



A1 FLUE
SYSTEMS

Product catalogue

Twinwall Deltavent VB, US and USG

Twinwall Deltavent VB, US & USG

A multi-purpose, twin-wall, prefabricated Stainless Steel duct system manufactured for the conveyance of all associated products of combustion from a wide range of combustion and process equipment. Deltavent is capable of withstanding continuous flue gas temperatures of up to 760°C and has been designated as (H1) for pressure resistance in accordance with BS EN 1856-1.

The Deltavent systems are designed for use where;

- A four hour fire rating is specified
- A watertight flue system is specified

Application Examples;

- Diesel Generator Exhausts
- Condensing Boilers
- C.H.P Systems
- Oil and Gas Fired Boilers
- Fan Assisted Flue System
- Kitchen Extract
- Smoke Extract
- Incinerators/Cremators: use heavy duty flanges for jointing (Ultra seal)

Quality Assurance;

The complete range of components are manufactured, tested, and where required, installed within scope of stringent quality controlled conditions in accordance with EN ISO 9001:2015 and BS EN 1856-1/2:2009. When requested, A1 Flue Systems shall submit copies of type test reports relating to product performance in addition to the "Certificate of Registration" administered by the British Standards Institute.

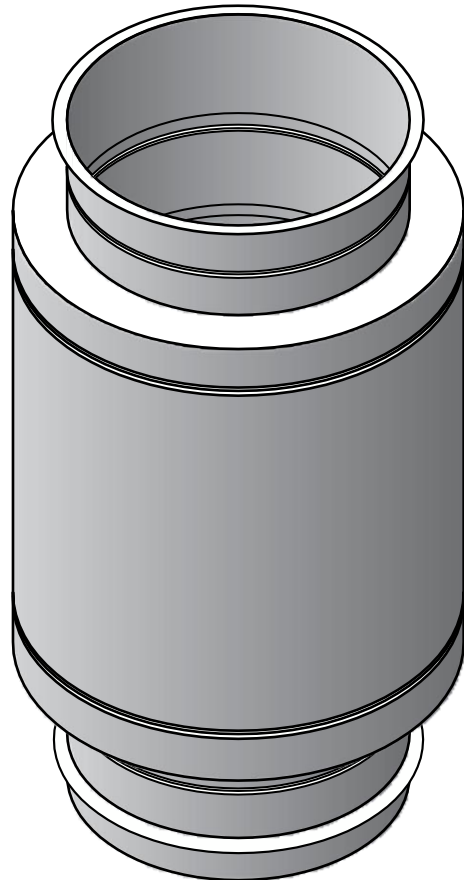
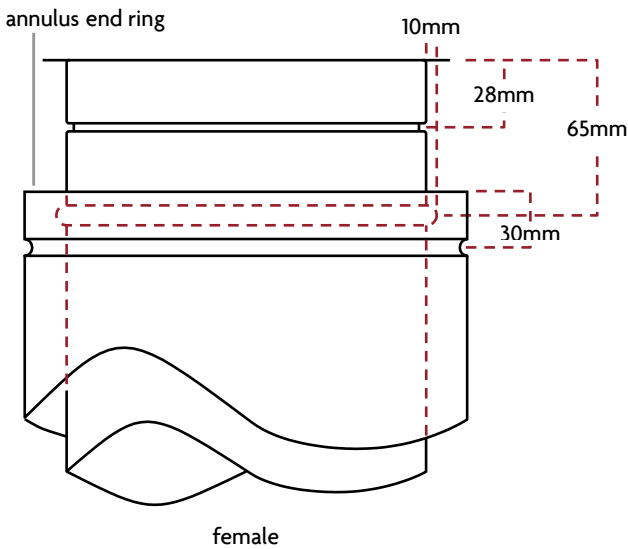
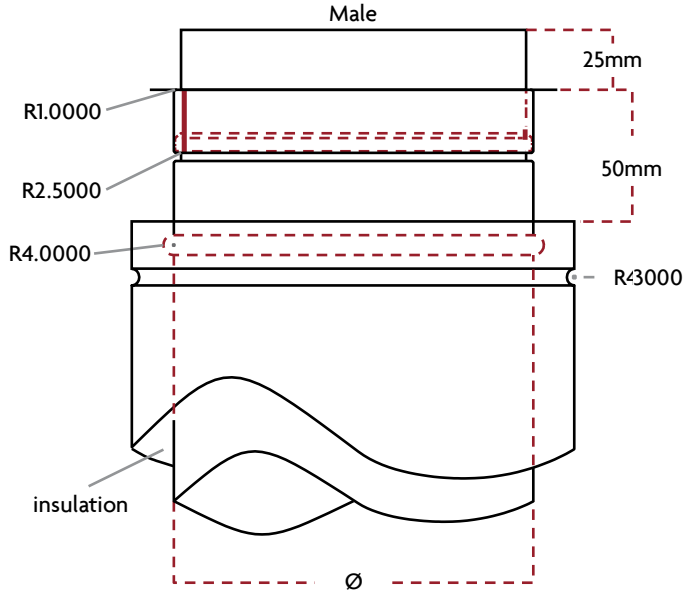
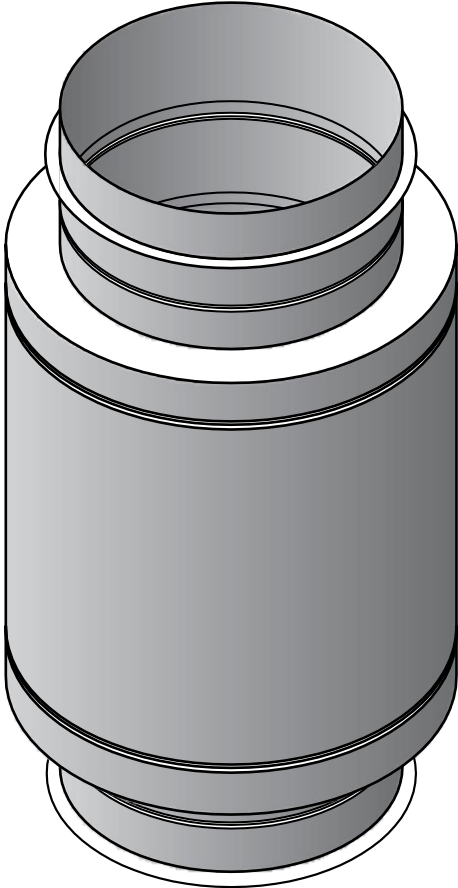
Fire Rating;

The Deltavent system has been successfully assessed by the Loss Prevention Council for Fire Resistance A fire rating of 4 hours can be achieved in accordance with stability and integrity criteria of BS 476: part 20. If required, A1 Flue Systems shall submit all test reports in support.

Construction;

Deltavent sectional lengths/fitting components are fabricated in a variety of diameters and lengths with continuously welded vertical seams. The Deltavent system also utilises four insulated/non-insulated annular variation options to provide a required minimum external case surface temperature. Inner liner coupler characteristics consist of male and female connection sockets complete with a 10mm 90° right angled flange formed at either end of all components. Deltavent joints shall be secured by clamping an externally fitted V-Band over the mating flanges of the adjoining components. Sealant, available from A1 Flue Systems, should be applied to the inside profile of the V-Band and to both flange faces before installation. Closure of the space between parallel external case components shall be achieved by first inserting a pre-cut length of insulation into the annulus void between the joining lengths and securing it into position using a profiled Clamp Band which locates within the grooves formed in all outer cases.

Construction of Deltavent flue



Clearance;

A standard 25mm annulus configuration insulated with a mineral wool to the density of 128Kg/m³ permits installation with only a 50mm clearance to combustible material.

Penetrations;

A 50mm clearance between the external case of a chimney as it penetrates through a combustible/non-combustible structure must always be maintained using either a Fire Stop Kit or a Fire Stop Support Plate. Flue length selection must ensure that coupler joints shall project at least 150mm below a ceiling or roof before connection is made and no connection joint shall occur within the floor or roof assembly.

Cleaning;

Conventional flue systems once installed require little or no maintenance. However, periodic cleaning of the flue connected to either a Biomass, Solid or Multi-fuel appliance should be done dependent on frequency of use. A regime of cleaning should also be kept, to ensure the chimney is clear of ash and debris build-up for continuous efficiency.

Caution;

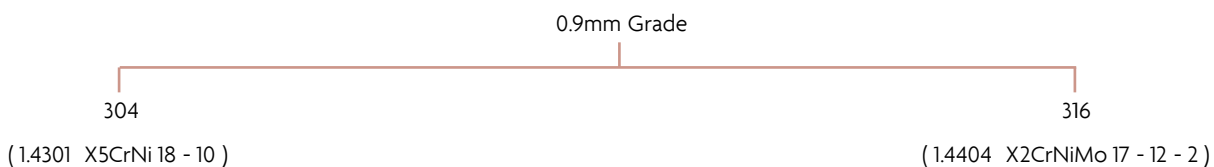
Product handling, transporting and assembling should be undertaken with extreme care as all components consist of sharp coupler connections. Wearing protective gloves and other associated safety equipment is highly recommended to avoid injury on any exposed edges.

Storage;

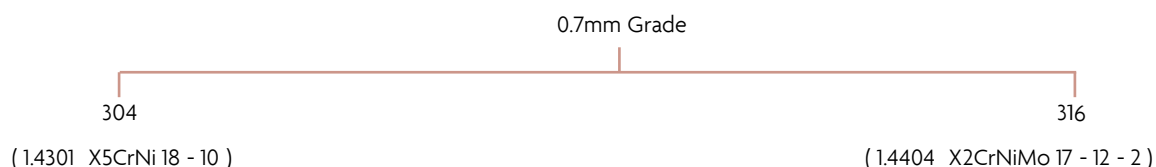
Flue components stored on site must be in a vertical orientation, on a flat surface which will not damage the male connection spigot or coupler jointing detail. To ensure the annulus insulation density is not compromised, all components must also be stored in a dry environment located away from any ongoing construction, emergency exits and high active public areas.

Material Specification;

150Ø - 1200Ø Liner Sections, Fittings and Elbows shall be manufactured using the following materials;



Alternative materials for 150Ø - 600Ø excluding Tee pieces.



Outer case associated parts are to be manufactured using (1.4301 X5CrNi 18 - 10) 304 Grade Stainless Steel.

Performance Designations;

The relevant technical performance classifications and designations for the Deltavent are ;

Standard	Product Designation					
BSEN 1856-1	T600	H1	D	Vml	20070	G(50)
				V2	50070	
				Vml	20090	
				V2	50090	
BSEN 1856-1	T450	H1	D	Vml	20070	G(50)
				V2	50070	
				Vml	20090	
				V2	50090	
BSEN 1856-1	T200	H1	W	Vml	20070	O(50)
				V2	50070	
				Vml	20090	
				V2	50090	
	Temperature Class	Pressure Class	Condense Resistance	Corrosion Class	Material Specification Liner Grade & Thickness	Soot Fire Resistance

The CE Designation Scheme

The compliance of a chimney system product to the relevant technical performance characteristics according to the designation scheme is described by the following example.

Product Description	Product Designation						
System Chimney Product	EN 1856-1	T450	H1	D	V1	L20091	G(50)
Metal Flue Lines	EN 1856-2	T160	P1	W	V1	L20056	O(50)
Connecting Flue Pipe	EN 1856-2	T200	P1	W	V2	L50056	G(50)
	Standard Number	Temperature Level °C	Pressure Level; N,P,H	Condensate Resistance	Corrosion Resistance	Flue Liner Specification	Soot Fire Resistance

Product Description- Standard Number:

EN 1856-1: The standard for system chimney products - requirements for metal chimneys. Comprising of a series of essential harmonised European Standards and elements for both single and multi-wall chimney products with rigid metallic liners.

EN 1856-2: Requirements for metal chimneys- part 2: Metal flue liners and connecting flue pipes. Relates to the essential harmonised European Standards and elements of all products used to convey the products of combustion from appliances to the outside atmosphere.

Temperature level:

Maximum continuous operating temperature (100-700°C). Example:

T160 (°C): suitable for Gas.

T200 (°C): suitable for Gas and Oil.

T450 (°C): suitable for Solid Fuel (multi-fuel).

Pressure Level:

N: Negative pressure - natural draft. (Fireplaces, stoves, atmospheric boilers - type B gas appliances).

P: Positive pressure - forced draft. (Fan flued boilers, type C gas appliances).

H: High pressure - industrial installations. (Diesel generators)

Pressure Type	Test Pressure (Pa)	Leakage rate / Flue surface area (l/sec.m ²)
N1	40	<20
P1	200	<0.006
P2	200	<0.120
H1	200 and 5000	<0.006
H2	200 and 5000	<0.120
	Standard Number	

Condensate resistance:

W: Designates ability to contain condensate within the flue (e.g. High efficiency condensing boilers).

