SCHIEDEL
ISOKERN®

PUMICE
SYSTEM CHIMNEYS & LINERS
...naturally better

CE DOC/CP3/64 SAP Issue 4 940002642 March 2016

Part of the **BRAAS MONIER BUILDING GROUP**

Pumice - *naturally* better

Pumice is a natural insulator. This is the unique property that separates pumice from all other chimney materials.

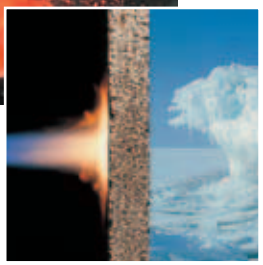
The insulating properties of Pumice allow the flue gases in the chimney to quickly reach their optimum temperature enabling the heating appliance to reach its optimum performance shortly after lighting.

It also keeps the chimney warmer longer as the heat output of the appliance decreases - once again aiding performance and reducing the likelihood of condensation and soot build-up.

The natural properties of pumice

- **Resistant to temperature change**
  Pumice has very little expansion and contraction with temperature change. This reduces the possibility of cracking and structural damage that can occur with other products.
- **High Insulation Properties**
  Pumice is a natural insulator, able to maintain the temperature of flue gases when other products have allowed the temperature to fall below the dew point.
- **Lightweight**
  Pumice is strong yet lightweight allowing one person to lift and build the chimney units.

Pumice is a natural material sourced from the Hekla Volcano in Iceland.



Pumice is an excellent insulator, keeping flue gases warm while not transmitting heat to the outside.

Product Description

Schiedel Isokern products can be used for new chimneys and for the refurbishment of existing chimneys. The Isokern chimney systems provide a lightweight, easily installed and versatile chimney which can be used internally or externally. The systems are suitable for use with burning appliances in new and refurbished projects. They are ideal for Masonry, Timber Frame and Steel Frame construction. Isokern chimneys have been installed in Europe for over 60 years.

DM (DOUBLE MODULE)

Schiedel Isokern DM block system is a high quality System Chimney. The double wall system maintains flue gas temperatures while preventing heat transference to the outer casing. The separation of the inner and outer components also allows for thermal movement, reducing the risk of cracking and subsequent leaking or staining. It is simple and quick to build. The DM is available in 3 outer casing sizes - DM36, DM44 & DM54.

FLUE LINERS

The Schiedel Isokern flue liner range consists of over 15 different sizes. They can be used for newbuild, extensions and relining existing chimneys.

FIRECHESTS

The Schiedel Isokern range of firechests are supplied as flat packs. They can be easily and quickly constructed to produce a neat and pre-formed fire opening ready for finishing. The Magnum Firechest provides the opportunity to create fire openings up to 1.2m wide.

ISOKOAT FLUE SEALING SYSTEM

The Schiedel Isokoat system is an efficient and cost effective method of re-sealing a defective chimney shaft. The Isokoat material is applied to the chimney under pressure and forced into the cracks sealing them, re-pointing the joints and strengthening the walls. For further details see the separate Isokoat leaflet.

DM Double Module Chimney System

When the ease of construction and maximum insulation matter then the Double Module System comes into its own. The system is designed to be quick and easy to install.

The lightweight blocks are easy to handle. The outer and inner blocks are laid at the same time but with staggered joints for safety and stability. The double layer of pumice blocks separated by an air gap maximises the chimney insulation.

The Pumice Systems are suitable for wood burning, solid fuel, oil and gas.

There are 3 systems covering a range of different internal diameters to meet the requirements of different appliances and uses:

DM 36
150mm internal diameter for smaller output inserts, stoves and solid fuel/oil cookers

DM 44
180mm and 200mm internal diameters for inserts, stoves and open fires

DM 54
300mm and 345mm internal diameters for Magnum firechests and larger appliances, inserts and open fires

Unique features of the Isokern DM Chimney System

- **Zero distance to combustibles on straight rendered chimneys**
- **Quick and easy to assemble**
- **Lightweight materials, easy to handle**
- **Highly insulating pumice for better draw and minimum heat loss**
- **Staggered joints for maximum safety and stability**
- **Air gaps between outer casing and flue prevents surface staining**
- **Good resistance to temperature variations gives the maximum performance for your appliance**

Approvals

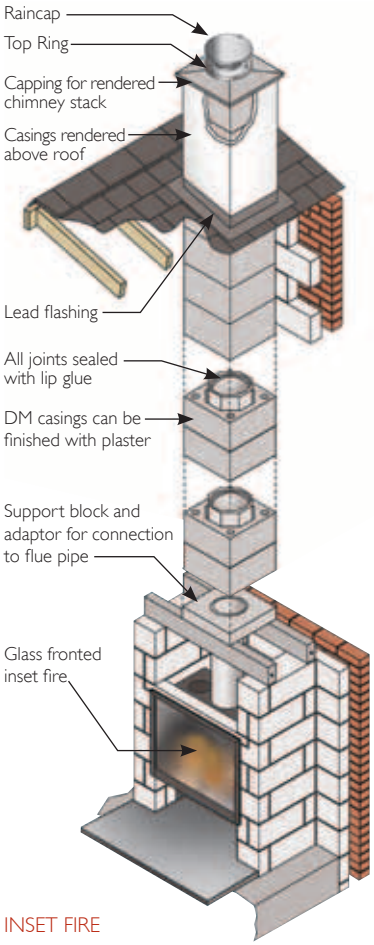
Isokern Pumice Double Module DM is CE Certified to EN1858 TÜV Cert no. 0036 CPR 90219 001
Isokern Pumice Chimney Liner is CE certified to EN1857 TÜV Cert no. 0036 CPR 90219 002
Isokern Magnum Firechest has been tested at the Fraunhofer Institut, Stuttgart, Cert no. P8-094/2006

CE Designation	
Double Module DM System Chimney* T450 N1 D 3 G(00)	Pumice Chimney Liner T450 N2 D 3 G

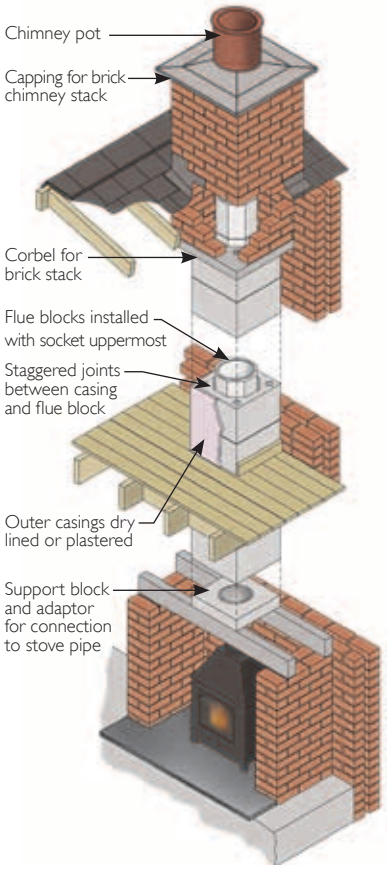
* Zero distance to combustibles on straight chimney systems with ventilated terminal.
38mm distance to combustibles on offset systems. and non ventilated systems.

DM 36 -
for smaller output inserts, stoves and cookers

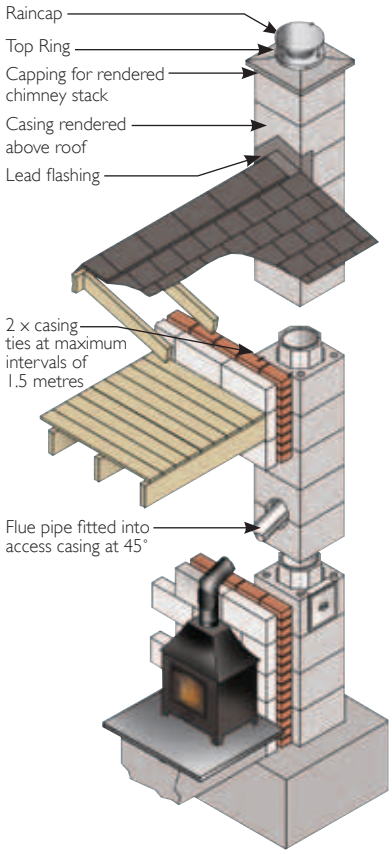
Available in Ø150mm internal diameter only.



INSET FIRE



FREE STANDING STOVE IN A RECESS.
System includes a Stainless Steel adaptor for ease of connection between the stove and the DM Chimney.



FREE STANDING STOVE
WITH EXTERNAL CHIMNEY AND
PREFORMED FLUE ENTRY KIT

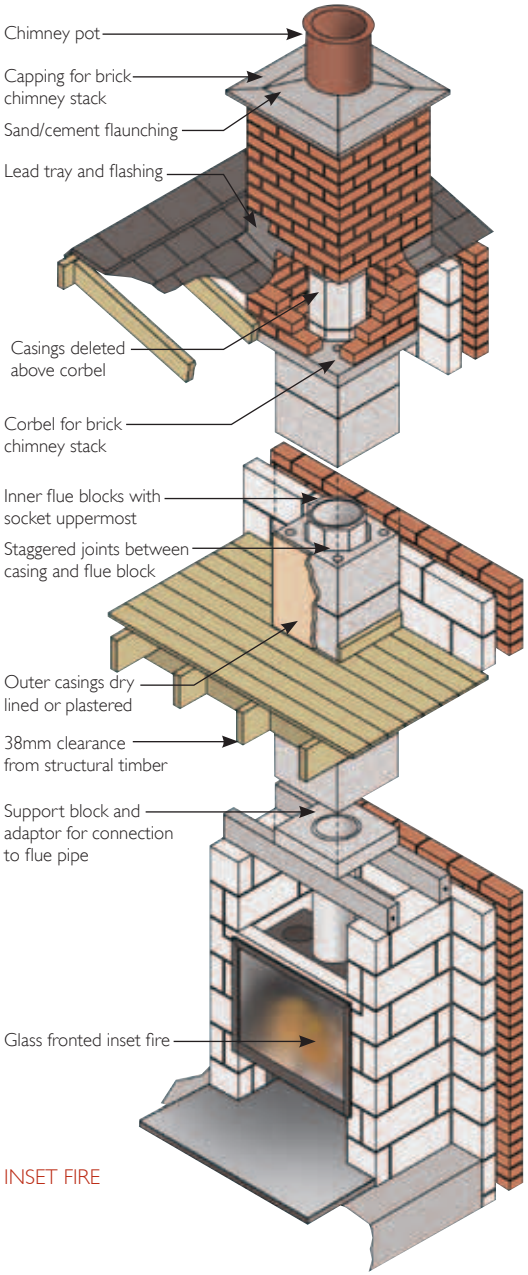
Downloadable drawings available from our web site
www.schiedel.co.uk

