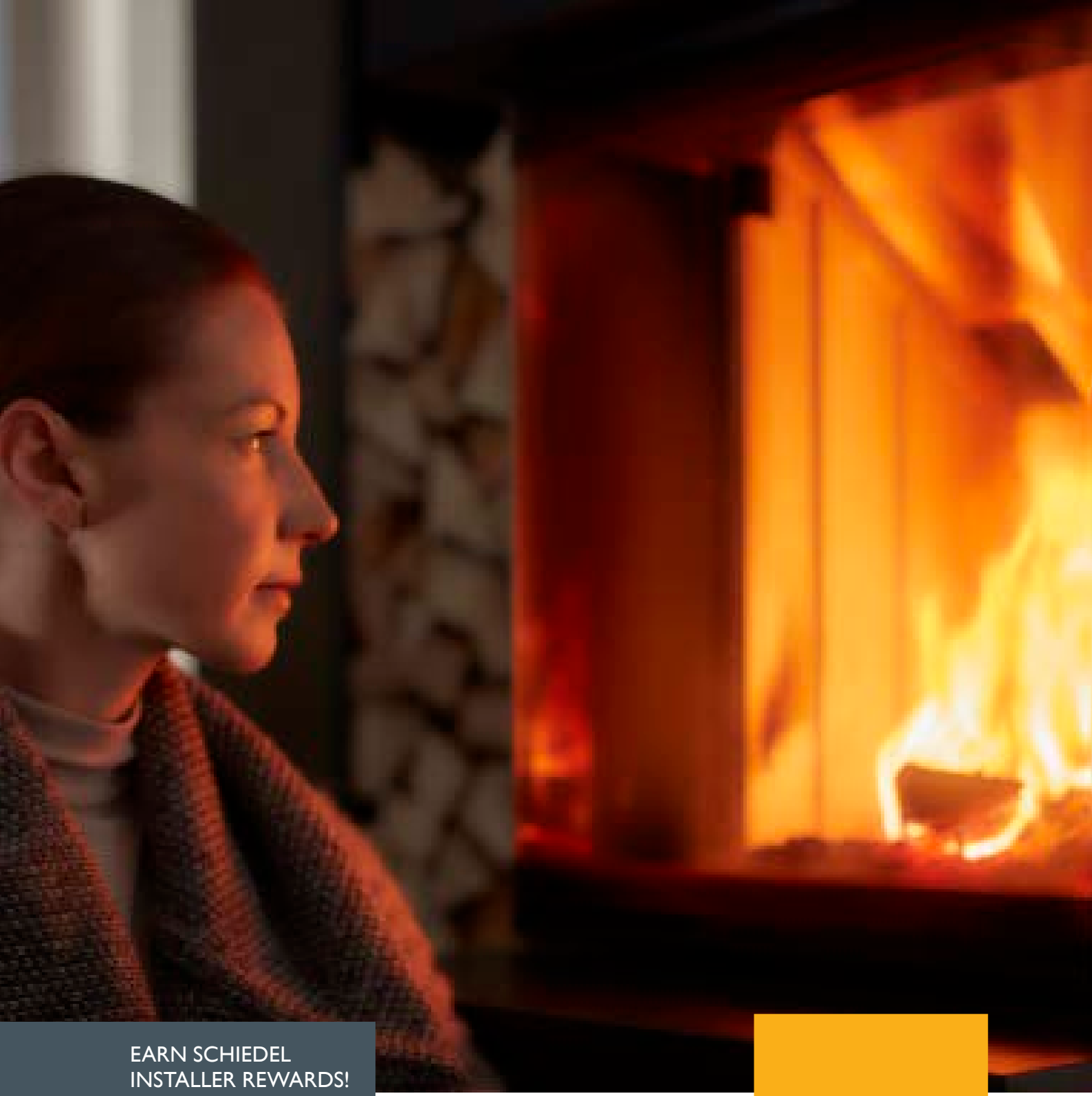

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INSTALLER REWARDS!

SCHIEDEL

B VENT

Twin Wall Gas Venting System and Flue Box Range

HETAS LISTED CHIMNEY PRODUCT

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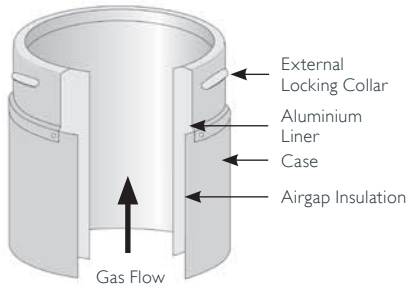
Updated February 2021

Application

Twin wall gas heating system designed for cost-effective venting of residential and small commercial atmospheric gas appliances with input up to 60kw. It is suitable for both internal and external use, either as a complete system or in combination with masonry, i.e. flue blocks or brick chimneys.

Note that BS 5440-1 requires the use of a stainless steel insulated flue on external runs exceeding 3 metres. Eco ICID or ICS should be used for this type of application.

