DEKS
A Skellerup Industries Company

10 YEAR WARRANTY

Seldek®

Multi Fuel Twin Wall Chimney

Diameter range: 130mm - 150mm

- Wood burning stoves
- Pellet appliances
- Condensing appliances

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General guidance for the Installation of the Seldek Chimney System

Chimney Route and Diameter

The chimney should preferably rise vertically from the appliance to the termination outlet. However, as that is not always practical, changes of direction can be made, provided that no part of the chimney route exceeds an angle greater than 45° from the vertical. To ensure adequate performance, we recommend that any inclined sections do not exceed 20% of the total length of the chimney run. No joint between chimney sections is permitted within the thickness of a wall or floor. An exception would be where a short length and the branch of a 45° Tee connect within an external wall thickness. The use of a metal Wall Sleeve encasing the joint at this point is usually acceptable, particularly as it also eases installation and maintenance.

To prevent soot or fly ash dangerously blocking a flue ways, Building regulations will not permit any part of the flue system, including a connecting flue pipe, to run horizontally for a distance greater than 150mm. Whatever the configuration, a minimum 600mm vertical rise of the flue or chimney from the appliance outlet is advised so to avoid initial draught restriction. the appliance manufacturer may also dictate minimum requirements in this respect.

The chimney diameter should never be less than the diameter of the exit spigot on the the appliance. The appliance manufacturer's instructions may dictate a larger diameter.

Proximity to combustible materials

A minimum air gap distance of 50mm MUST be maintained from the outside surface of the chimney to any combustible material by using the dedicated supports and components provided for the Seldek System. The use of any additional insulation to avoid this requirement can be dangerous as the heat radiation characteristics will alter. Where passing through a cupboard or roof space, an enclosure may be constructed to surround the chimney providing there is a 50mm minimum air gap clearance to any combustible material.

Building Regulations dictate that flue pipes connecting the appliance to the chimney MUST do so within the room containing the appliance. Flue pipes MUST also have their external surfaces clear of any combustible material by a minimum distance of at least three times the diameter of the flue pipe. That clearance can be halved if a heat shield is used which is at least 12mm clear of the combustible material being protected.

Support

The chimney must be adequately supported and braced using the dedicated supports and components provided for the Seldek System and applied in accordance with the instructions provided. The full weight of the chimney must be borne by these dedicated components and no weight should be taken by the appliance it serves.The use of any other support process will result in non-compliance with Building Regulations and the Seldek approval status.

Combustion Air Provision

Building Regulations require that all combustion appliances with an output exceeding 5KW are provided with a permanent dedicated opening through which air for combustion can freely pass. It is incumbent on the chimney and appliance installer to check with current legislation to ensure that the requirements are met. Failure to provide combustion air is not only dangerous, its inadequate provision can, via the process of incomplete combustion, result in excessive soot production and subsequent operation and maintenance problems.

Maintenance Facilities

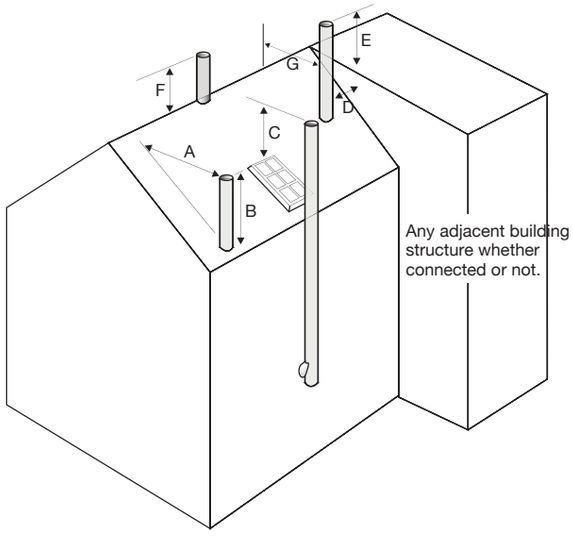
Provision must be made for cleaning and maintenance of the flue pipe and the chimney. An inspection length or the insulated Tee Plug provide access as would access cover plates in connecting flue pipes.

Flue termination requirements for solid fuel and wood burning appliances

The table and illustration below detail the minimum requirements for termination as required by building regulations. In each case, "termination" refers to the point at the top of the chimney flue outlet from which products of combustion are discharged from the flue. Any rain cap or other termination device is not included. It must be stressed that these are minimum discharge heights and relate to safety relative to potential human or fire hazard. The discharge requirements do not guarantee that the chimney will perform as required. There are many other factors which can have a detrimental impact on the way the chimney performs. Taller nearby structures - buildings and trees, local topography and even other operating chimneys in the same building can all influence and sometimes interfere with the way a chimney operates.

Notification Plate

On completion of the installation, Building Regulations require that a "Notice plate for hearths and flues" must be completed and dated and be permanently "fixed" in the building in a convenient location where it can be seen by interested persons relative to flue/appliance suitability and maintenance. Close to service meter or the heating appliance is considered to be a convenient location.



Distance	Minimum distance measured from the top of the chimney construction, excluding any pot or terminal.
A	2.3 metres horizontally clear of the roof surface, eg. if the roof pitch is 45°, then the chimney should project 2.3 metres above it.
B	1 metre, provided A is satisfied, or 600mm above the ridge if G is less than 600mm.
C	1 metre above the top of any flat roof, and top of any openable roof light, former window or ventilator, etc., if it is locates within 2.3 metres.
D/E	If D is less than 2.3 metres, E shall be not less than 600mm.
F	600mm above the ridge.

Introduction

The Seldek®Twin Wall chimney system is designed to meet the requirements of multi-functional applications for a variety of fuels. The system provides a high quality and robust chimney with high thermal performance and ease of installation.

The Seldek chimney is suitable for negative pressure conditions where the maximum flue gas temperature does not exceed 600°C and is soot fire tested to 1000°C. When used with positive pressure application such as pellet stoves or condensing appliances the Seldek system can be fitted with seals at each joint. Seals must be ordered separately as required.

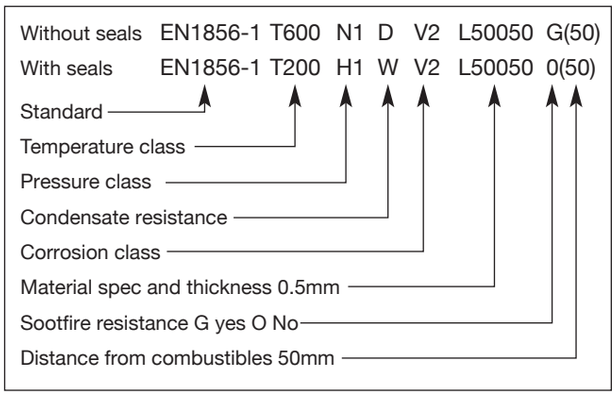
The system consists of straight lengths and fittings which are constructed entirely from stainless steel and a nominal 30mm mineral wool insulated annulus.

The system may be installed internally or externally and must conform to national and local building regulations. The relatively low external wall temperature permits installation with only a 50mm (2") air gap clearance to combustible materials

Key Features

- Fully welded system
- Inner liner is 0.5mm 316 grade stainless steel
- Outer skin is 0.5mm 441 grade stainless steel
- All lengths and fittings supplied with a standard locking band
- All tees supplied with a plug which incorporates a 22mm drain point
- Available in diameters 100mm, 130mm, 150mm, 180mm and 200mm.
- Black powder coated available from stock in 150mm diameter

Seldek product designation to BSEN 1856-1



Starting Components

Adaptor

Used as a vertical or horizontal connection between chimney lengths and connector pipes or to connect directly to the appliance.

Size	Part No.
130mm	130CHI-A
150mm	150CHI-A

Increasing Adaptor

80mm-130mm

Used to connect from 80mm-130mm outlet on appliance or 80mm flue pipe to 130mm Twin Wall System.

Size	Part No.
80-130mm	130CHI-IA

Increasing Adaptor

100mm-130mm

Used to connect from 100mm-130mm outlet on appliance or 100mm flue pipe to 130mm Twin Wall System.

Size	Part No.
100-130mm	130CHI-IA

Increasing Adaptor

125mm-150mm

Used to connect from 125mm-150mm outlet on appliance or 125mm flue pipe to 150mm Twin Wall System.

Size	Part No.
125-150mm	150CHI-IA

Lengths

Available in 5 diameters and 4 lengths and can be combined to obtain the required installation height. Because of the socket/spigot joint and for extra strength each length has an effective length 65mm shorter than shown. All lengths are supplied with a locking band.

Size	Part No.
130mm	130CHI-L1000
130mm	130CHI-L500
130mm	130CHI-L250
130mm	130CHI-L150

Size	Part No.
150mm	150CHI-L1000
150mm	150CHI-L500
150mm	150CHI-L250
150mm	150CHI-L150

Telescopic adjustable length

The adjustable length is designed to provide adjustment between two fixed points. The length will adjust from 370mm-500mm. Required adjustment is achieved by carefully removing the excess insulation and securing with self tapping screws. This component is not loadbearing and due to onsite adjustment of the insulation it should be installed 300mm from combustibles.