DM 36 -
for smaller output inserts, stoves and cookers

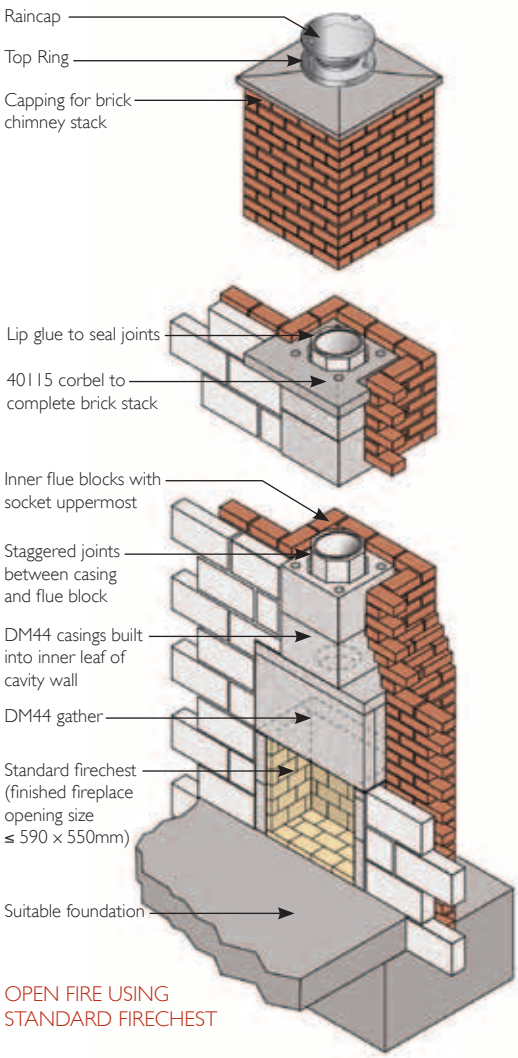
	Old Code	SAP Code	Description	Weight (kg)
	All dimensions are external unless otherwise stated			
	S-803636	130714	360mm square casing 250mm high	15
	S-803637	130712	360mm square access casing 250mm high (150mm i/d access hole)	13
	S-803641	130713	360mm square casing & soot door 250mm high	18
	S-803645	130709	DM36 45° flue entry kit (four parts) 500mm high	42
	S-801501	126363	150mm i/d 255 x 255 starter flue block 125mm high	4
	S-801525	126369	150mm i/d 255x255 flue block 250mm high	8
	S-801516	126368	150mm i/d 255x255 access flue block 500mm high (177mm i/d access hole)	16
	80113	130715	570mm square corbel for brickwork 75mm high	32
	80320 80321	130710 130711	490mm square capping - render 690mm square capping - brickwork	13 31
	80143	126378	150mm i/d 360 x 435 offset block (86mm, 30° offset) 150mm high (allow 38mm distance to combustibles on offset chimneys)	25
	40124	130716	150mm i/d 360 square support block 100mm high	15
	U00150	126373	150mm i/d (205mm o/d) stainless steel adaptor	
	1125150	126357	125mm i/d (205mm o/d) stainless steel decreaser adaptor	
	60125	135070	Top Ring (for ventilation)	
	60123	130732	Raincap (with fixing rods for top ring)	

DM 44 -
for inserts, stoves and small open fires

Available in internal diameters Ø180mm and Ø200mm.
Both inner liners fit into the same external block size.



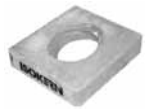
INSET FIRE



OPEN FIRE USING
STANDARD FIRECHEST

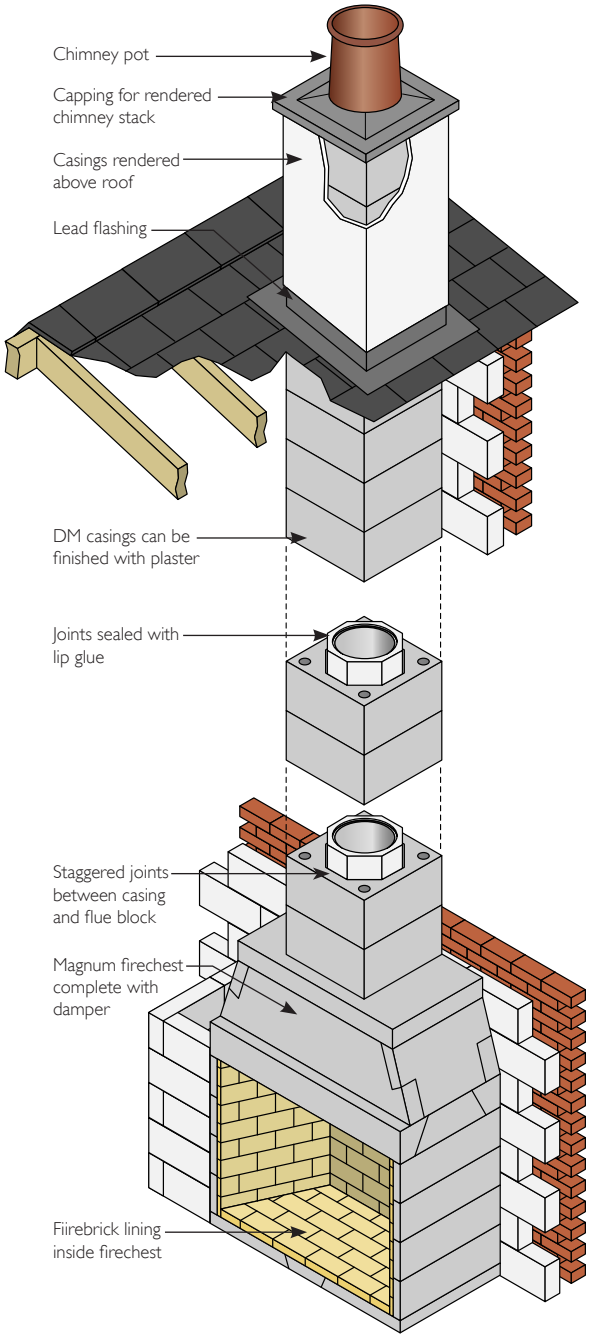
Downloadable drawings available from our web site
www.schiedel.co.uk

DM 44 -
for inserts, stoves and small open fires

	Old Code	SAP Code	Description	Weight (kg)
	All dimensions are external unless otherwise stated			
	S-44433	130727	440mm square casing 300mm high	30
	S-44437	130725	440mm square access casing 300mm high (220mm i/d access hole)	29
	S-44441	130726	440mm square casing & soot door 300mm high	36
	S-44446 S-44445	130719 130722	440mm 180mm i/d 45° flue pipe entry kit (4 parts) 600mm high 440mm 200mm i/d 45° flue pipe entry kit (4 parts) 600mm high	86 84
	S-70226 S-70221	130720 127684	180mm i/d 310 x 310 starter flue block 150mm high 200mm i/d 310 x 310 starter flue block 150mm high	8 7
	S-70218 S-70220	127068 127683	180mm i/d 310 x 310 flue block 300mm high 200mm i/d 310 x 310 flue block 300mm high	15 14
	S-70231 S-70227	130717 127682	180mm i/d flue 310 x 310 access block 600mm high 200mm i/d flue 310 x 310 access block 600mm high	28 26
	40110 40114	130728 130235	650mm square corbel for brickwork 75mm high 650 x 560mm offset corbel for brickwork 75mm high	40 34
	40115	130818	740mm T corbel for external brickwork 75mm high	47
	40320 40321	130723 130724	570mm square capping for render 820mm square capping for brickwork	18 44
	40139 40131 40130 40129	131810 130718 127686 127687	180mm i/d 440 x 500 offset block (56mm, 30° offset) 100mm high 180mm i/d 440 x 500 offset block (86mm, 30° offset) 150mm high 200mm i/d 440 x 500 offset block (56mm, 30° offset) 100mm high 200mm i/d 440 x 500 offset block (86mm, 30° offset) 150mm high (Allow 38mm distance to combustibles on offset chimneys)	22 22 20 30
	40126 40128	130721 130730	180mm i/d 440mm square support block 100mm high 200mm i/d 440mm square support block 100mm high	22 20
	U00200	127691	200mm i/d (255mm o/d) stainless steel adaptor	
	1150200 1175200	127671 127672	150mm i/d (255mm o/d) stainless steel decreaser adaptor 175mm i/d (255mm o/d) stainless steel decreaser adaptor	
	60120	130675	Top Ring (for ventilation)	
	60123	130732	Raincap (with fixing rods for top ring)	

DM 54 -
for larger open fires and appliances

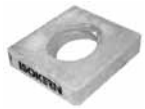
Available in internal diameters Ø300mm and Ø345mm.
Both inner liners fit into the same external block size.