Product Description



SINGLE WALL LINERS

- Twist-lock bayonet jointing system.
- No locking bands required.
- Aluminium inner liner and aluzink outer case which can be painted if required.
- 12.5 mm air gap between case and liner keep case temperature low.
- 0-90° adjustable bend.
- When joint is made, the liner covers the jointing collar, shielding it and permitting easy drain-down of any moisture in the flue.

FLUE SIZE SELECTION

B Vent is available in 100, 125 and 150mm internal diameters. The flue size must be as recommended by the appliance manufacturer and **must not be** reduced, and never smaller than the appliance spigot. This information is provided as a guide only, and for exact flue sizing recommendations, refer to appliance manufacturer's installation instructions and design guide.

Flue Size Selection Guide

	100 mm	125 mm	150 mm
Gas Central Heating Boiler (Wall hung/ Freestanding)			
Input up to 25kW	●		
Input 25kW - 40kW		●	
Input 40kW - 60kW			●
Gas Fires			
Radiant to BS 7977-1		●	
Inset to BS 7977-1		●*	
Backboiler to BS 7977-2		●	
Gas Water Heaters			
Input up to 25kW	●		
Input 25kW - 55kW		●	
Input 55kW - 60kW			●
Gas Stove/Cooker (AGA/Rayburn/Stanley etc.)	●	●	●
Gas Flue Blocks			
Connection IN			
Connection OUT	●	●	
Gas Warm Air Unit		●	
Input up to 18 kW			
Input 18kW - 35kW	●		
Input 35kW - 60kW		●	

* When the fire has been tested and relaxed to 125° the appliance manufacturer should be consulted

Approvals

B Vent is CE certified to EN1856-1 with the designation T250 N1 D Vm L11040 050 (certificate number 0036 CPD9195013).

System Design

OUTLET TERMINATION

Flue terminations for gas in domestic situations are governed by BS5440-1 Section 4.2. The figure alongside illustrates recommendations for the most common terminations.

Adjacent taller structures may require increased height. The minimum flue projection through the roof is 600mm to the underside of the terminal.

FLUE ROUTING

Systems should be vertical as far as possible for most efficient evacuation and should not exceed 45° from the vertical, otherwise resistance to flue gas flow will result. Bends should be kept to a minimum and a vertical rise of 600mm minimum should be allowed for immediately above the appliance.

As a general rule, the vertical distance (A) between the appliance and the flue terminal should always be at least twice the horizontal distance (B) between the appliance and the terminal (see Fig B).

The B Vent range includes 0° - 90° fully adjustable bends which can be used where the flue system needs to be offset e.g. to avoid trusses and terminate to a ridge terminal. These bends can be rotated 360° after the angle has been set to achieve the correct direction of flue parts.

AIR SUPPLY

Provision for ventilation to supply air to the appliance must be arranged in accordance with the appliance manufacturers instructions. This is necessary to ensure correct and safe operation of the appliance and to ensure correct venting and avoid spillage of flue gases.

USE OF B VENT ON CONDENSING APPLIANCES

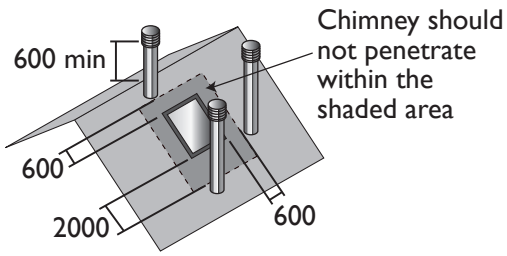
B Vent is not suitable for this application. Prima Plus and ICS Plus are the products in the Rite-Vent range specifically designed for condensing applications.

TERMINATION BESIDE EXISITNG CHIMNEY POTS

A commonly encountered situation is the need to site the termination of a gas appliance amongst chimney pots on an existing stack. The termination should be made such that the bottom of the terminal is at the same level as the top of the surrounding pots. This is to ensure maintenance of suitable draught conditions.

Schiedel Chimney Systems supply a British Gas approved Terminal extension kit for this purpose.

