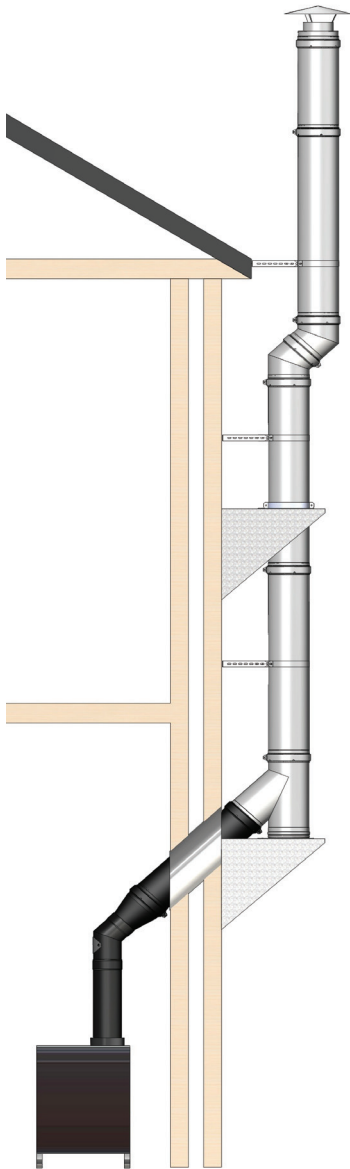




SYSTEM 2

Twin Wall Insulated Stainless Steel Multi Fuel Chimney System



C E 0120



Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Introduction

Mi-Flues System 2 is a factory made twin wall insulated stainless steel chimney system. It is suitable for use on solid fuel, oil and gas applications. It can also be used in high efficiency condensing applications.

Mi-Flues System 2 must be connected to the connecting flue pipe and not to the appliance itself on all solid fuel applications.

For all appliances please refer to the Manufacturers installation instructions.

Product Description

Mi-Flues System 2 is manufactured from three distinct materials. The combination of the three, yields a product with a high thermal resistance due to the materials used.

The design, having almost no thermal bridging between the chimney liner and body, ensures a quick stabilization of flue gas temperatures and the existence of a strong draught. This enhances the performance of the appliance.

It is constructed from concentric cylinders commonly referred to as the chimney liner and body.

The body is made from 304 grade stainless steel which carries the structural load. It has a bright polished finish and is weather proof due to its high quality continuously seam welded finish. Mi-Flues System 2 is also available as standard in a black finish in 125mm and 150mm diameters (larger diameters are available on request—please contact Mi-Flues for details on lead times).

The liner of the flue is made from 316 grade stainless steel and is designed to automatically cope with the thermal elongation due to changes in temperature. It also offers excellent resistance against corrosion due to its molybdenum alloy content. The chimney is insulated with a densely packed insulation which results in a low heat conductivity to the walls of the chimney.

Approvals

Mi-Flues System 2 is manufactured and conforms to EN 1856-1 and is tested to the requirements of EN1859 to the performance designation below:

EN 1856-1 T450 N1 D Vm L50040 G60

EN 1856-1 T200 P2 W Vm L50040 O60

Components

Mi-Flues offers a wide range of prefabricated components allowing complete flexibility to meet today's demanding applications. The system comprises of straight lengths, adjustable lengths, bends, tees and a wide range of accessories. Care should be taken as some components are not suitable for condensing applications (as indicated).

Assembly instructions for all components which are supplied unassembled are available in this brochure, on our packaging labels and/or through our website.

Where 'Int Dia' is shown throughout in tables this refers to the Internal Diameter of the flue.

Where 'Ext Dia' is shown throughout in tables this refers to the External Diameter of the flue.

Application

Mi-Flues System 2 is ideal for installation in residential, commercial or industrial heating applications. It is quick and easy to install.

Mi-Flues System 2 can be installed internally or externally as an independent chimney system (see page 15 for illustrations). Installation should always be in accordance with Building Regulations, Document J.

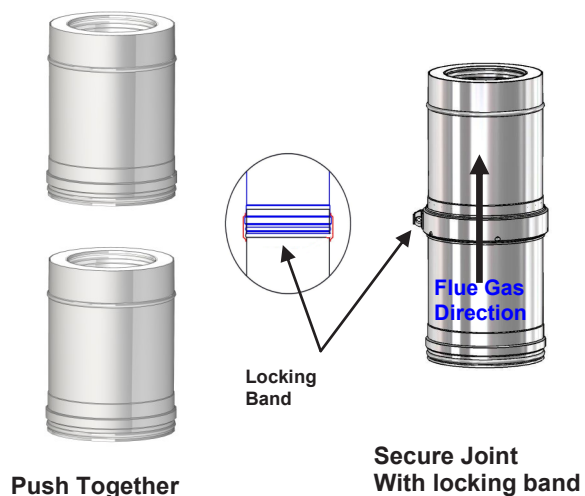
An appropriate seal must be used with every component when used on a condensing application, two seals in the case of an adjustable length. Where System 2 is being used in a condensing application adequate provision must be made for the removal of condensates from the system. Our product range includes specific components which enable the chimney system to be installed so that condensates will run back through the system to suitable drainage points.

Joint Assembly

Mi-Flues System 2 chimney products incorporate a unique jointing system. All components have been specially developed. To join System 2 components simply push the components in question firmly together ensuring the product label flue gas directional arrow points upwards. To secure, tighten the nut and bolt on the locking band (taking care to note the directional arrow on it) as shown on the illustration below. Each component comes with a locking band where required. The cutting of elements is prohibited as it will remove the unique jointing system.

Locking Band

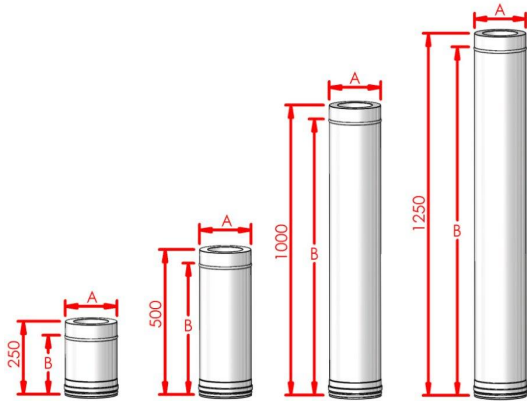
The unique jointing system, along with the locking band system, both strengthen the joints and ensures the excellent gas tight properties of the chimney. Care must be taken to install the locking band as per its directional arrow.



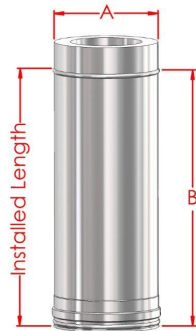
Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Lengths

Mi-Flues System 2 is available in standard lengths as shown below.



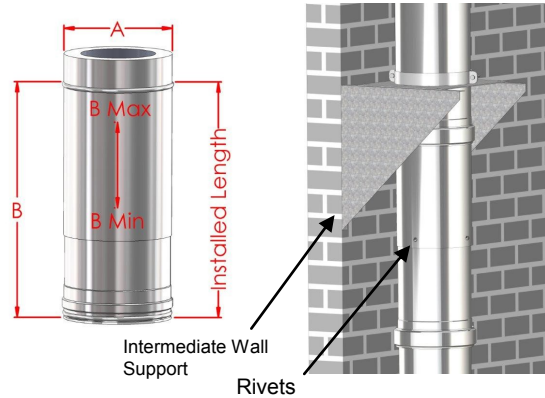
Lengths come in six standard diameters 80mm, 100mm, 125mm, 150mm, 180mm and 200mm. To confirm the working length please refer to the chart below. Always install the chimney as pointed out by the directional arrows attached to the main chimney body.