LARGE FIRE OPENING
CREATED WITH MAGNUM FIRECHEST

Downloadable drawings available from our web site
www.schiedel.co.uk

DM 54 -
for larger open fires and appliances

	Old Code	SAP Code	Description	Weight (kg)
	All dimensions are external unless otherwise stated			
	S-45433	130708	545mm square casing 300mm high	40
	S-70002 S-70003	129031 129093	300mm i/d 420 x 420 starter flue block 150mm high 345mm i/d 420 x 420 starter flue block 150mm high	11 11
	S-70230 S-70235	129033 129094	300mm i/d 420 x 420 flue block 300mm high 345mm i/d 420 x 420 flue block 300mm high	22 22
	40111	130735	800mm square corbel for brickwork 75mm high	57
	40322 40323	130733 130734	670mm square capping for render 950mm square capping for brickwork	20 46
	40133 40136	129038 129092	300mm i/d 545 x 635 offset block (86mm, 30° offset) 150mm high 345mm i/d 545 x 635 offset block (86mm, 30° offset) 150mm high (allow 38mm distance to combustibles on offset chimneys)	44 40
	40160	129043	300mm i/d 545mm square support block 100mm high	30
	U00300	129039	300mm i/d (365mm o/d) stainless steel adaptor	
	60122	135093	Top Ring (for ventilation)	
	60123	130732	Raincap (with fixing rods for top ring)	

DM Accessories

	Old Code	SAP Code	Description	Weight (kg)
	All dimensions are external unless otherwise stated			
		146432	1500 x 215 x 70mm support lintel Max load (per pair) 1650kg	51
	CT0001	130689	Stainless steel casing wall tie	
	50303	130771	Lip glue (5kg)	5
	40300	102629	1m reinforcement rod 12mm diameter	1

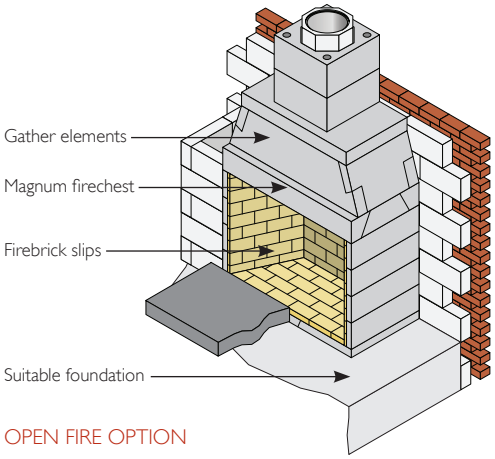
Typical DM Installation Detail

FOUNDATIONS
Construction begins by providing a suitable foundation and constructional hearth in accordance with Building Regulations and site requirements.

OPEN FIRE OPTION
Bed the base plate of the firechest onto a suitable foundation/constructional hearth in accordance with Building Regulations and at the level required on site using Isokern lip glue.

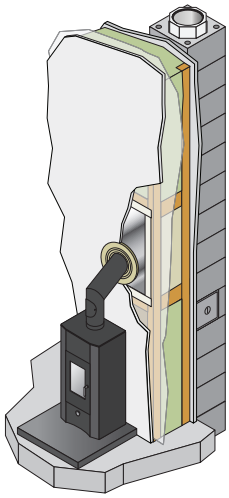
Install the firechest using lip glue making sure all elements are level. 100mm of brick/blockwork must be built around the sides and back of the firechest to comply with Building Regulations. The inside of the firechest must be finished with a suitable fireback or firebrick slips.

Install the gather using lip glue making sure all the elements are level. The front face of the gather can be finished with plasterboard, rendered or clad in masonry. Lintels may be required above the gather to help carry the brick or blockwork. The maximum loading capacity of the ISOKERN firechest and gather is 2500kg.



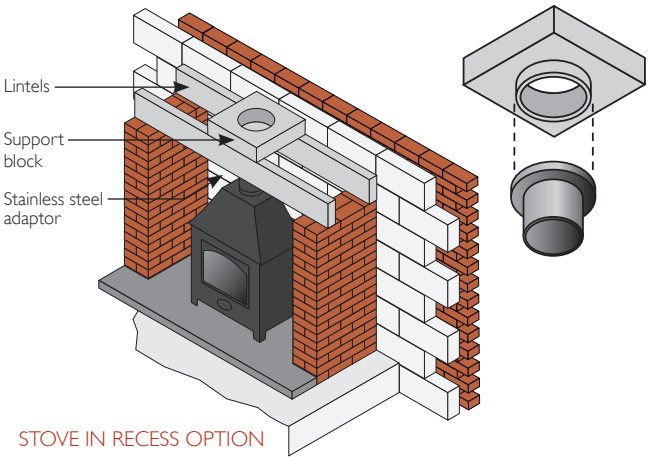
OPEN FIRE OPTION

TIMBER FRAME SOLUTION
For timber framed solution refer to pages 24 - 25



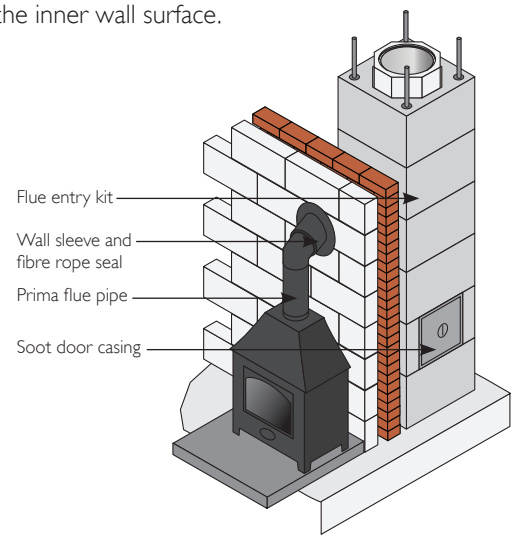
STOVE IN RECESS OPTION
Pre-stressed lintels or a suitable cast-in-situ concrete slab must be provided above the stove recess, please make sure they are strong enough to carry the load (see appropriate Isokern DM drawing for aperture size). It is recommended to have a minimum of 600mm of stove flue pipe before connecting to the support block.

The support block is bedded onto the lintels using a weak mix mortar. A stainless steel adaptor is used to create a positive connection from the support block to the stove flue pipe (fibre rope should be used to create a seal).



STOVE IN RECESS OPTION

FREE STANDING STOVE OPTION
A soot door casing and access flue block must be used below the flue pipe entry. The DM 45° access kit is then used for the connecting flue pipe. A suitable wall sleeve must be used to seal the cavity wall. Any combustible insulation within the wall must then be kept away from the single wall connecting flue pipe by at least 1.5 x its diameter. Fibre rope is used to seal between the flue pipe and wall sleeve, a suitable trim collar can be used to finish the inner wall surface.

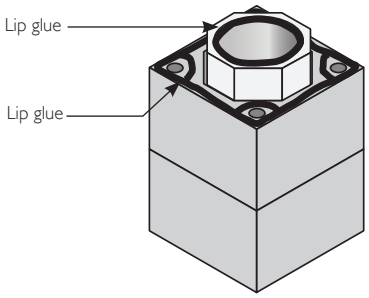


FREE STANDING STOVE OPTION

Typical DM Installation Detail

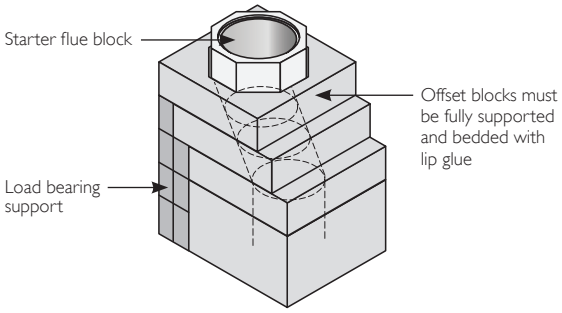
CHIMNEY CONSTRUCTION

Bed the first outer casing using lip glue making sure the rebate (raised lip) is uppermost. The starter flue block is then put inside the casing bedded with lip glue. The socket on the starter flue block must be uppermost and the air gap between the starter flue and the casing should be kept clear. The finished lip glue joints should be 2-3mm thick, a special bag is provided for ease of application and the lip glue should be applied in 12-15 mm beads.

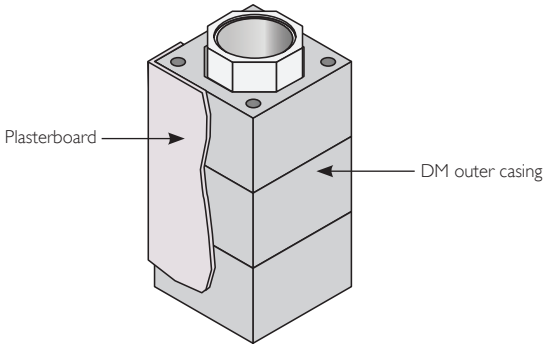


HOW TO USE LIP GLUE

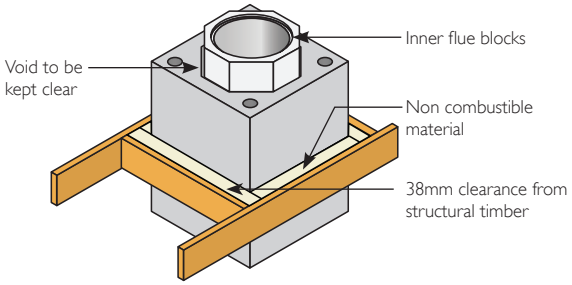
Offset blocks 'if required' must be used immediately above the support block or firechest gather. They must be glued together with lip glue and be fully supported. Please note a chimney should be built straight wherever possible. A starter flue block will be required above the offset blocks to stagger the joints between the outer casing and inner flue blocks.



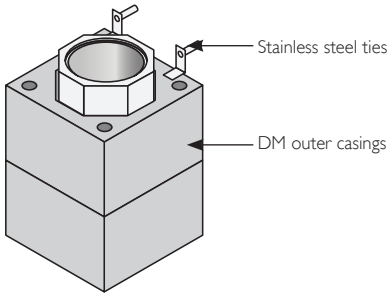
Casings and flue blocks are added using lip glue for all joints. Ensure the air gap between the inner flue and outer casing remains clear. The outer surface of the casings to be finished with plasterboard on dabs or plaster. The side that faces the wall does not need an external finish.



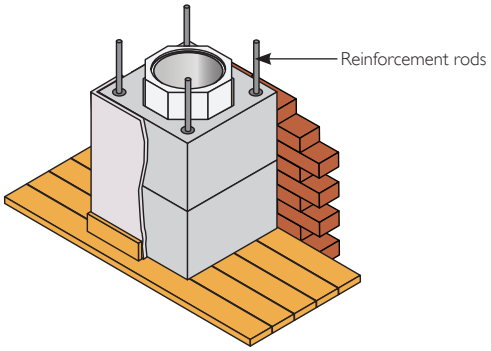
On a rendered stack with a top ring fitted (see p.12 for example), where a straight chimney passes through a floor or roof, zero mm distance to combustibles can be applied. A sliding joint is made using mineral wool or similar non-combustible material. In all other cases, 38mm clearance must be maintained between the outer face of the chimney and any structural timber or loose combustible material. Floor boards, skirting boards, dado rails and other non-structural components may, however, be in contact with the chimney.



