



#### **BALANCED FLUE SYSTEMS**

YELLOW SYSTEM, WHITE SYSTEM, GREEN SYSTEM, RED SYSTEM

**CONVENTIONAL FLUE SYSTEMS**ORANGE SYSTEM, GREEN SYSTEM,
BLUE SYSTEM

**CLEARANCES AND DESIGN SERVICE**GUIDE TO FLUE CLEARANCES

#### **AUGUST 2013 EDITION**

This cancels all previous issues

# ROUND LOW LEVEL BALANCED FLUE SYSTEMS

- Stainless Steel -

# LOW LEVEL EZ-FIT FLUE KITS 'YELLOW SYSTEM'

Grant's latest 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 clamp arrangement ensures a perfect seal every time. In fact, the new telescopic flue system requires only two simple operations to complete the installation. The kits are compatible with all Grant boilers, (except Outdoor Modules) including condensing models.

#### THE GRANT FLUE TERMINAL

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

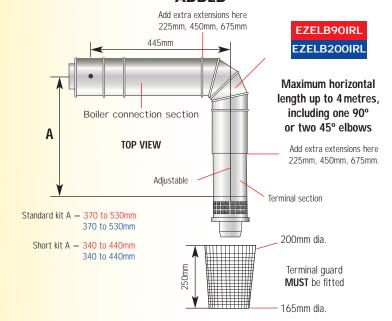
#### **BOILER HOUSE MODELS**

Grant EZ-Fit round low level balanced flue kits are also compatible with all Grant boiler house models. An Adaptor Kit, **Part No. EZAS** is supplied with the burner. This kit contains a snorkel tube and a spring clip.

#### **EXTENSION KITS**

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

# LOW LEVEL FLUE KIT WITH 90° ELBOW EXTENSION ADDED



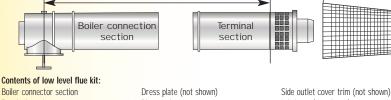
#### **LOW LEVEL FLUE KITS [STAINLESS STEEL]**

Standard Flue Kit EZ90IRL Short Flue Kit EZ200IRL EZ200SIRL

NOTE: For Boiler House models, air supply kit part No. EZAS is supplied with boiler.

Standard Kit 370-550mm 370-550mm

Short Kit 270-350mm 270-350mm



 Boiler connector section
 Dress plate (not shown Terminal section

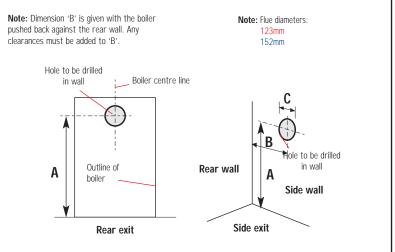
 Stainless steel flue quard
 Fixing clamp and gasket

Side outlet cover trim (not shown) Lubricant (not shown) Snorkel clamp (not shown)

250mm

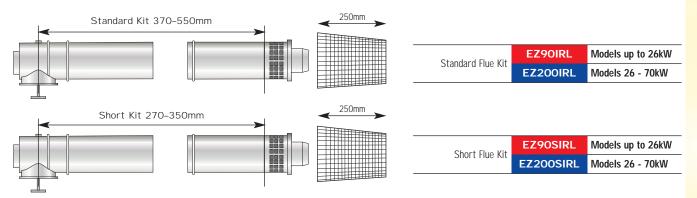
#### LOW LEVEL BALANCED FLUE HOLE CUTTING DIMENSIONS

	EOU EEVEE BACAUTOEB I						
	MODEL	DIMEN	[mm]				
	MODEL	Α	В	С			
	Euroflame Kitchen/Utility models 50/70	718	85	127			
	Euroflame Kitchen/Utility models 50/90 & 50/90 System	769	105	127			
9	Euroflame Kitchen/Utility models 90/120 & System	735	115	155			
2	Euroflame Boiler House models 50/70	748	95	127			
S N	Euroflame Boiler House models 50/90	769	120	127			
DE	Euroflame Boiler House models 90/120	783	126	155			
2	Multi Pass Kitchen & System models 70/90	756	125	127			
ი ე	Multi Pass Kitchen & System models 90/140	950	130	162			
ż	Multi Pass Kitchen models 140/160, 160/200	1065	155	162			
0 N	Multi Pass Boiler House models 70/90	754	150	127			
	Multi Pass Boiler House models 90/140	948	140	162			
	Multi Pass Boiler House models 140/160 & 160/200	1063	150	162			
	Internal Combi models 90 & Max	756	115	127			
	Vortex Kitchen model 50-70 (15-21)	768	127	115			
9	Vortex Kitchen, Boiler House & System models 50-90 (15-26)	768	127	115			
=	Vortex Kitchen, Boilerhouse & System models 90-120 (26-36) & 120-155 (36-46)	780	162	115			
SZ	Vortex Kitchen, Boilerhouse models 155-200 (46-58) & 200-240 (58-70)	1105	115	162			
D E	Vortex Condensing (internal) Combi model 26 (90)	768	115	127			
NO	Vortex Condensing (internal) Combi model 36 (120)	780	105	162			
၁	Euroflame Condensing Kitchen & Boiler House 50/70 & 70-90	768	115	127			
	Euroflame Condensing Kitchen & Boiler House 90-120	780	115	162			



NOTE: Core drill sizes - Models up to 26kW [90,000Btu/h] 127mm. Remaining models from 26 to 70kW [90-240,000Btu/h] 162mm.