Size	Part No.
130mm	130CHI-AL
150mm	150CHI-AL

Inspection Length

Used to provide access for inspection or cleaning.

Size	Part No.
130mm	130CHI-IL
150mm	150CHI-IL

Locking Bands

Standard Locking Bands

Standard locking bands are used to join lengths and fittings together and must be used.

A standard locking band is supplied with all insulated lengths, tees and elbows.

Size	Part No.
130mm	130CHI-LB
150mm	150CHI-LB

Wide Locking Band

The wide locking band can be used when an unsupported length of up to 3 metres is required provided that there are no elbows or other fittings in the final 3 metres of the chimney and that there is a minimum of 3 metres beneath the final support.

Size	Part No.
130mm	130CHI-WLB
150mm	150CHI-WLB

Insulated Tees and Plugs

135° Tee

The 135° Tee is used at the base of a vertical chimney. Each tee is supplied with a standard locking band and a tee plug. Each plug is fitted with a 22mm drain point as standard.

Size	Part No.
130mm	130CHI-T135
150mm	150CHI-T135

90° Tee

The 90° allows a horizontal connection of the chimney to the appliance. The tee plug provided allows for inspection and cleaning and is supplied with a 22mm drain point as standard.

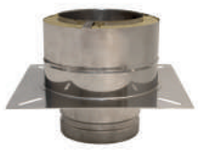
Size	Part No.
130mm	130CHI-T90
150mm	150CHI-T90

Supports

Roof Support

The roof support allows the chimney to be supported on roof joists, trussed rafters etc. The support is supplied with self tapping screws to secure to the outside skin of the chimney.

Size	Part No.
130mm	130CHI-RS
150mm	150CHI-RS



Anchor Plate

The anchor plate is usually used for adapting the Seldek® Twin Wall System to 'brick built chimney'. Flexible flue liner can be attached to the single skin tail of the anchor plate.

Size	Part No.
130mm	130CHI-AP
150mm	150CHI-AP

Adjustable Wall Support

The adjustable wall support will allow for an adjustment from 50-150mm from a vertical wall. It may be used at the base of a system or anywhere throughout its length where a support is required. Two stainless steel angled brackets are supplied with the wall support and a total effective length of 160mm is incorporated into the support, top and bottom.

Size	Part No.
130mm	130CHI-AWS
150mm	150CHI-AWS

Ceiling Support

The ceiling support MUST be used whenever the weight of the Seldek® system is to be taken at ceiling level. The component incorporates a radiation shield and is used where the chimney passes through a combustible floor. The round solid firestop is supplied detached from the bottom section of the joist shield. It should be adhered to it prior to installation with a 'high grab' metal adhesive such as Geocel xxx. Please refer to page 8 for detailed instructions.

Size	Part No.
130mm	130CHI-CS
150mm	150CHI-CS

Ventilated Ceiling Support

Used as a support and a firestop and must be used where the weight of the chimney is to be taken at ceiling level.

Size	Part No.
130mm	130CHI-VCS
150mm	150CHI-VCS

Wall Bands

The all stainless steel wall bands are used to provide lateral support where required. The bands will adjust to extend the distance between the chimney and wall surface. Two types of band are available. See chart below.

No. 0 Wall Band	
Size	Part No.
130mm (50 ext)	130CHI-WB0
150mm (50 ext)	150CHI-WB0

No. 1 Wall Band	
Size	Part No.
130mm (96-129 ext)	130CHI-WB1
150mm (88-122 ext)	150CHI-WB1

No. 2 Wall Band	
Size	Part No.
130mm (121-168 ext)	130CHI-WB2
150mm (115-162 ext)	150CHI-WB2

Wall bands must be installed every 3 metres

Elbows

Elbows are available in either 15°, 30° or 45° angles. They are secured to lengths or other fittings with the locking band provided.

15° Elbows	
Size	Part No.
130mm	130CHI-E15
150mm	150CHI-E15

30° Elbows	
Size	Part No.
130mm	130CHI-E30
150mm	150CHI-E30

45° Elbows	
Size	Part No.
130mm	130CHI-E45
150mm	150CHI-E45

To determine offset dimension requirements see charts on page 6-8.

Firestop Spacers

Ventilated Firestop Spacer

Used where the chimney passes through a combustible ceiling and floor and flue gas temperatures are above 250°C typically with solid fuel or oil. This is not a load bearing component.

Size	Part No.
130mm	130CHI-VFS
150mm	150CHI-VFS

Firestop Spacer

Used on oil or gas installations where declared flue gas temperatures do not exceed 250°C and where the chimney passes through a combustible floor.

Size	Part No.
130mm	130CHI-FS
150mm	150CHI-FS

Terminations

Rain Cap

The rain cap is secured with a locking band (not provided).

Size	Part No.
130mm	130-CHI-RC
150mm	150-CHI-RC

Deflector Cowl

This cowl is suitable for use in exposed locations and improves resistance to rain ingress. For use on solid fuel or oil applications.

Size	Part No.
130mm	130-CHI-DC
150mm	150-CHI-DC

End Cap

The end cap may be used to close the end of the chimney where the insulation is exposed. for example where a single skin termination such as a vidette cowl is required.

Size	Part No.
130mm	130CHI-EC
150mm	150CHI-EC

Storm Collar

The Storm Collar is designed to fit around the chimney pipe just above the upstand of a standard roof flashing. The upper edge of the Storm Collar should be waterproofed with non-hardening silicone caulking to prevent any water from leaking between the Storm Collar and chimney pipe.

NOTE: Storm Collar is not required with Seldek flashings.

Size	Part No.
130mm	130CHI-SCB
150mm	150CHI-SCB

Anti Downdraft Cowl

This cowl is streamlined and compact, it harnesses the airflow around the chimney to produce a positive upward draught. It connects to a Seldek Twin-Wall chimney with use of a Locking Band (not supplied). Powder coated silver.

(Also available in black - code number DADB

Size	Part No.
130mm	130-CHI-DADS
150mm	150-CHI-DADS

Accessories

Trim Plates

Trim plates are used as a cosmetic cover plate where the chimney penetrates a sloped wall or ceiling. Available in Flat, 30° or 45° angles.

Size	Flat	30	45
130mm	130CHI-FTP	130CHI-TP30	130CHI-TP45
150mm	150CHI-FTP	150CHI-TP30	150CHI-TP45

Seals

Should be used on pellet and condensing appliances.

Size	Part No.
130mm	130-CHI-SE
150mm	150-CHI-SE

Draught Stabiliser

The stabiliser is used where excessive draught is likely to create combustion problems. Must be installed in the same room as the appliance.

Size	Part No.
130mm	130CHI-DR
150mm	150CHI-DR

Flashings

The Seldek® flashing is used to form a watertight seal when the chimney penetrates a slate or tile roof. Available with a coated lead or aluminium base as shown.

Seldek®Aluminium	
Size	Part No.
130mm	SDA102B
150mm	SDA103B

Seldek®Nu-Lead	
Size	Part No.
130mm	DNL103B
150mm	DNL108B

Roof Brace Kit

A Roof Brace Kit can be used whenever there is a need to stabilise the chimney above the roof level.

Size	Part No.
Universal	CHI-RBK

Wall Sleeve

Used to allow chimney to pass through a cavity wall.

Size	Part No.
130mm	130CHI-WS
150mm	150CHI-WS

Adaptor to Flex

Used where Seldek® connects an appliance to an existing chimney that needs to be lined.

Size	Part No.
130mm	130CHI-ATF
150mm	150CHI-ATF

The single skin tail is 80mm long for all diameters

Seldek® Multi Fuel Twin-Wall Chimney

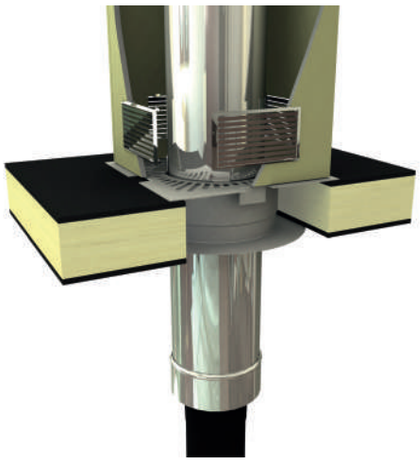
Building Regulations as well as the approval procedure to which all prefabricated system chimneys are required to be certificated, dictate that an adequate air gap clearance MUST be maintained between the outside skin of the chimney and any combustible material. Clearances becomes more crucial if the chimney is enclosed. The increase in temperature within any enclosure must be dissipated for safety reasons. The approval process for the Seldek® STC Chimney system requires the air gap distance to be not less than 50mm. Where the chimney passes through a room or cupboard and is enclosed, ventilation grilles MUST be used as shown in fig.1.

Floor penetration and chimney enclosure requirements for the Seldek Chimney System assessed to BS EN 1856-1 at T600.

Appropriate components to be used and how they are applied are described in these illustrations and related text and must be followed to ensure that the Seldek® system is applied in accordance with the method of testing.

These illustrations represent typical configurations over a freestanding solid fuel or wood burning appliance.
NOTE: If the Seldek® Chimney System serves an appliance which is located within a false chimney breast, it is good practice to provide an air gap clearance of at least 100mm between any combustible material located within the false chimney breast and the outer surface of the chimney.