D: Designates ability to operate under dry conditions only, usually meaning a flue gas temperature high enough to avoid condensate formation.

Corrosion resistance:

Durability of the flue liner against corrosion. This is fuel dependent having the following classes based on three available types of testing.

V1: Tested and approved as resistant to attack from gas combustion products.

V2: Tested and approved as resistant to attack from light oil and natural wood combustion products (sulphur content < 0.2%). **V3:** Tested and approved as resistant to attack from heavy oil, solid fuels and peat combustion products (sulphur content > 0.2%).

Vm: Not tested but rating declared by the manufacturer.

Flue Liner material specification:

The material specification of the flue liner is formed by the letter (L) followed by five digits. The first two digits represent the material type according to Table 4 within BS-EN 1856-1. The last three digits represent the material thickness in multiples of the unit 0.01 mm. Example:

L40045 represents a liner made of 1.4401 (316) stainless steel with a thickness of 0.45 mm.

Soot fire resistance:

G: Yes, the product has been tested at 1000°C for 30 minutes and has remained intact while the temperature of combustible material at the designated distance does not exceed 100°C at an ambient temperature 20°C.

O: No, all products with classification O mean the product is not rated as soot fire resistant. This is usually the case with low temperature applications such as condensing gas boilers, where seals are used, which would not withstand a soot fire.

Distance to combustible material:

Defined in soot fire resistance above. Distance between the outside surfaces of the chimney and adjacent combustible material, expressed in (mm). Example:

O30 = not soot fire resistant with minimum installation distance of 30mm from adjacent combustible material.

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Product Technical Information

According to BS EN 1856-1 Par. 7 and Annex ZA.1

Essential Characteristics: Requirements according to BS EN 1856-1	Levels and/or classes: Informative data	Document	Additional Information
Internal diameters Par. 4b	Available in diameters of 150mm-1200mm	Manufacturers declared.	Product catalogue Factory Production Control (Continuous Surveillance)
Liner Material Par. 4a and Par. 6.7.2	304 (1.4301 X5CrNi 18-10) 0.7mm + 0.9mm 316 (1.4404 X2CrNiMo 17-12-2) 0.7mm + 0.9mm	Manufacturers declared.	Product catalogue Factory Production Control (Continuous Surveillance)
Wind Load Resistance Par. 7.2 .d and Par. 6.2.3.2	Limitations of height location of exposed section of the chimney shall be 2.5 meters Maximum distance between lateral supports shall be 3.0 meters. Complied with the applied load of 312Kg on 200 Ø sections and fittings.	Manufacturers declared. Test report 19404/1/2	Annex A + Typical Installation
Compressive strength Par.7.2.e and Par.6.2.1			
Chimney sections and fittings Par.6.2.1.1 Chimney support Par.6.2.1.2	Chimney sections, fittings and supports shall withstand an intensity of load at least 3 x the declared design load, as per EN 1859 (designated by the distance between supports)	Test report 19404/1 + test report AL3484	Annex A + Typical Installation
Tensile strength Par.6.2.2	Chimney shall withstand a load of at least 1.5 x manufacturers declared, as per EH 1859	Test report 19404/1	
Lateral strength Par.6.2.3	Non-vertical installation. Maximum distance unsupported at 45° of 1.5 meters Vertical installation. Maximum spacing of lateral supports of 3.0 meters	Manufacturers declared.	Annex A + Typical Installation
Distance to combustibles, temperature related Par.7.2.f and Par.6.6.1	T600: 300mm T450:50mm T200:50mm	Test report 19404/1	
Flow resistance Par.7.2.g and Par.6.6.7	Mean value of roughness as per EN 13384-1:2002 Table 0.001mm	Manufacturers declared. Test report 19404/1	
Thermal resistance Par.7.2.h and Par.6.6.3	14.51 M²k/Kw at T200°C	Test report 19404/1	
Thermal performance Par.6.6.1	Performance tests for designations	Test report 19404/1	Appendix A tests 4, 5, 6, 9, 10, and 11
Accidental human contact Par.6.6.2	Provide protective shield and/or place warning signs in access areas	Test report 19404/1	Appendix A tests 1, 2, 3, and 8
Gas tightness Par.6.5 and Table 1	The leakage rate for gas tightness 0.00064 l/s/m². Designation (H1)	Test report 19404/1	Factory Production Control (Continuous Surveillance)
Sootfire resistance Par.6.4	G(50):Yes Applies O(50):No	Test report 19404/1	
Water vapour diffusion resistance Par.6.6.4	D(Dry) T450 +T600 W(Wet)T200	Test report 19404/1/2	
Durability against corrosion Par.6.7	Stainless steel 304 (1.4301) or 316 (1.4404) 0.7mm and 0.9mm grades	Manufacturers declared.	Product catalogue

The tables below provide the weight of essential Deltavent components and the maximum Design Load (Kg)/number of metre lengths that can be applied to standard support assemblies.

Weight per metre (Kg):

Diameter	150	200	250	300	350	400	450	500	550
	8.27	10.7	13.13	15.56	17.98	20.41	22.84	25.27	29.56
Diameter	600	650	700	750	800	850	900	950	1000
	31.71	34.27	36.82	39.37	41.92	44.47	47.02	49.57	52.12
Diameter	1050	1100	1150	1200					
	54.67	57.22	59.78	62.33					

Thrust Support Plates (Kg):

Diameter	150	200	250	300	350	400	450	500	550
	3.07	3.78	4.94	5.61	6.67	7.62	8.65	9.68	11.06
Diameter	600	650	700	750	800	850	900	950	1000
	12.08	13	14.4	14.72	16.05	17.3	18.3	19.68	20.88
Diameter	1050	1100	1150	1200					

B-Types (Kg):

Diameter	150	200	250	300	350	400	450	500	550
	0.5	0.6	0.71	0.87	0.97	1.1	1.2	1.32	4.76
Diameter	600	650	700	750	800	850	900	950	1000
	2	2.44	2.86	3.01	3.08	3.3	3.48	3.72	3.9
Diameter	1050	1100	1150	1200					

Guide B-Types (Kg):

Diameter	150	200	250	300	350	400	450	500	550
	1.64	2.04	2.45	2.85	3.24	3.66	4.06	4.4	4.82
Diameter	600	650	700	750	800	850	900	950	1000
	5.08	5.44	5.8	6.2	6.46	6.76	7.16	7.68	8.02
Diameter	1050	1100	1150	1200					

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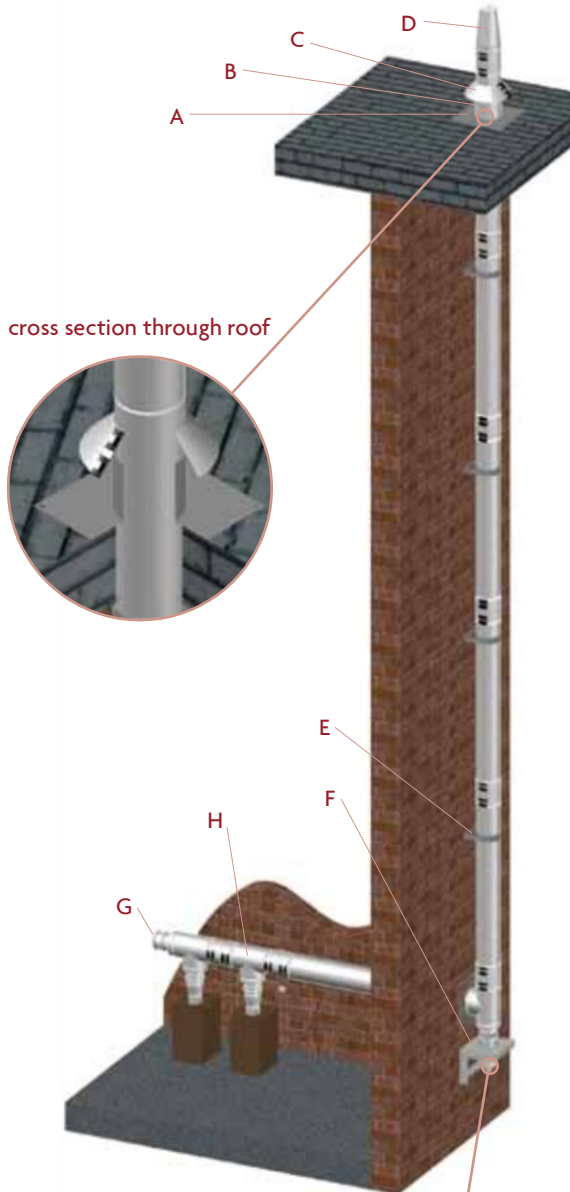
Annex A

Thrust Support Design Load (Kg) & Lengths accepted (m):

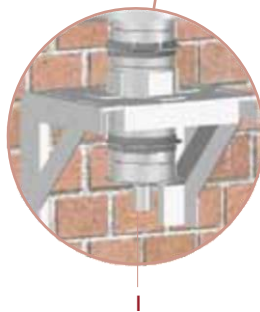
Design loads stated have been calculated in accordance with BS EN 1856-1 and BS EN 1859, therefore any information obtained shall only be used as a guide. Adequate fixing to a suitable structure must also be achieved on installation to obtain maximum load acceptance.

Diameter	150	200	250	300	350	400	450	500	550
Load	74.43	96.3	118.17	140.04	161.82	183.69	205.56	227.43	262.44
Lengths	9	9	9	9	9	9	9	9	9
Diameter	600	650	700	750	800	850	900	950	1000
Load	285.39	308.43	331.38	354.33	377.28	400.23	423.18	446.13	469.08
Lengths	9	9	9	9	9	9	9	9	9
Diameter	1050	1100	1150	1200					
Load	492.03	514.98	538.02	560.97					
Lengths	9	9	9	9					

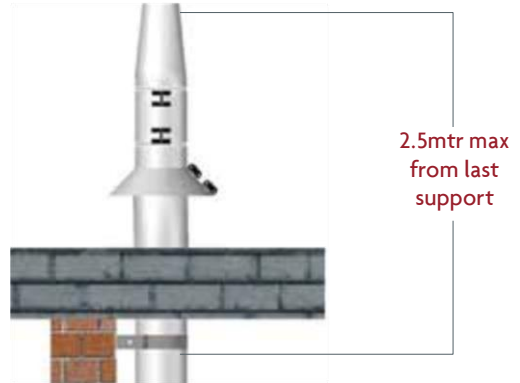
Typical Installation:



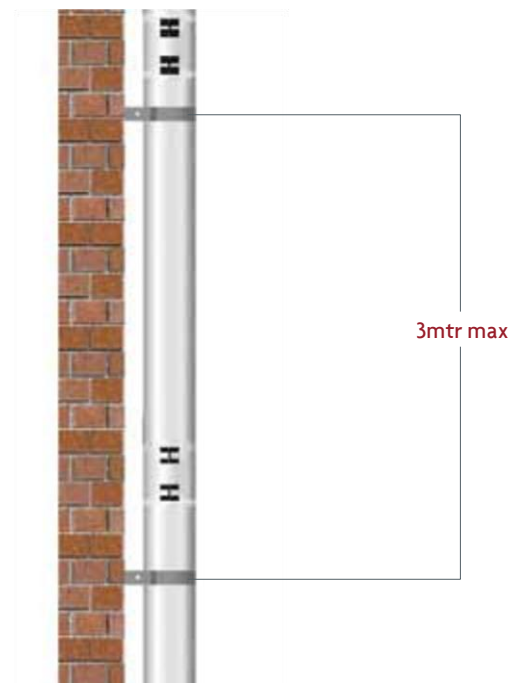
- A= Flat Flashing Plate
- B= Flashing Collar
- C=Storm Collar
- D= Top Stub Termination
- E= B Type Support Bracket
- F= Base Wall Support
- G= Cleanout/Inspection Door
- H= Standard 90° Tee
- I= Cleanout Door with drain point



Termination assembly



Support assembly



Offset assembly



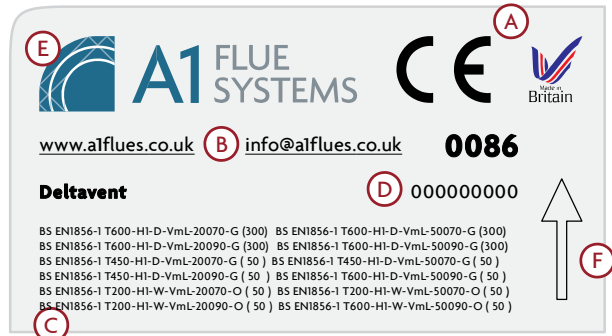
Twinwall Deltavent VB, US & USG

Product Marking:

According to BS EN 1856-1: 2009

Chimney Identification Plate Example:

In accordance with BS EN 1856-1: 2009, chimney identification plates retaining information related to product specifications and designations are to be permanently secured to a chimney system and/or in close proximity to it, in an un-obstructive but visible location. Suitable fixing positions would be either to/or near any Clean Out Doors, Draught Stabilisers, Manual Dampers or boiler connection components. It is also extremely important that this plate is not removed or defaced at any point.