#### LOW LEVEL BALANCED FLUE KITS



# LOW LEVEL BALANCED FLUE EXTENSIONS & ACCESSORIES

# **IMPORTANT**

FLUE EXTENSIONS CANNOT BE CUT. YELLOW SYSTEM EXTENSIONS ARE FOR HORIZONTAL USE ONLY AND CANNOT BE USED VERTICALLY WITH GREEN, ORANGE OR WHITE SYSTEM COMPONENTS.





Extension 450mm

X90MIRL X200MIRL Models up to 26kW Models 26 - 70kW

# **IMPORTANT**

HORIZONTAL LENGTHS UP TO 4 METRES CAN BE ACCOMMODATED, INCLUDING ONE 90° OR TWO 45° ELBOWS.

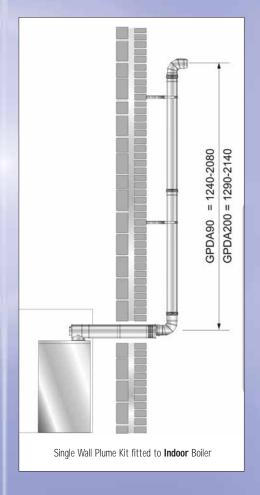


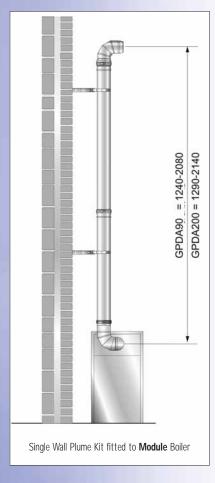
# **IMPORTANT**

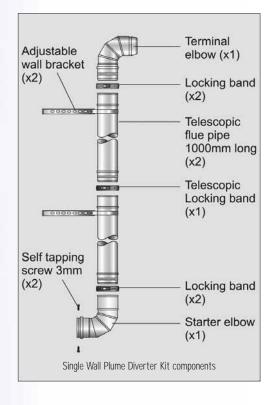
EXTENDED ELBOWS ALLOW TELESCOPIC ADJUSTMENT FOR EXTENSIONS OR TERMINAL SECTIONS.



# SINGLE WALL FLUE KIT STAINLESS STEEL







# SINGLE WALL FLUE KITS BLUE SYSTEM

Grant Engineering's latest range of flue systems have been developed to make the installation of Grant Boilers quick, simple and to reduce cost, while ensuring trouble free operation – even in the most exposed site conditions.

#### PLUME DIVERTER KITS

The Grant Plume Kits are available for boilers up to 90,000 BTU (26kW) in 80mm and 120,000 (36kW) and above in 100mm.

The kits come in two forms, a telescopic flue and a 1 metre kit:

Telescopic flue	GPDA 90IRL	1240mm - 2080mm	
(2 metres)	GPDA 200IRL	1290mm - 2140mm	
I metre kit	GPD901000IRL	(80mm)	
	GPD2001000IRL	(100mm)	

#### **BOILER HOUSE MODELS**

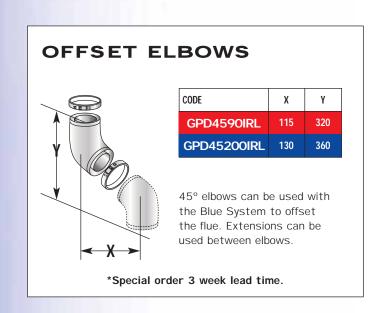
The Grant 'Blue System' is compatible with all Grant Boiler House models. The flue when exiting a boiler house has to pass through a non combustable material, ie. A concrete roof.

#### COMBUSTION AIR AND VENTILATION

An adequate permanent air supply is required for the safe operation of all open-flued (conventional flue) oil fired appliances.

This must be in accordance with the requirements of BS5410 Part 1:1997.

Full details of the ventilation requirements for Grant Boilers are given in the instructions provided with every appliance.



### STARTER FLUE KIT BOILER HOUSE ONLY

# **IMPORTANT**

SAFETY INSTALLATION REQUIREMENT FOR FLUE PIPES SERVING OIL FIRED BOILERS SERVING OIL FIRED BOILERS
DISCHARGING FLUE GAS
TEMPERATURES BELOW 250°C.
A MINIMUM OF 25MM SEPARATION
IS REQUIRED WHERE EXTERNAL
SURFACES OF THE FLUE PIPE ARE
ADJACENT TO ANY COMBUSTIBLE MATERIAL.