Ceiling Support

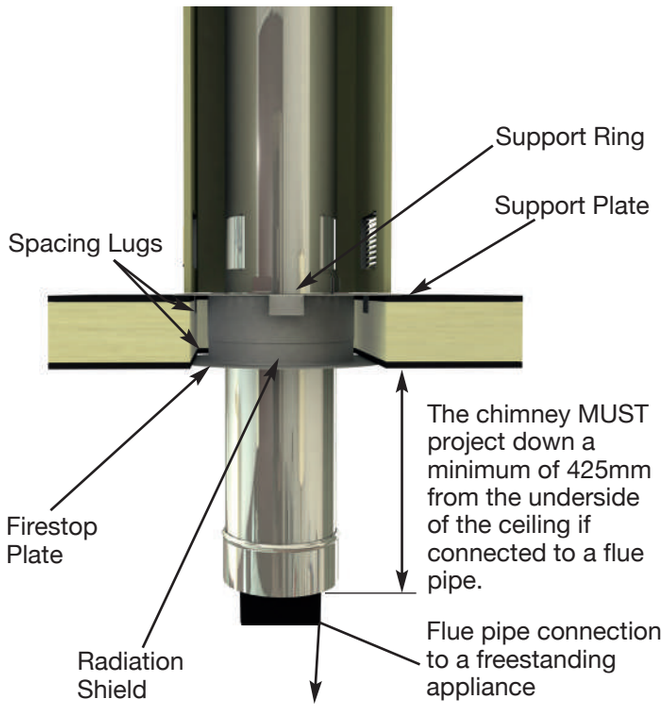


These supports MUST be used whenever the weight of the Seldek® chimney is to be taken at ceiling level and where it is applied with solid fuel, multi-fuel or wood burning appliances. The component incorporates a radiation shield, and it's use is recommended where the chimney passes through a combustible floor. If the ceiling support is not used, ventilated fire stops should be used.

1 The integrity and structural performance of the fire stopping arrangement of the Ceiling Support is dependent upon a four-sided enclosure within the floor depth. The integral telescopic radiation shield will accommodate floor thickness of between 150 and 275mm. Frame a level square opening within the joists using timber stringers where necessary according to the chimney diameter.

2 Fix the trim plate to the underside of the frame, so that the lower half of the integral radiation shield is centrally located.

3 Locate the Support Plate in position so that the upper half of the radiation shield locates over the lower half of the radiation shield projecting from the lower trim plate. Push down until the two halves of the radiation shield telescope together and the Support Plate rests on top of the frame. Screw or nail into position.



4 Lower the chimney through the Support Plate with the support clamping ring loosely positioned.

5 Once the position of the chimney is determined, tighten the clamp support ring to the chimney so that the flared edge rests on the ventilating studs of the Support Plate.

6 Using four holes in the clamping support ring as a guide, drill four 3mm holes through the outer wall of the chimney taking care not to pierce the inner skin of the chimney. Using the self-tapping screws provided secure the clamping ring to the chimney wall.

NOTE. The illustrations in this section are Copyright protected and are representative of support components. They are not drawn to scale, and details may vary from those illustrated where design improvements are made.

Firestop Spacers

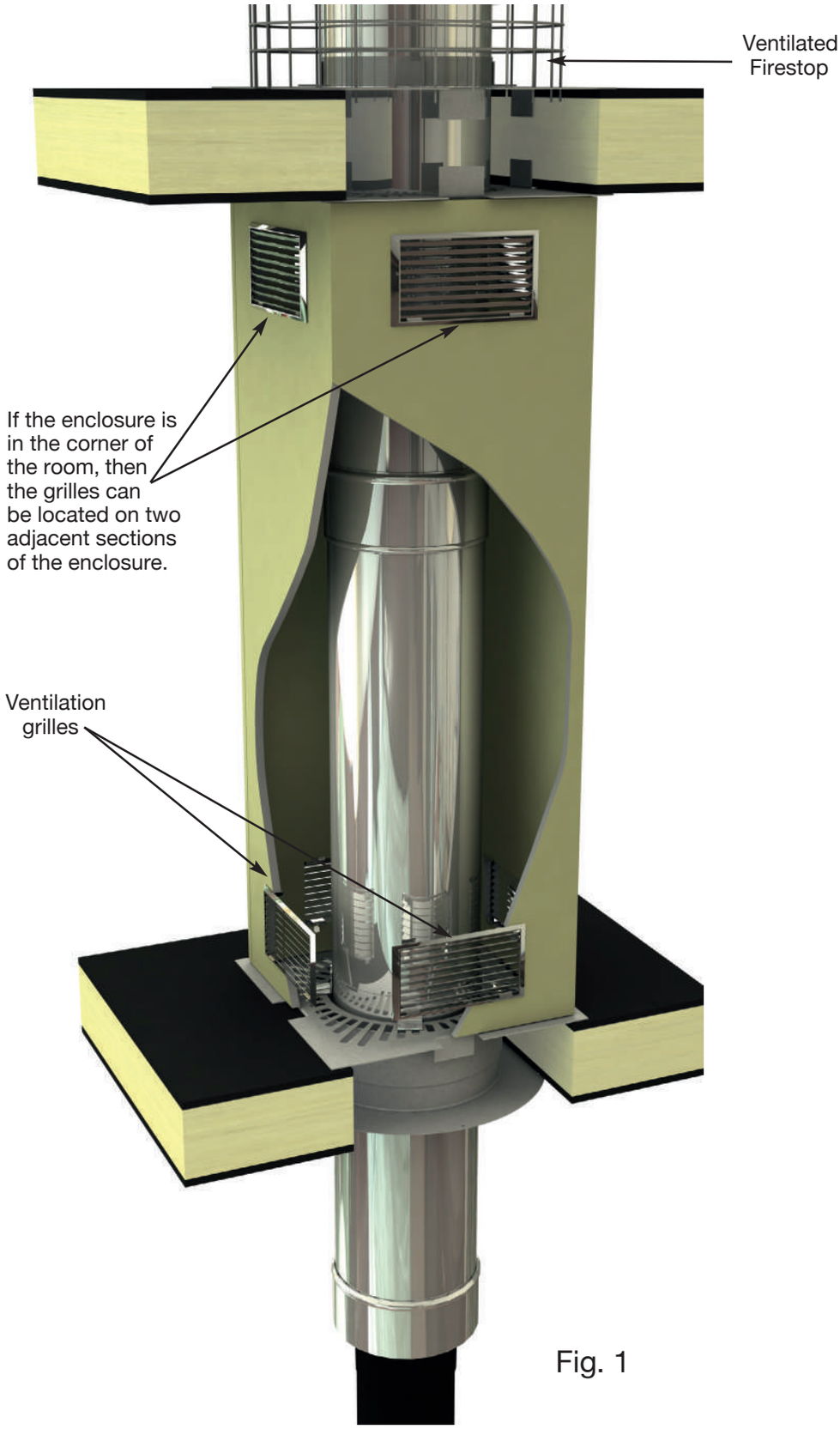


Fig. 1

15° Elbow offset Chart

15° ELBOWS OFFSET CHART										
Chimney lengths	100		130		150		180		200	
	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B
none	37	283	38	289	39	294	40	306	40	310
150	58	362	59	368	60	373	61	384	61	388
250	84	459	85	465	86	470	87	481	87	485
500	149	700	150	706	151	711	152	723	152	727
1000	278	1183	279	1189	280	1194	281	1206	282	1210

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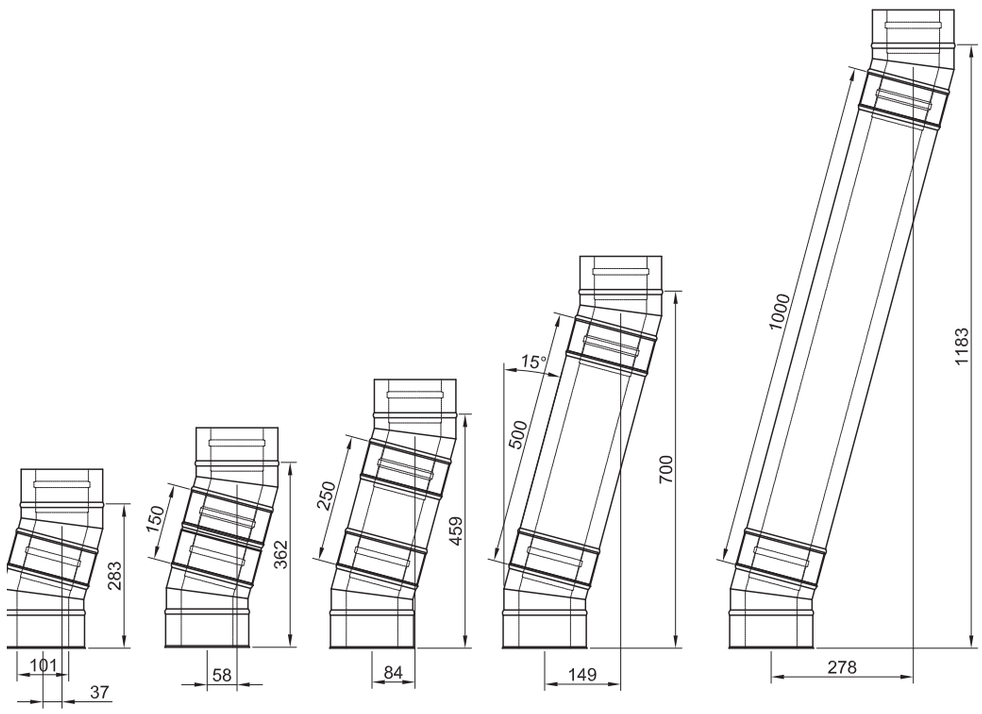