A = CE Conformity Mark & Identification Number

B = Manufacturer's Contact Details

C = Product Designators

D = Factory Production Control Certificate Number

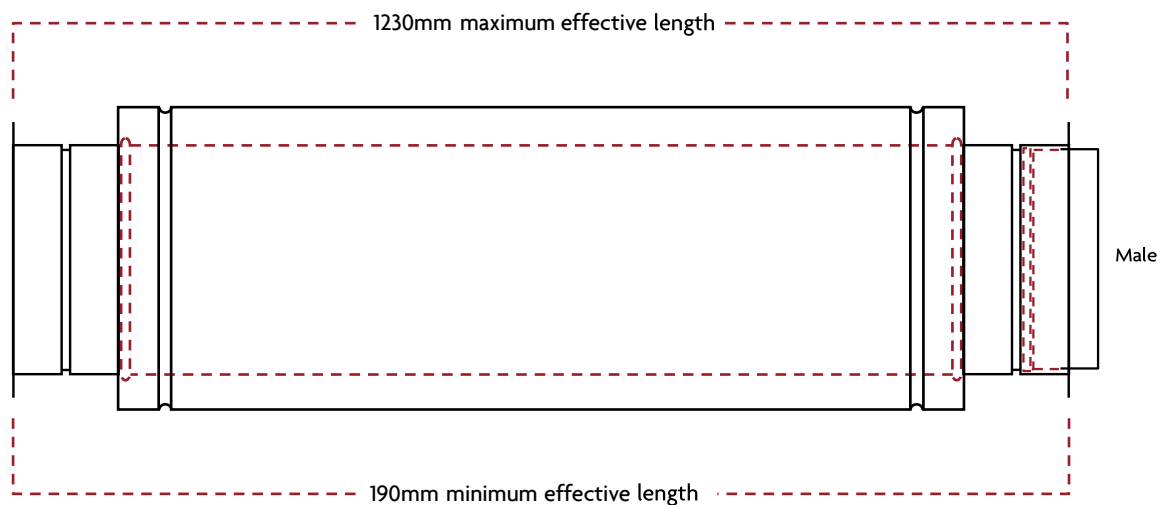
E = Manufacturer's Name & Trademark

F = Gas Flow Direction

Straight Lengths.

Straight Lengths are available as standard in 300mm, 450mm, 600mm, 750mm, 1000mm and 1200mm lengths. These are all installed effective lengths.

We also manufacture any fixed length between the standard lengths to your requirements.



Prior to Installation

Before the installation of a Deltavent flue you must be aware, in a vertical application it is essential that the components are installed with male spigot down against the flow of gases. This will allow any condensate to remain within the flue.

The Deltavent system also uses two types of sealant. For low temperature systems, 150 degrees and below, silicone sealant is used. For hotter systems, between 150-760 degrees, high temperature ceramic exhaust sealant is used. The correct sealant must be used to seal the two inner flanges. Sealant is chosen according to the flue type and gas temperature.

Sealants for all applications are available and are supplied with the product. Where Deltavent is used externally, sealant must be applied under the external Clamp bands, (in the grooves of the outer case) to prevent the ingress of water.

Twinwall Deltavent VB

Installation – VB Joint Based System

Ensure all the components that require sealant are clean from any dirt, grease, and other contaminants. Once the decontamination has been achieved, apply an adequate amount of sealant to the male flange connection. (Refer to illustration)

Using the locating spigot of the male as a guide, simply push/slot the two parts of Deltavent together (male spigot runs down).

The next step is to fit the V-Band supplied. This has been designed as a two-piece item for easy assembly and must also be free from any contaminants i.e., grease or oil. Sealant is then to be applied into the groove of the V-Band before fitting. Position both V-Band parts around the Deltavent with the 10mm connection flanges located within the groove. Tightly fasten both joints using the stainless-steel nuts and bolts provided.

CAUTION:

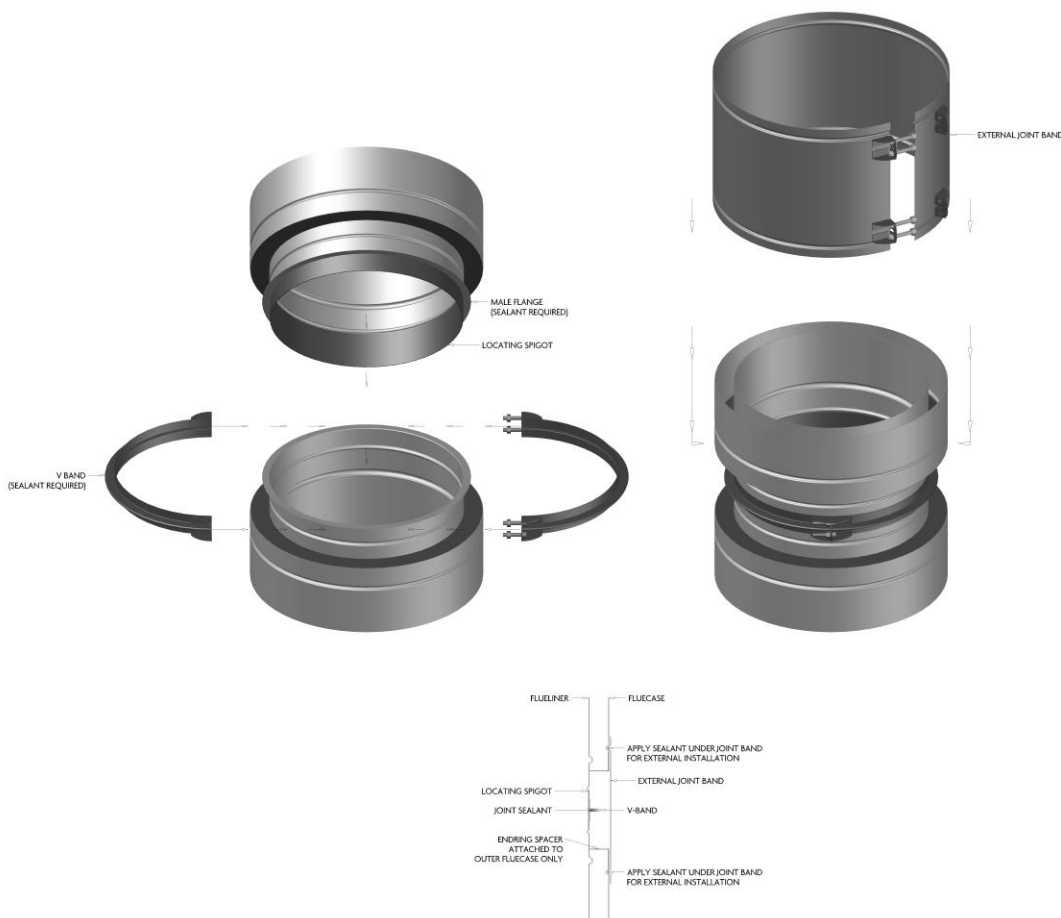
It is extremely important for nothing to pierce either the internal liner or outer case during installation. Please note during installation the weld should always be installed to at least 90° to the floor.

Fitting the outer Clamp band is the final process of assembly. This has been designed to connect both outer flue parts together using a groove either end for location.

NOTE:

If Deltavent is exposed to external elements i.e., (rain or snow) it is essential that a bead of sealant is also applied into the grooves underneath the band.

Detailed Illustration Below -



Hint: Do not pull or bend the clamp band in any way when installing, as this will alter the shape of its profile. Simply slide the clamp band along the two adjoining lengths. Once the band is situated in the correct position tightly fasten the joint using the nuts and bolts provided.

EXCELLENCE • PRIDE
PASSION • PRECISION

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Twinwall Deltavent US

Installation – US Joint Based System (available in 50R, 75R and 100R)

Ensure all the components that require sealant are clean from any dirt, grease and other contaminants. Once the decontamination has been achieved, apply an adequate amount of sealant to the male flange connection. (Refer to illustration)

Using the locating spigot of the male as a guide, simply push/slot the two parts of Deltavent together (male spigot runs down) until the flange faces come together and join using M10 nuts and bolts.

CAUTION:

It is extremely important for nothing to pierce either the internal liner or outer case during installation. Please note during installation the weld should always be installed to at least 90° to the floor.

Fitting the outer Clamp band is the final process of assembly. This has been designed to connect both outer flue parts together using a groove either end for location.

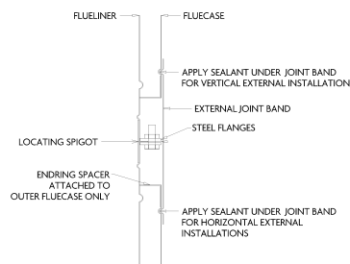
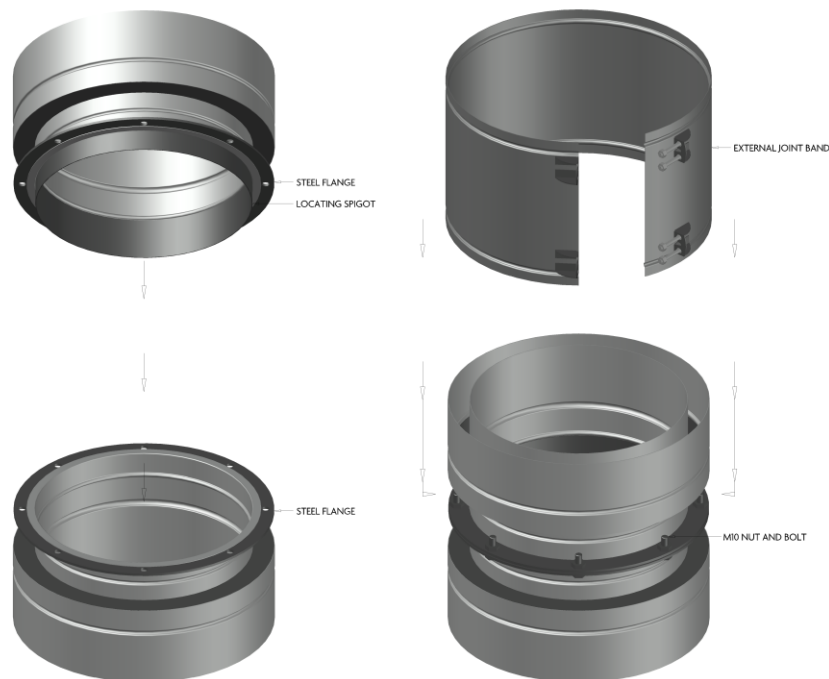
NOTE:

If Deltavent is exposed to external elements i.e., (rain or snow) it is essential that a bead of sealant is also applied into the grooves underneath the band.

Application Examples –

Quench pipe systems, Kitchen extract systems, Smoke extract systems, Condensing boilers, Fan assisted flue systems, Diesel generator exhausts, Oil and gas fired boilers that operate with a positive exhaust pressure.

Detailed Illustration Below -



Hint: Do not pull or bend the clamp band in any way when installing, as this will alter the shape of its profile. Simply slide the clamp band along the two adjoining lengths. Once the band is situated in the correct position tightly fasten the joint using the nuts and bolts provided.

Twinwall Deltavent USG

Installation – USG Joint Based System (available in 50R, 75R and 100R)

Ensure all the components that require sealant are clean from any dirt, grease and other contaminants. Once the decontamination has been achieved, apply an adequate amount of sealant to the male flange connection. (Refer to illustration)

Using the locating spigot of the male as a guide, simply push/slot the two parts of Deltavent together (male spigot runs down) until the flange faces come together with a gasket seal and join using M10 nuts and bolts.

CAUTION:

It is extremely important for nothing to pierce either the internal liner or outer case during installation. Please note during installation the weld should always be installed to at least 90° to the floor.

Fitting the outer Clamp band is the final process of assembly. This has been designed to connect both outer flue parts together using a groove either end for location.

NOTE:

If Deltavent is exposed to external elements i.e., (rain or snow) it is essential that a bead of sealant is also applied into the grooves underneath the band.