Fig A
BS 5440-1 Gas Termination



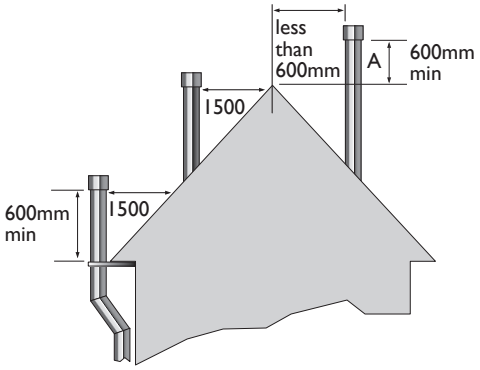
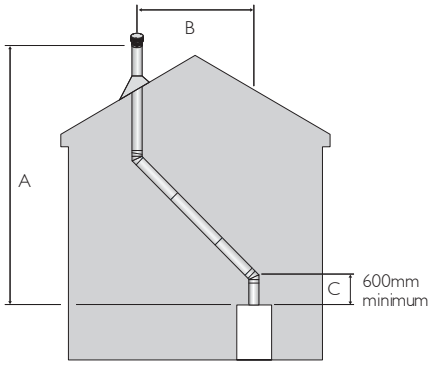
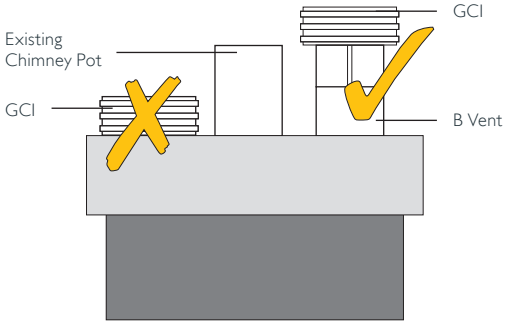


Fig B

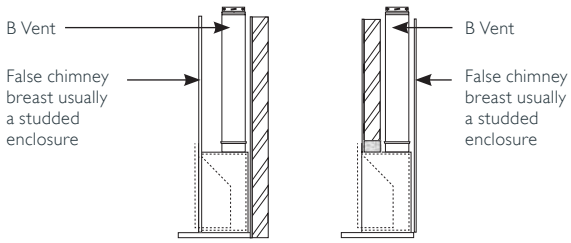




Terminal Extension Kit BVTERMEXTKIT To comply with BS5440-1:2000 clause 5.1.6.

Fitting a gas fire where no suitable chimney exists

For rooms without a chimney a gas fire can be fitted using a flue box and a rigid twin wall chimney. B Vent is ideal for most situations, although some decorative gas fires require a larger flue in which case an ICS or Eco ICID chimney (see separate brochures) should be used.



- With the appropriate flue box the flue can be routed either in the same room or an adjoining room.
- The flue box has a twin wall construction to provide insulation and minimise the risk of condensation.

Which flue box and flue to choose

Type of Fire	Specification	Standard	Type of Flue Box	Flue Type & Size
Radiant	Safety of Domestic Gas Appliances - Specification for Gas. Fires 1st, 2nd and 3rd family gases for radiant and convector radiant.	BS 7977-1 2002	Standard B Vent Recessed B Vent	125mm B Vent
Back Boiler Unit	Safety of Domestic Gas Appliances - Combined Appliances: Gas fires/Back Boiler.	BS 7977-2 2003	Back Boiler Box	125mm B Vent
Living Flame Fires	Safety of Domestic Gas Appliances - Specification for inset Live Fuel Effect Gas Fires up to 7kW.	BS 7977-1 2002	ILFE Box	180mm Conforming to BS 4543 Pt 3 can be relaxed to accept 125mm flue to BS 715 (see appliance manufacturer's installation specifications for appliance). e.g. Eco ICID, ICS or B Vent

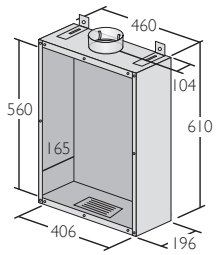
This information is provided as a guide only. In all cases for exact flue sizing recommendations refer to the appliance manufacturer's instructions and design guide.

Flue Boxes

Standard Flue Box

Old Code	0182125
SAP Code	125096

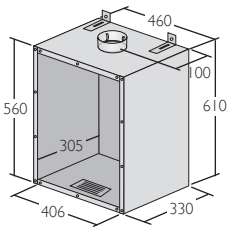
Designed for use with radiant and decorative gas fires complying to BS 7977-1. Constructed with an aluminium liner and coated steel outer case.



Recessed Flue Box

Old Code	0183125
SAP Code	125085

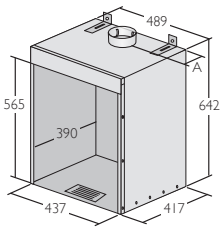
Designed with the spigot at the rear, for use with larger radiant and decorative gas fires. for gas fires to BS 7977-1.



ILFE Flue Box

Old Code	0189125
SAP Code	125088

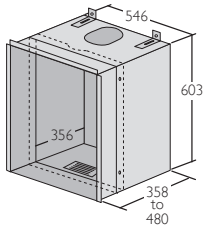
For use with Inset Live Fuel Effect gas fires complying to BS 7977-1 2002, with a heat output not exceeding 7kw.
Note: For fires requiring a larger flue normally 180 or 200 mm, use ICS or ICID flue boxes. See separate brochure.



Large Flue Box for Back Boiler

Old Code	0165125
SAP Code	125062

Adjustable in depth from 358mm to 480mm to accommodate a wide range of back boilers, Suitable for fires complying with BS 7977-2 2003.
Universal opening allowing connection to the boiler with B Vent or Flex.