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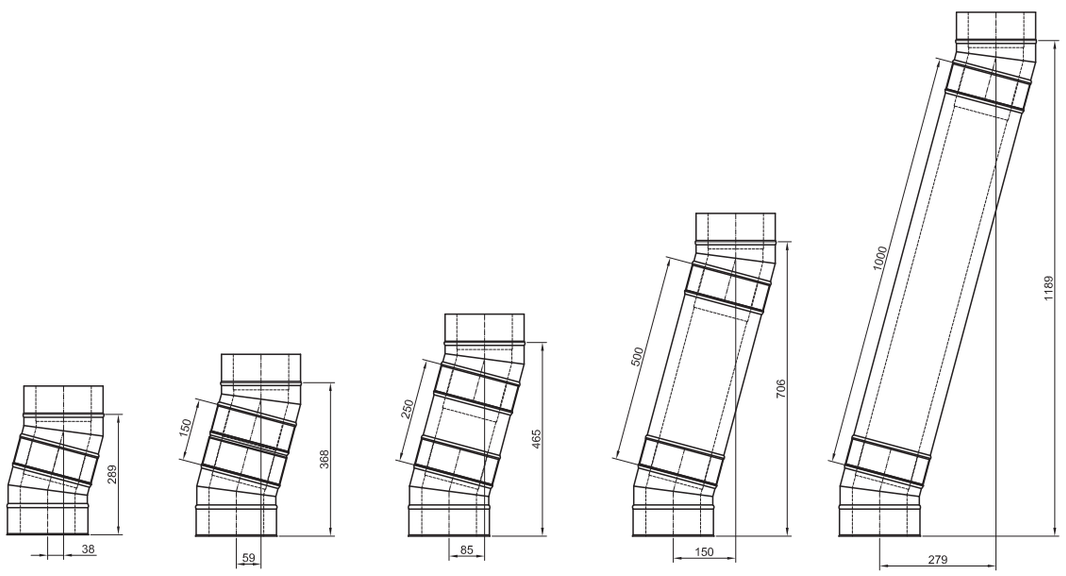

15° Elbow offset Chart

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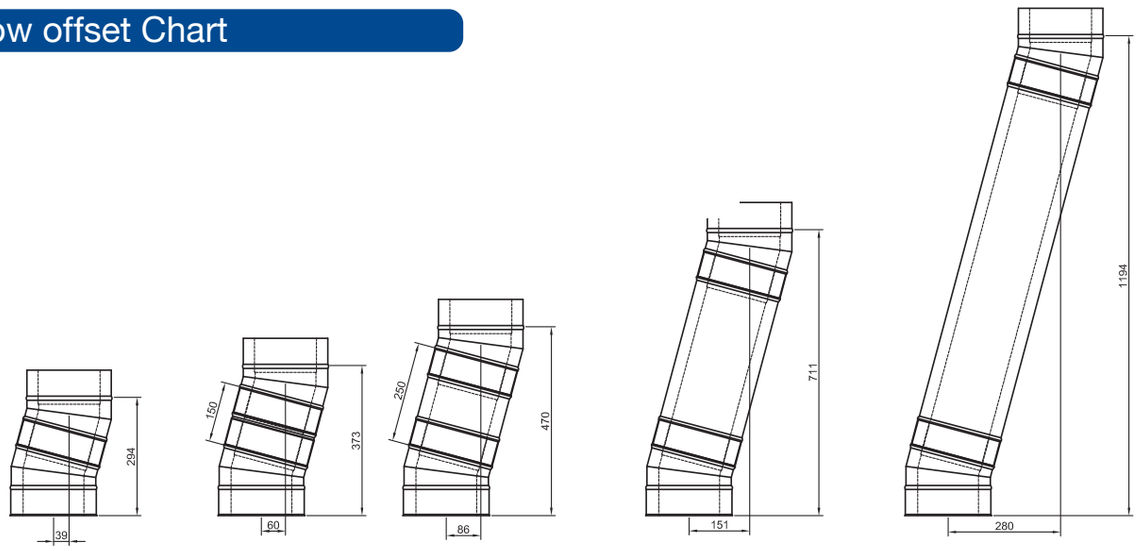

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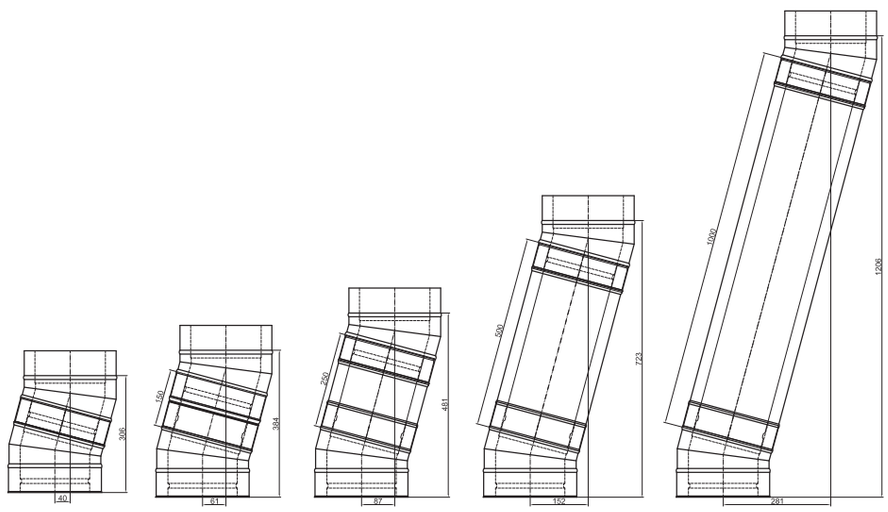

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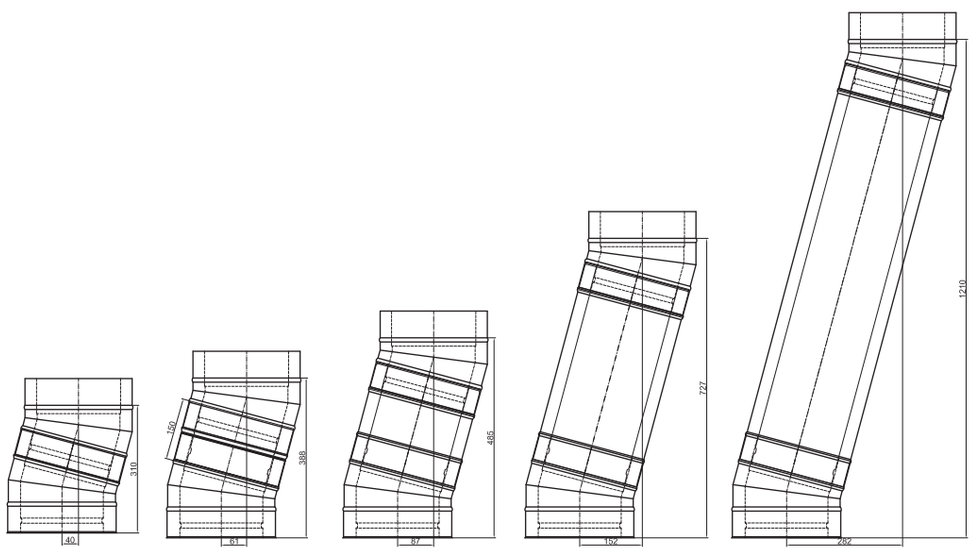
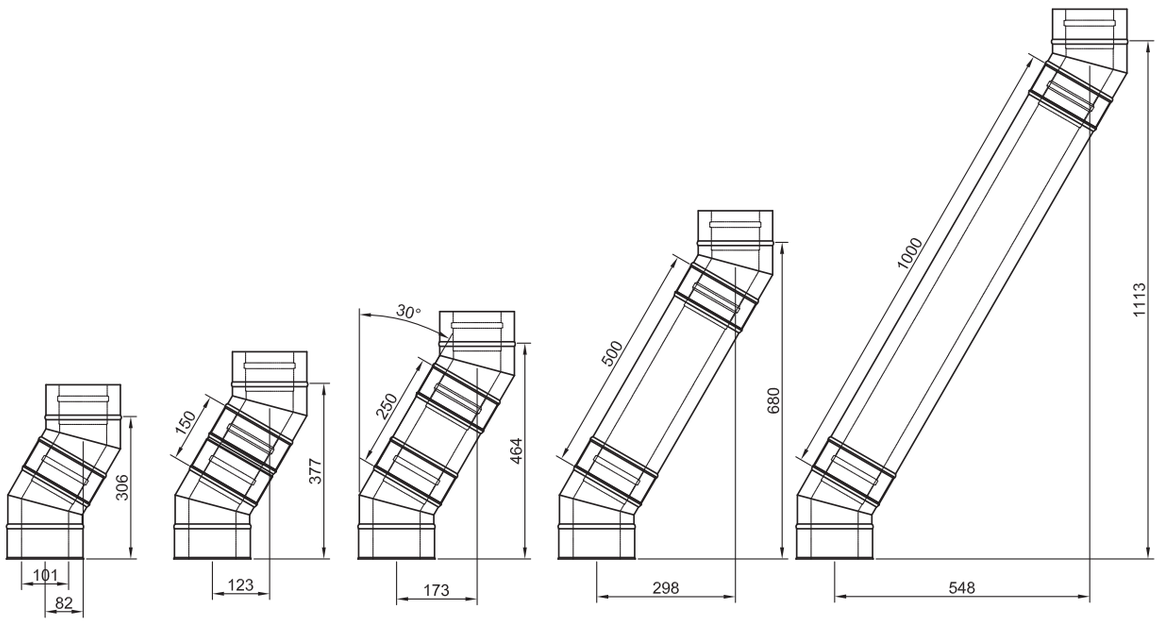