Int. Dia.	80	100	125	150	180	200
Ext. Dia. (A)	125	150	180	200	225	250
B 1250	1196	1196	1196	1196	-	-
B 1000	946	946	946	946	946	946
B 500	446	446	446	446	446	446
B 250	196	196	196	196	196	196

Adjustable Length

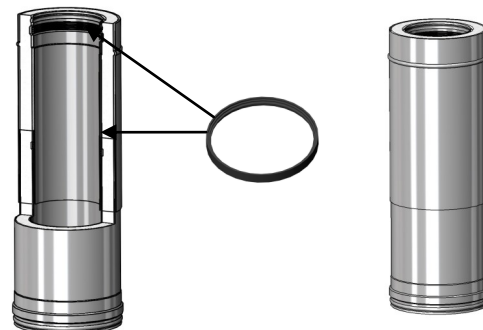
This component is designed to provide onsite adjustment and is used where accurate linear movements are required. This is a non load bearing telescopic pipe and at its full extension must have a telescopic overlap of at least 80mm. A wall support must be used on the component directly above the adjustable length to support the chimney run. Four by equidistant holes must be drilled on the telescopic body to allow for fitting 5mm stainless steel rivets.



Int. Dia.	80	100	125	150	180	200
Ext. Dia. (A)	125	150	180	200	225	250
B Max.	490	490	490	490	490	490
B Min.	340	340	340	340	340	340

Seals

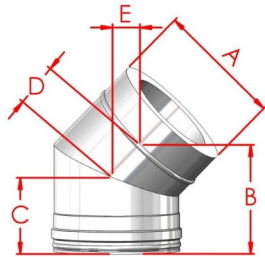
For Condensing applications an appropriate seal must be used with each component. If using a seal ensure the protruding lips on the seal are lubricated with a suitable lubricant and that the mating male end is free of dirt or grit. If fitting an adjustable length two seals are needed (as shown below) ; one in the top section of the component and one on the bottom of the component.



Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

45° Bend

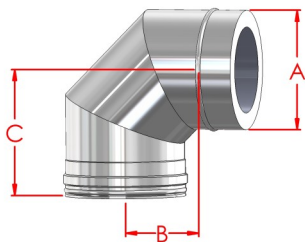
A 45° bend is used to create a change in direction in a flue run. This component is developed in two segments. They are usually used in pairs, the first to create the offset and the second to turn the chimney to its original vertical position. Two by 45° bends can be used to create a 90° bend.



Int. Dia	80	100	125	150	180	200
Ext. Dia (A)	125	150	180	200	225	250
A	125	150	180	200	225	250
B	138	142	155	162	182	191
C	100	109	115	115	126	131
D	57	60	67	75	78	84
E	42	43	45	54	55	59

90° Bend

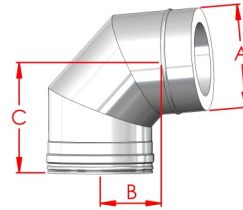
A 90° bend is used to create a change in direction in a flue run and is developed in three segments. It may be taken as being equal to two 45° bends.



Int. Dia	80	100	125	150
Ext. Dia (A)	125	150	180	200
A	125	150	180	200
B	110	115	140	148
C	150	164	187	205

85° Bend

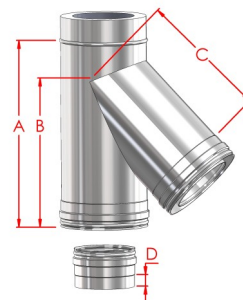
An 85° bend is used to create a change in direction in a flue run. Used in condensing applications where a 5° fall back to the horizontal is required for condensate drainage.



Int. Dia	80	100	125	150	180	200
Ext. Dia (A)	125	150	180	200	225	250
A	125	150	180	200	225	250
B	110	115	140	148	153	164
C	150	164	187	205	217	229

45° Tee (not suitable for condensing)

A 45° Tee is used to create a bend in a flue run. It can be used to change a chimney run from a horizontal to a vertical run when used with a 45° bend. This component minimises the resistance to flow because of the angle created with the vertical axis. This component comes complete with a removable inspection cap. Mi-Flues can also provide a tee complete with drain plug on request.

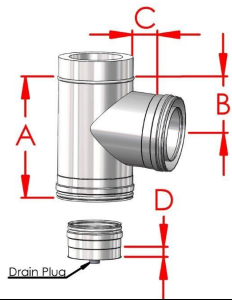


Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	312	320	380	391	440	452
B	227	260	312	329	362	375
C	181	213	255	284	309	334
D	20	20	20	20	20	20

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

85° Tee with drain

Used at the base of a vertical chimney this component allows for a 5° fall back on condensing systems to allow for condensate drainage.

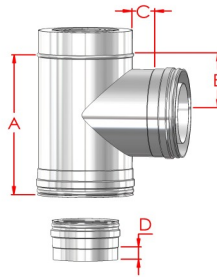


Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	260	260	286	306	347	363
B	108	107	121	131	152	160
C	44	32	44	44	34	37
D	20	20	20	20	20	20

90° Tee (not suitable for condensing)

A 90° Tee is used to create a bend in a flue run. It is used to change a chimney run from a horizontal run to a vertical run.

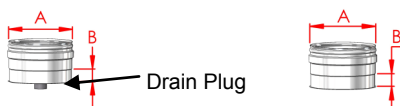
This component comes complete with a removable inspection cap. It may also be used for the fitting of a draught stabilizer device.



Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	260	260	286	306	347	363
B	108	107	121	131	152	160
C	44	32	44	44	34	37
D	20	20	20	20	20	20

Tee Cap with drain or without drain

A Tee cap is used to close off a tee. It provides access for inspection and cleaning. A Tee cap with a drain is used at the bottom of a vertical chimney to facilitate the drainage of condensate from the system.