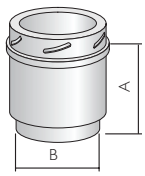


Dimensions

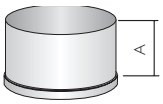
The internal and external dimensions of the flue are:

Int Ømm	100	125	150
Ext Ømm	127	152	178

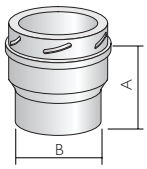
Starting Components



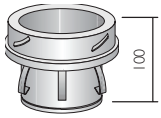
Appliance Connector Economy			1246
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	113	113	113
B	104	130	156
SAP Code	124662	125081	125801



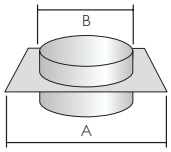
B Vent to Flex Connector			1279
Int Ø mm	100	125	
Ext Ø mm	127	152	
A	75	75	
SAP Code	124675	125102	



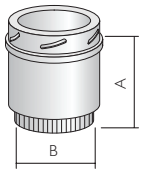
Flue Box Adaptor			0145
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	90	90	-
B	114	138	-
SAP Code	124661	125080	-



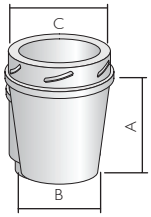
Flex to B Vent Connector			1278
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124701	125133	125824



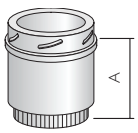
B Vent to Flue Box			0180
Int Ø mm	100	125	
Ext Ø mm	127	152	
A	190	190	
B	127	154	
SAP Code	124664	125084	



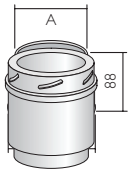
Vitreous Enamel Connector			1243
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	113	113	113
B	99	125	151
SAP Code	124660	125068	125800



Increaser			1271
Int Ø mm	100	125	
Ext Ø mm	127	152	
A	160	160	
B Ø mm	100	126	
C Ø mm	125	152	
SAP Code	124666	125089	

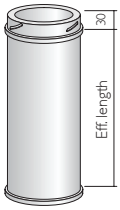


Connector (IL to B Vent)			0148
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	130	95	130
SAP Code	124540	125167	125868

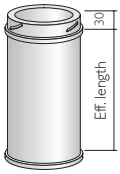


Connector (B Vent to IL)			0149
Int Ø mm	100	125	
Ext Ø mm	127	152	
A	111	138	
SAP Code	124651	125069	

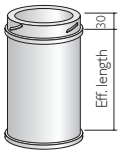
Pipes



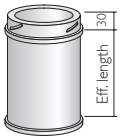
1470mm Effective Length			1201
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124654	125072	125794



870mm Effective Length			1202
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124658	125077	125798

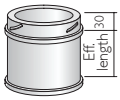


570mm Effective Length			1203
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124515	125039	125775

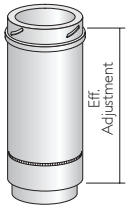


420mm Effective Length			1205
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124656	125075	125796

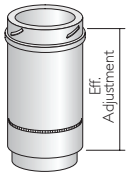
270mm Effective Length			1206
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124655	125074	125795



120mm Effective Length			1207
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124653	125071	125793

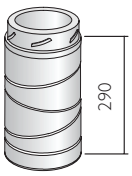


Telescopic Pipe 50-380mm Effective Length			1208
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124650	125066	125791
Slide over male of pipe below, tighten jubilee clip. Min. 40mm overlap. Do not use after bend or tee since insufficient overlap.			



Telescopic Pipe 50-230mm Effective Length			1209
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124649	125065	125790
Slide over male of pipe below, tighten jubilee clip. Min. 40mm overlap. Do not use after bend or tee since insufficient overlap.			

Bends

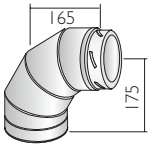


Adjustable 0˚- 90˚ Bend			1218
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124648	125063	125789
Rotate segments to create any angle. Bottom segment rotates, enabling exact alignment of bend.			

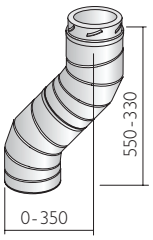
30˚ Offset

45˚ Offset

60˚ Offset

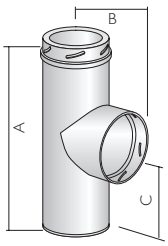


90˚ Offset

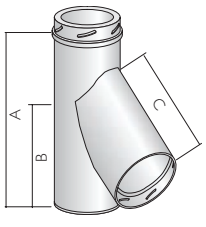


45˚ Offset
(using 2 bends)

Tees



90˚ Tee			1220
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	360	360	360
B	145	152	160
C	180	180	180
SAP Code	124657	125076	125797

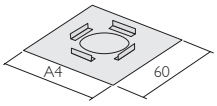


135˚ Tee			1221
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	360	360	360
B	275	275	275
C	205	225	265
SAP Code	124652	125070	125792