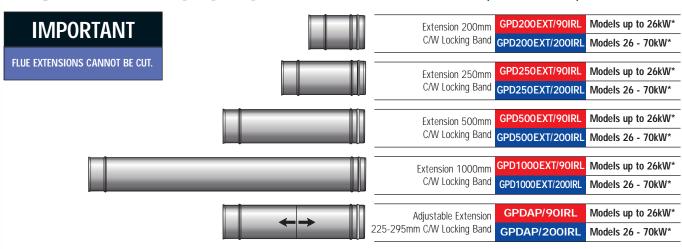


C/W Test Point 125mm high

Starter Section GPDBC 90IRL Models up to 26kW

GPDBC 200IRL Models 26 - 70kW

### FLUE EXTENSIONS HIGH LEVEL STAINLESS STEEL (SINGLE SKIN)



# TERMINALS STAINLESS STEEL

# **IMPORTANT**

**DIAMETERS** MODELS UP TO 26kW 80MM MODELS 26kW-70kW 100MM



High Level 90º Terminal C/W Locking Band GPDHLT200IRL Models 26 - 70kW\*

GPDHLT90IRL Models up to 26kW\*

Vertical Terminal C/W Locking Band GPDVT200IRL

**GPDVT90IRL** 

Models up to 26kW\* Models 26 - 70kW\*

#### ACCESSORIES STAINLESS STEEL

# **IMPORTANT**

**VERTICAL FLUE LENGTHS OF UP TO 8** METRES CAN BE ACHIEVED UTILISING EXTENSIONS. 45° ELBOWS CAN ALSO BE ACCOMMODATED WITHIN THIS LENGTH (MAXIMUM 2 ELBOWS).



45° Elbow	GPD45/90IRL	Models up to 26kW*
C/W Locking Band	GPD45/200IRL	Models 26 - 70kW*
Wall Bracket	GPDWB5090IRL	Models up to 26kW*
50mm Ext	GPDWB50200IRL	Models 26 - 70kW*
Wall Bracket	GPDWB30090IRL	Models up to 26kW*
300mm Ext	GPDWB300200IRL	Models 26 - 70kW*

\*For Euroflame Condensing 90/120 Module use 'Red' version

### 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 clamping 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 new range.

#### REDUCES INSTALLATION TIME

The high level kits feature self sealing exhaust ducts and a quick-fit locking band connection for the air duct, which vastly reduces the time taken to complete the installation.

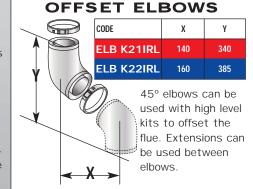
#### **DIMENSIONS**

Section 'A' is the starter piece for the

flue system and push fits into the boiler connector supplied with the kit. Section 'A' incorporates the air supply spigot and a combustion

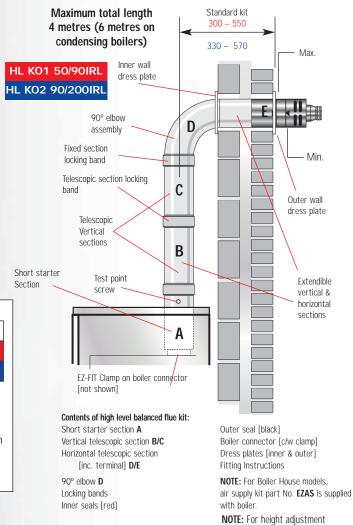
test point.

Sections 'B' and 'C' combine to form a telescopic length.
Terminal section 'E' slides over elbow 'D'. The horizontal length can be extended using the extensions listed. The adjustable extension cannot be connected to the terminal section 'E' – a fixed extension must be used. The vertical height can be extended using



the extensions or 45° elbows listed. For short heights sections 'B' and 'C' may be omitted and elbow 'D' fitted to starter section 'A'.

#### INTERNAL HIGH LEVEL FLUE KIT (WHITE POWDER COATED)

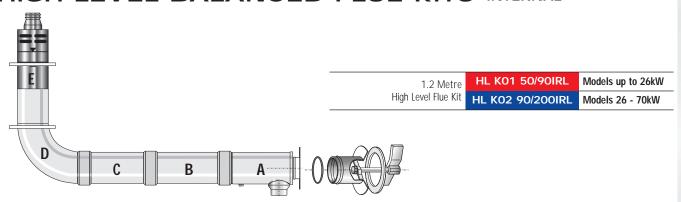


see chart below

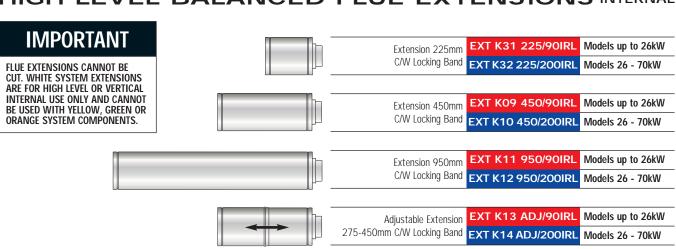
### HIGH LEVEL BALANCED FLUE HOLE CUTTING DIMENSIONS