30° Elbow offset Chart

30° ELBOWS OFFSET CHART										
Chimney lengths	100		130		150		180		200	
	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B
none	82	306	86	323	89	333	93	350	96	361
150	123	377	127	394	130	404	134	420	136	431
250	173	464	177	480	180	490	184	508	187	519
500	298	680	302	697	305	707	309	724	312	735
1000	548	1113	552	1130	555	1140	559	1157	562	1168

Ø100



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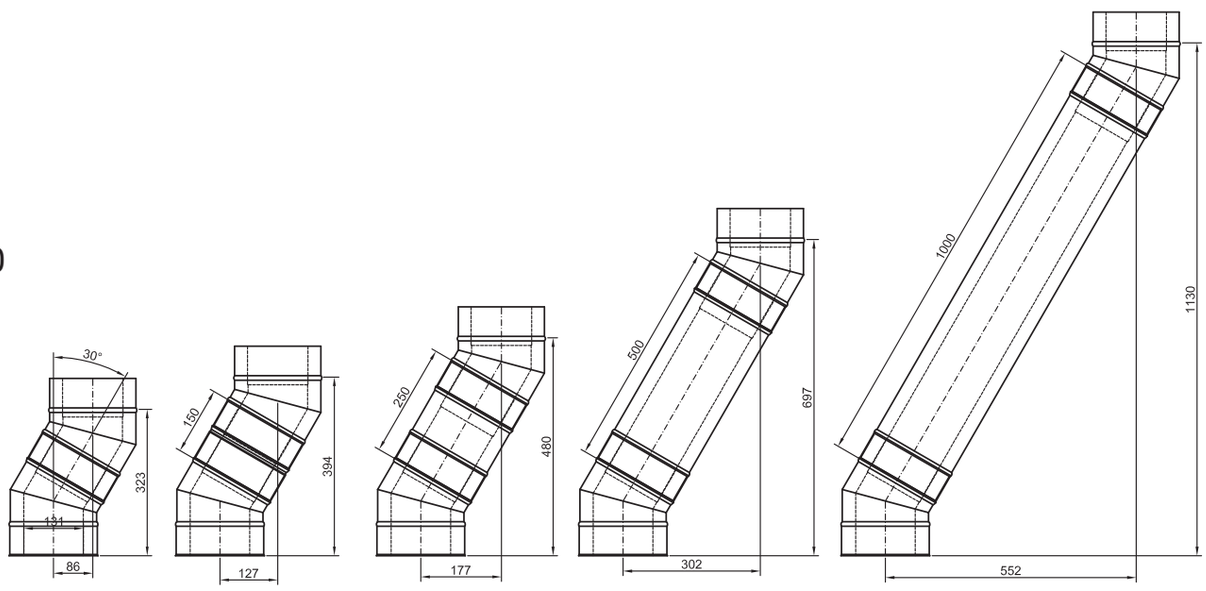

30° Elbow offset Chart

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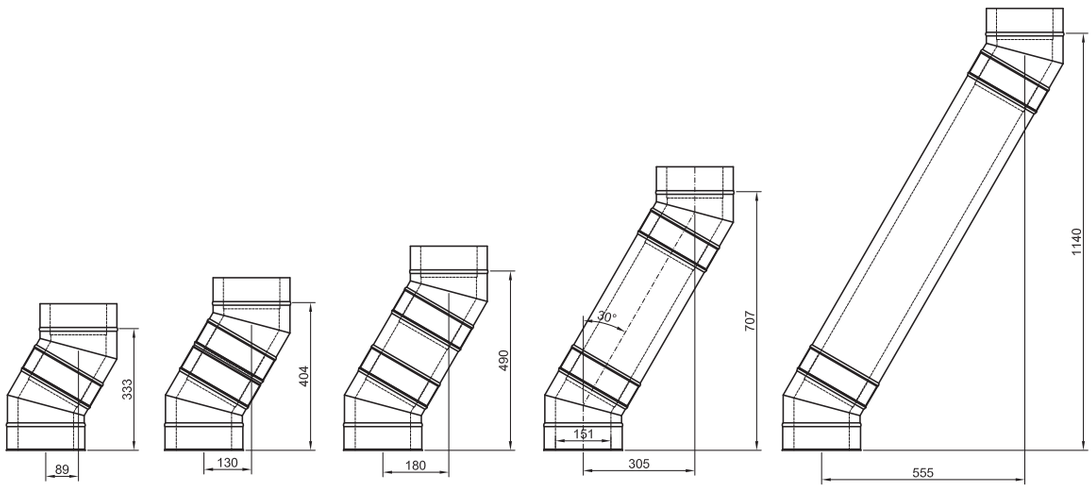

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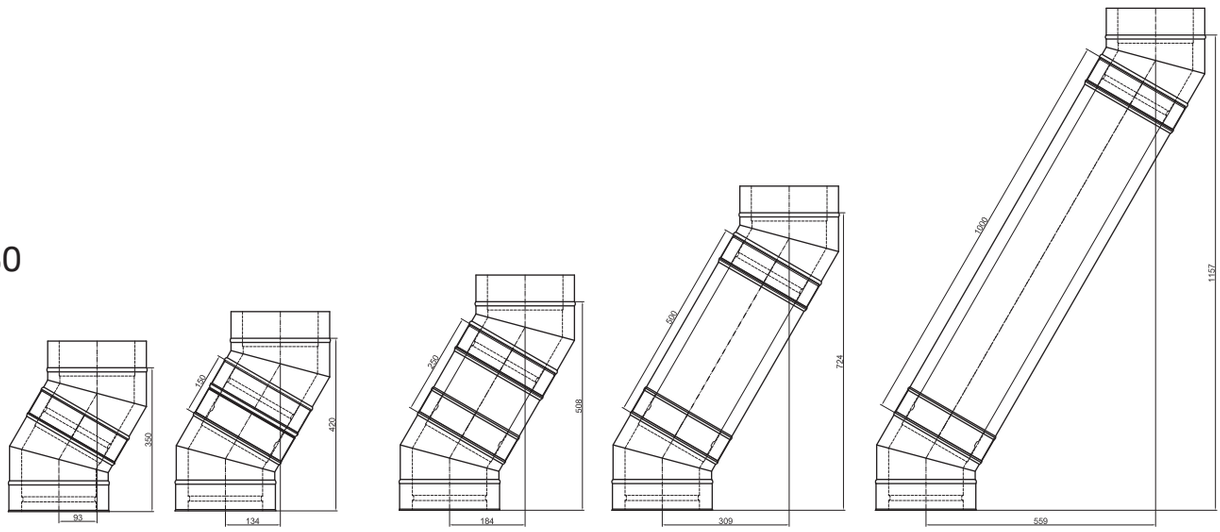