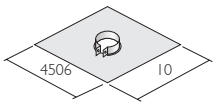
Tee Cap			1224
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124673	125100	125809

Tee Cap & Drain			0229
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	COA	COA	COA

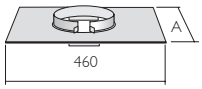
Support Components



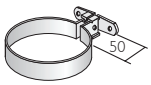
Firestop Plate			0166
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	279	305	330
SAP Code	124663	125083	125802



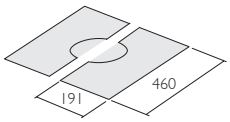
Debris Plate			0164
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124695	125123	125819



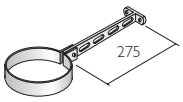
Support Assembly			0160
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	279	305	330
SAP Code	124671	125098	125807



Wall Band 50mm Extens			0173
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124678	125105	12581

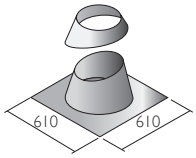


Roof Plate (2 Piece)			0167
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124668	125093	125805

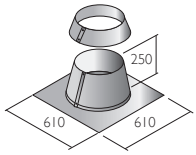


Wall Band 275mm Adjustment			0174
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124676	125103	125812

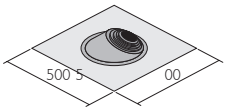
Flashings
(supplied complete with Storm Collar and Sealant)



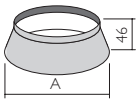
Angled Flashing Kit 5° - 30°			0151
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124659	125079	125799



Flat Flashing Kit			0152
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	124672	125099	125808



Uniflash 80 - 200mm			9454001
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
SAP Code	112198	112198	112198



Storm Collar			0156
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	220	248	270
SAP Code	124670	125097	125806

Correct use of B Vent Storm Collar

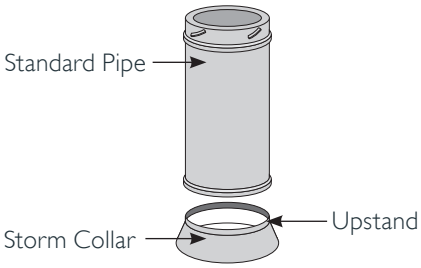


Fig 1
Upstand of Storm Collar slots inside the female collar of the pipe above

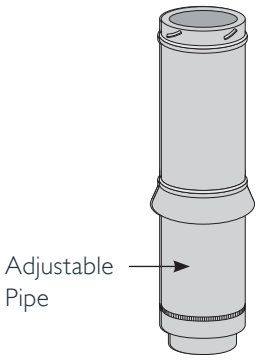


Fig 2
Adjustable Pipe locks into female collar of pipe through Storm Collar

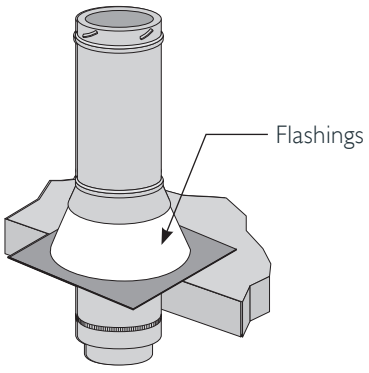
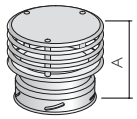
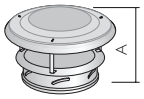


Fig 3
In situ

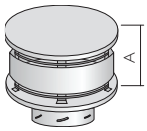
Terminals



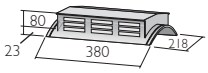
GC1			0130
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	100	100	85
SAP Code	124665	125086	125803



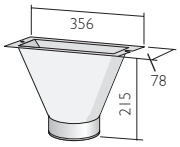
Raincap			0133
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	127	150	178
SAP Code	124667	125091	125804



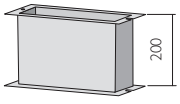
Anti Splash Anti Downdraught			0128
Int Ø mm	100	125	150
Ext Ø mm	127	152	178
A	-	130	170
SAP Code	-	124997	125762



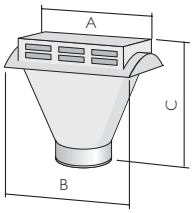
Ridge Tile Top			0142
Int Ø mm	100	125	
Ext Ø mm	127	152	
SAP Code	-	130684	



Ridge Tile Adaptor			0135
Int Ø mm	100	125	
Ext Ø mm	127	152	
SAP Code	124669	125094	



Ridge Tile Adaptor Extension Box To fit apex of steeply pitched roofs.	0136
SAP Code	130683



CVTA (Combined Vent Tile & Adaptor)			0139
Int Ø mm	100	125	
Ext Ø mm	127	152	
A	330	330	
B	380	380	
C	330	330	
SAP Code	124629	124998	

Installation

MANDATORY REQUIREMENTS

Connection to an appliance which is not connected to the fuel supply may be carried out by a competent person. However, connection to an appliance that is connected to the fuel supply must be carried out by a Gas Safe registered installer. The flue system must be installed to comply with Building Regulations Document J (in England, Wales and Northern Ireland) for gas appliances having a flue gas temperature of 250°C max, and the Building Regulations for Scotland. The installation must also comply with BS5440 pt 1 for gas flues up to 60 kW in the UK and IS813 Domestic Fuel Installations in Ireland.