	MODEL			MENSIONS [			STANDARD KIT WITH  NOTE: Flue pipe diameter: 150mm 180mm
	IVIODEL	A dia	Bmin	C min	C max	D side	NO EXTENSIONS FITTED. Excluding locking bands
	Euroflame Kitchen/Utility models 50/70	175	1175	1675	2075	95	(SEE DIMENSION 'A' OPPOSITE FOR HOLE SIZE).
	Euroflame Kitchen/Utility models 50/90 & 50/90 System	175	1227	1727	2127	105	FOR HOLE SIZE).
ပ	Euroflame Kitchen/Utility models 90/120 & System	200	1237	1657	1977	100	hole to be Boiler centre line Hole to be
<b> </b>	Euroflame Boiler House models 50/70	175	1203	1703	2103	95	drilled in wall
NSIN	Euroflame Boiler House models 50/90	175	1230	1730	2130	120	1 A A
	Euroflame Boiler House models 90/120	200	1278	1698	2018	120	Outline
20	Multi Pass Kitchen & System models 70/90	175	1203	1703	2103	120	
ပ	Multi Pass Kitchen & System models 90/140	200	1450	1870	2190	125	of boiler Rear wall Side wall
Li	Multi Pass Kitchen models 140/160, 160/200	200	1562	1982	2302	148	Side wall
N O	Multi Pass Boiler House models 70/90	175	1211	1711	2111	145	
2	Multi Pass Boiler House models 90/140	200	1450	1870	2190	135	Boiler   E
	Multi Pass Boiler House models 140/160, 160/200	200	1560	1980	2300	145	
	Internal Combi Models 90 & Max	175	1200	1700	2100	1100	
	Vortex Kitchen models 50/70 (15-21)	175	1215	1715	2115	115	Side exit
5	Vortex Kitchen, Boiler House & System models 50/90 (15-26)	175	1215	1715	2115	115	nedi exit
2	Vortex Kitchen, Boiler House & System models 90/120 (26-36) & 120/155 (36-46)	200	1280	1700	2020	115	
N S	Vortex Kitchen, Boiler House & System models 155/200 (46-58) & 200/240 (58-70)	200	1595	2015	2335	115	NOTE: B Min = Minimum height with sections 'B' and 'C' removed and is measured from the floor to the centre line of
	Vortex Condensing (internal) Combi model 26 (90)	175	1215	1715	2115	115	the hole. C Min/Max = Minimum and maximum heights with
20	Vortex Condensing (internal) Combi model 36 (120)	200	1280	1700	2020	105	sections 'A', 'B', 'C', 'D' & 'E' used.
ပ	Euroflame Condensing Kitchen & Boilerhouse 50/70 (15-21), 50/90 (15-26)	175	1215	1715	2115	115	
	Euroflame Condensing Kitchen & Boilerhouse 90/120 (26-36)	200	1280	1700	2020	115	

#### HIGH LEVEL BALANCED FLUE KITS INTERNAL



### HIGH LEVEL BALANCED FLUE EXTENSIONS INTERNAL



# HIGH LEVEL BALANCED FLUE ACCESSORIES

# **IMPORTANT**

HIGH LEVEL BALANCED FLUES CAN BE EXTENDED TO A MAXIMUM LENGTH OF 4 METRES (6 METRES ON CONDENSING BOILERS) USING THE EXTENSION KITS ILLUSTRATED ABOVE. DEDUCT ONE METRE FOR EACH ADDITIONAL 45° ELBOW USED (MAXIMUM 4 ELBOWS).



A TERMINAL GUARD IS REQUIRED WHEN THE FLUE TERMINATES LESS THAN 2 METRES ABOVE OUTSIDE GROUND LEVEL.

# **IMPORTANT**

WHITE ENAMEL FOR INTERNAL USE ONLY



45° Elbow C/W locking Band ELB K21 45/90IRL ELB K22 45/200IRL

Models up to 26kW Models 26 - 70kW

iviodeis 26 - 70kW

### 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 clamping 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 new range.

#### MAXIMUM VERTICAL FLUE LENGTH

Vertical balanced flues can be extended to a maximum length of 6 metres on non-condensing boilers and 8 metres on condensing boilers in a straight run using the extension kits illustrated on Page 9. Deduct one metre for each additional 450 elbow used [maximum 4 elbows].

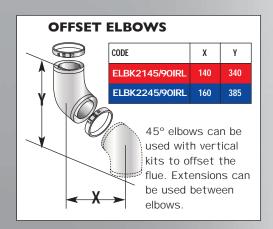
#### **DIMENSIONS**

The dimensions shown are measured from 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].

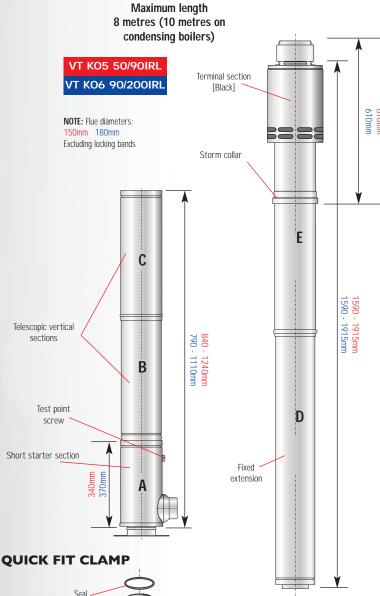
Section (A) is the starter piece for the flue system and push fits into the boiler connector supplied with the kit. Section (A) incorporates the air supply spigot and a combustion test point.

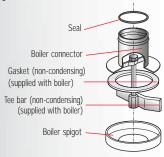
Sections (B) and (C) combine to form a telescopic length. Terminal section (E) slides telescopically over fixed length

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



#### VERTICAL FLUE KIT (WHITE POWDER COATED)





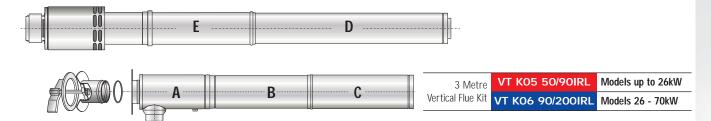
NOTE: Diagram above shows fixing method for non condensing boiler.