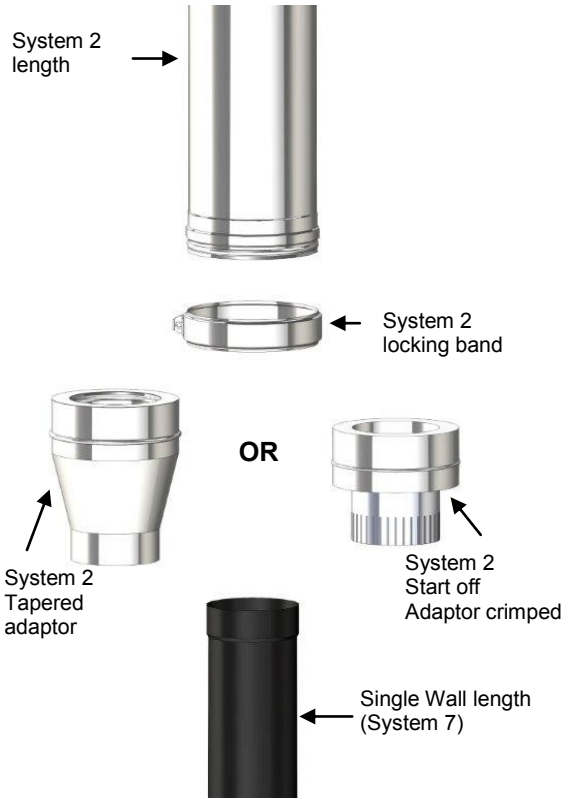


Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	80	100	125	150	180	200
B	20	20	20	20	20	20

Adaptor

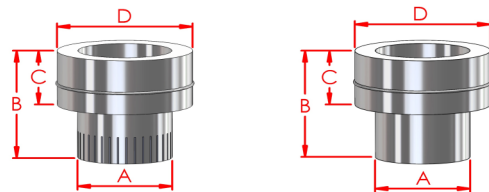
Single Wall to Twin Wall Adaptor installation

A System 2 Tapered or Start Off adaptor can be used, as shown, to connect to a single wall connecting flue pipe. (A Crimped adaptor as shown is not suitable for condensing applications.)



Start Off Adaptor

An adaptor is used to join a single wall connecting flue pipe to a twin wall system. They can be manufactured to suit condensing applications without a crimp as shown below.



Not suitable for condensing

Suitable for condensing

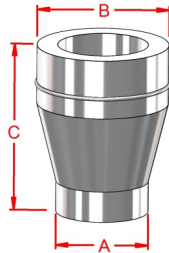
Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	80	100	125	150	180	200
B	157	157	157	157	157	157
C	82	82	82	82	82	82
D	125	150	180	200	225	250

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Adaptor—Tapered

A tapered adaptor is used to join a single wall connecting flue pipe to a twin wall system. They are manufactured in standard 125mm and 150mm Diameters.

Int Dia	125	150
Ext Dia	180	200
A	125	150
B	180	200
C	220	220

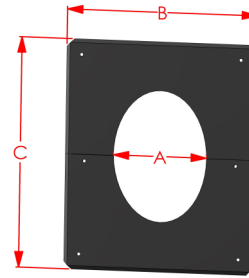


45° Rosette Plates

The Rosette plate is used for aesthetic purposes to improve the finish of a flue as it penetrates a wall. They are available in a split format for retro fitting. Rosette plates are available to suit 45° angles.

Each rosette plate comes individually packaged for ease of handling and storage.

The pack contains two half plates along with six wall plugs and six screws. These are used to secure the plates around the chimney; two at the top, two in the middle and two at the bottom.



Adaptor—Reducing

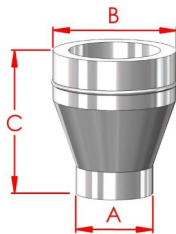
(stepped and crimped are not suitable for condensing)

A reducing adaptor is used to join a single wall connecting flue pipe to a twin wall chimney. They are manufactured in diameters 100mm, 125mm, 150mm, 180mm and 200mm as standard.

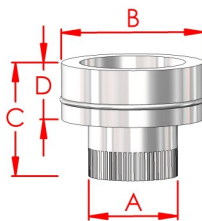
The diameter of the flue used in an installation must be equal to or higher than the outlet of the appliance. The flue diameter cannot be less than the diameter of the appliance.

The reducing adaptor is also available in a tapered reducing version in 150mm diameter.

Int Dia	125	150
Ext Dia	180	200
A	183	204
B	373	384
C	448	468



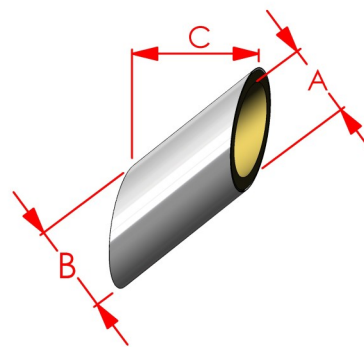
Int. Dia	150
Ext. Dia	200
A	125
B	200
C	230



Int. Dia	100	125	150	180	200
Ext. Dia	150	180	200	225	250
A	80	100	125	150	180
B	150	180	200	225	250
C	154	154	154	154	154
D	80	80	80	80	80

45° INSULATED SLEEVE

An insulated sleeve is used to pass a flue through an external wall thus providing a continuous uninterrupted run through a wall. It is designed to suit a maximum wall thickness of 300mm.



Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	125	150	180	200	225	250
B	192	221	247	272	307	327
C (Wall Thickness)	300	300	300	300	300	300

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Terminal

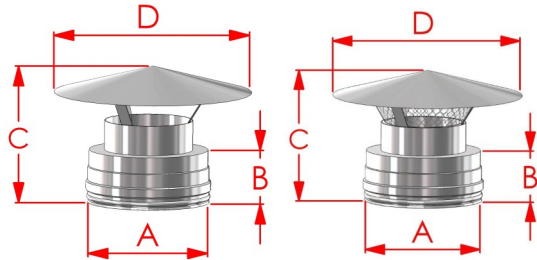
Finishing Cone



A Finishing Cone offers the least resistance to flue gases and is ideal for use on solid fuel and oil fired appliances where there is drainage at the base of the chimney. The chimney remains open at the top but the cone ensures the insulation in the final flue length is sealed.

Int Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
A	80	100	125	150	180	200
B	125	150	180	200	225	250
C	235	235	235	235	235	235

Cowl (Rain Cap) —not suitable for condensing



Suitable for Gas installations

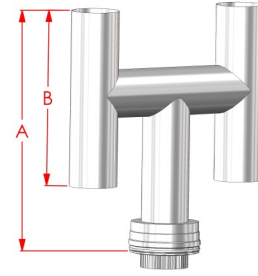
A cowl is the top rain cap for a chimney. Its purpose is to stop the infiltration of rain or snow to the inside of the chimney. It does not impede the movement of the products of combustion. It is pushed down into the last length of the installation and secured with a locking band.

(This cowl is also available for gas installations with the addition of an appropriate gas mesh, as shown above).

Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	125	150	180	200	225	250
B	82	82	82	82	82	82
C	220	220	220	220	245	245
D	228	228	228	228	335	335

TERMINAL

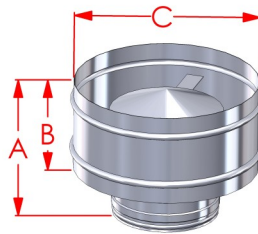
H Cowl—not suitable for condensing



A H cowl is used to reduce the possibility of down draught problems occurring. It is pushed down into the last length of the installation and secured with a locking band.

Int Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
A	592	592	751	751	795	900
B	350	350	457	457	490	560

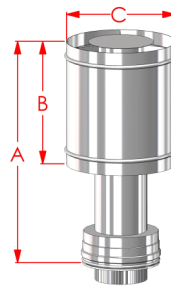
Storm Cowl—not suitable for condensing



A storm cowl is a rain cap which is used in exposed areas subject to high wind conditions. It reduces the possibility of the wind affecting the appliance. This cowl is popular for use with wood pellet and wood chip applications.

Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	245	245	245	245	245	245
B	155	155	155	155	155	155
C	250	272	295	320	347	370

Anti Downdraught Cowl—not suitable for condensing



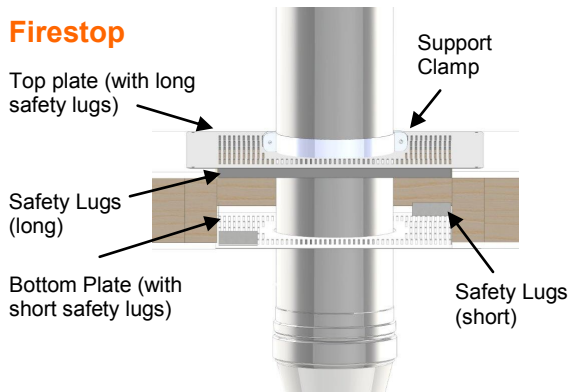
An Anti Down draught cowl is used to reduce the possibility of a down draught problem occurring. It is pushed down into the last length of the installation and secured with a locking band.

Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	529	529	545	564	764	919
B	250	250	250	305	356	405
C	185	205	230	276	322	369

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

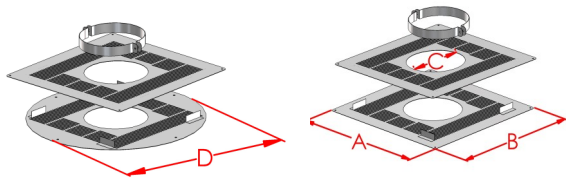
Support Components and assembly instructions

Firestop



A Firestop is used where a chimney penetrates a ceiling or joist area. It consists of two stainless steel plates and a support clamp. Its purpose is to centralise the chimney and maintain an 60mm gap to combustible materials. It also acts as a load bearing support member due to its support clamp.

A round shaped bottom plate is also available (as shown).



Int.Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
A	365	390	420	440	465	490
B	365	390	420	440	465	490
C	135	160	190	210	235	259
D	366	402	444	473	508	543

Each Firestop comes individually packaged complete with installation instructions shown on the packaging label.

The contents of each box are as follows:

2x Firestop Plates

1x Firestop Support Clamp

Installation Instructions

Install Firestop as per above illustration ensuring that no combustible material passes the safety lugs. This will ensure the required 60mm clearance distance is achieved.

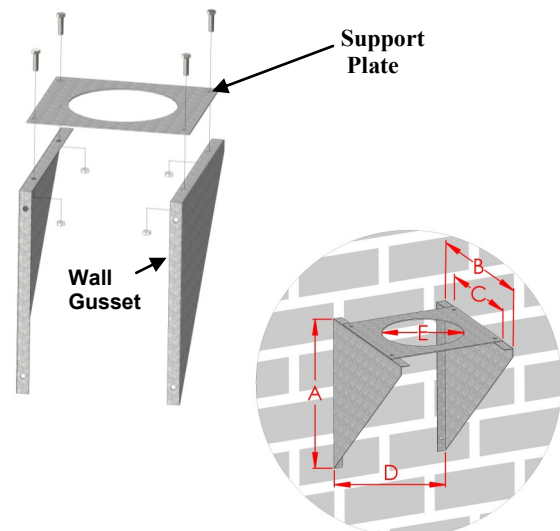
The bottom firestop plate, shown above complete with short safety lugs, should be drilled and screwed to the ceiling joist. (Screws not included)

The top firestop plate, shown above complete with long safety lugs) rests on the joist/floor and should be drilled and screwed to the floor. (Screws not included). When both firestop plates are in position the System 2 chimney components should be passed through the plates ensuring no joints occur within the joist/firestop plate area.

Strap the firestop support clamp around the chimney body directly above the top firestop plate thereby transferring the weight to the top firestop plate.

Support Components and assembly instructions

Base Wall Support



Int Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
A	-	-	347	347	347	347
B	-	-	347	347	347	347
C	-	-	222	222	322	322
D	-	-	272	272	322	322
E	-	-	137	162	195	222

Base Wall Support

A base wall support is used to support a tee section on a vertical run of chimney. It is bolted to a main frame or wall face using fixings adequate for the purpose (fixings not included). The minimum distance from the chimney body to wall face is 60mm. For maximum run of flue on a base wall support see section marked Supports (page 13). A base wall support can only be used with a 90° Tee, 85° Tee or 45° Tee.

Each Base Wall Support comes individually packaged complete with fitting instructions on the packaging label.

Contents as follows:

2x Wall Gussets

1x Support Plate

4x M8 Nuts

4 x M8 x 30mm Bolts

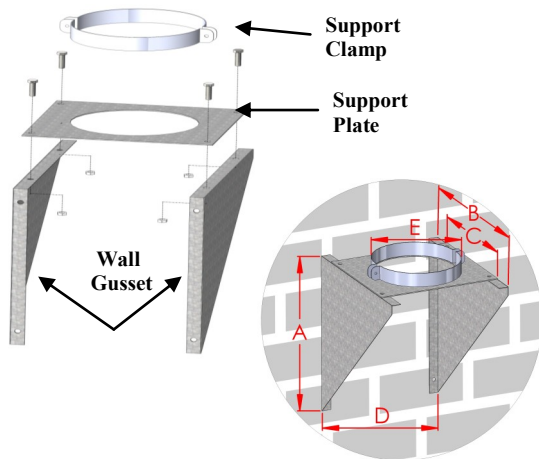
To install base wall support, attach support plate to wall gussets as per above illustration.

To fit System 2 tee section, allow inner liner to pass through the hole in the support plate until body of the tee section rests on the plate. (See Illustration of External Twin Wall Flue application on page 15)

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Support Components and assembly instructions

Intermediate Wall Support



Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	347	347	347	347	347	347
B	347	347	347	347	347	347
C	222	222	248	272	322	322
D	272	272	272	272	322	322
E	135	162	188	210	240	260

An intermediate wall support is used as a weight support on a main run of chimney. It comes complete with a support clamp which is attached to the body of the chimney and is supported by the support plate. The Intermediate Wall Support is bolted to a main frame or wall face using fixings adequate for the purpose (fixings not included). The minimum distance from the chimney body to the wall face is 60mm. For maximum run of flue on an intermediate wall support see section marked 'Supports' (page 13).

Each Intermediate Wall Support comes individually packaged with installation instructions shown on the packaging label

The contents are as follows:

- 2x Wall Gussets
- 1x Support Plate
- 4x M8 x 30mm Bolt
- 4 x M8 Nuts
- 1x Support Clamp

Installation Instructions

To install intermediate wall support, attach support plate to wall gussets as per above illustration, using fixings supplied. To fit the System 2 component, tighten support clamp onto chimney body in desired location. Pass component section through hole in support plate until clamp on chimney body section rests on support plate.

Support Components and assembly instructions

Adjustable Wall Bracket

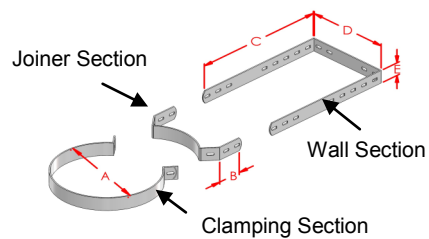
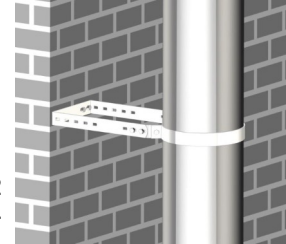
A wall bracket provides lateral support to a chimney run. It is not a load bearing support and should be used at 1.5 meter intervals.