JOINTING

All pipe lengths and flue gas carrying components are joined together by a twist lock, bayonet system (see Fig.1). The system should be installed with the visible male collar pointing upwards, this is reaffirmed by the directional arrow pointing upwards, indicating the directional flow of flue gases. Taping of joints is unnecessary. B Vent is for atmospheric appliances which have negative pressure flues meaning that when the system is primed and running at normal operating temperatures, air is drawn into the flue via the joints, assisting safe evacuation of flue gases.

ADJUSTABLE LENGTH

Within the range is an adjustable length which is used to telescope over standard pipe lengths to provide the exact flue lengths required. It should not be used directly after a bend since there is insufficient overlap to insure a sound joint. A wall band must be used above an adjustable length as this component is not loadbearing - see Fig 2.

CONNECTION TO APPLIANCE/FLUEBOX

Always use an appliance connector, sealed using fibre ropeand fire cement or high temperature sealant. The liner should not project below the appliance outlet spigot and can be cut to length if required.

APPLIANCE REMOVAL

Use of a pipe and an adjustable length immediately above the appliance enables removal of the appliance later without dismantling the full system.

PAINTING OF B VENT

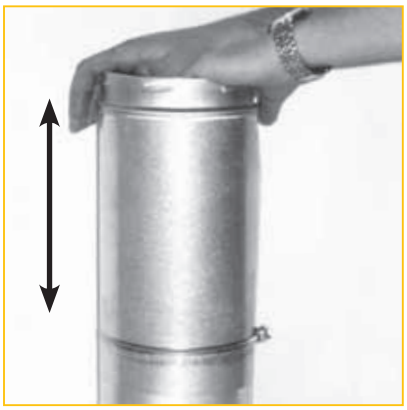
If required to be painted, simply clean the surface with a solvent cleaner (White Spirit), apply a coat of primer and a top coat of high temperature paint e.g. enamel.

RECOMMENDED DISTANCES TO COMBUSTIBLES

In accordance with the Building Regulations, a minimum of 50mm distance to combustibles must be maintained. B Vent support components provide a 50mm clearance. At the maximum flue gas temperature of 250°C, the outer case will be in the region of 75-85°C.

Fig 1

Fig 2



Installation

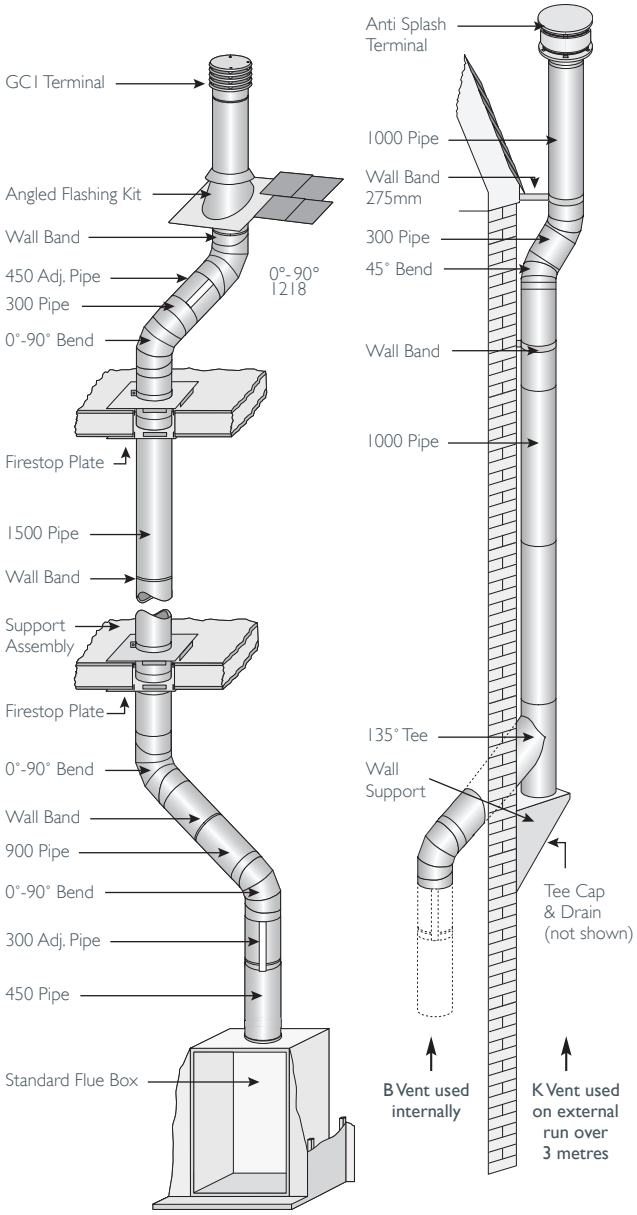
SUPPORT COMPONENTS

Internal systems should be supported by using a support assembly fixed on top of the first floor/ceiling joist. A Firestop plate is also required fixed to the ceiling below. The clamp plate and firestop have tags fixed to ensure 50mm distance to combustibles. In a normal house, when passing through the second floor the only requirement is two firestop plates because the system is adequately supported at first floor level.