#### Contents of 3 metre vertical balanced flue kit:

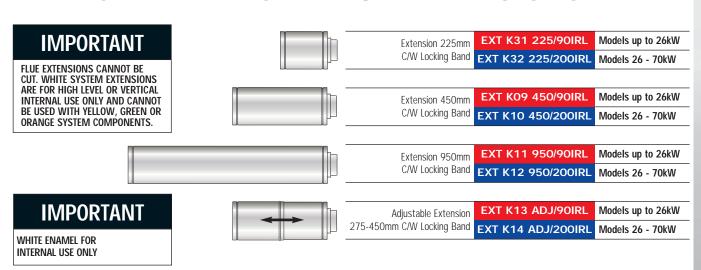
Short starter section A Vertical telescopic section B/C Fixed section 950mm D Terminal section E [inc.storm\_collar] Locking bands [not shown] Inner seals [red] Boiler connector [c/w clamp] Ceiling dress plate [not shown] Firestop spacers [not shown] Wall bracket Fitting Instructions

NOTE: For Boiler House models. air supply kit part No. EZAS is supplied with boiler.

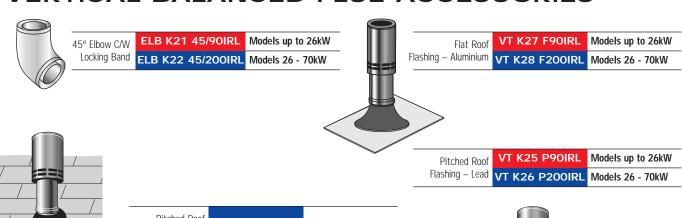
#### VERTICAL BALANCED FLUE KITS INTERNAL

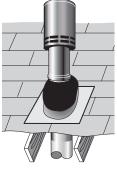


# VERTICAL BALANCED FLUE EXTENSIONS INTERNAL



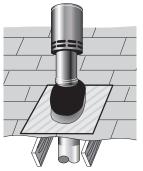
# VERTICAL BALANCED FLUE ACCESSORIES





Pitched Roof Flashing – Aluminium VT MF 200IRL Models up to 70kW





# **EXTERNAL LOW LEVEL/HIGH LEVEL/VERTICAL FLUES**

- Stainless Steel -

# HIGH LEVEL/VERTICAL EXTERNAL EZ-FIT FLUES 'GREEN SYSTEM'

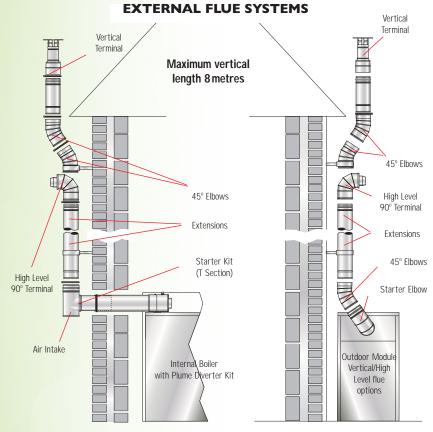
Grant's range of EZ-Fit Flue Systems have now been extended to include 'external' high level and vertical options, which are fully compatible with most Grant boilers, including our condensing models. These new systems are supplied in a modular form, enabling most installations to be accommodated and are manufactured from high grade stainless steel.

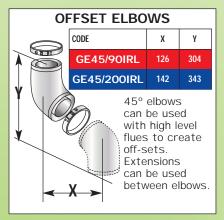
# STARTER FLUE KITS [PLUME DIVERTER]

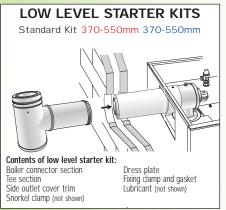
The Starter Flue Kit enables all internal boilers to be connected to an 'external' high level or vertical flue system, whilst maintaining the room sealed operation of the boiler. It is even possible to convert an existing EZ-Fit low level balanced flue kit to an external high level or vertical arrangement without any additional building work. This is particularly useful when pluming from a low level flue terminal is a nuisance.

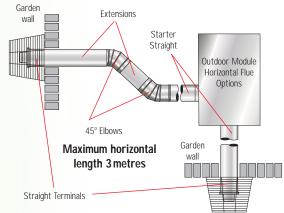
#### STARTER ELBOW

The Starter Elbow converts any of Grant's external modules or module combis to high level or vertical conventional flue operation. The stainless steel flue components are fully insulated, have 'O' ring seals and locking bands, ensuring a rigid construction every time.