External chimneys must be tied to the structure at maximum intervals of 1.5m and at the point where it departs from the roof using 2 x suitable stainless steel wall ties. These are fitted into the outer casing joints. They are not always required for internal chimneys. Please consult the Isokern technical office.



High tensile steel reinforcement rods will be required for all chimneys with a height that exceeds 1.4m above the roof line, 1.1m if the wind speed exceeds 44ms. These rods are available from Isokern and must be grouted (1:3 cement/ sand) into the holes provided in the outer casings. You must start the rods at least the same height below the roof as what's above, please check with our technical department.



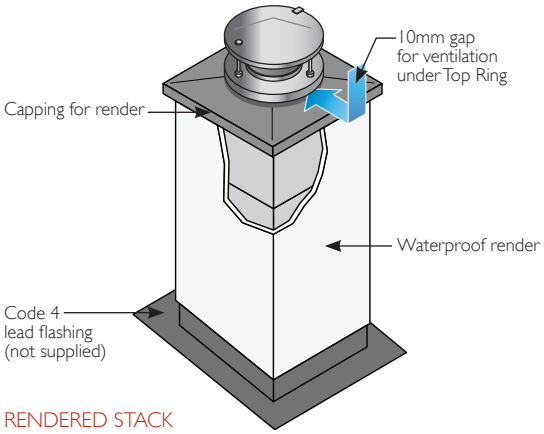
Typical DM Installation Detail

RENDERED STACK OPTION

Code 4 lead flashing to be fitted at roof level as per Building Regulations. We recommend that you scorch a 5-10mm deep channel into the outer surface of the casings and fold in the top edge of the flashing.

Finish the outer surface of the casings above the roof with 2 part waterproof render. The recommended mix is 1:2:5-6 cement:lime:sand for the undercoats. 1:2:8-9 cement:lime:sand for the final coat. The number of coats required will depend upon the degree of exposure, generally a two coat mix is acceptable. The mix may vary due to climate conditions, the thickness of any one coat should not exceed 15mm, and each subsequent coat should be reduced by approximately 3mm.

Isokern concrete capping for render to be lip glued onto the last casing.



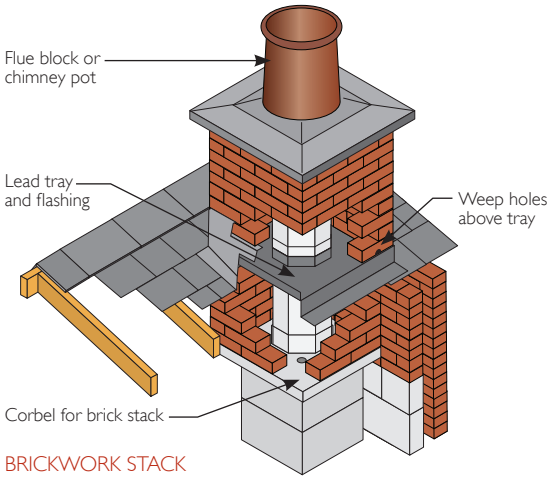
RENDERED STACK

BRICK STACK OPTION

To take brick or stonework externally a corbel is fitted just below the roof. Use trusses and trimmers to brace the cladding as it passes through the roof.

Code 4 lead tray with 50mm upstands and stepped flashing to be fitted in accordance with Building Regulations. A 50mm upstand should be fitted tight to the outside of the flue block and where possible turned in by approx 10mm. Lead trays should be coated with bituminous paint where it is in contact with mortar. The D.P.C. tray should be fitted at least 150mm above the lowest point of intersection with the roof. Weep holes should be provided at the front of the stack above the tray for water drainage.

Casings can be deleted above the corbel if stack height is less than 1.4m above the roof.



BRICKWORK STACK

TERMINATION

Raincap - Ventilated Option - (Installation with 0 distance to combustibles for straight rendered chimneys only). Take the last flue block up through the capping, do not fill the gap between the flue block and capping. Push fit the aluminium top ring onto the flue block and make sure there is a 10mm air gap between the outer edge of the ring and the capping. The flue block may need cutting to suit.

Chimney Pot Option - This option always requires a 38mm distance to combustibles from the outside of the block. Fit a chimney pot at least 75mm down into the capping and flaunch with 1:3 cement and sharp sand to seal around. This option is not possible if 0 distance to combustibles is required.

AFTER COMPLETION

After installation is complete tests and checks should be carried out in accordance with document J of the Building Regulations. A chimney notice plate must be completed and permanently fixed in the dwelling, ideally near the electrical consumer unit. The checklist and notice plate are available from Schiedel Isokern.

USE AND MAINTENANCE

The chimney should be left for at least 72 hours before use, then start only with small fires for the first week and gently increase thereafter.

The chimney should be swept at least twice a year, once before the heating season and once after the heating season. You may need to sweep during the heating season depending upon use. The brush should be a medium density polypropylene bristle type and should be the same diameter as the flue. Steel brushes **must not** be used to sweep the Isokern pumice flues.

Always follow the appliance manufacturer's operating instructions. Always burn approved fuels or dry seasoned wood. Avoid burning unseasoned wood and slow burning of solid fuels as this can produce excessive soot and condensation which in turn cause soot fires and damage. If correctly installed, operated and maintained these systems should last the life of the dwelling.

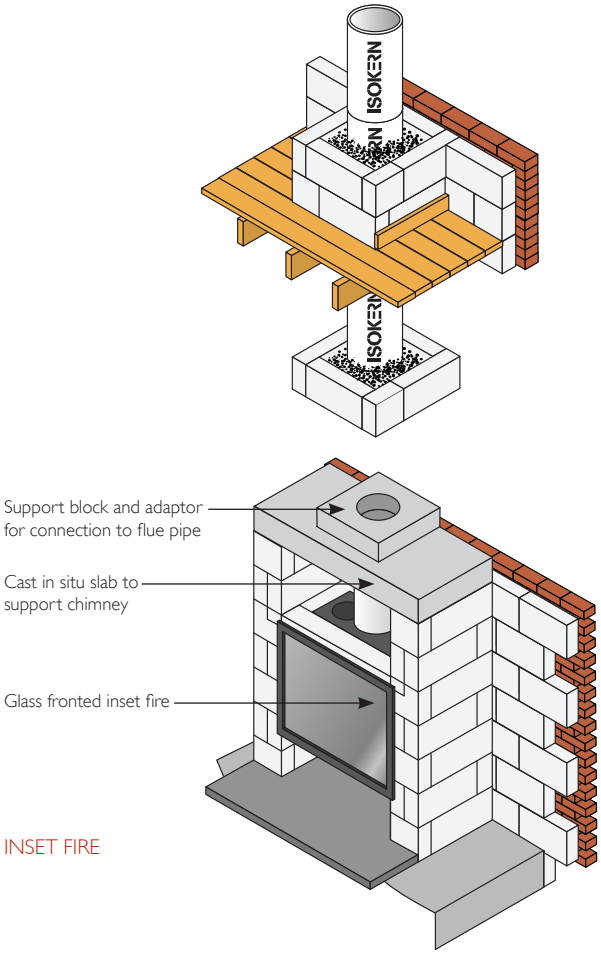
Liner System - for new and existing chimneys

The pumice liner system comes in a range of 15 diameters from 150mm to 1000mm with T Liners, Liner Support Blocks, and Adaptors for ease of connection to the appliance.

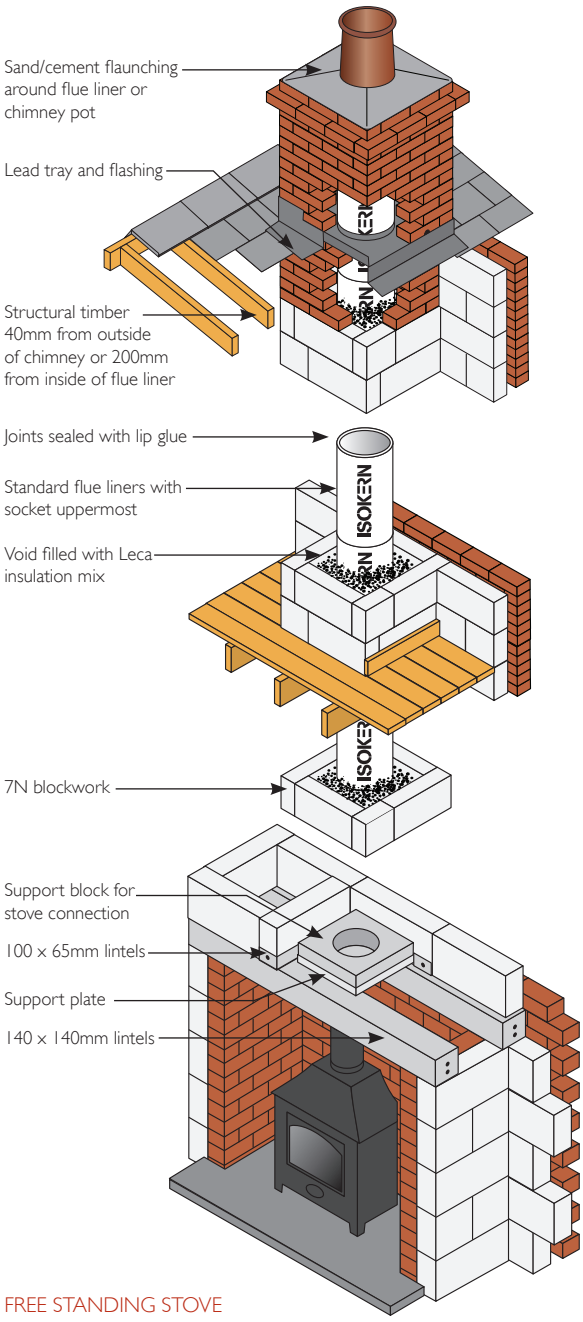
The insulated flue liner for traditional build

Suitable for use with inserts, stoves, open fires and solid fuel/oil cookers.