Wallbands are not load bearing and give lateral support only. Wallbands should be fitted every 3m to ensure the system is rigidly held. The system should be braced with a wallband immediately below passing through the roof line to ensure the flashing does not suffer lateral pressures.

Ensure that no joint occurs within the floor space. A roof plate (2 piece) should be used on the underside of roof trusses where the system is terminated via a flashing.

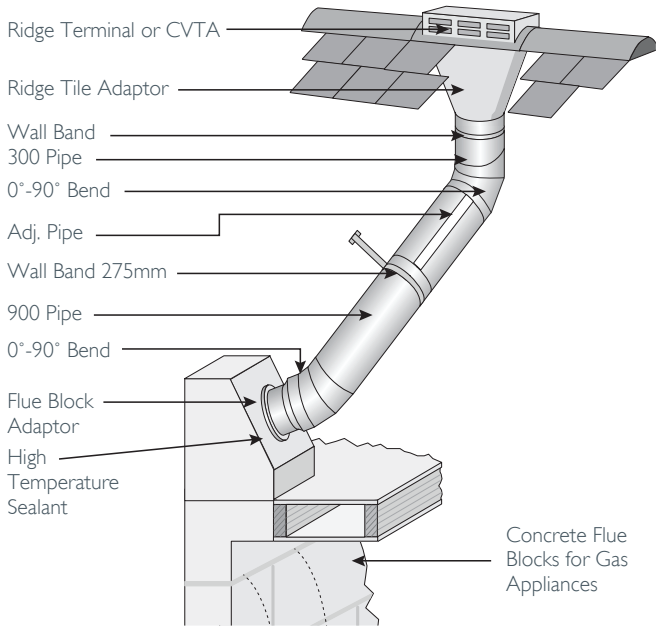
The maximum height unsupported above the roof line is 1.5m. Where a joint is above the roofline it should be determined that in extreme wind conditions this joint would not be over exerted. If there is any doubt then a guy wire should be used. Beyond this guy wires should be installed every metre.



Installation

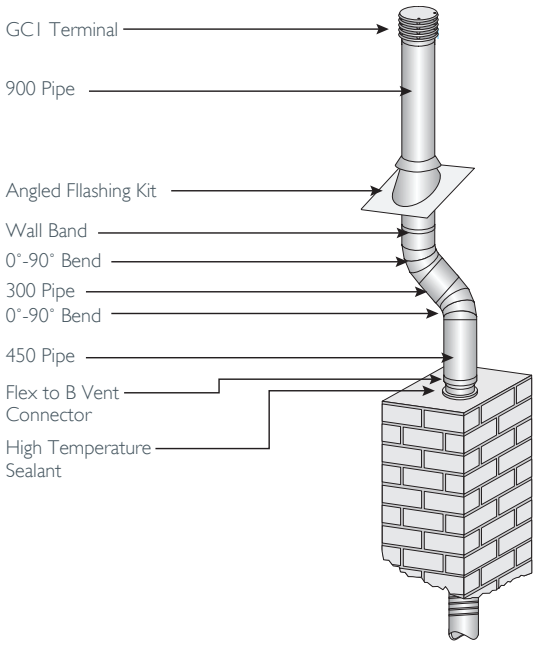
LOFT AND RIDGE CONNECTION

Use a flue block adaptor to start from the flue block. The connection to the ridge terminal should be sealed using a gasket (supplied on request) or high temperature sealant to provide a gas and condensate tight joint.



CONNECTION TO EXISTING CHIMNEY

B Vent is not for use as a chimney liner, however, it can be used to connect to and from a Triplelock flexible flue liner which may be lining an existing chimney, when used on appliances described in previous section.



After Installation

TESTING BEFORE USE

This is done by means of a flue flow test as described in BS EN15287-1 parts 1 & 2 with reference to the appropriate appliance type.

MAINTENANCE

It is essential that the flue way be kept clear at all times. The system should be checked regularly during the appliance maintenance (refer appliance manufacturer's instructions).

Every effort is made to ensure accuracy at time of going to press. However, as part of our policy of continual product development, we reserve the right to alter specifications without prior notice. All installation drawings are graphical representations. Building regulations and relevant British standards must be adhered to.