This component is adjustable between 60mm – 250mm of a wall face.

A wall bracket is bolted to a main frame or wall face as per below illustration, using fixings adequate for the purpose (fixings not included).

Each bracket comes individually packaged with the following included:

- Wall Section x 1
- Joiner Section x 1
- Clamping Section x 1
- M6x25mm Hex Head Bolt x 2
- M6x12mm Hex Head Bolt x 4
- M6 Nut x 6

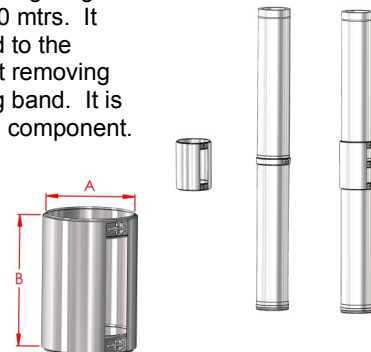


Int Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
A	125	150	180	200	225	250
B	45	45	45	45	45	45
C	258	258	258	258	258	258
D	152	152	152	152	152	235
E	20	20	30	30	30	30

Structural Locking Band

A structural Locking Band can be used to increase the available free standing height from 1.5 mtrs to 3.0 mtrs. It should be attached to the current flue without removing the existing locking band. It is a non load bearing component.

An Intermediate wall support should be fitted below it to support the weight of the additional length. (See support section page 13)

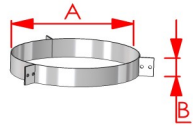


Int Dia (A)	125	150	180	200	225	250
Ext Dia (B)	300	300	300	300	300	300

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Support Components and assembly instructions

Guy Wire Bracket



A guy wire bracket is used to brace a chimney when it protrudes more than 1.5 metres beyond its last support. It is clamped to the flue body and allows for the fixing of guy wires to rigid stays. The guy wires are located at 120° angles around the flue. It is recommended that at least 4mm diameter wire is used. (Wire and fixings not included).

Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	125	150	180	200	225	250
B	30	30	30	30	30	30

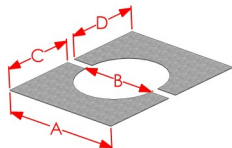
Roof Centering Plate

A roof centering plate is used to stabilise a chimney as it protrudes through a pitched roof. It provides lateral support only and is not a load bearing support.

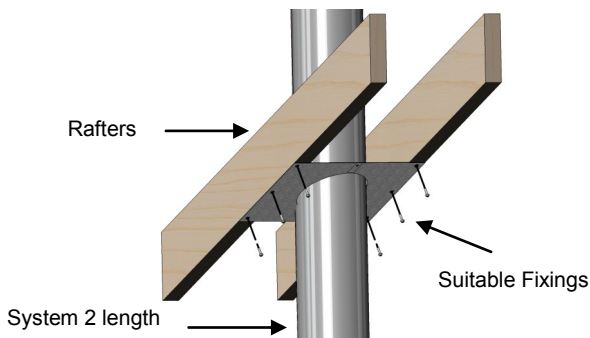
Installation Instructions

The Roof Centering Plate must be positioned around the chimney and screwed to the underside of the pitched roof.

Drill holes in the plate and secure with fixings adequate for the purpose (Fixings not included).



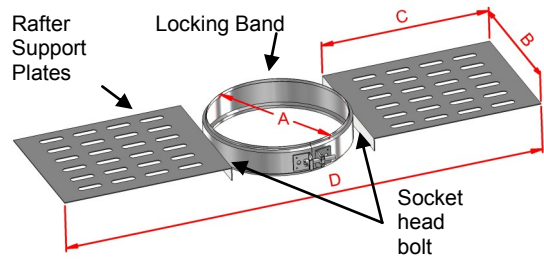
Roof Centering Plate installation through pitched roof



Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	407	407	455	455	455	455
B	130	155	182	207	230	255
C	188	188	225	226	215	252
D	188	188	225	226	215	252

Support Components and assembly instructions

Rafter Support



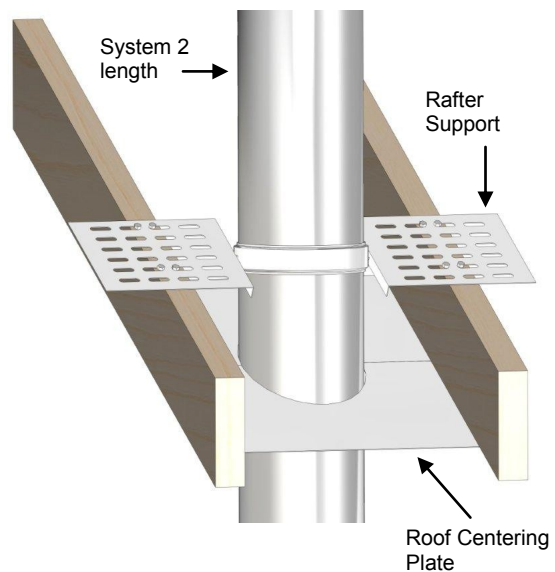
Int. Dia	80	100	125	150	180	200
Ext. Dia	125	150	180	200	225	250
A	125	150	180	200	225	250
B	150	150	150	150	150	150
C	200	200	200	200	200	200
D	535	560	590	610	635	660

Each Rafter Support comes with instructions. (Fixings are not supplied by Mi-Flues).

Installation Instructions

A rafter support is used to support the chimney as it passes through a roof. The rafter support plates must be bolted to the locking band using the socket head bolts provided. The locking band must then be fitted and tightened around the flue and the support plates secured to the top side of the rafters with fixings adequate for the purpose (fixings not included).

Rafter Support Installation complete with roof centering plate



Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

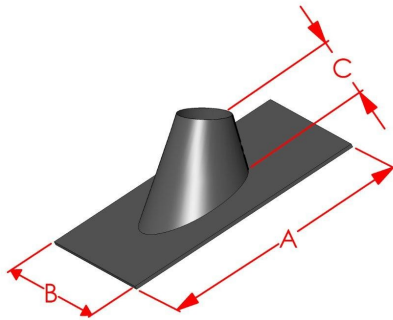
WEATHERING AND FLASHINGS

Lead Flashing (0° - 38°)

A lead flashing is used to seal an insulated chimney as it protrudes through a pitch roof. The adjustable lead flashing suits all pitches between 0° and 38°.

Installation Instructions

To install, work the base of the flashing into the roof structure to ensure a rain water run off situation is achieved. The top of the upstand section of the lead flashing in contact with the chimney should be adjusted to ensure it is tight to the outer body of the chimney. A lead flashing must be used in conjunction with a storm collar.

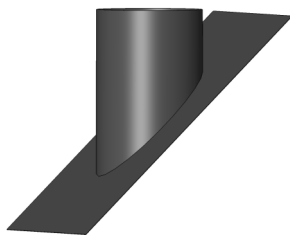


Lead Flashing (45°)

A lead flashing is used to seal an insulated chimney as it protrudes through a pitch roof. This flashing suits all pitches between 39° and 50°.