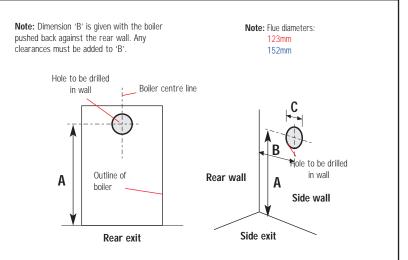






#### **HOLE CUTTING DIMENSIONS**

	MODEL	DIMEN A	ISIONS B	[mm] C
	Euroflame Kitchen/Utility models 50/70	718	85	127
	Euroflame Kitchen/Utility models 50/90 & 50/90 System	769	105	127
ی	Euroflame Kitchen/Utility models 90/120 & System	735	115	155
2	Euroflame Boiler House models 50/70	748	95	127
S	Euroflame Boiler House models 50/90	769	120	127
	Euroflame Boiler House models 90/120	783	126	155
2	Multi Pass Kitchen & System models 70/90	756	125	127
00	Multi Pass Kitchen & System models 90/140	950	130	162
ż	Multi Pass Kitchen & System models 140/160, 160/200	1065	155	162
2	Multi Pass Boiler House models 70/90	754	150	127
	Multi Pass Boiler House models 90/140	948	140	162
	Multi Pass Boiler House models 140/160 & 160/200	1063	150	162
	Internal Combi models 90 & Max	756	115	127
	Vortex Kitchen model 50-70 (15-21)	768	127	115
ပ	Vortex Kitchen & System models 50-90 (15-26)	768	127	115
뫁	Vortex Kitchen & System models 90-120 (26-36) & 120-155 (36-46)	780	162	115
SZ	Vortex Kitchen models 155-200 (46-58) & 200-240 (58-70)	1105	115	162
3	Vortex Condensing (internal) Combi model 26 (90)	768	115	127
2	Vortex Condensing (internal) Combi model 36 (120)	780	105	162
ပ	Euroflame Condensing Kitchen & Boiler House 50/70 & 70-90	768	115	127
	Euroflame Condensing Kitchen & Boiler House 90-120	780	115	162



NOTE: Core drill sizes - Models up to 26kW [90,000Btu/h] 127mm. Remaining models from 26 to 70kW [90-240,000Btu/h] 162mm.

#### STARTER FLUE KIT HIGH LEVEL/VERTICAL EXTERNAL

# **IMPORTANT**

STARTER FLUE KITS CAN BE EXTENDED HORIZONTALLY LISING **EXTENSIONS OR ELBOWS FROM** THE LOW LEVEL BALANCED FLUE (YELLOW) SYSTEM ONLY SEE PAGE 3



Standard Flue Kit

**GK90IRL** GK200IRL

Models up to 26kW Models 26 - 70kW

#### STARTER CONNECTORS OUTDOOR MODULE ONLY - HIGH LEVEL/VERTICAL EXTERNAL



Outdoor Module Starter Straight

GKM90CIRI GKM200CIRL Models 26 - 70kW\*

Models up to 26kW\*

Outdoor Module Starter Elbow C/W Test Point **GKM90IRL** 

Models up to 26kW\*

GKM200IRL Models 26 - 70kW\*

### FLUE EXTENSIONS HIGH LEVEL/VERTICAL STAINLESS STEEL (DOUBLE SKIN)

# **IMPORTANT**

**FLUE EXTENSIONS CANNOT BE 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** 



Extension 150mm C/W Locking Band

GX150/200IRL

GX150/90IRL

Models up to 26kW\* Models 26 - 70kW\*

Extension 250mm C/W Locking Band

GX250/90IRL GX250/200IRL Models up to 26kW\* Models 26 - 70kW\*

Extension 450mm C/W Locking Band

GX450/90IRL GX450/200IRL Models up to 26kW\* Models 26 - 70kW\*

Extension 950mm C/W Locking Band

GX950/90IRL GX950/200IRL Models up to 26kW\* Models 26 - 70kW\*

Adjustable Extension 195-270mm C/W Locking Band

**GXA250/90IRL** GXA250/200IRL

Models up to 26kW\* Models 26 - 70kW\*

#### TERMINALS STAINLESS STEEL

# **IMPORTANT**

**EXTENSION LENGTHS GIVEN ARE** EFFECTIVE LENGTHS IE. WHEN FITTED IN A FLUE SYSTEM.



High Level 90º Terminal

**GTH90IRL** Models up to 26kW\* GTH200IRL Models 26 - 70kW\*

**GTV90IRL** Vertical Terminal GTV200IRL Models up to 26kW\* Models 26 - 70kW\*

Straight Terminal Only

45° Elbow

C/W Locking Band

**GTL90IRL** GTL200IRL

**GE45/90IRL** 

GE45/200IRL

Models up to 26kW\* Models 26 - 70kW\*

Models up to 26kW\*

Models 26 - 70kW\*

#### ACCESSORIES STAINLESS STEEL

# **IMPORTANT**

**VERTICAL FLUE LENGTHS OF UP TO 8** METRES CAN BE ACHIEVED UTILISING EXTENSIONS. 45° ELBOWS CAN ALSO BE ACCOMMODATED WITHIN THIS LENGTH (MAXIMUM 2 ELBOWS).



**GWB90IRL** Models up to 26kW\* Wall Bracket GWB200IRL Models 26 - 70kW\* **GEB90IRL** Models up to 26kW\* Extended Wall Bracket GEB200IRL Models 26 - 70kW\*

\*For Euroflame Condensing 90/120 Module use 'Red' version

#### CONVENTIONAL FLUE SYSTEMS - CONDENSING BOILERS ONLY

- Stainless Steel -

# CONVENTIONAL FLUES FOR GRANT 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-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.