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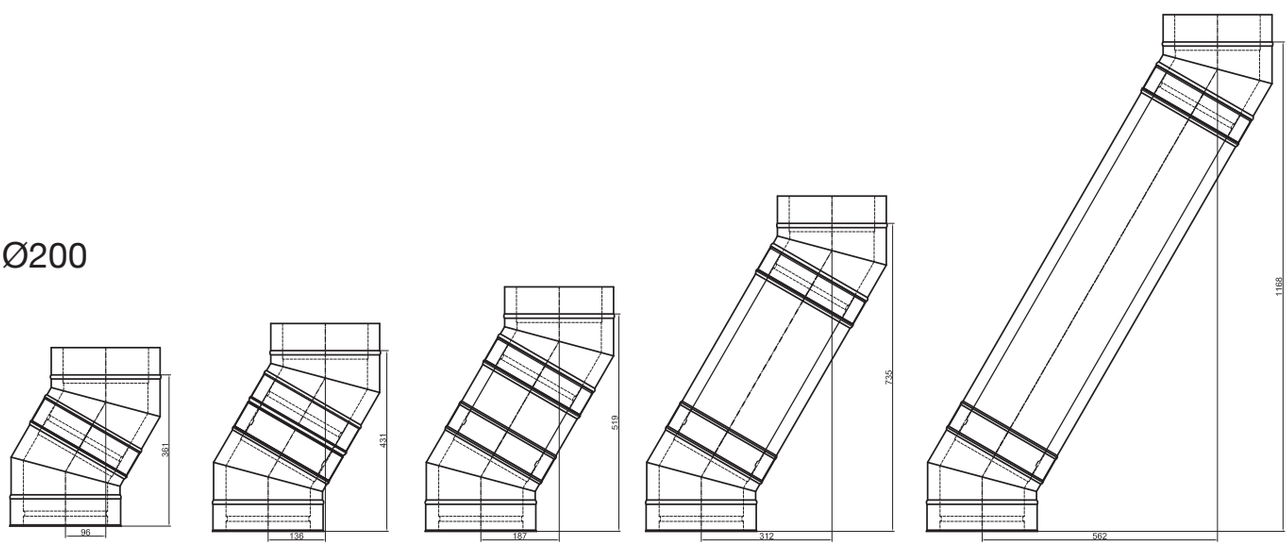
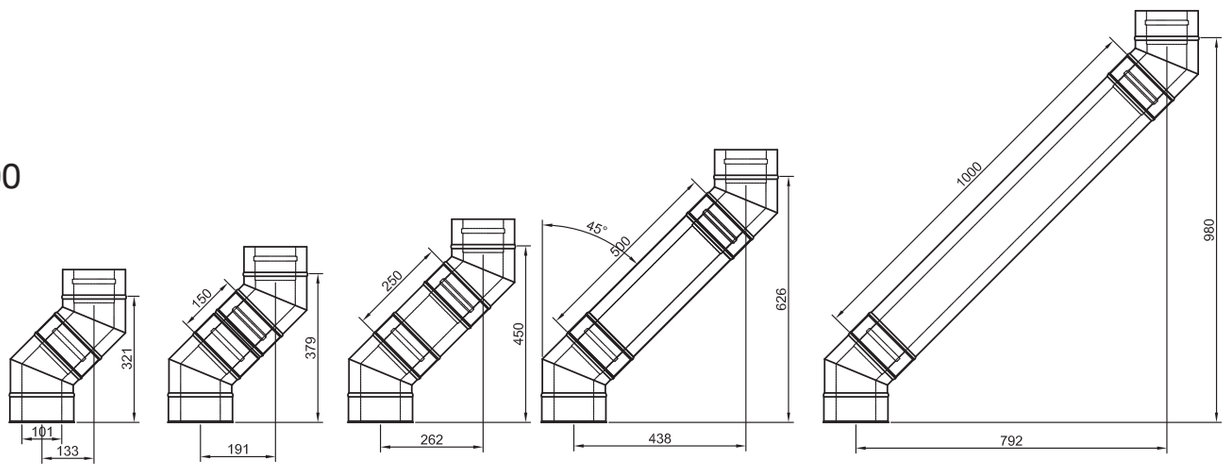


45° Elbow offset Chart

45° ELBOWS OFFSET CHART										
Chimney lengths	100		130		150		180		200	
	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B
none	133	321	142	343	148	357	157	382	163	396
150	191	379	200	401	206	415	214	439	220	453
250	262	450	271	471	276	485	286	511	291	523
500	438	626	447	648	453	662	462	687	468	701
1000	792	980	801	1002	807	1016	816	1041	822	1055

Ø100



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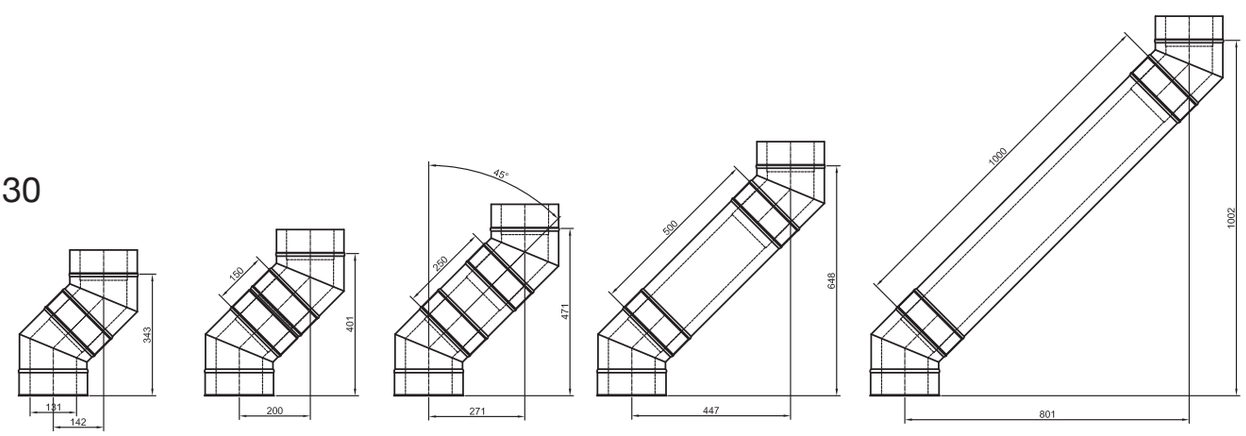

45° Elbow offset Chart

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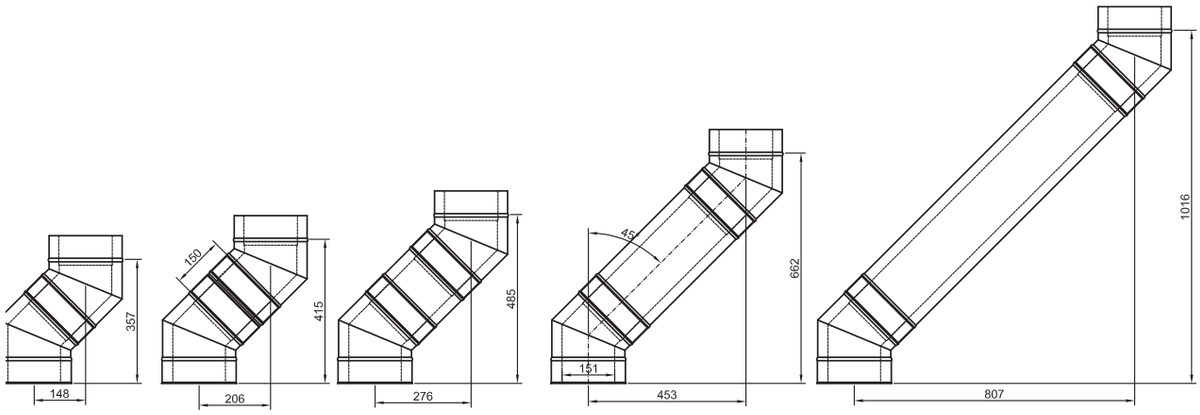

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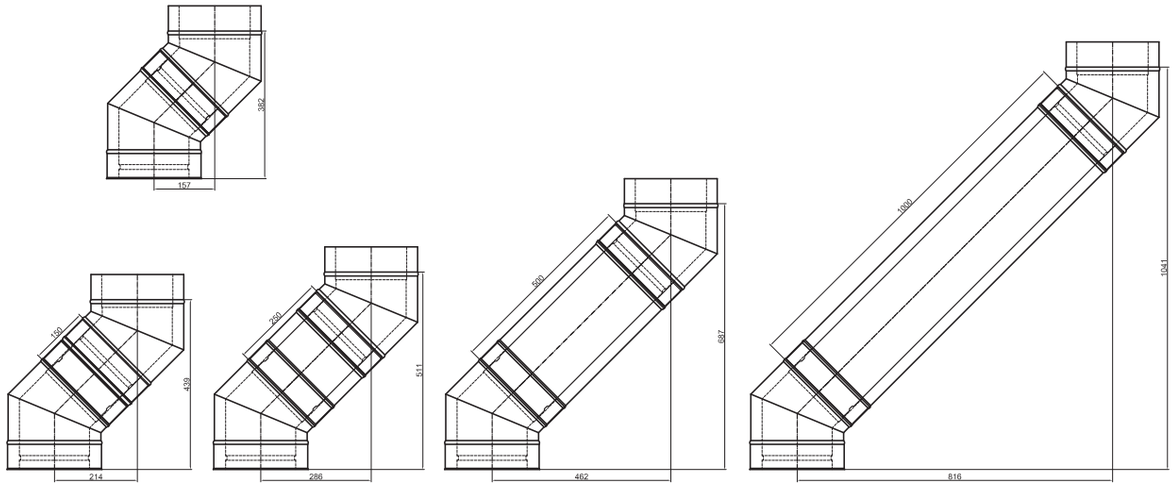