- **Lightweight materials, easy to handle**
- **Highly insulating pumice for better draw and minimum heat loss**
- **600mm and 1000mm lengths mean fewer joints and fast to install**
- **15 flue sizes available**
- **Good resistance to temperature variations gives the maximum performance for your appliance**



INSET FIRE



FREE STANDING STOVE

Downloadable drawings available from our web site

www.schiedel.co.uk

Liners and Accessories

Old Code	SAP Code	Description	Weight (kg)
All dimensions are external unless otherwise stated			
Round Liners			
10015	126372	150mm i/d 600mm high rebated liner (200mm o/d)	8
10017	126498	175mm i/d 600mm high rebated liner (235mm o/d)	11
10020	127685	200mm i/d 600mm high rebated liner (250mm o/d)	12
10022	127715	225mm i/d 600mm high rebated liner (285mm o/d)	14
10025	128546	250mm i/d 600mm high rebated liner (310mm o/d)	16
10030	129036	300mm i/d 600mm high rebated liner (360mm o/d)	19
10035	129360	350mm i/d 600mm high rebated liner (416mm o/d)	27
S-10040	129567	400mm i/d 1000mm high rebated liner (470mm o/d)	50
S-10045	129738	450mm i/d 1000mm high rebated liner (530mm o/d)	60
S-10050	129927	500mm i/d 1000mm high rebated liner (590mm o/d)	70
S-10060	130142	600mm i/d 1000mm high rebated liner (706mm o/d)	100
Collars			
10216	126361	150mm steel collar	
10217	126494	175mm steel collar	
10220	127673	200mm steel collar	
10222	127705	225mm steel collar	
10225	128533	250mm steel collar	
10230	129021	300mm steel collar	
10235	129356	350mm steel collar	
Support Lintel			
	146431	1500 x 140 x 140mm support lintels Max load (per pair) 3250kg	71
Support Plates		(for supporting liners and support blocks)	
SP200	127694	210mm i/d 340mm square 3mm thick (fits 150mm support blocks)	3
SP250	128549	255mm i/d 360mm square 3mm thick (fits 175mm and 200mm support blocks)	3
Liner Support Blocks (for connection to appliances)			
C40120	126366	150mm i/d 310mm square 75mm high	7
C40122	126483	175mm i/d 350mm square 75mm high	8
C40121	127340	200mm i/d 350mm square 75mm high	8
40127	130731	225mm i/d 440mm square 100mm high	20
40150	128548	250mm i/d 440mm square 100mm high	20
40160	129043	300mm i/d 545mm square 100mm high	30
Leca			
50301	130769	50 litre Leca (0.05m^3)	approx. 19
Lip Glue			
50303	130771	Lip glue (5kg)	5

Liners and Accessories

Old Code	SAP Code	Description	Weight (kg)
All dimensions are external unless otherwise stated			
Liner Bends		(Larger diameters available on request)	
10810	126364	150mm i/d 15° rebated bend	4
10811	126365	150mm i/d 30° rebated bend	5
10812	126367	150mm i/d 45° rebated bend	6
10813	126495	175mm i/d 15° rebated bend	5
10814	126496	175mm i/d 30° rebated bend	6
10815	126497	175mm i/d 45° rebated bend	8
10816	127679	200mm i/d 15° rebated bend	5
10817	127680	200mm i/d 30° rebated bend	6
10818	127681	200mm i/d 45° rebated bend	8
10819	127706	225mm i/d 15° rebated bend	7
10820	127707	225mm i/d 30° rebated bend	8
10821	127708	225mm i/d 45° rebated bend	11
10822	128542	250mm i/d 15° rebated bend	8
10823	128531	250mm i/d 30° rebated bend	9
10824	128532	250mm i/d 45° rebated bend	9
S-10825	129015	300mm i/d 15° rebated bend	10
S-10826	129016	300mm i/d 30° rebated bend	11
S-10827	131819	300mm i/d 45° rebated bend	12
S-10828	129354	350mm i/d 15° rebated bend	13
S-10829	129355	350mm i/d 30° rebated bend	14
S-10830	131820	350mm i/d 45° rebated bend	17

Larger diameter bends available on request.

Stainless Steel Adaptors with Sealing Rope (for connection to support block)			
U00150	126373	150mm i/d (205mm o/d)	
U00175	126499	175mm i/d (235mm o/d)	
U00200	127691	200mm i/d (255mm o/d)	
U00225	127719	225mm i/d (290mm o/d)	
U00250	128547	250mm i/d (315mm o/d)	
U00300	129039	300mm i/d (365mm o/d)	

Stainless Steel Increaser Adaptors with Sealing Rope (for connection to support block)			
1125150	126357	125mm i/d (205mm o/d)	
1150175	126493	150mm i/d (235mm o/d)	
1150200	127671	150mm i/d (255mm o/d)	
1175200	127672	175mm i/d (255mm o/d)	
1200225	127704	200mm i/d (290mm o/d)	

T Liners			
T4510015	126376	150mm i/d 45° rebated T liner 600mm high	15
T4510017	126500	175mm i/d 45° rebated T liner 600mm high	20
T4510020	127695	200mm i/d 45° rebated T liner 600mm high	22
T9010015	126375	150mm i/d 90° rebated T liner 600mm high	15

Liners and Accessories

LINERS AND ACCESSORIES

Old Code	SAP Code	Description	Weight (kg)

All dimensions are external unless otherwise stated

Access Blocks			
10415	126362	150mm i/d 215mm square 205mm high rebated access block	5
10420	127678	200mm i/d (also for 175mm) 280mm square 280mm high rebated access block	12
Soot Door			
-	142837	Double soot door 265 x 395mm	2
Insulated Plug			
50031	142599	Insulated plug (glue to access blocks)	4
Chimney Pots		**Terracotta**	
CP150	126371	150mm i/d roll top terracotta 450mm high	14
CP200	127341	200mm i/d roll top terracotta 450mm high	16
CP220	127713	225mm i/d roll top terracotta 300mm high	12
CP225	127714	225mm i/d roll top terracotta 450mm high	18
CP250	128543	250mm i/d roll top terracotta 450mm high	19
CP300	129035	300mm i/d roll top terracotta 450mm high	26
CP350	129359	350mm i/d roll top terracotta 450mm high	32
		Buff	
ACPB150	126370	150mm i/d roll top buff 450mm high	14
ACPB200	130697	200mm i/d roll top buff 450mm high	16
ACPB220	127702	225mm i/d roll top buff 300mm high	12
ACPB225	127711	225mm i/d roll top buff 450mm high	18
ACPB250	128544	250mm i/d roll top buff 450mm high	19
ACPB300	129034	300mm i/d roll top buff 450mm high	26
ACPB350	129358	350mm i/d roll top buff 450mm high	32
Topguards		**Terracotta**	
RGT1	130737	Topguard terracotta 150-250mm i/d	2
RGTL300	130738	Topguard terracotta 300mm i/d	2
RGTL350	130739	Topguard terracotta 350mm i/d	2
		Buff	
RGC1	130742	Topguard buff 150-250mm i/d	2
RGCL300	130740	Topguard buff 300mm i/d	2
RGCL350	130741	Topguard buff 350mm i/d	2
Notice Plate			
C Plate	130696	Chimney notice plate	
Smoke Pellets			
Pellet	130817	Smoke pellets (6 per tube)	

COA : Code on application

Typical Liner Installation Detail

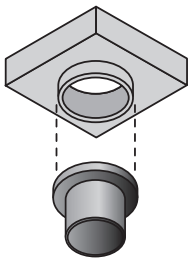
Construction begins by providing a suitable foundation and constructional hearth in accordance with Building Regulations and site requirements.

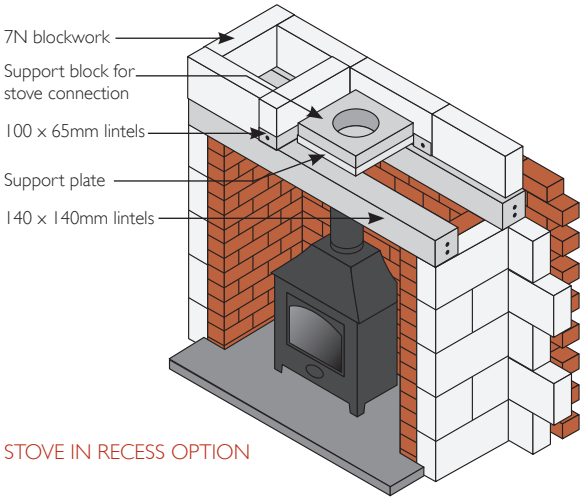
STOVE IN RECESS OPTION

Our pre stressed lintels must be installed above the fireplace recess , for this method a support plate is required under the support block.

Alternatively a suitable cast-in-situ concrete slab lintel can be created above the fireplace recess. (See Isokern standard drawings for hole size depending on diameter of chosen flue).

The support block is bedded onto the slab lintel using weak mix mortar. A stainless steel adaptor is used to connect from the support block to the stove flue pipe. This adaptor is pushed up onto the support block spigot (fibre rope should be used to create a seal). It is recommended to have a minimum of 600mm length of flue pipe before connecting to the chimney.



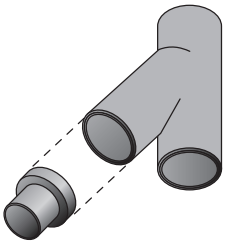


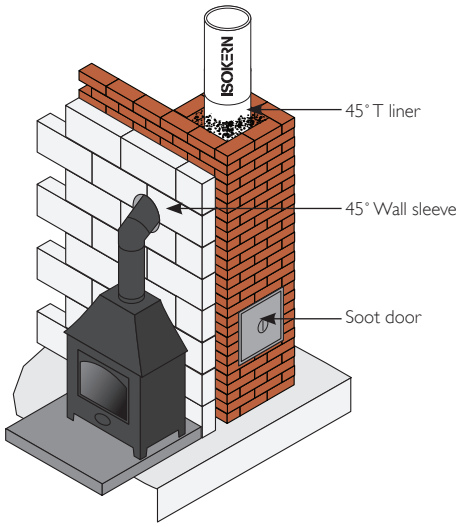
STOVE IN RECESS OPTION

FREE STANDING STOVE OPTION

A soot door must be provided below the flue pipe entry to allow for inspection and removal of soot and debris. A suitable wall sleeve is to be used to seal the cavity wall. Any combustible insulation within the wall must be kept away from the single skin connecting flue pipe by at least 1.5 x its diameter.