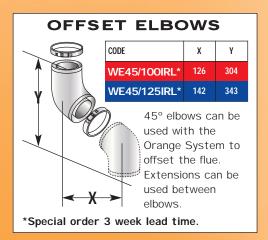
#### **PLUMING**

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 flue Flexi-Pack moves the plume of vapour above roof level.

#### **COMBUSTION AIR AND VENTILATION**

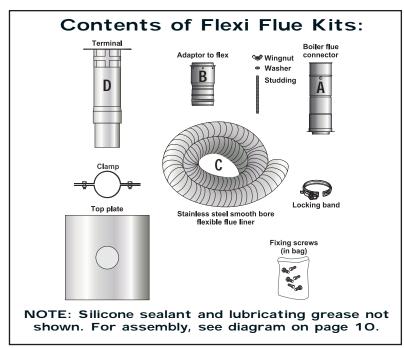
An adequate permanent air supply is required for the safe operation of all open-flued (conventional flue) oil-fired appliances. This must be in accordance with the requirements of BS 5410: Part 1: 1997.

Full details of the ventilation requirements for Grant boilers are given in the instructions provided with every appliance.



# RIGID TO FLEXIBLE CONVENTIONAL FLUE SYSTEM Terminal Flaunching D Clamp Top Plate Brick chimney See Flexi-Flue kits on opposite page **IMPORTANT IMPORTANT** FOR OPTIONAL EXTENSIONS AND MAXIMUM VERTICAL HEIGHT **ELBOWS - SEE PAGE 11** FROM TOP OF BOILER TO **TERMINAL 19 METRES.** В Locking band Rigid to Flexi-Flue Adjustable section 235/300mmm connector WXA250/100 100mm dia. (bottom) WXA250/125 125mm dia. Ontional extensions 45° elbow Locking band Boiler Boiler flue connector

# SMOOTH BORE FLEXI-FLUE KITS STAINLESS STEEL (To suit Grant Condensing boilers only)

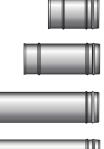


6 Metre Flexible	GF KIT 6/100IRL	Models up to 46kW
Flue Kit	GF KIT 6/125IRL	Models 46 to 70kW
8 Metre Flexible	GF KIT 8/100IRL	Models up to 46kW
Flue Kit	GF KIT 8/125IRL	Models 46 to 70kW
10 Metre Flexible	GF KIT10/100IRL	Models up to 46kW
Flue Kit	GF KIT 10/125IRL	Models 46 to 70kW
11 Metre Flexible	GF KIT 11/100IRL	Models up to 46kW
Flue Kit	GF KIT 11/125IRL	Models 46 to 70kW
14 Metre Flexible	GF KIT 14/100IRL	Models up to 46kW
Flue Kit	GF KIT 14/125IRL	Models 46 to 70kW

# FLUE EXTENSIONS WHITE POWDER COATED (SINGLE SKIN)

# **IMPORTANT**

**FLUE EXTENSIONS CANNOT BE CUT. ORANGE SYSTEM EXTENSIONS ARE FOR VERTICAL** USE ONLY AND CANNOT BE USED WITH YELLOW OR WHITE SYSTEM COMPONENTS.





Extension 150mm

C/W Locking Band WX 150/125IRL\* Models 46 to 70kW WX 250/100IRL Models up to 46kW Extension 250mm C/W Locking Band WX 250/125IRL\* Models 46 to 70kW WX 450/100IRL Models up to 46kW Extension 450mm C/W Locking Band WX 450/125IRL\* Models 46 to 70kW WX 950/100IRL Models up to 46kW C/W Locking Band WX 950/125IRL\* Models 46 to 70kW Adjustable WXA250/100IRL Models up to 46kW

Models up to 46kW

Models 46 to 70kW

WX 150/100IRL

# **IMPORTANT**

EXTENSION LENGTHS GIVEN ARE EFFECTIVE LENGTHS IE. WHEN FITTED IN A FLUE SYSTEM.



# ACCESSORIES WHITE POWDER COATED

# **IMPORTANT**

COMPONENTS FROM THE ORANGE AND GREEN SYSTEM CAN BE USED CONSTRUCT INTERNAL HIGH LEVEL, OR VERTICAL CONVENTIONAL FLUE DISCHARGE KITS USING THE FLUE ADAPTOR KIT CFA 15/70 IRL.



WHEREVER POSSIBLE **INCORPORATE ONE ADJUSTABLE SECTION** 



WE45/100IRL\* Models up to 46kW 45° Elbow C/W Locking Band WE45/125IRL\* Models 46 to 70kW

### FLEXIBLE VERTICAL BALANCED FLUE SYSTEMS

STAINLESS STEEL INNER AND OUTER LINERS

# 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.

#### **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 and is available in lengths for 6, 8, 10 and 12 metres.

# 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  $45^{\circ}$  elbows.

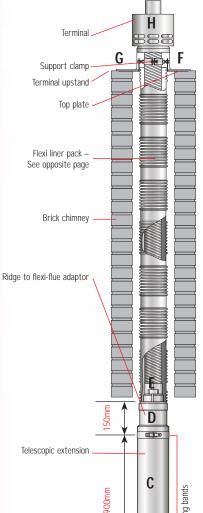
One metre of straight flue length should be deducted for every elbow used. If the flexible liner has to pass around an offset inside the chimney, two metres of straight flue length should be deducted to compensate for this i.e. equivalent two 45° elbows. Flue extensions cannot be cut, adjustable extensions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

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

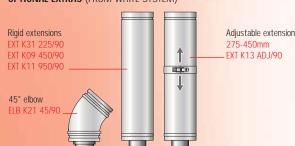
# RIGID TO FLEXIBLE BALANCED FLUE SYSTEM



# **IMPORTANT**

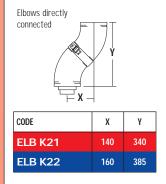
THE GRANT RED SYSTEM SHARES EXTENSION PIECES AND ELBOWS FROM THE WHITE SYSTEM.