Useful Guides

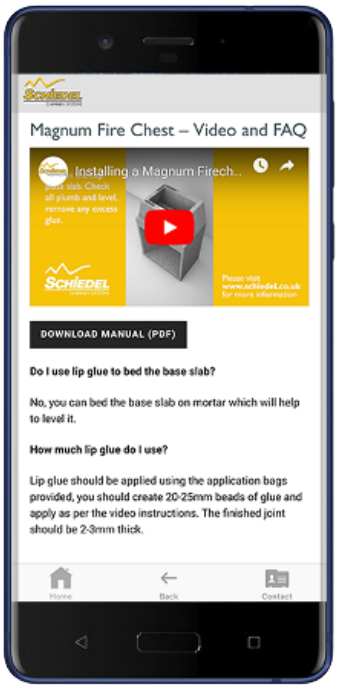
THE SCHIEDEL INSTALLATION APP

This handy mobile guide can be used on mobile devices and touchscreen tablets.

It offers a number of very useful guides on all aspects of installing an appliance using Schiedel Chimney Systems, including:

- Quick and straightforward reference for installers.
- Video breakdowns of each stage of the installation process, from connection to the appliance through to termination.
- Highlighting the safety critical areas where the chimney penetrates the floors, ceilings, roof and walls.
- Incorporates frequently asked questions information at each stage of the installation process, in line with building regulations.
- An easy-to-use system for downloading full product information and installation instructions.
- Register your Guarantee in the App.

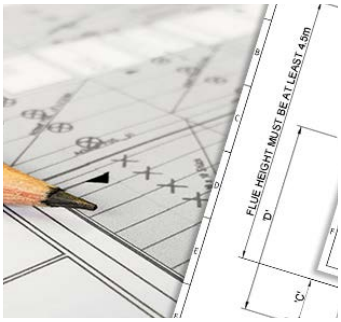
Download the iPhone and iPad version in the App Store and Android version in the Google Play Store.



DOWNLOADS SPECIALIST CENTRE

We have a comprehensive range of CAD cells, typical installations using Isokern Pumice components and other diagrams, which are ideal Ideal resources for architects and builders when designing a chimney system for a new build or renovation

Visit our website and head over to the **SPECIALIST CENTRE** which can be found under the **SCHIEDEL WORLD** menu, or contact us and we will send a USB stick with all the relevant information and downloads on.



Schiedel Installer Rewards

Exciting news from Schiedel Chimney Systems for Stove and Chimney Installers! Whenever you register an installation with our easy to use, online guarantee registration portal, you will now accrue points based on the number of installations and installation type.

Once you have reached a minimum of 25 points, you can begin to redeem them for £25 Love2Shop vouchers.

So head on over to the portal and start to register your installations to take full advantage of our Lifetime Guarantee on Flex and ICID, and also to start earning points!

Complementary Products and Services from Schiedel Chimney Systems

ICS

Twin Wall Insulated System Chimney for gas,

- Simple push-fit jointing system
- High efficiency Superwool insulation blanket
- Capillary break prevents moisture being drawn through the joint
- 80-300mm Diameter range

PRIMA PLUS

Single Wall Stainless Steel Flue System

- Prima Plus available 0.6mm or 1mm options for domestic multi-fuel stoves
- Prima Plus for large residential & commercial condensing gas & oil appliances & chimney relining
- 80-300mm Diameter range

ICID PLUS

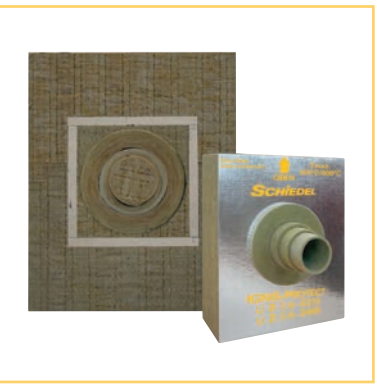
The NEW highly Insulated Twin Wall System Chimney for traditional stoves, pellet stoves, biomass appliances, mini/micro CHP and condensing boilers capable of withstanding positive pressure.

- Easy twist lock connection
- Effective insulation
- 100-200mm Internal diameter range

PRIMA SMOOTH

Single Wall Stainless Steel Connecting Flue Pipe for use on wood and multi-fuel applications.

- 316L Grade stainless steel
- Available in matt black or steel finish
- Excellent aesthetics
- Lightweight
- 125-200mm internal diameters



IGNIS-PROTECT

Designed specifically for Air Tight, Energy Efficient and Timber Framed Buildings

- Suitable for SW and DW connecting flue pipes passing through interior or exterior walls made of combustible materials
- Available in both 90° and 45° version

DM & LINERS

Pumice System Chimneys, Firechests and Liners.

- Pumice is a natural insulator, able to maintain the temperature of flue gases
- Lightweight – allowing one person to lift and build the chimney units
- Pumice expands and contracts less with temperature change than other chimney systems.

SCHIEDEL

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