Installation Instructions

To install, work the base of the flashing into the roof structure to ensure a rain water run off situation is achieved. The top of the upstand section of the lead flashing in contact with the chimney should be adjusted to ensure it is tight to the outer body of the chimney. A lead flashing must be used in conjunction with a storm collar.



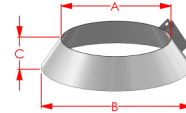
Other available Lead Flashings

Int Dia	80	100	125	150	180	200
Ext Dia	125	150	180	200	225	250
Available in roof pitch	0° 30° 45°	0° 30° 45°	0-38° 39°-50°	0-38° 39°-50°	0° 30° 45°	0° 30° 45°
A	450	450	710	710	710	710
B	450	450	600	600	600	600
C	150	150	150	150	150	150

WEATHERING AND FLASHINGS

Storm Collar

A storm collar must be used in conjunction with a lead flashing. It is attached to the body of the chimney just above the lead flashing (see illustration below). It is used to direct rainwater away from the top of the lead flashing and should be sealed with high temperature sealant. (Sealant not supplied).

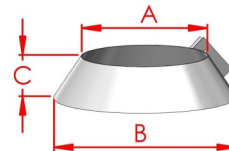


Int.Dia	80	100	125	150
Ext.Dia.	125	150	180	200
A	125	150	180	200
B	177	195	235	262
C	27	30	30	30

Storm Collar (large)

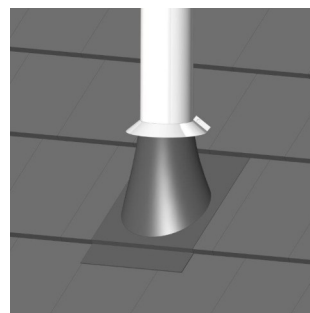
A storm collar is also available with a larger coverage. It must be used in conjunction with a lead flashing. It is attached to the body of the chimney just above the lead flashing (see illustration below).

It is used to direct rainwater away from the top of the lead flashing and should be sealed with high temperature sealant (Sealant not supplied).



Int.Dia	80	100	125	150	180	200
Ext.Dia.	125	150	180	200	225	250
A	125	150	180	200	225	250
B	230	245	260	300	330	370
C	55	55	60	60	50	50

Lead Flashing and Storm Collar installation



Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

WEATHERING AND FLASHINGS

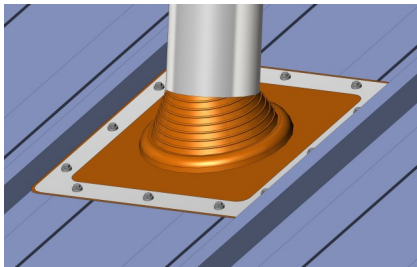
EPDM and Silicone rubber flashings

Pipe Flashing Systems (suitable for cladded roof)

Mi-Flues can provide a complete one piece rubber flashing designed to provide a flexible, durable, weatherproof seal where a chimney passes through a plastic or cladded roof.

They are supplied ready to install. The up stand section of the flashing contains clearly marked diameter indications to aid size selection and accurate cutting of rubber up stand.

Mi-Flues can supply specially designed fixing kits for the rubber based type flashing. This fixing kit provides the necessary materials required to complete the installation.



For further information on these flashings please contact Mi-Flues.

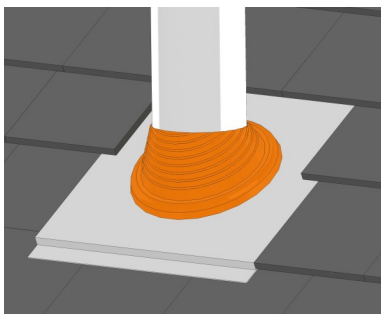
Pipe Flashing Systems (suitable for tile/slate roof)

Mi-Flues rubber flashings are available with a lead or aluminium base. They are designed to provide a flexible, durable, weatherproof seal where chimneys pass through roof slates or tiles.

They are supplied ready to install and they eliminate any on site fabrication required with traditional lead slates.

The upstand section of the flashing contains clearly marked diameter indications to aid size selection and accurate cutting of rubber up stand.

The rectangular lead/aluminium base is malleable and can be easily worked into the work structure to ensure a rain water run off situation is achieved.



For further information on these flashings please contact Mi-Flues.

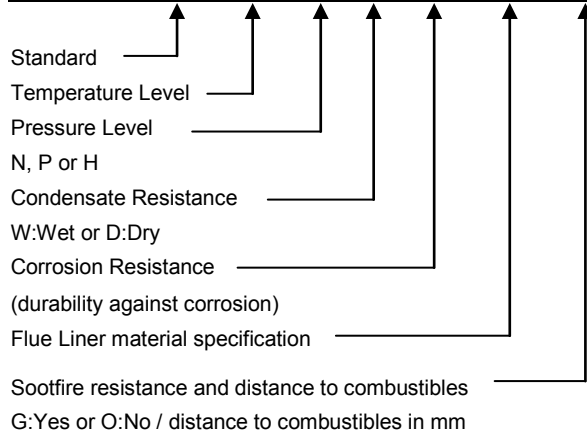
PRODUCT DESIGNATION

Due to European harmonised standard implementation, it is now necessary for chimney products to carry a designation code to simplify the chimney system for installers and local authorities. This new chimney designation code has been developed to designate the various features of the particular chimney product.

Mi-Flues twin wall insulated products carry the following designation code:

MI-Flues System 2 chimney system
EN 1856-1 T450 N1 D Vm L50040 G60
EN 1856-1 T200 P2 W Vm L50040 O60

System 2	EN1856-1	T450	N1	D	Vm	L50040	G60
System 2	EN1856-1	T200	P2	W	Vm	L50040	O60



Note ; The chimney with the designation T200 is suitable for use on condensing appliances and cannot be used on solid fuel applications.

Safety/Installation/Regulations

Distance to Combustibles

As stated there must be a minimum distance of 60mm from the outer body of the chimney to any combustible material. However if the chimney passes through a joist or slab then clearance at floor and ceiling joist must be established by the use of a Firestop arrangement. No combustible material should protrude beyond the 60mm safety lugs attached.

In addition, the 60mm clearance should not contain any other non combustible material. This 60mm air gap must be maintained throughout the installation.

Shielding from Human Contact

If the chimney passes through a cupboard or separate compartment/room area to the heating appliance it should be adequately protected by a non combustible casing material which must be spaced from the chimney to satisfy the minimum distance stated. This is to ensure that accidental contact of any combustible material or human contact to the surface of the chimney will not occur. Protection in the attic should also be provided by a rigid mesh structure positioned at least 60mm from the chimney.

Handling and Storage

All System 2 components are individually boxed or packaged and labelled. They should be stored in a dry suitable storage location.

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

Safety / Installation / Regulations

No joints in chimney sections should be made within the joist area.

When a chimney is joined to an appliance flue pipe, the lower end of the twin wall insulated chimney must extend four times the diameter of the pipe below a combustible ceiling level .

If human contact is possible the chimney section should be adequately protected using a non combustible barrier. The connection to the flue pipe must be made using an adaptor. This can be sealed with Mi-Flues high temperature sealant or suitable alternative, and this connection should be made in the same room as the appliance itself.

The diameter of the flue used in an installation must be equal to or higher than the outlet of the appliance.