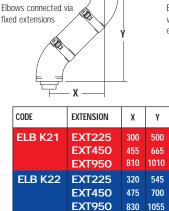
#### **OPTIONAL EXTRAS** (FROM WHITE SYSTEM)

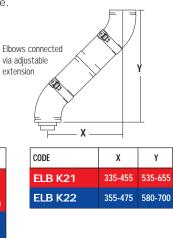


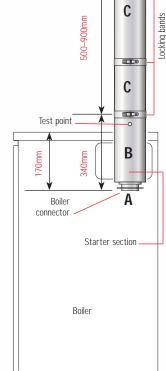
#### **OFFSET ELBOWS**

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

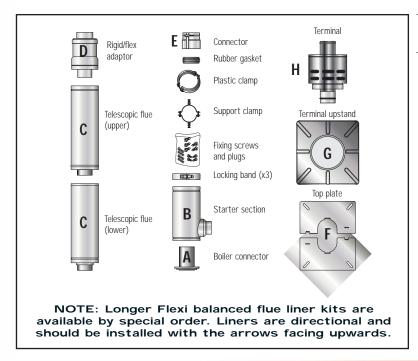








# PACK 1 FLEXI VERTICAL BALANCED **FLUE CONNECTOR**



Red system connector pack

GFX CON KIT/26\*

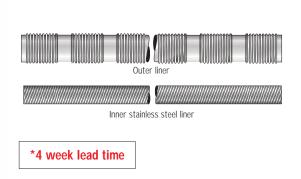
Models up to 26kW

# **IMPORTANT**

**RED SYSTEM KIT COMPRISES** PACK 1 & PACK 2 IN REQUIRED LENGTH.

\*4 week lead time

# 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

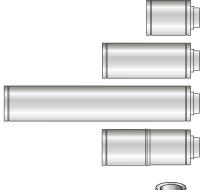
#### RIGID FLUE EXTENSIONS & ELBOWS

(FROM WHITE SYSTEM)

# FLUE EXTENSIONS CANNOT BE CUT. WHITE SYSTEM EXTENSIONS ARE FOR HIGH LEVEL, VERTICAL AND RED SYSTEM INTERNAL USE

**IMPORTANT** 

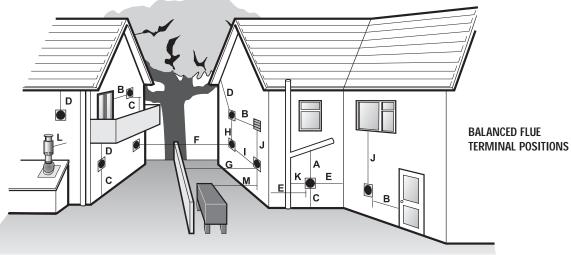
**ONLY AND CANNOT BE USED WITH** YELLOW, GREEN OR ORANGE SYSTEM COMPONENTS.





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
A 11 1 1 1 1 1 1		
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

# **CLEARANCE FOR BALANCED FLUES**



Ref	Position	mm
Α	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
Е	From internal or external 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

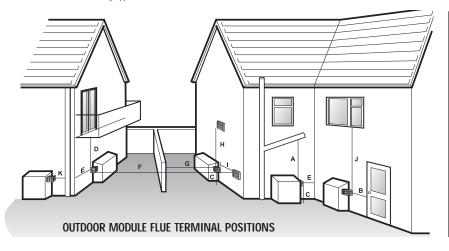
Note: \*75mm with protection Note: \*\*600mm for Outdoor Modules Note: \*\*\*Only applies if one or both terminals are balanced flues.

Distance measured to rim of terminal.

Clearances advised by Grant Engineering (Ireland) Ltd. in accordance with 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. eg. a window frame.
- **3.** A way of providing protection of combustible material would be to fit a heat shield at least 750mm wide.

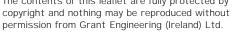


This leaflet is accurate at the time of printing but as Grant has a policy of continual improvement it may be superseded. We reserve the right to amend specifications without prior notice.

The statutory rights of the consumer are not affected. All products manufactured under I.S. EN ISO 9001. THE GRANT 'EZ-FIT FLUE' SYSTEM is a Trade Mark of

Grant Engineering Limited.

®Grant Vortex, Euroflame and Multi Pass are registered trade marks of Grant Engineering Limited. The contents of this leaflet are fully protected by











### Other products available from Grant Engineering











Condensing Boilers Wood Pellet Boilers

Back Boilers

Cylinders

Solar Thermal Water Heating Systems

Email: info@grant.eu

Web: www.grant.eu