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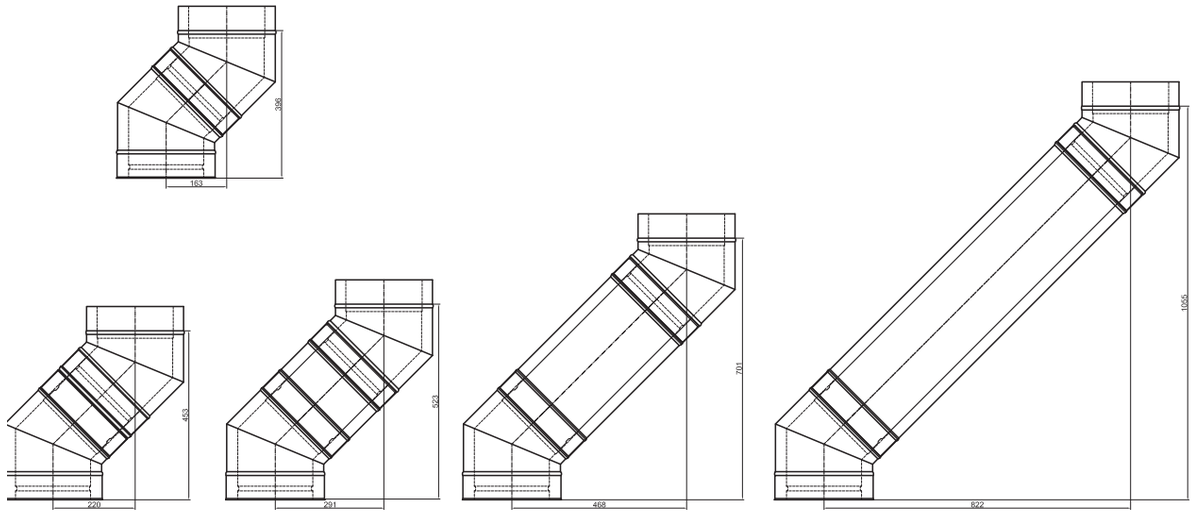
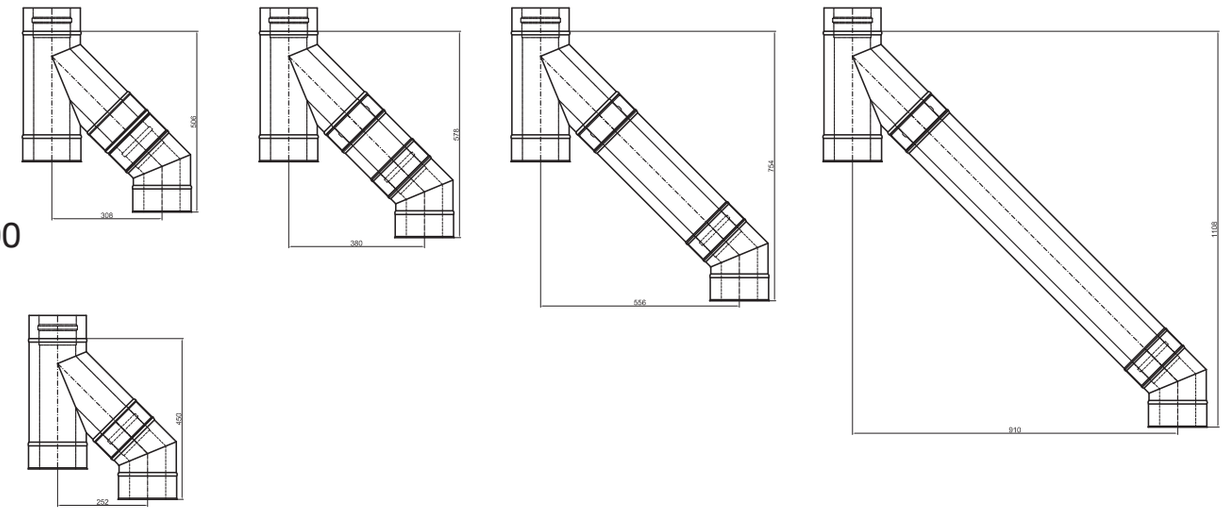


135° Tee & 45° Elbow offset Chart

135°TEE & 45°ELBOW OFFSET CHART										
Chimney lengths	100		130		150		180		200	
	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B	Offset A	Height B
none	252	450	291	515	301	519	334	569	354	598
150	308	506	348	572	358	576	391	626	412	656
250	380	578	419	643	429	647	462	697	483	737
500	556	754	596	820	606	824	639	874	660	904
1000	910	1108	950	1174	959	1177	993	1228	1013	1257

Ø100



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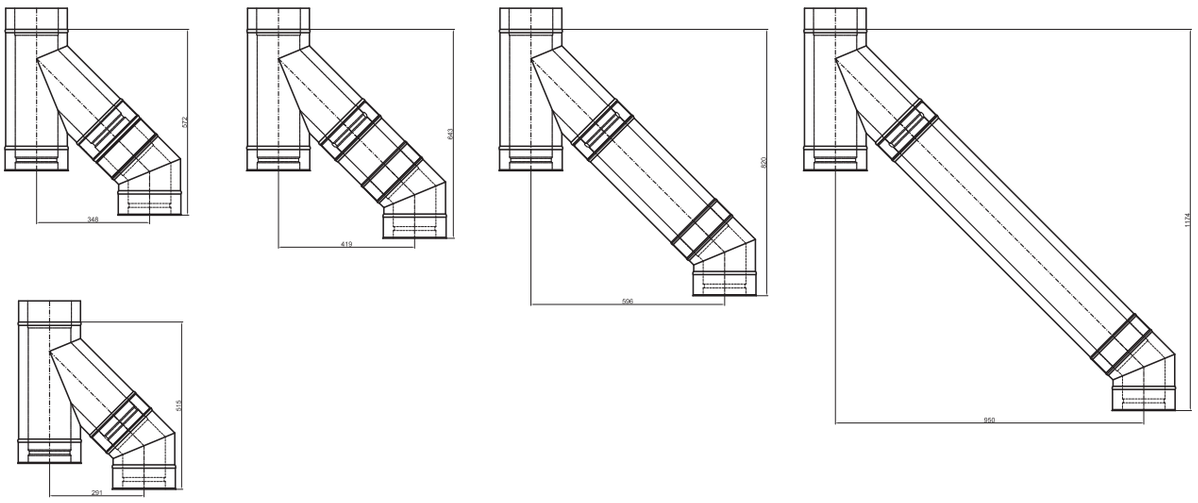
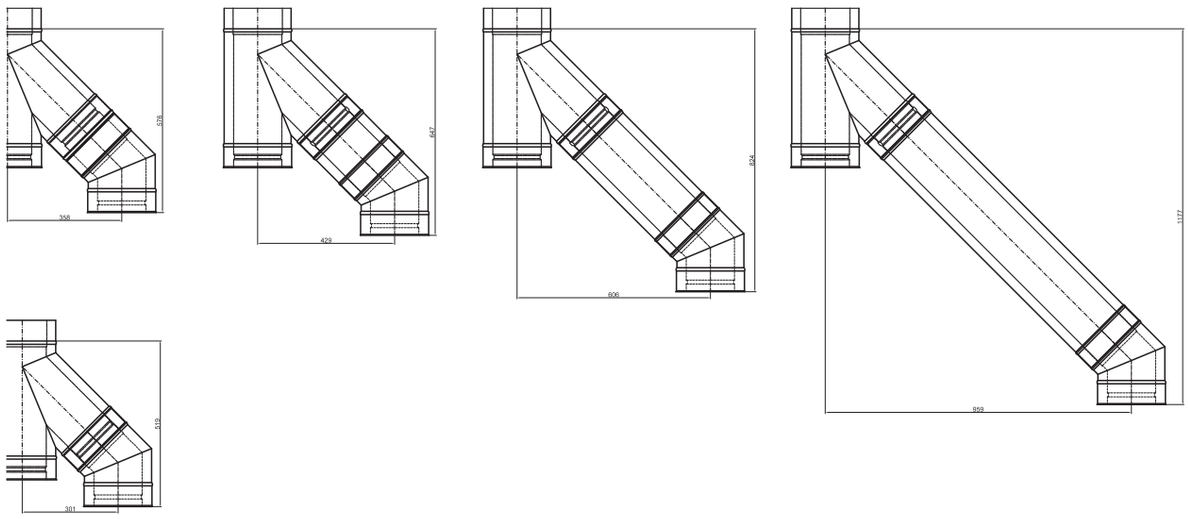


135° Tee & 45° Elbow offset Chart

Ø150



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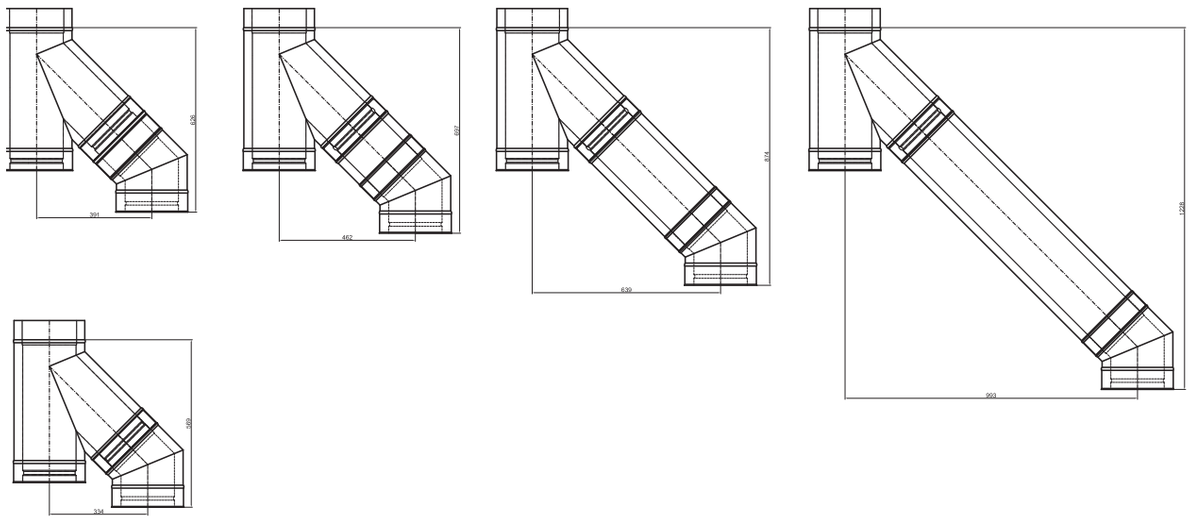