A stainless steel adaptor is glued to the Isokern T Liner with lip glue. The flue pipe is a push fit over the spigot on the adaptor. Seal off the gap between the flue pipe and wall sleeve with fire proof rope and closing plate.



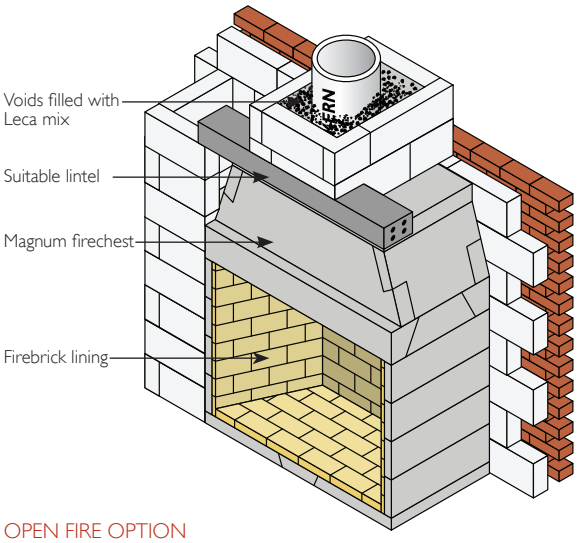


FREE STANDING STOVE OPTION

OPEN FIRE OPTION

Install the firechest onto the constructional hearth using lip glue making sure all elements are level. 100mm of brick or blockwork must be built around the sides and back of the firechest to comply with Building Regulations. The inside of the firechest must be finished with a suitable fireback or firebrick slips.

Install the gather using lip glue making sure all elements are level. The front face of the gather can be finished with plasterboard, rendered or clad in masonry. Lintels may be required above the gather to help carry the brick or blockwork. The maximum loading capacity of the Isokern firechest and gather is 2500kg.

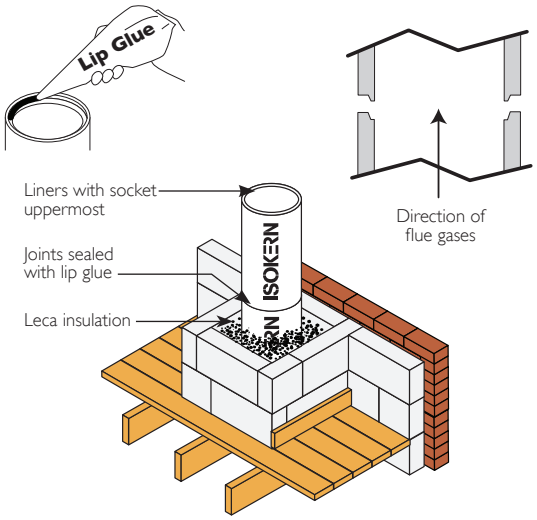


OPEN FIRE OPTION

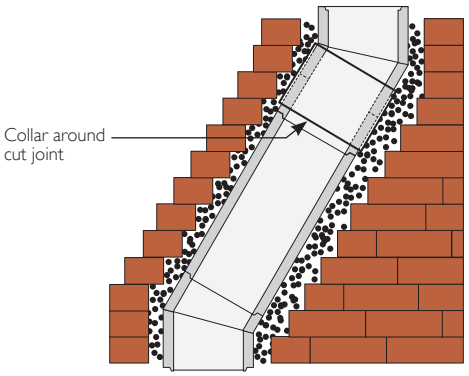
Typical Liner Installation Detail

ALL OPTIONS

The flue liners are installed socket uppermost and sealed with Isokern lip glue. Finished lip glue joints should be 2-3mm thick. A special bag is provided for ease of application and the lip glue should be applied in 12-15mm beads. Remove any excess glue to maintain a smooth surface. Clad the liners with a minimum of 100mm thick brickwork or medium density (7kN) blockwork. A minimum thickness of 15mm leca insulation must be installed between the liners and masonry. Mix 20 parts leca to 1 part opc cement and a small amount of water. Make sure it is well mixed before using.



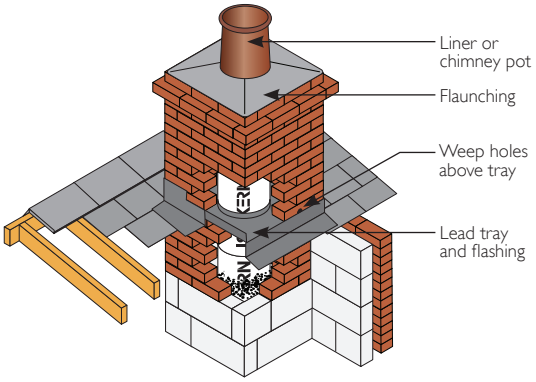
If bends are required in the chimney make sure adequate support is provided and always backfill with leca insulation mix. Liners can be cut between bends to achieve a required offset distance. A steel collar as well as lip glue must be used for any cut joints. A maximum of 2 complete offsets (4 bends) are allowed per chimney and the angle must not be greater than 45° from the vertical.



You must provide adequate clearance from combustible material in accordance with Building Regulations. Combustible materials must be 200mm from the inner surface of flue liner or 40mm from the outside of the masonry chimney unless it is a floorboard, skirting board, dado or picture rail, mantel-shelf or architrave.

Fit appropriate lead dpc's and flashings in accordance with the relevant regulations. Isokern recommend that the lead tray should be dressed up the outside of the flue liners to avoid a weak joint. Weep holes should be provided above the tray for moisture drainage.

Terminate the chimney to the correct height in accordance with document J of the Building Regulations. The chimney can be finished by flaunching (1:3 cement/sharp sand) either around the Isokern flue liner or a suitable chimney pot. Approved rain caps can be used to help prevent water entering the flue.



AFTER COMPLETION

After installation is complete tests and checks should be carried out in accordance with document J of the Building Regulations. A chimney notice plate must be completed and permanently fixed in the dwelling, ideally near the electrical consumer unit. The checklist and notice plate are available from Schiedel Isokern.

USE AND MAINTENANCE

The chimney should be left for at least 72 hours before use, then start with only small fires for the first week and gently increase thereafter.

The chimney should be swept at least twice a year, once before the heating season and once after the heating season. You may need to sweep during the heating season depending upon use. The brush should be a medium density polypropylene bristle type and should be the same diameter as the flue. Steel brushes **must not** be used to sweep Isokern pumice flues.

Always follow the appliance manufacturer's operating instructions. Always burn approved fuels or dry seasoned wood. Avoid burning unseasoned wood and slow burning of solid fuels as this can produce excessive soot and condensation which can in turn cause soot fires and damage. If correctly installed, operated and maintained these systems should last the life of the dwelling.

Useful Charts and Information

FLUE AREA AND LIP GLUE QUANTITY CHART

Int. Diameter of Liners & Flue Blocks (mm)	Ext. Diameter of Liner (mm)	Int. Area of Liner (cm^2)	Approx number of joints per bag of glue
150	200	177	16
175	235	240	14
200	250	314	12
225	285	397	11
250	310	491	10
300	360	707	9
350	416	962	7
400	470	1256	6
450	530	1590	5
500	590	1963	5
600	710	2826	4
DM36 Casing			6
DM44 Casing			5
DM54 Casing			4
DM36 Offset Blocks			5
DM44 Offset Blocks			4
DM54 Offset Blocks			3

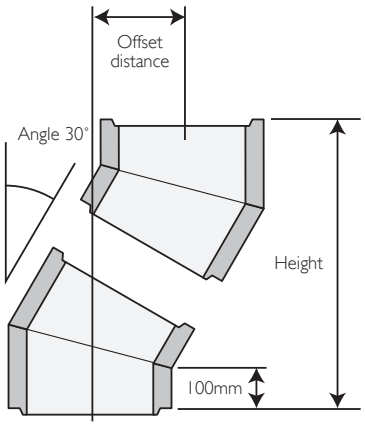
LECA CALCULATION CHART

Int. Diameter of Liner (mm)	Ext. Diameter of Liner (mm)	Int. Size of Chimney (mm)	Bags per Linear metre
150	200	235 x 235	0.48
150	200	235 x 350	1.02
150	200	350 x 350	1.82
175	235	350 x 350	1.58
175	235	350 x 460	2.35
175	235	460 x 460	3.36
200	250	350 x 350	1.47
200	250	350 x 460	2.24
200	250	460 x 460	3.25
225	285	350 x 350	1.17
225	285	350 x 460	1.94
225	285	460 x 460	2.96
250	310	350 x 350	0.94
250	310	350 x 460	1.71
250	310	460 x 460	2.72
300	360	460 x 460	2.20
300	360	460 x 575	3.25
300	360	575 x 575	4.58
350	416	460 x 460	1.51
350	416	460 x 575	2.57
350	416	575 x 575	3.89
400	470	575 x 575	3.14

Useful Charts and Information

OFFSET DIMENSION CHART

Int. Diameter of Liner (mm)	Angle of Bend	Overall Combined Height	Offset Distance (mm)
150	15°	427	56
150	30°	456	122
150	45°	467	194
175	15°	435	57
175	30°	471	126
175	45°	489	202
200	15°	440	58
200	30°	481	129
200	45°	503	208
225	15°	449	59
225	30°	499	134
225	45°	528	219
250	15°	456	60
250	30°	511	137
250	45°	545	222
300	15°	469	63
300	30°	536	144
300	45°	581	240
350	15°	483	63
350	30°	564	151
350	45°	620	257



PAIR OF BENDS

CHIMNEY HEIGHTS

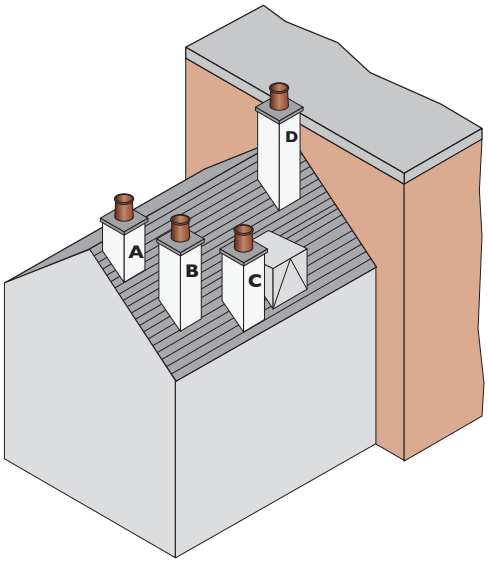
On solid fuel and wood burning applications , the minimum recommended flue height is 4.5m from above the fire place opening or top of the appliance . For shorter flue heights a draft calculation would be required in line with the flue sizing requirements of EN13384-1.