The weight of the chimney should be adequately supported. Where the building is to support the lateral and vertical load it should be inspected to ensure it is capable of supporting the extra load. If the chimney is installed internally it should be supported with the use of wall brackets and firestops determined by the route chosen. A rafter support should be used to support a chimney as it passes through a roof. Where a chimney protrudes 1.5M beyond its last support a structural locking band or guy wire bracket support system should be used.

Chimney Plate

On completion of installation a chimney plate should be completed. The chimney plate provides information regarding the Manufacturer, designation, nominal size, distance to combustibles, Installer name, installation date, chimney location and thermal distance. It is to be completed by the Installer and securely fixed in an unobtrusive but obvious position within the building such as next to the electricity or gas consumer unit, next to the chimney hearth or next to the water supply stop-cock.

Cleaning / Maintenance

Adequate provision should be made for inspecting and cleaning of the chimney system. Access components are available in the product range (tee's) and should be installed to suit the installation, unless sweeping can be undertaken through the appliance.

The chimney should be inspected regularly and cleaned at least twice a year, depending on usage and type of fuel used. This should be carried out with the use of a brush which should not be made from black steel.

The chimney should be maintained to ensure that the construction remains in good condition.

Any components showing signs of deterioration which may affect performance should be replaced under professional advice. Any evidence of leakage identified by smoke staining should be rectified immediately.

Life Expectancy

Under normal operating conditions, and providing the system is installed and maintained correctly, Mi-Flues System 2 should provide many years service and is provided with a 10 year conditional life expectancy.

SUPPORTS

Load bearing components maximum supported lengths (provide vertical, lateral and stabilising support)

Load Bearing Components	80 mm	100 mm	125 mm	150 mm	180 mm	200 mm
Base Wall Support	n/a	n/a	3.5M	3.5M	3.5M	3.5M
Intermediate Wall Support	3.5m	3.5m	3.5M	3.5M	3.5M	3.5M
Firestop	3m	3m	3m	3m	3m	3m
Rafter Support	1.5m	1.5m	1.5m	1.5m	1.5M	1.5M

On long external chimney runs a base wall support should be installed to support the tee piece to a total installed height of 3.5meters.

An additional intermediate wall support must be used every 3.5meters beyond this point with a wall bracket situated centrally between both load bearing components. If an offset in a chimney run is necessary i.e. to avoid fascia and soffit, an additional wall bracket must be installed directly above the offset to provide extra lateral support. Long offset should be avoided but if necessary all lengths installed between offset bends should be supported laterally by additional wall brackets located at 800mm intervals.

On exposed regions the maximum length unsupported shall not exceed 1.5m

MI-FLUES SYSTEM 2 COMPONENT WEIGHT CHART

Weight (KG) including locking band, with exception of cowls and finishing cone

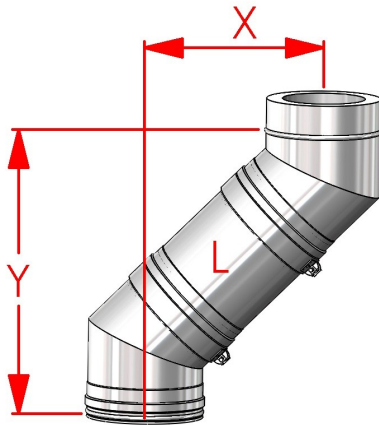
Component	80 mm	100 mm	125 m m	150 mm	180 mm	200 mm
1250mm	3.8	4.4	5.3	6.7	-	-
1000mm	3.0	3.6	4.6	4.9	5.8	6.7
500mm	1.5	1.9	2.3	2.5	2.9	3.2
250mm	0.8	1.0	1.4	1.5	1.7	1.9
Adj Length	1.8	2.2	2.7	3.1	3.6	4.3
90° Bend	1.0	1.3	1.9	2.2	-	-
45° Bend	.7	.9	1.2	1.3	1.7	1.9
90° Tee	1.5	1.8	2.5	2.9	3.2	4.1
45° Tee	2.0	2.3	3.6	3.9	4.8	5.2
85° Bend	1.0	1.3	1.9	2.2	2.4	2.7
85° Tee	1.5	1.8	2.5	2.9	3.2	4.1
Cowl	.4	0.5	.6	.7	1.0	1.1
Finishing Cone	.5	.6	.8	.9	1.1	1.2
Start off adaptor	0.4	0.5	0.6	0.6	0.9	1.0
Tapered Adaptor	-	-	.9	1.0	-	-

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

OFFSET CHART

The offset chart below is using the recommended MI Flues System 2 45° bends. Within the system there should be no more than two offsets which will consist of 4 x 45° angles.

Y = Installed Height
X = Installed Offset
L = Length used



DIAMETER							
(L)	Off-set	80 mm	100 mm	125 mm	150 mm	180 mm	200 mm
0	X	117	125	132	128	145	152
	Y	280	294	320	312	350	368
250 mm	X	260	265	275	267	286	294
	Y	425	435	464	450	492	509
500 mm	X	437	440	450	455	463	470
	Y	600	612	640	655	668	686
1000 mm	X	790	792	800	797	817	824
	Y	955	965	990	983	1022	1040
ADJUSTABLE Length							
	X Min	357	365	370	379	386	393
	Y Min	522	538	560	575	590	608
	X Max	463	470	478	484	492	498
	Y Max	628	644	669	680	697	715

Non Load Bearing Components

Wall Bracket	1.5m intervals or centrally between base/intermediate wall supports
Guy Wire Bracket	1.5m beyond last support
Roof Centering Plate	Attach to chimney to centralise/stabilise before passing through pitch roof
Structural Locking Band	Attach to current flue without removing the existing locking band. Intermediate Wall Support to be fitted below it.

System 2 Technical Data

Fuel	Solid fuel, Oil, Gas, Biomass and Condensing
Liner Material	316 Stainless Steel
Body Material	304 Stainless Steel
Insulation Material	25mm SW Plus
Max. Distance between lateral supports	1.5m
Thermal Resistance	747.60 m ² K/kW
Flow Resistance	.001 Mean roughness
Minimum distance to combustibles	60mm

Installation

The product is easy to handle, but care should be taken when holding, fitting or assembling any part of the system.

Users are advised to use suitable precautions such as gloves, eye/face protection, protective clothing etc. to avoid injury.

Installers should be aware of the Safety, Health and Welfare at Work Act 2005 & Safety, Health and Welfare at Work (general application) regulations 2007.