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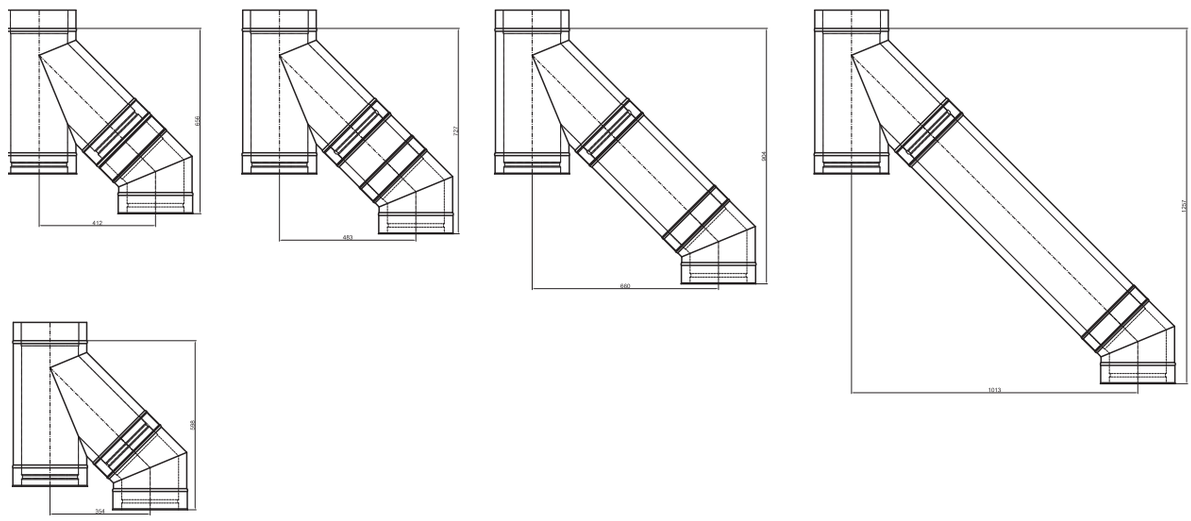
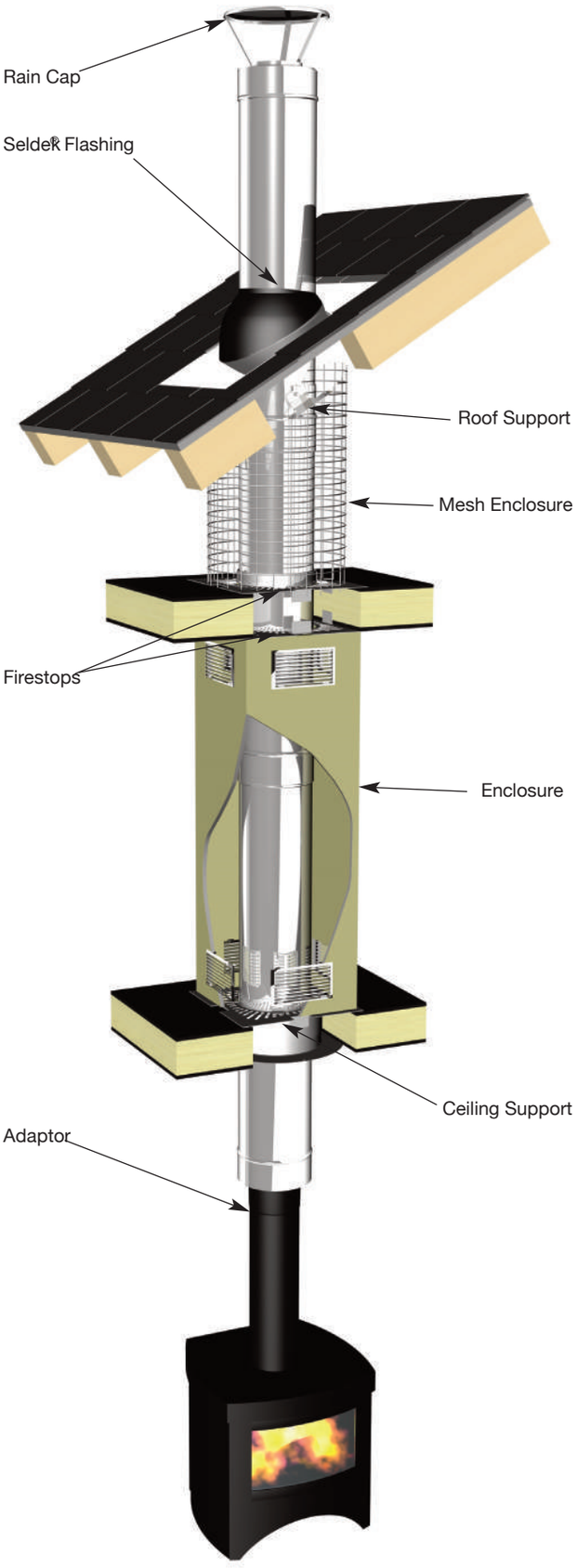
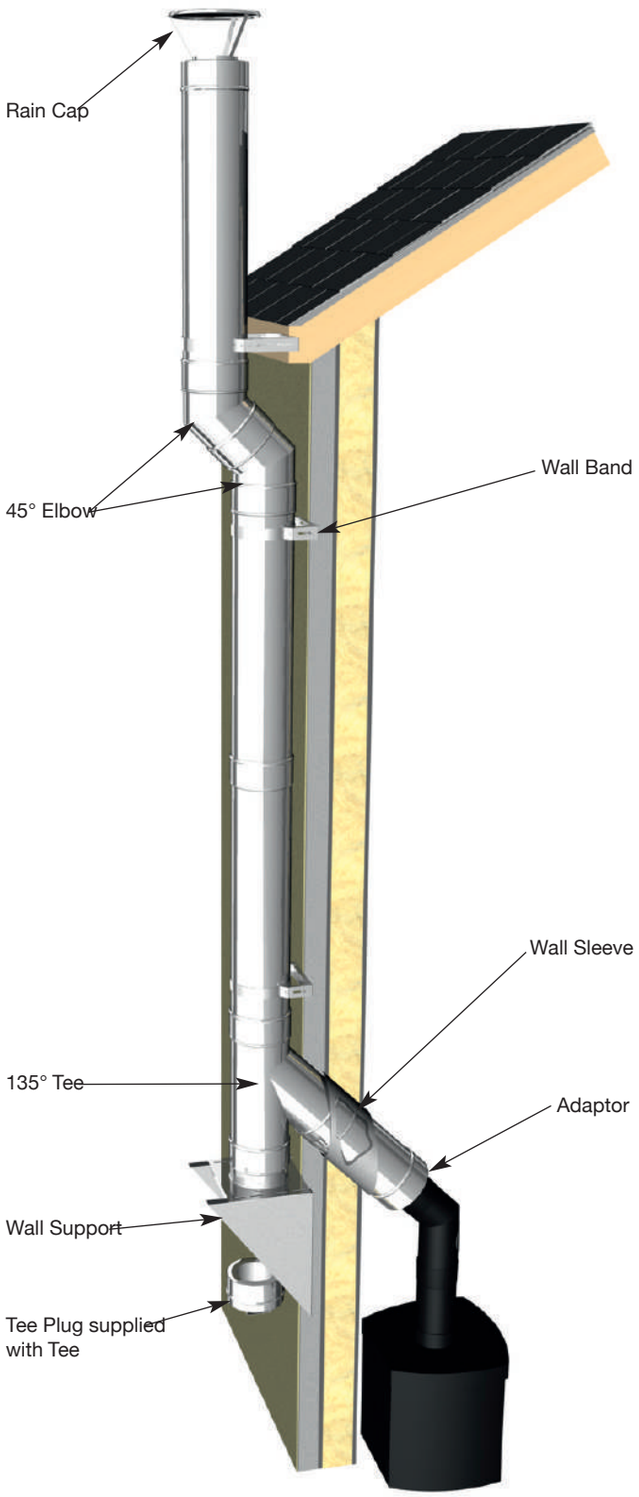


Typical Internal Application



Typical External Application



DESIGN YOUR SYSTEM HERE

September 2018 S-TWC
UK

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