CHIMNEY HEIGHTS ABOVE ROOF

	Point where flue passes through weather surface (Notes 1,2)	Clearances to flue outlets
A	at or within 600mm of the ridge	at least 600mm above the ridge
B	elsewhere on a roof (whether pitched or flat)	at least 2300mm horizontally from the nearest point on the weather surface and: A) at least 1000mm above the highest point of intersection of the chimney and the weather surface: or B) at least as high as the ridge
C	below (on a pitched roof) or within 2300mm horizontally to an openable rooflight, dormer window or other opening (Note 3)	at least 1000mm above the top of the opening
D	within 2300mm of an adjoining or adjacent building, whether or not beyond the boundary (Note 3)	at least 600mm above the adjacent building

NOTES

1. The weather surface is the building external surface, such as its roof, tiles or external walls.
2. A flat roof has a pitch less than 10°.
3. The clearances given for A or B as appropriate will also apply.



For clearances to easily ignitable roof coverings such as thatch refer to diagram 2.2 of Approved Document J 2010 Edition

Useful Charts and Information

VENTILATION REQUIREMENTS

It is very important that sufficient air for combustion and ventilation is provided to the room containing the appliance, to enable correct and efficient working of the appliance and chimney system. Reference should be made to the appliance manufacturer's instructions and recommendations are also given in the Building Regulations Document J, see below:

CARBON MONOXIDE ALARMS

Where a new or replacement fixed solid fuel appliance is installed in a dwelling, a carbon monoxide alarm should be provided in the room where the appliance is located.

The carbon monoxide alarms should comply with BS EN 50291:2001.

The carbon monoxide alarm must be located in the same room as the appliance:

a) On the ceiling at least 300mm from any wall or if it is located on a wall, as high up as possible (above any doors and windows), but not within 150mm of the ceiling and

b) between 1m and 3m horizontally from the appliance.

N.B Provision of a carbon monoxide alarm should not be regarded as a substitute for correct installation and regular servicing.

VENTILATION REQUIREMENTS FOR SOLID FUEL

Type of Appliance	Type and amount of Ventilation (1)
Open appliance, such as an open fire with no throat, e.g. a fire under a canopy as in Diagram 23.	Permanently open air vent(s) with a total equivalent area of at least 50% of the cross sectional area of the flue.
Open appliance, such as an open fire with a throat, as in Diagrams 22 and 29.	Permanently open air vent(s) with a total equivalent area of at least 50% of the throat opening area. (2)

Other appliance, such as a stove, cooker or boiler, with a flue draught stabiliser.	Permanently open air vents as below:
	If design air permeability > 5.0$m^3/(h.m^2)$ then
	300mm^2/kW for first 5kW of appliance rated output
	850mm^2/kW for balance of appliance rated output
	If design air permeability ≤ 5.0$m^3/(h.m^2)$ then
	850mm^2/kW of appliance rated output (4)

Other appliance, such as a stove, cooker or boiler, with no flue draught stabiliser.	Permanently open vents as below:
	If design air permeability > 5.0$m^3/(h.m^2)$ then
	550mm^2/kW of appliance rated output above 5kW
	If design air permeability ≤ 5.0$m^3/(h.m^2)$ then
	550mm^2/kW of appliance rated output (4)

Notes:

1. Equivalent area is as measured according to the method in BS EN 13141-1:2004 or estimated according to paragraph 1.14. Divide the area given in mm^2 by 100 to find the corresponding area in cm^2.
2. For simple open fires as depicted in Diagram 29, the requirement can be met with room ventilation areas as follows:

Nominal fire size (fireplace opening size)	500mm	450mm	400mm	350mm
Total equivalent area of permanently open air vents	20,500mm^2	18,500mm^2	16,500mm^2	14,500mm^2

3. Example: an appliance with a flue draught stabiliser and a rated output of 7kW would require an equivalent area of (5 x 300) + (2 x 850) = 3200mm^2
4. It is unlikely that a dwelling constructed prior to 2008 will have an air permeability of less than 5.0$m^3/h.m^2$) at 50Pa unless extensive measures have been taken to improve air-tightness. See Appendix F.

MAGNUM COMBUSTION AIR REQUIREMENT

Size of Magnum Firechest	Free Air in cm^2	Free Air in mm^2
500	200	20,000
950	248	24,800
1100	338	33,800
1200	385	38,500

MAGNUM FIREBRICK, LIP GLUE & MORTAR QUANTITY

Size of Magnum Firechest	25mm thick Bricks	50mm thick Bricks	Lip Glue	Firebrick Mortar
500	Included	Included	2	Included
950	40	34	5	2
1100	40	44	6	2
1200	40	48	6	2

Please note the base bricks should be laid loose.

Firechests

The ideal solution for creating open fires. The finished appearance is down to individual taste using one of the many fireplace surrounds on the market.

The Schiedel Isokern firechest complements the Isokern chimney systems which are designed to create a complete system, avoiding many of the variable factors that lead to draught problems and smoky fireplaces.

The Isokern firechest range is cast using lightweight, highly insulating pumice. The components interlock like pieces of a three dimensional jigsaw to form a sturdy, robust fireplace recess and gather. The joints are sealed using lip glue jointing compound. Starting from a suitable foundation and constructional hearth, assembly of the complete firechest and gather could take less than one hour.

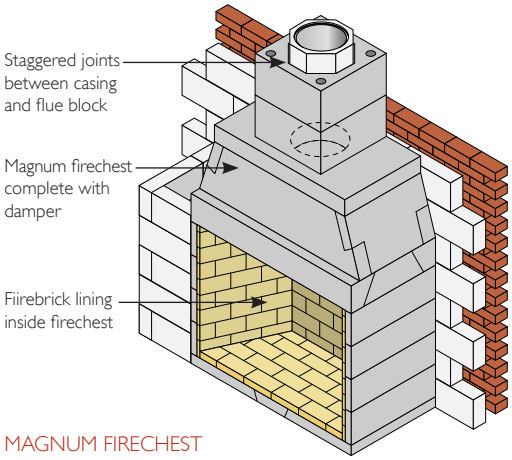
The range includes firechests with fire opening widths from 500 to 1250mm. Each firechest is packed on a pallet with detailed assembly instructions. The firechest is load bearing and will carry up to 2600kg of chimney above, although you may exceed this weight with the use of additional lintels.

The Magnum Firechest Range

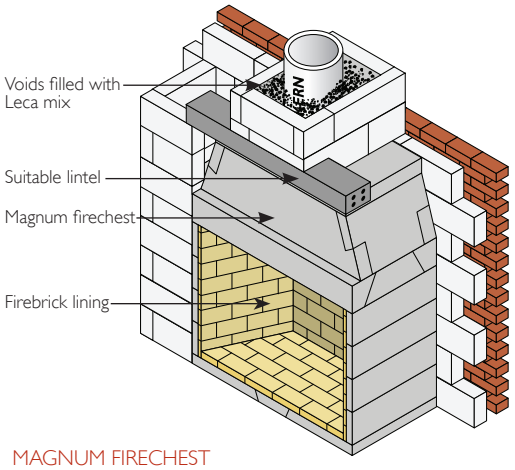
The Magnum Firechest range has been designed to maximise the burning efficiency of wood in an open fire. The specially shaped fire chamber facilitates the efficient burning of wood logs to give efficiencies from 41% to 45%, depending on the model chosen. The firechests are tested to EN13229.

DAMPER

A flue damper is available in the Magnum range of firechests. In wood burning installations the flue damper can be used to control the draft in the flue and avoid excessive heat loss when the fireplace is not being used. This is reflected in the SAP calculation for Document L. The inclusion of the damper will halve the chimney ventilation rate in the SAP calculation. It must not be installed with gas fires.