Application Examples –

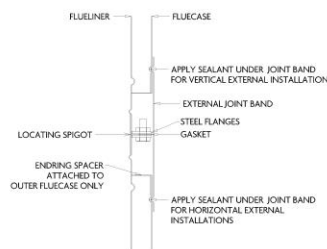
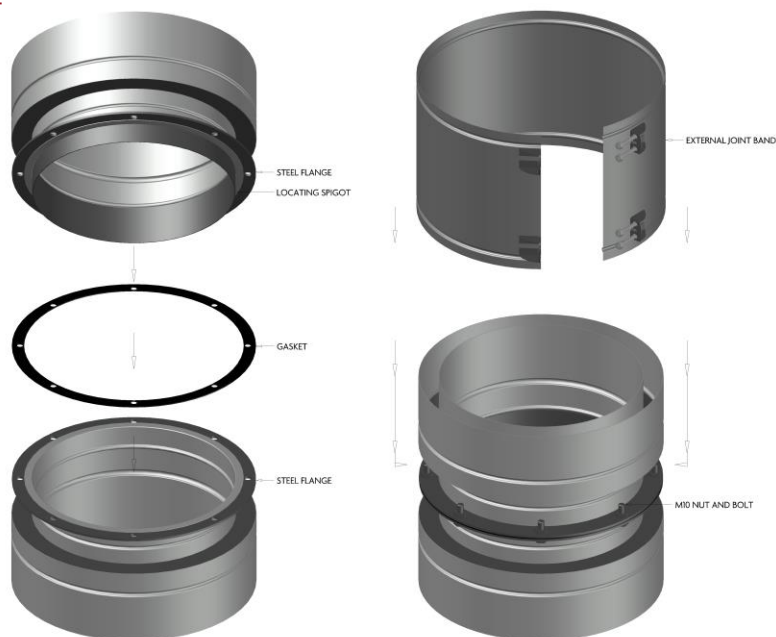
Quench pipe systems, Kitchen extract systems, Smoke extract systems, Condensing boilers, Fan assisted flue systems, Diesel generator exhausts, Oil and gas fired boilers that operate with a positive exhaust pressure.

Gaskets and Sealants

The correct gaskets must be used to seal the inner wall flanges. The gasket type is chosen according to fuel type and gas temperature. Gaskets for all applications are available.

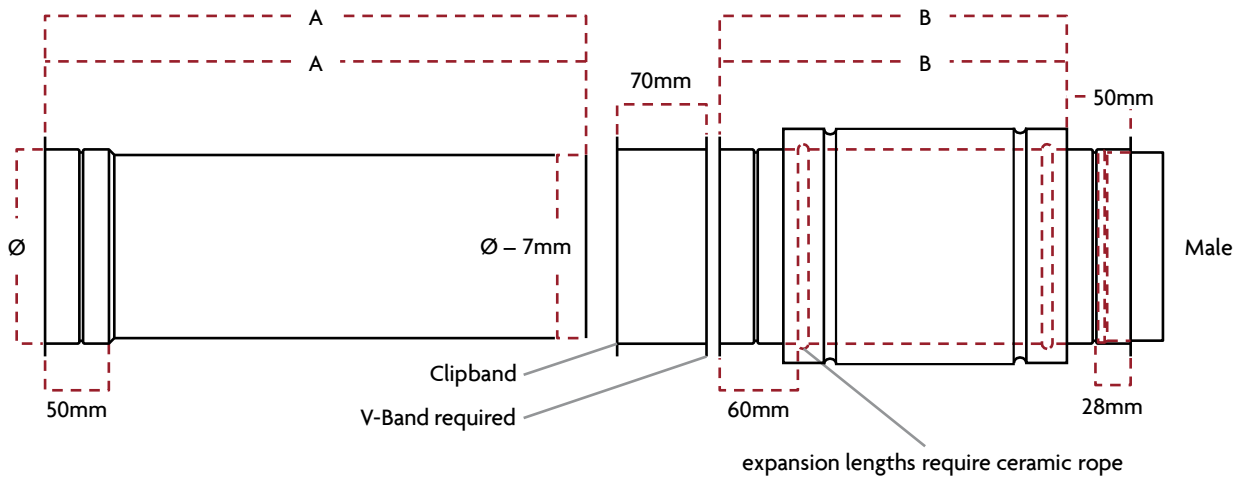
Where USG is used externally, sealant must be applied under the external joint bands to prevent the ingress of rainwater.

Detailed Illustration Below -



Hint: Do not pull or bend the clamp band in any way when installing, as this will alter the shape of its profile. Simply slide the clamp band along the two adjoining lengths. Once the band is situated in the correct position tightly fasten the joint using the nuts and bolts provided.

Deltavent Adjustable and Expansion Lengths.



450-650 adjustable & expansion lengths; A = 420mm

600-950 adjustable & expansion lengths; A = 570mm

450-650 adjustable & expansion lengths; B = 213mm

600-950 adjustable & expansion lengths; B = 358mm

Deltavent Adjustable Lengths.

Adjustable Lengths have been successfully developed to allow for greater flexibility when measuring or installing a Deltavent chimney system.

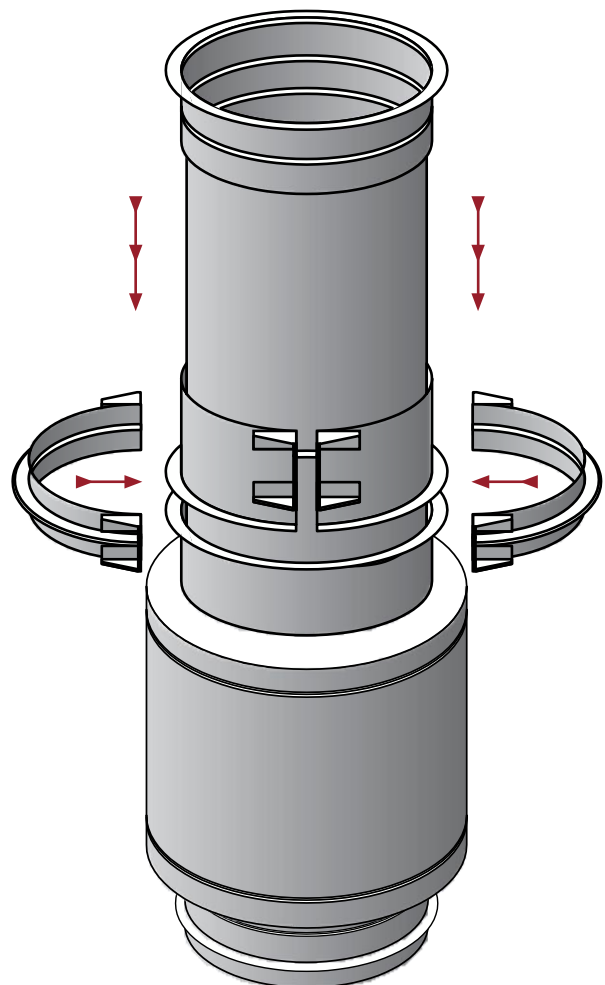
This component is obtainable in both 450mm-650mm and 600mm-950mm lengths with a (as standard) complete locking Clip band, V-Band and suitable Cover band if required. Non-standard Adjustable Lengths consisting of dimensions above those given can also be accommodated.

Once the Adjustable Length is in position and the length required has been achieved, it is then secured using both V-Band and Clip band. (refer to illustration)

Deltavent Expansion Lengths.

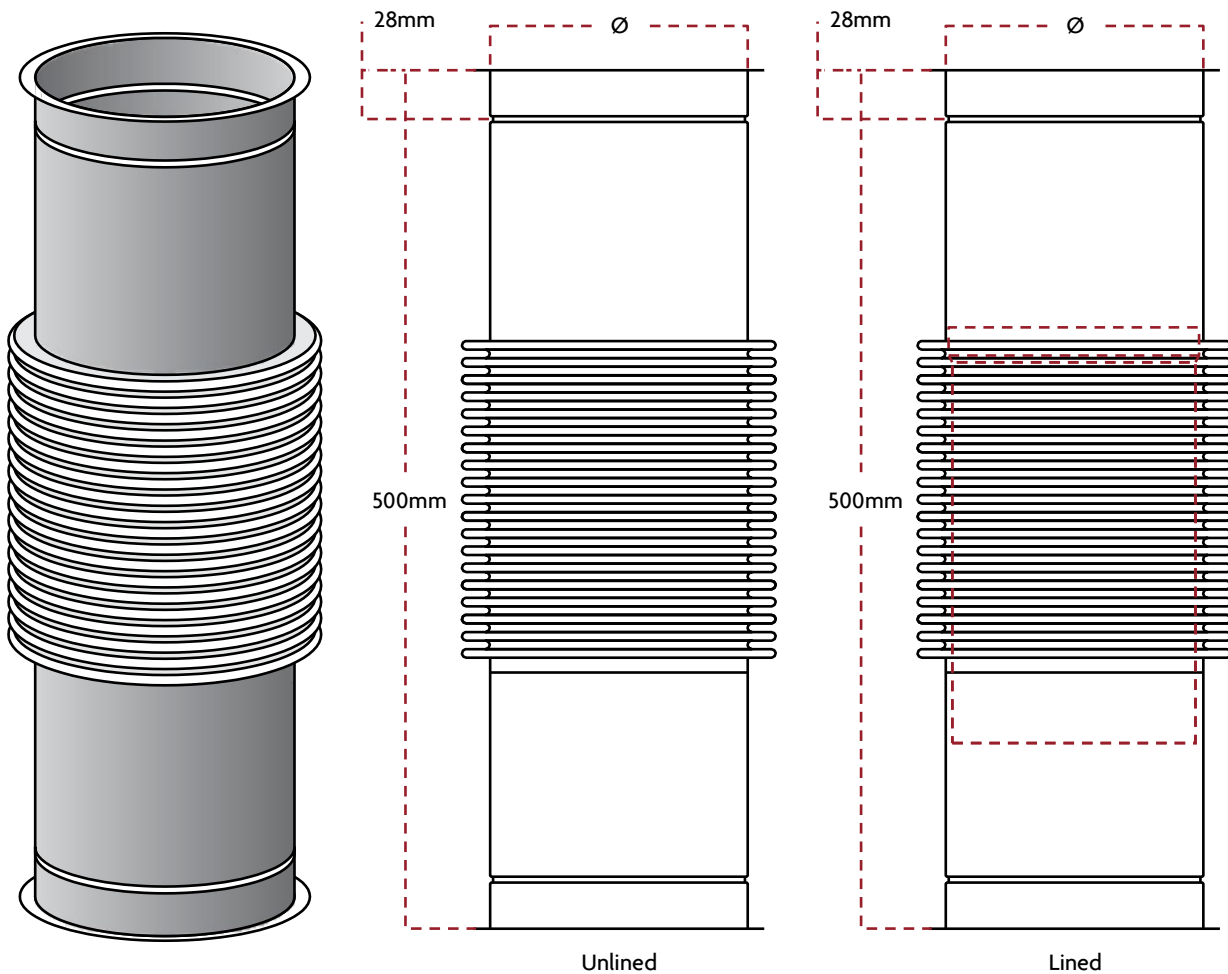
The Deltavent Expansion Length has been designed to allow expansion between two fixed points, when used on negative and low positive pressure systems.

This component does not require any form of locking band but will be manufactured with a fire-retardant ceramic rope located between both liners skins. (refer to diagram)



Deltavent Expansion Bellows

The Expansion Bellow is designed to compensate for thermal and mechanical movement from within a chimney run whilst maintaining a high-pressure seal.



NOTE:

Expansion Bellows for the Deltavent are to be concealed using a cover jacket, for the protection against external environments and human intervention. (Cover jacket provided separately)

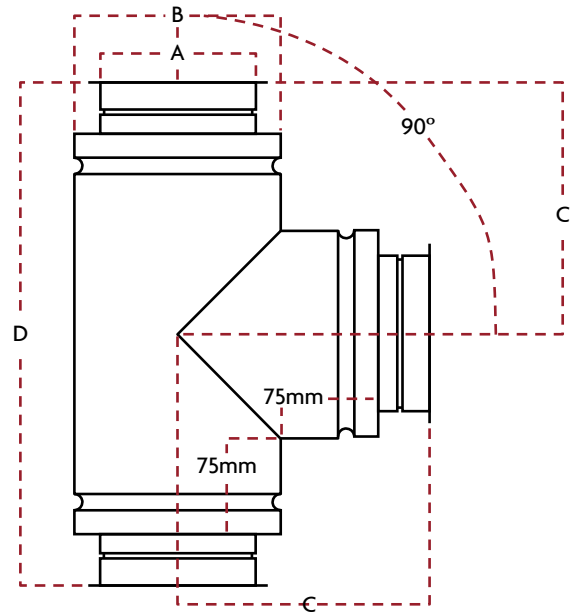
Lined Bellows allow for better transition of flue gases to the atmosphere. However, this restricts the movement of the Bellow to linear expansion only.

