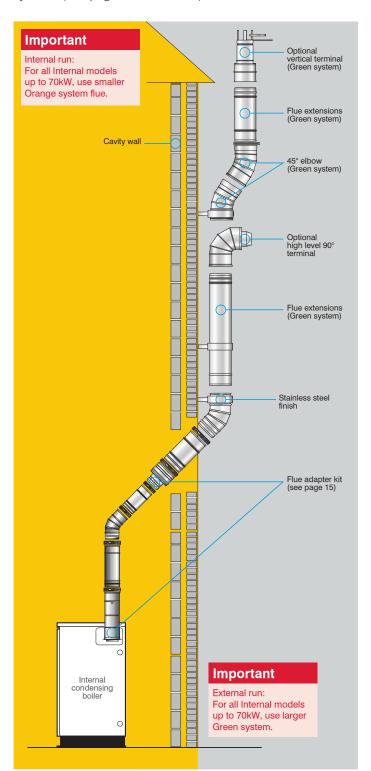
Green to Orange system

Stainless steel insulated External Green system to Flexi Orange system - (See pages 11, 13 and 15).



Orange to Green system

White powder coated Internal Orange system to External Green system - (See pages 11, 13 and 15).

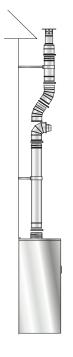


External Green system - Outdoor module

External Eco Wall Hung

See page 11 for extensions, elbows and terminals.

Note: Use starter straight connector for vertical extension.



Twin wall to single wall adapter

Models up to 26kW*

Models 26 - 46kW

GFCON80

GFCON100

Vertical solution

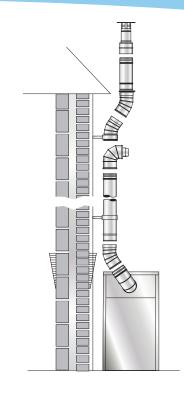
See page 11 for extensions, elbows and terminals.

Important

Components from the Orange and Green system can be used to construct Internal High Level, or Vertical Conventional flue systems using the flue adaptor kit cfa 15/70.

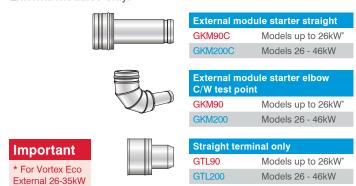
Horizontal solution

Maximum vertical length 19 metres



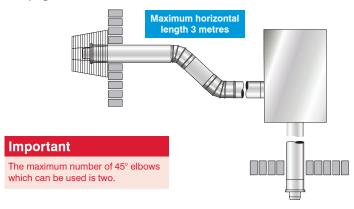
Accessories

External modules only.



Coo none 11 for out

See page 11 for extensions, elbows and terminals.

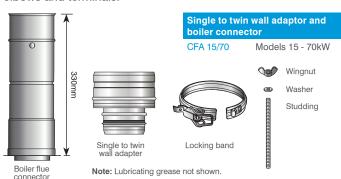


Flue adapter kit

models, use smaller size flue

pipe.

Internal boilers only. See page 11 for extensions, elbows and terminals.



Starter connectors

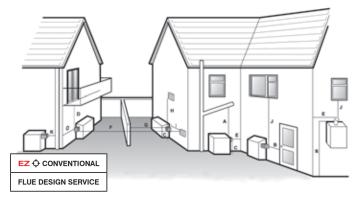
The starter elbow converts any of Grant's external modules or module combis to High Level or Vertical Conventional flue operation.

The starter straight connector allows the low-level discharge flue system of any Grant External module or module combi to be extended horizontally. The stainless steel flue components are fully insulated, have 'O' ring seals and locking bands, ensuring a rigid construction every time.

Clearance for **balanced** flues **Internal models**

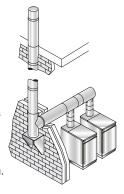


Clearance for **balanced** flues **External modules**



Individually designed conventional flue systems for modular boiler installations.

Grant UK offers a unique customised design service, where two or more boilers are connected in a modular form to a single conventional flue stack. This service includes the design and supply of flue headers and flue systems for condensing boiler installations and is available to merchants upon completion of a simple site survey form. Contact our technical department on: 01380 736920 for further details.





Grant Engineering (UK) Ltd

Hopton House, Hopton Industrial Estate, Devizes, Wiltshire, SN10 2EU

T: 01380 736920 F: 01380 736991

E: sales@grantuk.com w: www.grantuk.com

Ref	Position	mm
A	Below a gutter or sanitary pipework	*600
В	Horizontally from a door	600
С	Above ground or balcony level	300
D	Below eaves or balcony (without protection)	*600
E	From internal corner	**300
F	From a terminal facing a terminal	1200
G	From a surface facing a terminal	600
Н	Vertical from terminals on the same wall	1500
1	Horizontal from terminals on the same wall	***750
J	Below an opening, airbrick, window etc.	600
K	From vertical sanitary pipework	300
L	Vertical flue from wall	750
M	From oil tank	1800
N	Minimum height from the ground	2000
0	From external corner	300

Note: *75mm with protection **600mm for Outdoor modules ***Only applies if one or both terminals are balanced flues.

Distance measured to rim of terminal. Clearances advised by Grant Engineering (UK) Ltd. in accordance with British Standards and Building Regulations.

The terminal should be positioned so as to avoid products of combustion accumulating in stagnant pockets around the building or entering into buildings. Care should also be taken that the plume from a condensing flue does not cause a nuisance.

- 1. An opening means an openable element, such as a window, or a permanent opening such as a permanently open air vent.
- 2. Not withstanding the dimensions given, a terminal should be at least 300mm from combustible material. e.g. a window frame.
- 3. A way of providing protection of combustible material would be to fit a heat shield at least 750mm wide.
- 4. Where possible it is always advisable to choose a High Level or Vertical flue option with condensing boilers to avoid nuisance pluming.

This leaflet is accurate at the time of printing but as Grant UK has a policy of continual improvement it may be superseded. We reserve the right to amend specifications without prior notice. The statutory rights of the consumer are not affected.

All products manufactured under I.S. EN ISO 9001 and ISO 14001.

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