MAGNUM FIRECHEST
WITH DM SYSTEM CHIMNEY



MAGNUM FIRECHEST
WITH PUMICE LINERS

Downloadable drawings available from our web site
www.schiedel.co.uk

Firechests

Magnum Firechests

Old Code	SAP Code	Model	Opening Width (mm)	Opening Height (mm)	Ext. Width (mm)	Ext. Height (mm)	Ext. Depth (mm)	Weight (kg)
80120	130773	500	510	540	685	1540	440	390
82036	129371	950	990	960	1090	1761	710	715
82042	129568	1100	1130	960	1230	1761	710	790
82048	129767	1200	1246	960	1346	1761	710	845

Magnum 500 Inside Flue diameter 200mm
Magnum 950 - 1200 Inside Flue diameter 350mm

Manor Gathers

SAP Code	Model	Inside Flue Dia. (mm)	Internal Width (mm)	Ext. Width (mm)	Ext. Height (mm)	Ext. Depth (mm)	Weight (kg)
133463	900 Centre Hole	350	933	1086	525	640	140
135267	900 Offset Hole	350	933	1086	525	640	140
135280	1150 Centre Hole	350	1191	1350	930	640	268
135279	1150 Offset Hole	350	1191	1350	930	640	268

Standard Firechest

Old Code	SAP Code	Opening Width (mm)	Opening Height (mm)	Ext. Width (mm)	Ext. Height (mm)	Ext. Depth (mm)	Weight (kg)
85022	130820	690	660	850	660	450	100

Pumice Gathers

Old Code	SAP Code	Model	Internal width (mm)	Inside Flue Dia. (mm)	Ext. Width (mm)	Ext. Height (mm)	Ext. Depth (mm)	Weight (kg)
85020	130822	Liner	690	225	850	600	450	100
85021	130729	DM44	690	200	850	600	450	100

Concrete Gathers

Old Code	SAP Code	Inside Flue Dia. (mm)	Internal Width (mm)	Ext. Width (mm)	Ext. Height (mm)	Ext. Depth (mm)	Weight (kg)
C15	130698	200	600	800	225	450	110
C16	130699	225	600	800	225	450	110
C17	131200	250	800	1000	300	550	130
C18	131201	300	800	1000	300	550	130

Firebricks and Firebacks

Old Code	SAP Code	Description	Weight (kg)
00179	112562	Firebrick 230 x 114 x 25mm buff	1.6
00180	115281	Firebrick 230 x 114 x 50mm buff	2.8
50383	130753	Firebrick mortar	20
FB450	129735	450mm milner scored clay fireback	42.5

IGNIS-PROTECT

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

Use of 90° Ignis-Protect System in accordance with BS EN 15287-1 Acceptable alternative methods of connection methods

Where a horizontal connecting flue of more than 150mm is required to connect a solid fuel fired appliance to a chimney, an installation method as per the examples below may be used provided the following criteria is met:-

a) The maximum length of horizontal connecting flue pipe does not exceed 450mm;

b) A Defra exempt appliance or an appliance, which is limited to burning authorised smokeless fuel only, is installed;

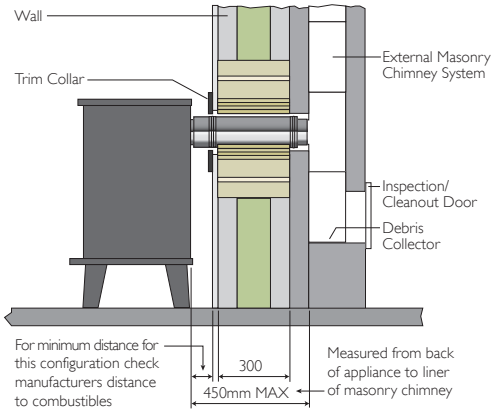
c) A calculation according to BS EN13384-1 has indicated safe operation of the proposed configuration, and the results of the calculation are left with the householder along with the appliance installation instructions;

d) The appliance manufacturer agrees in writing to the proposed configuration;

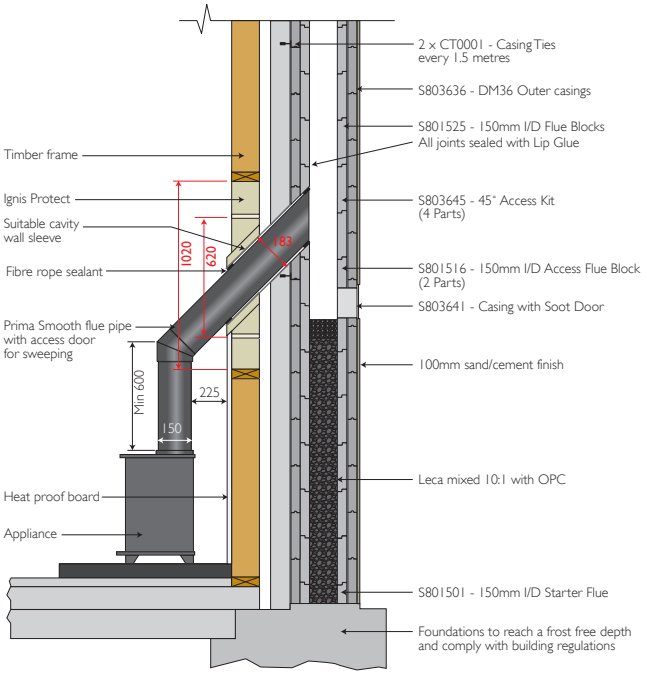
e) The chimney manufacturer agrees in writing to the proposed configuration;

f) The total length of single wall connecting flue pipe is not more than 1.5m;

g) The appropriate distances to combustible materials from both the appliance and the connecting flue pipe are maintained.



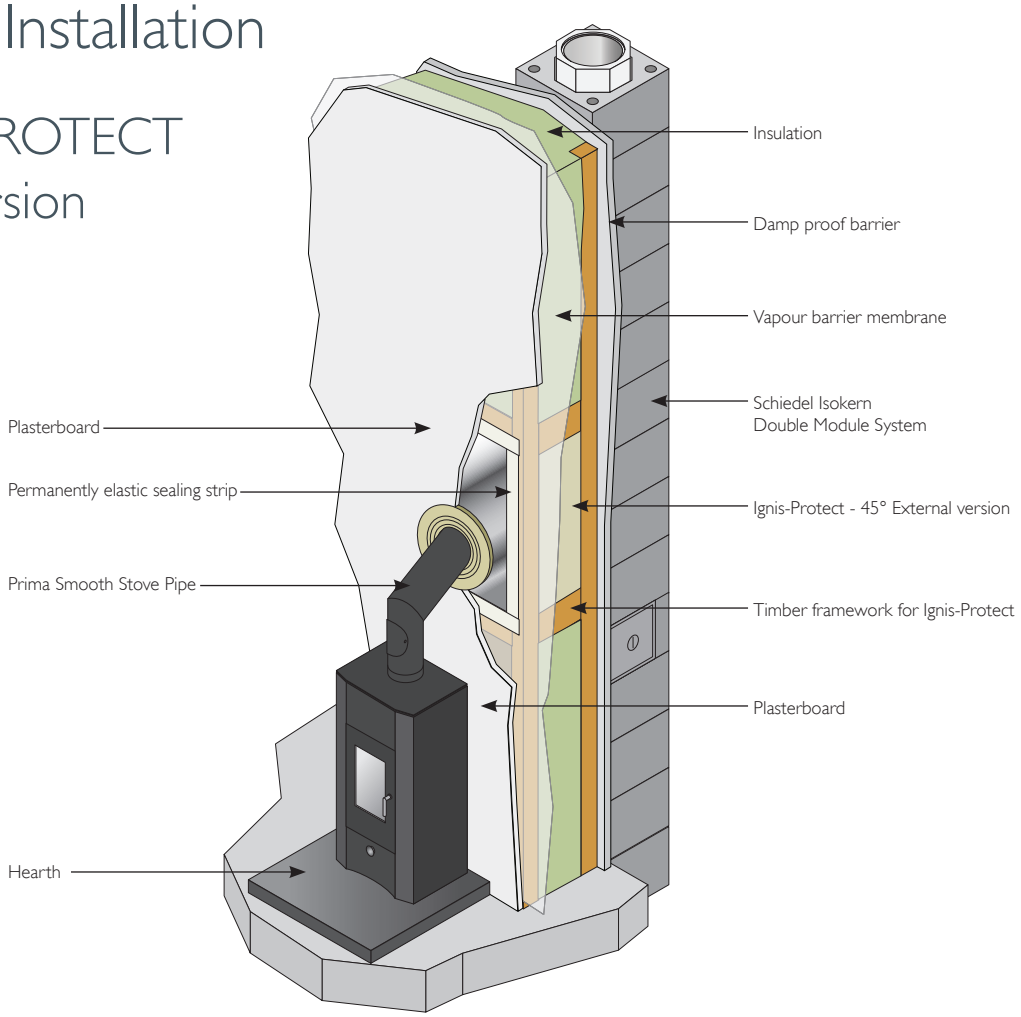
REAR OUTLET TWIN WALL CONNECTING FLUE PIPE INTO EXTERNAL MASONRY CHIMNEY THROUGH A WALL



ISOKERN DM WITH IGNIS PROTECT ON TRADITIONAL TIMBER FRAME WALL

Typical Installation

IGNIS-PROTECT - 45° Version



Components

CP Ignis-Protect	SAP Code	Thickness (mm)	Dims H x W (mm)	Pallet Quantity	Price
90° Version	101841	150	700 x 565	12	£189.00
	101842	200	700 x 565	9	£243.02
	101843	250	700 x 565	6	£293.42
	101844	300	700 x 565	4	£324.62
	101845	350	700 x 565	4	£362.63
	101846	400	700 x 565	2	£404.98
45° Version	COA	100	1020 x 565	18	£134.87
	COA	150	1020 x 565	12	£198.00
	COA	200	1020 x 565	9	£265.87
	COA	250	1320 x 565	6	£430.51
	COA	300	1320 x 565	4	£516.10
	COA	350	1320 x 565	4	£602.03
	COA	400	1320 x 565	2	£680.76
	144032	450	1320 x 565	2	£877.27
	144033	466	1320 x 565	2	£919.70
	144034	500	1320 x 565	2	£1,050.44

COA: code on application

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ECO ICID

The NEW highly Insulated Twin Wall System Chimney for stoves.

- Easy twist lock connection
- Effective insulation
- 125-200mm 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

TECNOFLEX PLUS

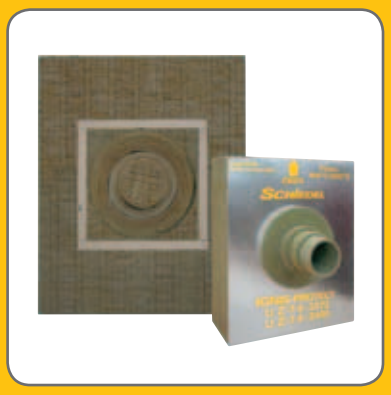
For relining existing chimneys to take gas, oil, wood, multi-fuel appliances and open fires.

- Twin skin TecnoFlex Plus available in 316L or 904L options for oil, wood, multi-fuel & open fires
- 80-300mm Diameter range

ICS

Twin Wall Insulated System Chimney for gas, oil and multi-fuel applications.

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



IGNIS-PROTECT

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

ABSOLUT XPERT

Absolut XPert is part of the new innovative ceramic range of System Chimneys for Energy Efficient and Passivhaus construction.

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