Deltavent Tees

90 Degree Tees

The 90° Tee is designed specifically to provide a change in chimney flue direction and to accommodate accessibility points for inspections/cleaning or moisture release drain points. This component is frequently used at the base of a vertically rising flue system and can also be assembled in multiples to create complete header configurations.

All dimensions given below are the standard minimum. However, the possibility of manufacturing and supplying a non-standard tee with or without a reduced branch diameter, and at values above those given, is also available on request.



25 Annulus																						
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
C	200		225	238	250	263	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650
D	400		450	475	500	525	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300

50 Annulus																					
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
C	225		250	263	275	288	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650
D	450		500	525	550	575	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300

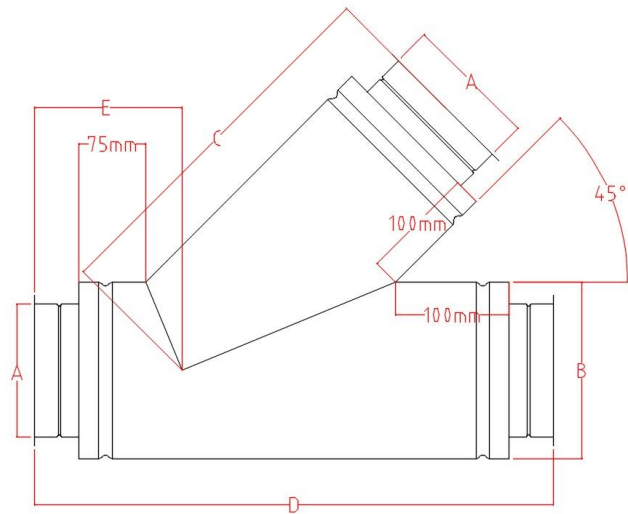
75 Annulus																					
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	
B	250		300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
C	250		275	288	300	313	325	350	375	400	425	450	475	500	525	550	575	600	625	650	
D	500		550	575	600	625	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	

100 Annulus																					
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850		
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	1000	1050		
C	275		300	313	325	338	350	375	400	425	450	475	500	525	550	575	600	625	650		
D	550		600	625	650	675	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300		

Twinwall Deltavent VB, US & USG

45 Degree Tees

The 45° Tee is also designed to provide a change in chimney flue direction, but with the added advantage of a swept entry or exit to reduce resistance to the flow of flue gases. All dimensions given below are the standard minimum. However, the possibility of manufacturing a non-standard tee with or without a reduced branch diameter and at any angle is available on request.



To calculate Tee Body length;
 $\phi / \cos \text{ angle} + 275 + (\text{insulation} + \cos \text{ angle}).$

25 Annulus																
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750
C	331		391	422	451	482	513	573	633	694	753	814	875	935	995	1055
D	487		557	593	628	664	700	770	841	912	982	1053	1124	1195	1265	1335
E	156		166	171	177	182	187	197	208	218	229	239	249	260	270	280

50 Annulus																
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	
C	391		451	482	513	543	573	633	694	753	814	875	935	995	1055	
D	557		628	664	700	735	770	841	912	982	1053	1124	1195	1265	1335	
E	166		177	182	187	192	197	208	218	229	239	249	260	270	280	

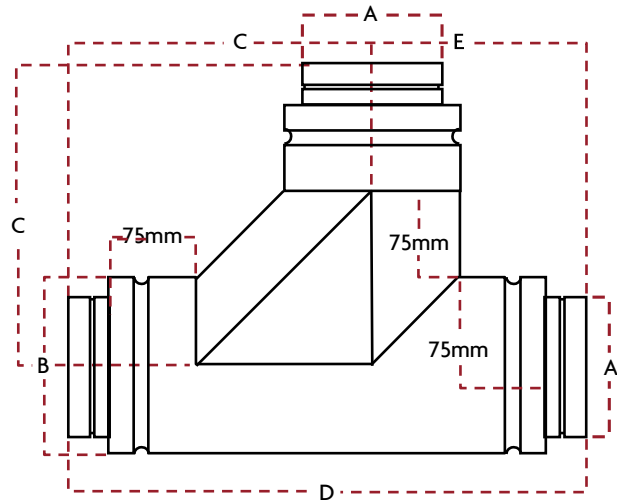
75 Annulus															
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	
B	250		300	325	350	375	400	450	500	550	600	650	700	750	
C	451		513	543	573	603	633	694	753	814	875	935	995	1055	
D	628		700	735	770	806	841	912	982	1053	1124	1195	1265	1335	
E	177		187	192	197	203	208	218	229	239	249	260	270	280	

100 Annulus														
ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	
B	300		350	375	400	425	450	500	550	600	650	700	750	
C	513		573	603	633	664	694	753	814	875	935	995	1055	
D	700		770	806	841	877	912	982	1053	1124	1195	1265	1335	
E	187		197	203	208	213	218	229	239	249	260	270	280	

90 Degree Booted Tees

The 90° Booted Tee is designed to provide a change in chimney flue direction but with the added advantage of a swept entry or exit to reduce resistance to the flow of flue gases.

This equal tee can be manufactured to dimensions above those given with or without a reduced branch diameter and at certain angles.



25 Annulus																				
∅ A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950
C	275		300	313	325	338	350	375	400	425	450	475	500	525	550	575	600	625	650	675
D	475		525	550	575	600	625	675	725	775	825	875	925	975	1025	1075	1100	1125	1150	1175
E	200		225	238	250	263	275	300	325	350	375	400	425	450	475	500	525	550	575	600

50 Annulus																				
∅ A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	950
C	300		325	338	350	363	375	400	425	450	475	500	525	550	575	600	625	650	675	675
D	525		575	600	625	650	675	725	775	825	875	925	975	1025	1075	1100	1125	1150	1175	1175
E	225		250	263	275	288	300	325	350	375	400	425	450	475	500	525	550	575	600	600

75 Annulus																				
∅ A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900
B	250		300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	950	950
C	325		350	363	375	388	400	425	450	475	500	525	550	575	600	625	650	675	675	675
D	575		625	650	675	700	725	775	825	875	925	975	1025	1075	1100	1125	1150	1175	1175	1175
E	250		275	288	300	313	325	350	375	400	425	450	475	500	525	550	575	600	600	600

100 Annulus																				
∅ A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	950	950	950
C	350		375	388	400	413	425	450	475	500	525	550	575	600	625	650	675	675	675	675
D	625		675	700	725	750	775	825	875	925	975	1025	1075	1100	1125	1150	1175	1175	1175	1175
E	275		300	313	325	338	350	375	400	425	450	475	500	525	550	575	600	600	600	600

Twinwall Deltavent VB, US & USG

Deltavent Elbows

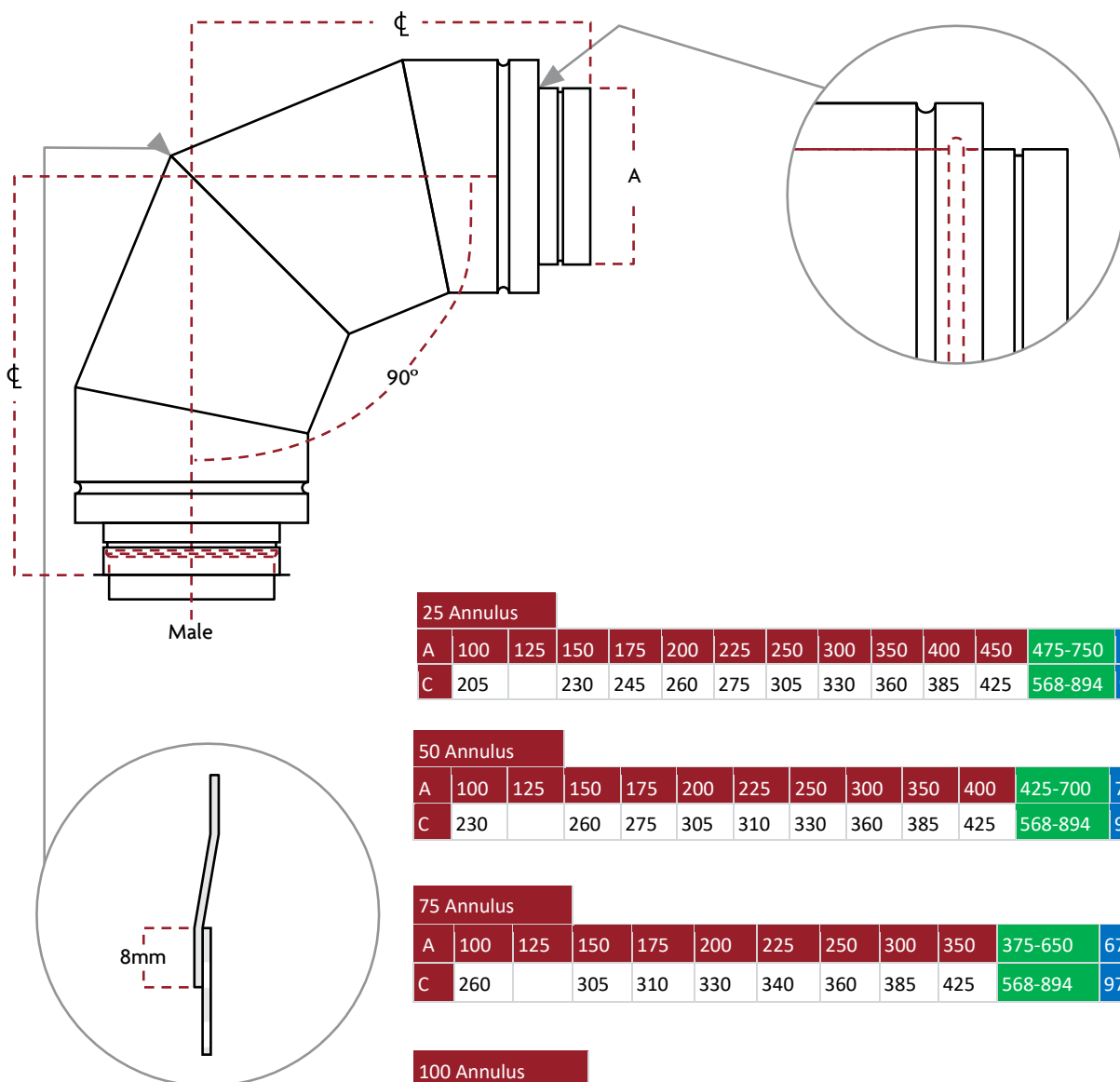
Deltavent Elbows are used when a change in direction is required within a chimney system. By adjoining and incorporating Elbows with various straight lengths and adjustable lengths, offsets can be tailor made to suit your requirements.

All information provided below is the standard minimum. However, the possibility of manufacturing and supplying Elbows with one or both centre lines extended and at any angle is available on request.

The entire range of Deltavent Elbows consist of fixed internal liner segments which are joined with an 8mm overlap joint, Resistance Welded together.

CAUTION: Deltavent Elbows DO NOT LOAD BEAR.