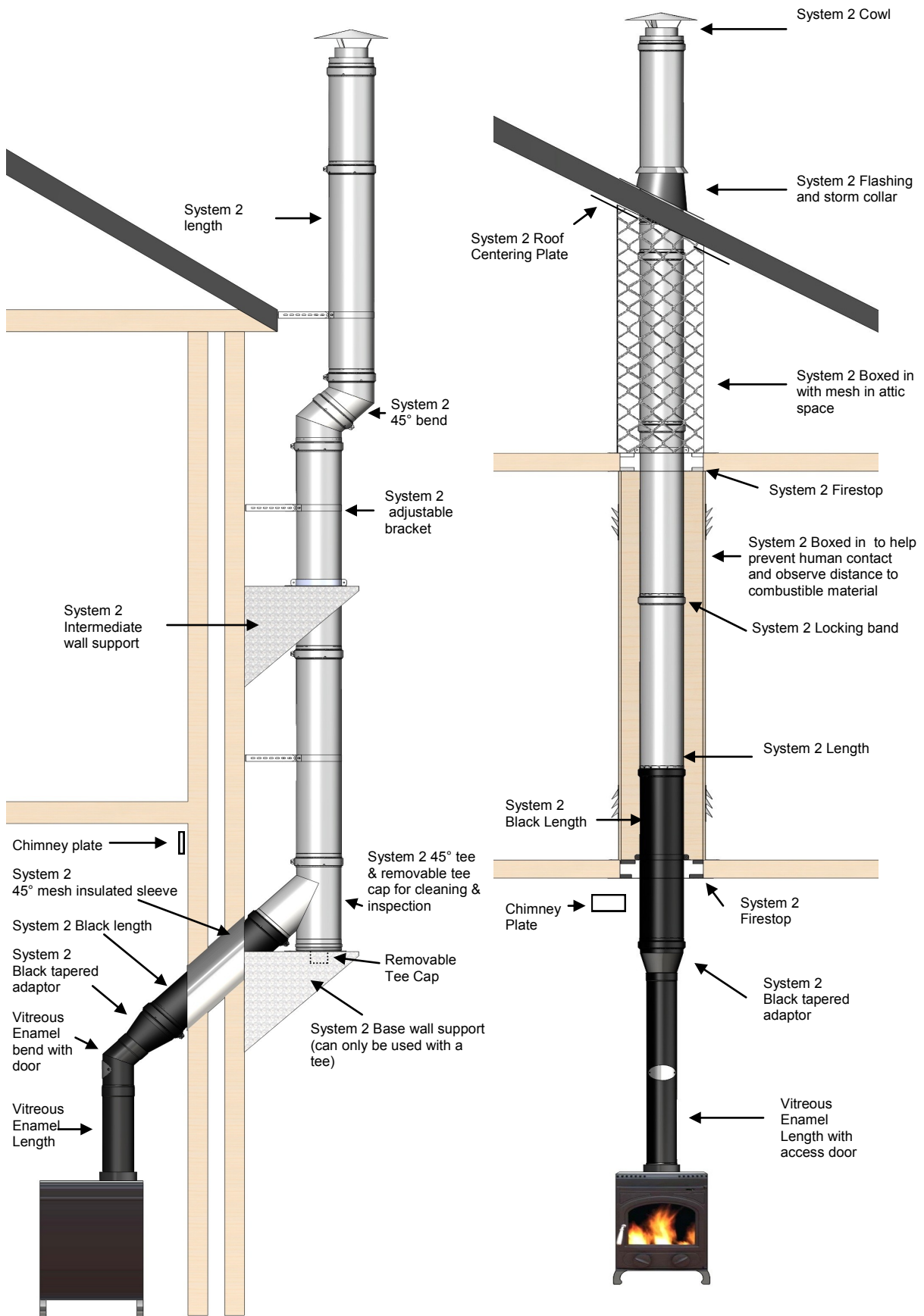
Installers should be aware of the possibility of disturbing asbestos when working in older properties. This should be dealt with in accordance with the strict guidance documents.

Particular attention should be taken to ensure suitable PPE is used when applying certain fireclays which can be of a caustic nature, as well as when using any other substances which may be harmful.

Mi-Flues System 2 Twin Wall Insulated Multi Fuel Chimney System

External Twin Wall Flue Application

Internal Twin Wall Flue Application



Chimney Termination Heights

Chimneys should be sited to allow the products of combustion to disperse freely at all times. Chimney termination heights and positions are subject to current Building Regulations, Document J, published by the Department of Environment, Community and Local Government.

The diagram below is taken directly from this document. It refers to Solid Fuel Burning appliances. It does not refer to easy ignitable roofs.

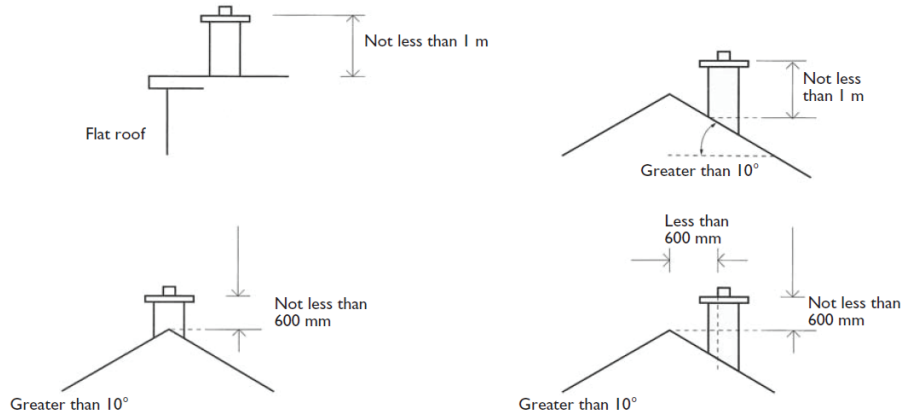
For all other appliances please contact the appliance manufacturer.

Document J available through (<http://www.environ.ie/en/Publications/DevelopmentandHousing/BuildingStandards>)

Diagram 1 Outlets from flues

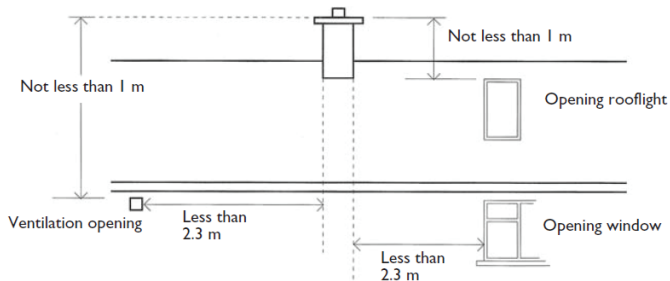
Par. 2.4

Outlet of a chimney or a flue pipe to be not less than 1 m above the highest point of contact of chimney and roof. Where the roof has a pitch of more than 10° on both sides and the outlet is at the ridge or within 600 mm of it, the height of the chimney or flue pipe may be reduced to 600 mm



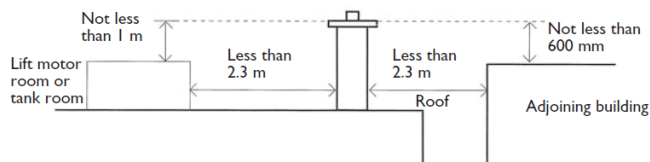
(a) HEIGHT OF FLUE OVER ROOF

The outlet of a chimney or flue pipe should also be not less than 1 m above the top of any opening skylight, opening window or wall ventilator within 2.3 m



(b) HEIGHT OF FLUE OVER OPENINGS

The outlet of a chimney or a flue pipe in relation to adjacent or adjoining buildings should be as shown below.



(c) HEIGHT OF FLUE OVER ADJACENT OR ADJOINING BUILDING

All flue systems must be installed according to current Building Regulations. Mi-Flues has adopted a policy of continuous product review, and in the interests of development and improvement the Company reserves the right to vary the appearance and performance of any of its products without prior notice. Correct at time of print. For updates please check our website.