Green = Made from 2 x Non-Standard 45 Degree Elbows
 Blue = Made from 3 x Non-Standard 30 Degree Elbows



25 Annulus													
A	100	125	150	175	200	225	250	300	350	400	450	475-750	775-1150
C	205		230	245	260	275	305	330	360	385	425	568-894	972-1160

50 Annulus													
A	100	125	150	175	200	225	250	300	350	400	425-700	725-1100	
C	230		260	275	305	310	330	360	385	425	568-894	972-1160	

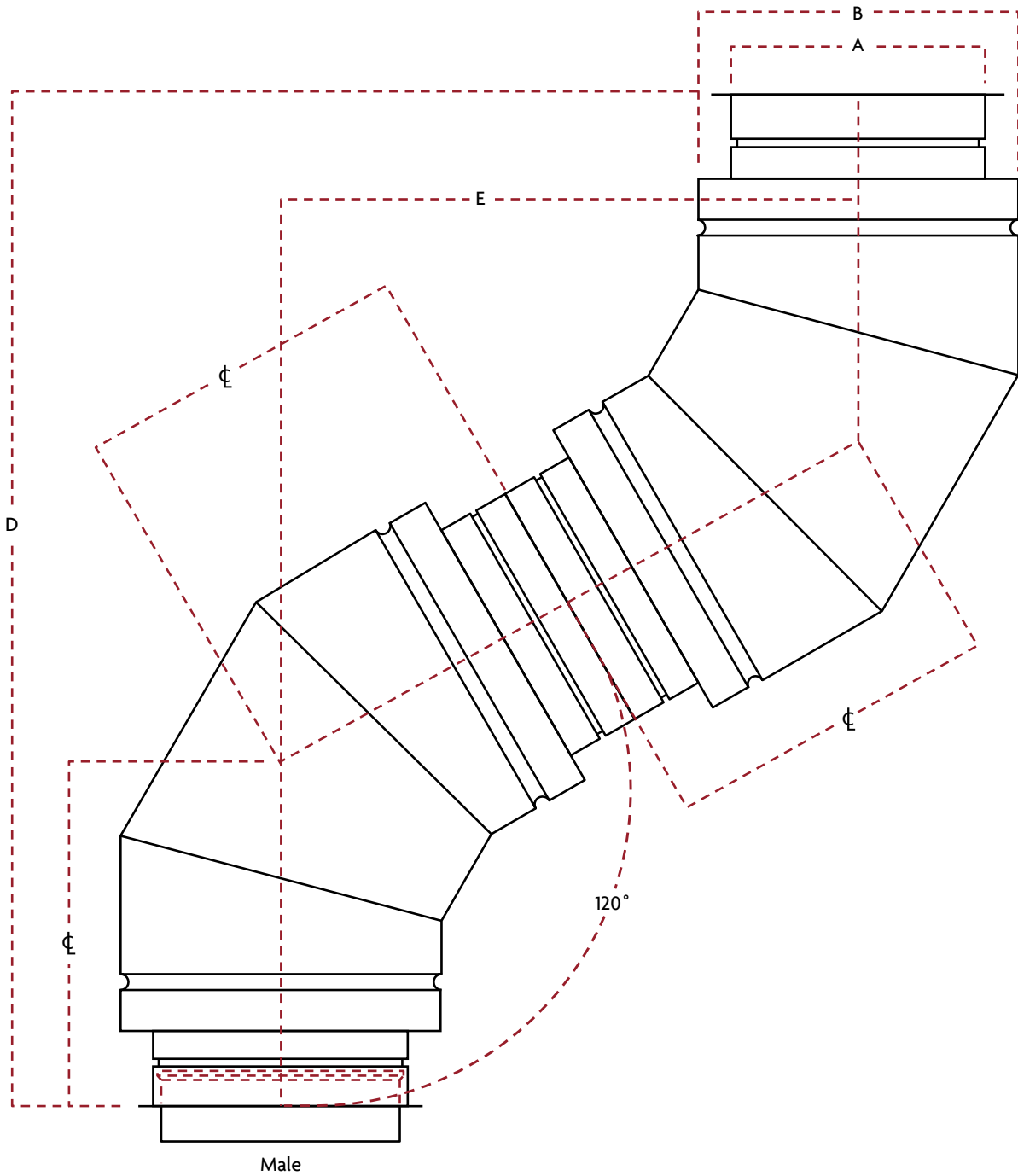
75 Annulus													
A	100	125	150	175	200	225	250	300	350	375-650	675-1050		
C	260		305	310	330	340	360	385	425	568-894	972-1160		

100 Annulus													
A	100	125	150	175	200	225	250	300	325-600	625-1000			
C	305		310	330	340	375	385	425	568-894	972-1160			

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Systems House, Maun Way, Boughton Industrial Estate, New Ollerton, Nr. Newark, Nottinghamshire, NG22 9ZD
 Tel: +44 (0)1623 860 578 Fax: +44 (0)1623 835 548 info@a1flues.co.uk www.a1flues.co.uk

60 Degree Elbows



Twinwall Deltavent VB, US & USG

60 Degree Elbows

Blue = Made from 2 x Non-Standard 30 Degree Elbows
 Green = Made from 4 x Non-Standard 30 Degree Elbows
 D & E = Refer to previous page illustration.

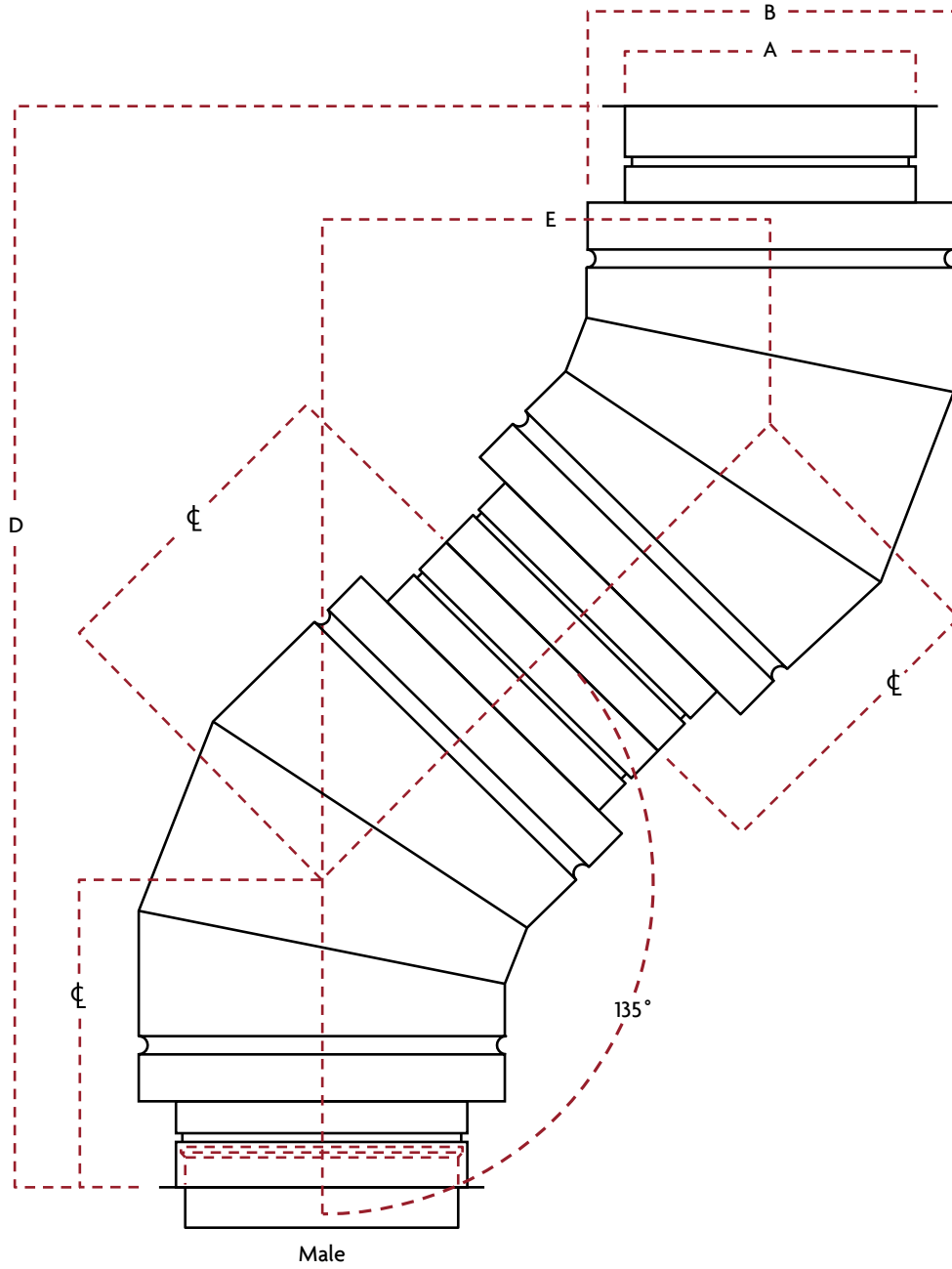
25 Annulus																	
A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	725-1150
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	775-1200
C	165		175	180	190	200	210	220	250	270	280	290	310	350	370	390	525-671
D	495		525	540	570	600	630	660	750	810	840	870	930	1050	1110	1170	1574-2010
E	286		303	312	329	346	364	381	433	468	485	502	537	606	641	675	909-1161

50 Annulus																		
A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	675-1100
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750			775-1200
C	175		190	200	210	215	220	250	270	280	290	310	350	370	390			525-671
D	525		570	600	630	645	660	750	810	840	870	930	1050	1110	1170			1574-2010
E	303		329	346	364	372	381	433	468	485	502	537	606	641	675			909-1161

75 Annulus																		
A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	625-1050
B	250		300	325	350	375	400	450	500	550	600	650	700	750				775-1200
C	190		210	215	220	225	250	270	280	290	310	350	370	390				525-671
D	570		630	645	660	675	750	810	840	870	930	1050	1110	1170				1574-2010
E	329		364	372	381	390	433	468	485	502	537	606	641	675				909-1161

100 Annulus																		
A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	575-1000
B	300		350	375	400	425	450	500	550	600	650	700	750					775-1200
C	210		220	225	250	260	270	280	290	310	350	370	390					525-671
D	630		660	675	750	780	810	840	870	930	1050	1110	1170					1574-2010
E	364		381	390	433	450	468	485	502	537	606	641	675					909-1161

45 Degree Elbows



Twinwall Deltavent VB, US & USG

45 Degree Elbows

Blue = Made from 2 x Non-Standard 22.5 Degree Elbows

Green = Made from 4 x Non-Standard 22.5 Degree Elbows

D & E = Refer to previous page illustration.

25 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000-1150
B	190		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050-1200
C	140		150	155	160	165	180	190	200	210	225	245	250	260	280	290	370	380	391	401	411	476-506
D	478		512	529	546	563	616	632	683	717	768	836	854	888	956	990	1263	1297	1335	1369	1403	1625-1728
E	198		212	219	226	233	256	262	283	297	318	346	354	368	396	410	523	537	553	567	581	673-716

50 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950-1100
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050-1200
C	150		160	165	180	185	190	200	210	225	245	250	260	280	290	370	380	391	401	411	476-506
D	512		546	563	616	632	632	683	717	768	836	854	888	956	990	1263	1297	1335	1369	1403	1625-1728
E	212		226	233	256	262	262	283	297	318	346	354	368	396	410	523	537	553	567	581	673-716

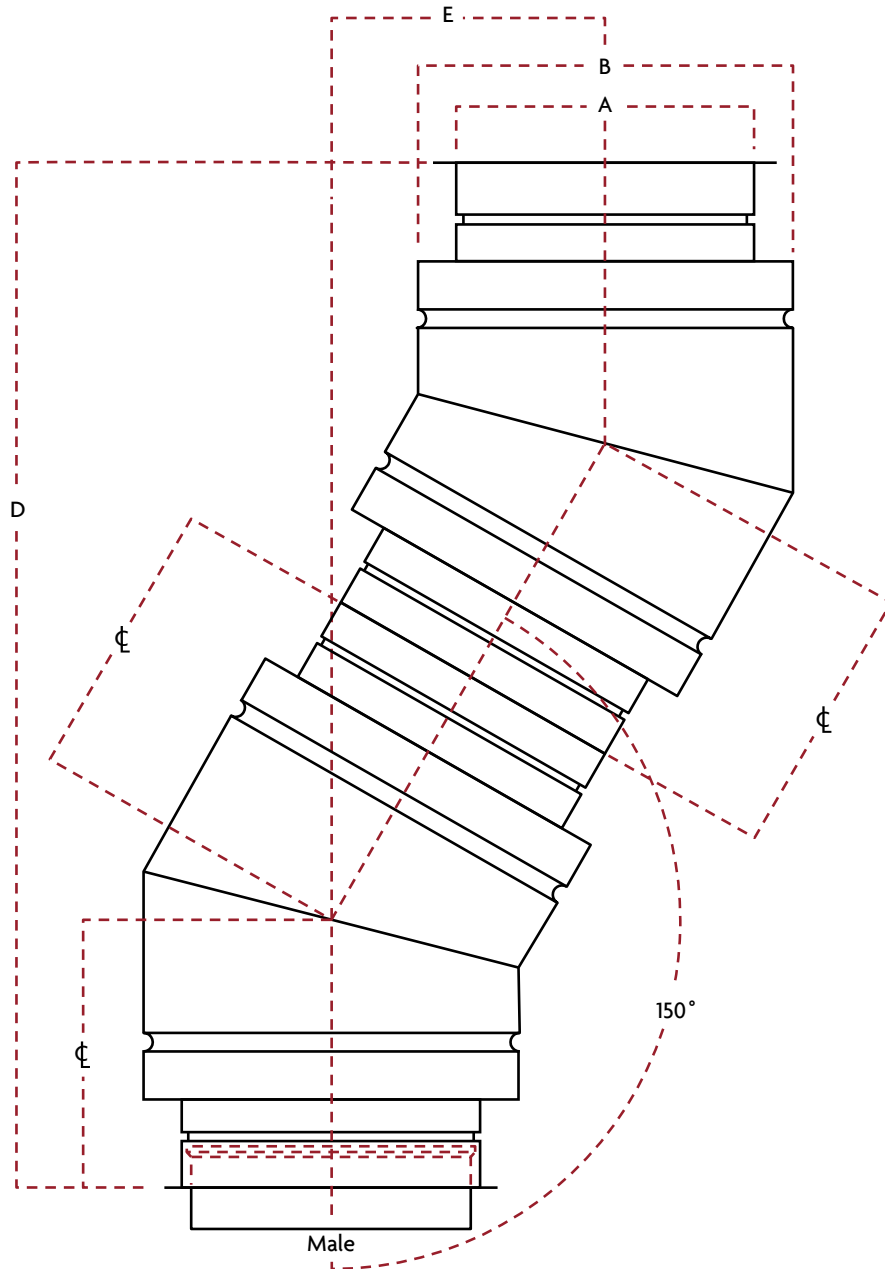
75 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900-1050
B	250		300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050-1200
C	160		180	185	190	195	200	210	225	245	250	260	280	290	370	380	391	401	411	476-506
D	546		616	632	632	666	683	717	768	836	854	888	956	990	1263	1297	1335	1369	1403	1625-1728
E	226		256	262	262	276	283	297	318	346	354	368	396	410	523	537	553	567	581	673-716

100 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850-1000
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	1000	1050-1200
C	180		190	195	200	205	210	225	245	250	260	280	290	370	380	391	401	411	476-506
D	615		632	666	683	700	717	768	836	854	888	956	990	1263	1297	1335	1369	1403	1625-1728
E	255		262	276	283	290	297	318	346	354	368	396	410	523	537	553	567	581	673-716

30 Degree Elbows



Twinwall Deltavent VB, US & USG

30 Degree Elbows

25 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	125		132	135	140	143	152	158	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311
D	467		493	504	522	534	567	590	616	642	664	690	709	784	821	858	959	985	1008	1034	1060	1086	1108	1135	1161
E	125		132	135	140	143	152	158	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311

50 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	132		140	143	152	155	158	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311
D	493		522	534	567	578	590	616	642	664	690	709	784	821	858	959	985	1008	1034	1060	1086	1108	1135	1161
E	132		140	143	152	155	158	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311

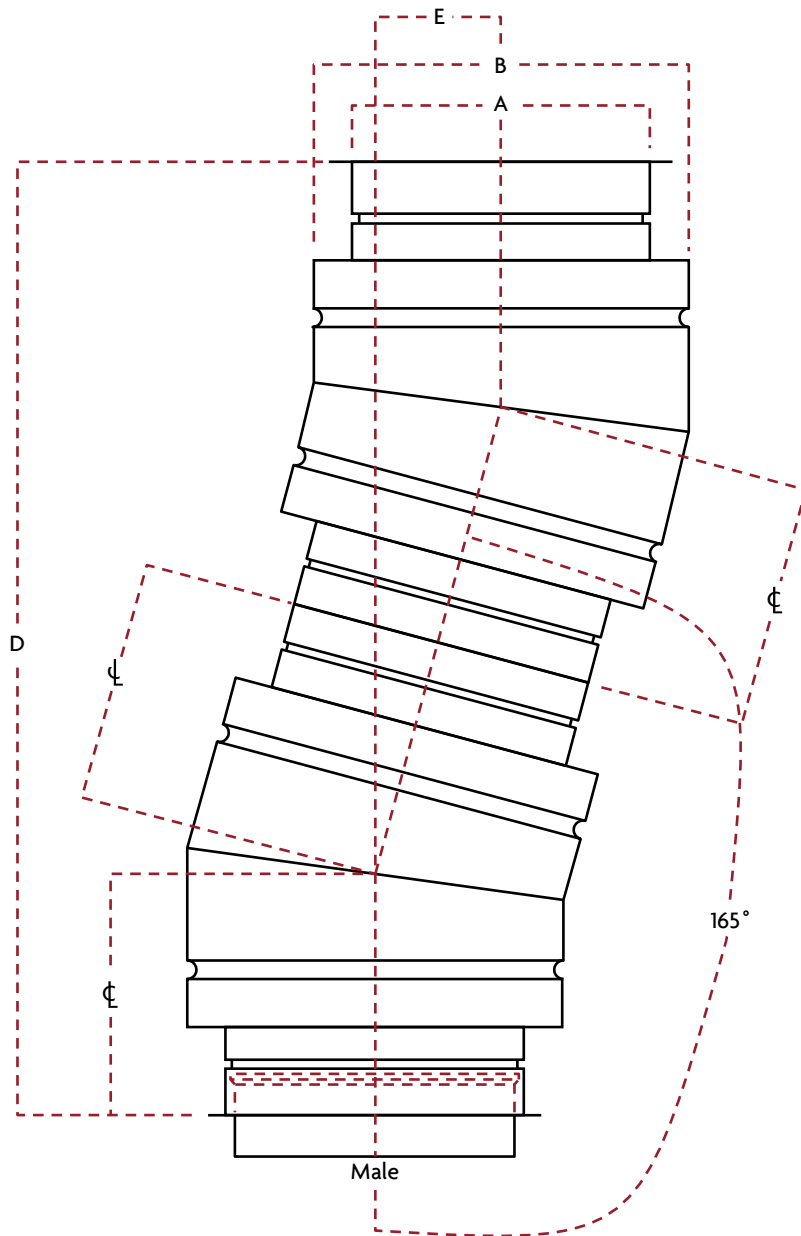
75 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
B	250		300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	140		152	155	158	160	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311
D	522		567	578	590	597	616	642	664	690	709	784	821	858	959	985	1008	1034	1060	1086	1108	1135	1161
E	140		152	155	158	160	165	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311

100 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	152		158	160	165	169	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311
D	567		590	597	616	631	642	664	690	709	784	821	858	959	985	1008	1034	1060	1086	1108	1135	1161
E	152		158	160	165	169	172	178	185	190	210	220	230	257	264	270	277	284	291	297	304	311

15 Degree Elbows



Twinwall Deltavent VB, US & USG

15 Degree Elbows

25 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
B	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	115		119	120	122	124	127	134	137	141	144	147	151	164	173	175	203	206	209	213	216	219	222	226	230
D	452		469	471	479	487	500	526	539	554	568	578	593	645	682	690	798	811	821	837	850	860	873	889	904
E	60		62	62	63	64	66	69	71	73	75	76	78	85	90	91	105	107	108	110	112	113	115	117	119

50 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
B	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	119		122	124	127	130	134	137	141	144	147	151	164	173	175	203	206	209	213	216	219	222	226	230
D	468		479	487	500	511	526	539	554	568	578	593	645	682	690	798	811	821	837	850	860	873	889	904
E	62		63	64	66	67	69	71	73	75	76	78	85	90	91	105	107	108	110	112	113	115	117	119

75 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
B	250		300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	122		127	130	134	135	137	141	144	147	151	164	173	175	203	206	209	213	216	219	222	226	230
D	480		500	511	526	531	539	554	568	578	593	645	682	690	798	811	821	837	850	860	873	889	904
E	63		66	67	69	70	71	73	75	76	78	85	90	91	105	107	108	110	112	113	115	117	119

100 Annulus

A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
C	127		134	135	137	139	141	144	147	151	164	173	175	203	206	209	213	216	219	222	226	230
D	499		526	531	539	547	554	568	578	593	645	682	690	798	811	821	837	850	860	873	889	904
E	66		69	70	71	72	73	75	76	78	85	90	91	105	107	108	110	112	113	115	117	119

Drain Lengths.

The purpose of a drain length is to relieve the flue system from any unwanted moisture (condensate). Introducing such items in the design is paramount for prolonging reliability of an appliance.

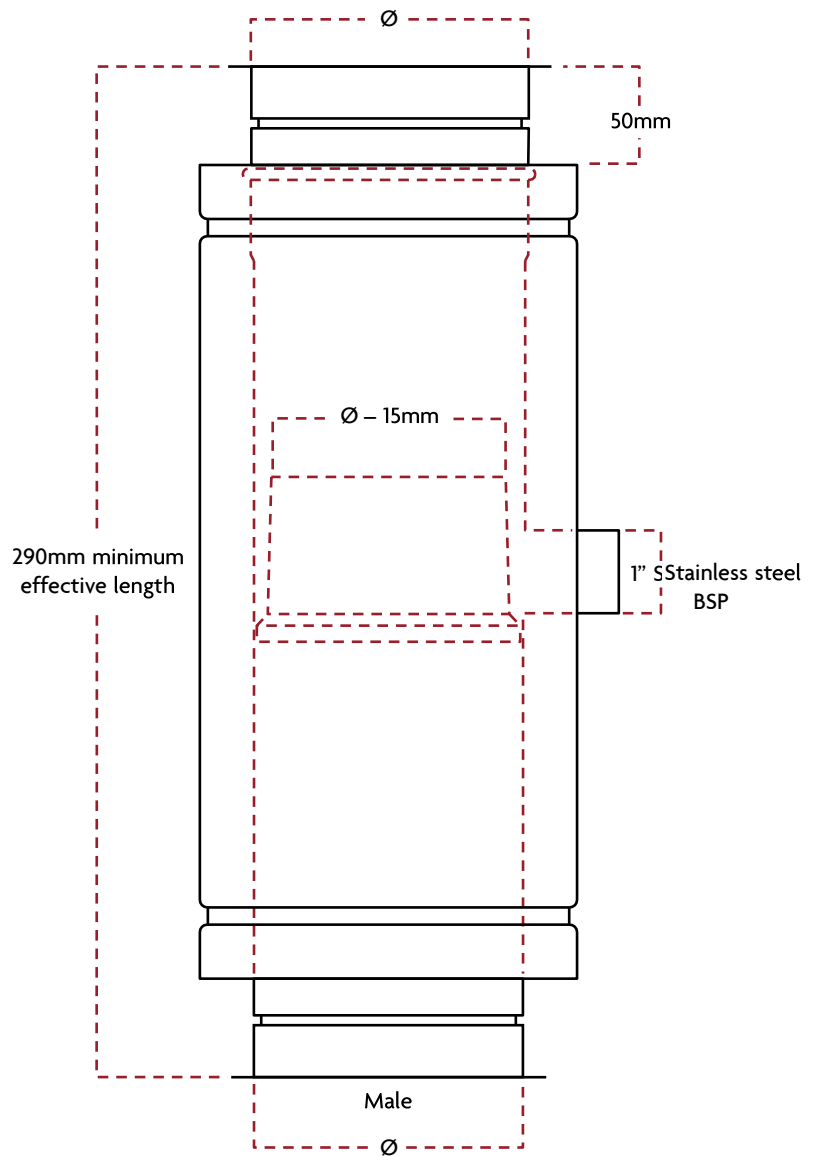
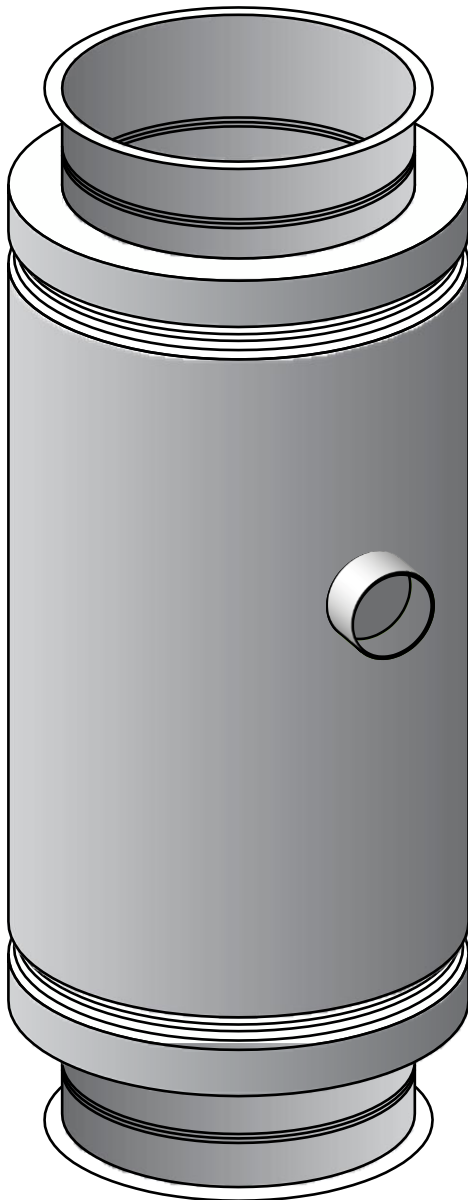
Drain lengths consist of a 1inch Stainless Steel B.S.P threaded socket which is fully welded onto the inner liner. Drains are obtainable in Deltavent standard lengths and can also be fitted to non-standard lengths above our minimum. (Refer to illustration)

Vertical.

Vertical Drain Lengths are manufactured and supplied complete with "Drain Trap" integrated within the internal liner. This "Trap" collects and diverts all moisture directly to and out of the drain.

Horizontal.

Horizontal drain lengths do not have the Internal Drain Trap fitted and should be incorporated, either at the end or in several positions within a run assembled with a three/five-degree incline.

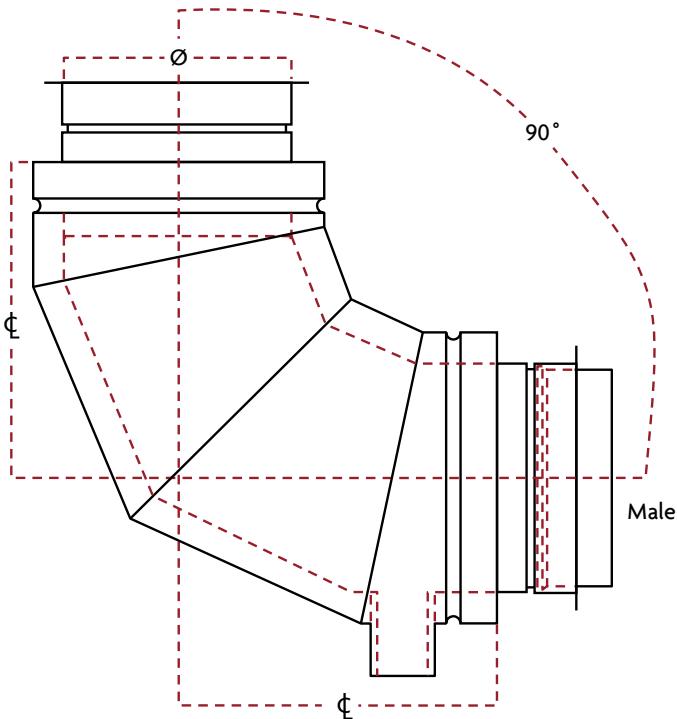


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Drains in Elbows

Incorporating drains with Elbows can also be an effective method of moisture (condensate) removal from within a flue system. This component allows for drain positions to be achieved where space is at a minimum.

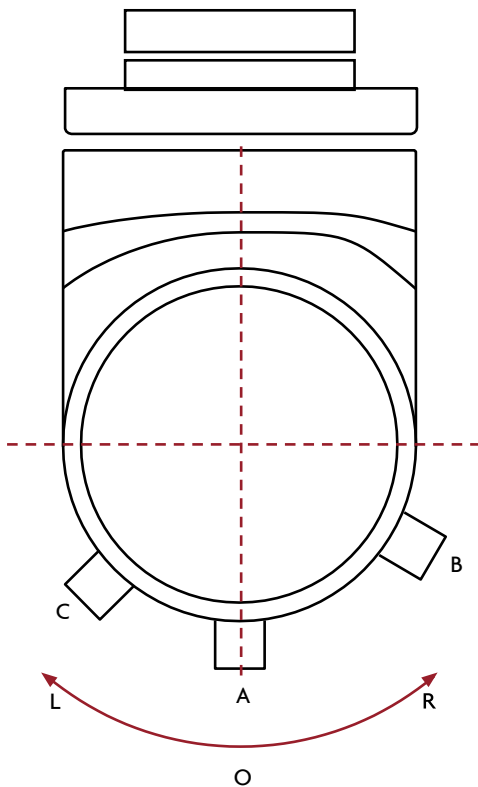
When drains are to be fitted within a male end of an Elbow its position should be established using the method shown below.



Elbows viewed on male end

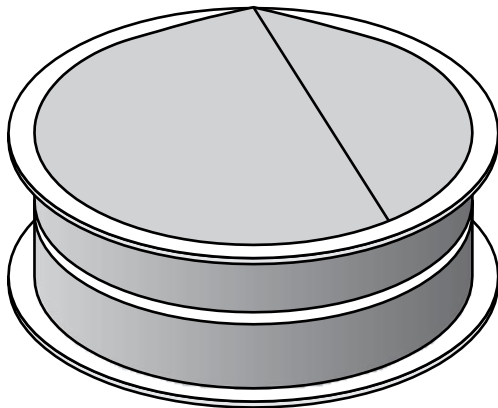
Drain for an upright Elbow (drain "A") will be designated O.

Other drains will be designated either L (left) or R (right) and the angle from position O. i.e. Drain "B" will be R60 and "C" will be L45.

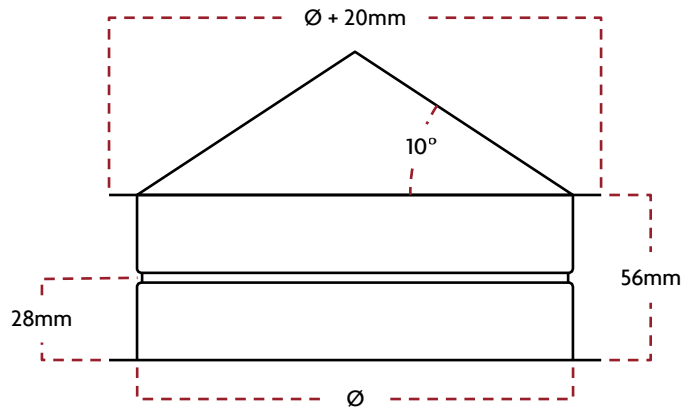


Clean Out Door (C.O.D)

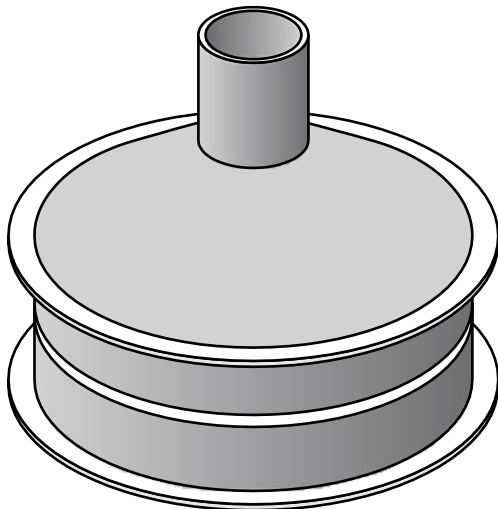
This component is used to close off the unused openings within the flue system. These caps can be installed either horizontally or vertically and are secured with a flanged V-Band joint which is easily removed to enable access for cleaning and inspections.



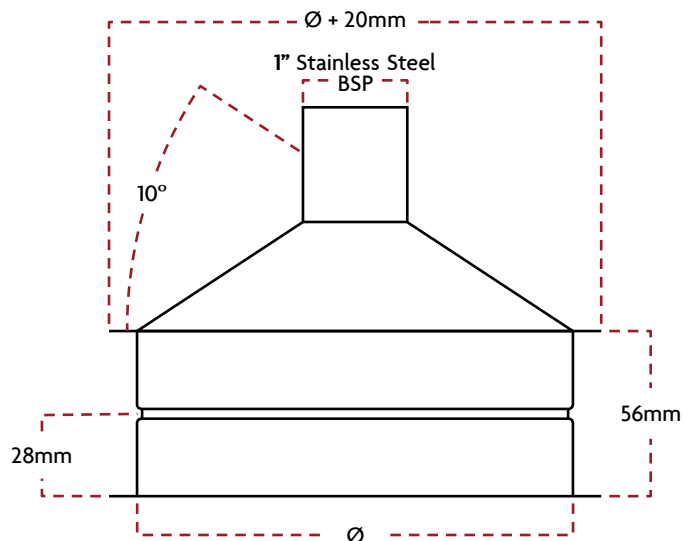
Female



The ability to manufacture Clean Out Doors complete with a 1" Stainless Steel threaded B.S.P socket is also available on request. These caps are positioned to close off the unused opening on the underside of the Base Tee, permitting pipe work to be attached for the removal of any condensate (moisture) build up.



Female



NOTE: All dimensions provided above are for (standard minimum). Non-standard C.O.Ds consisting of dimensions greater than those given can also be accommodated to your requirements.

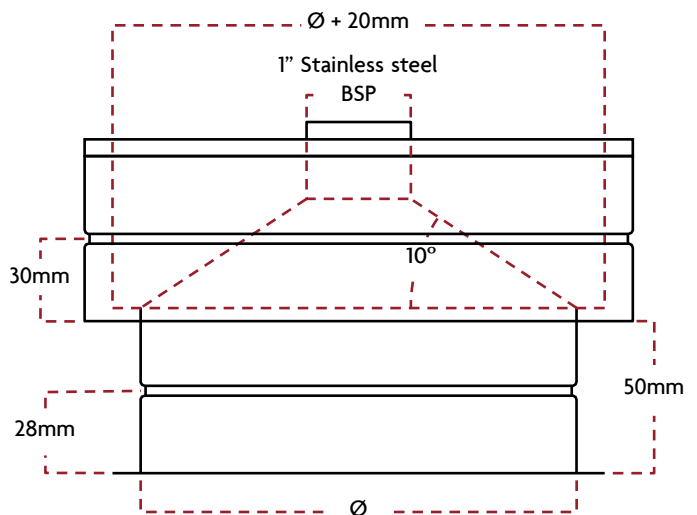
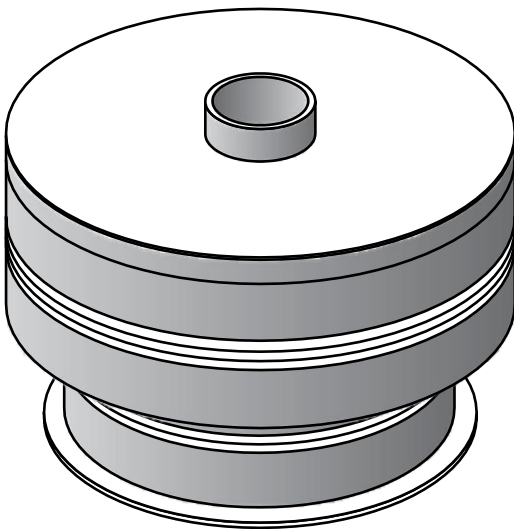
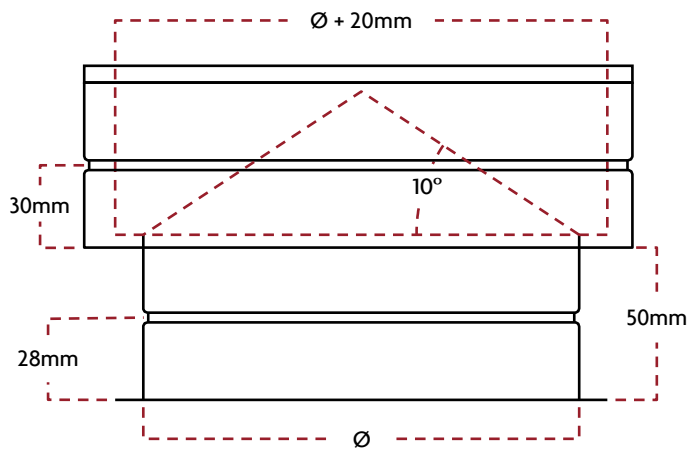
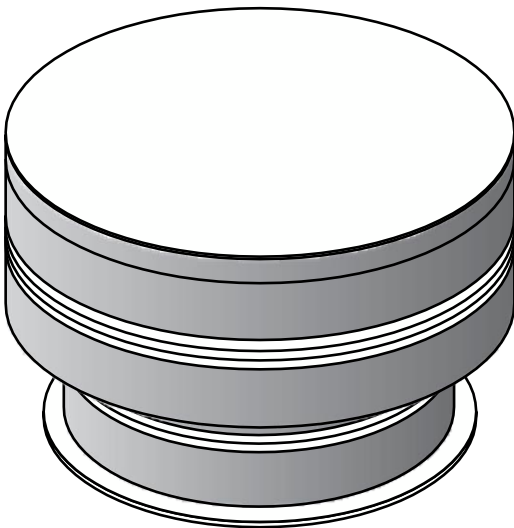
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Insulated C.O.D

In some cases, a high internal and low external temperature is required. Therefore, A1 Flue systems have successfully developed and manufactured an insulated Clean Out Door which can be supplied with or without a drain connection and is available with a 25mm, 50mm, 75mm or 100mm annulus.

This C.O.D can also be installed either horizontally or vertically and will be fixed in position using both flanged V-Band and external locking Clamp band methods.

NOTE: All dimensions provided above are for (standard minimum). Non-standard C.O.Ds consisting with dimensions greater than those given can also be accommodated to your requirements.



Reducers and Increases

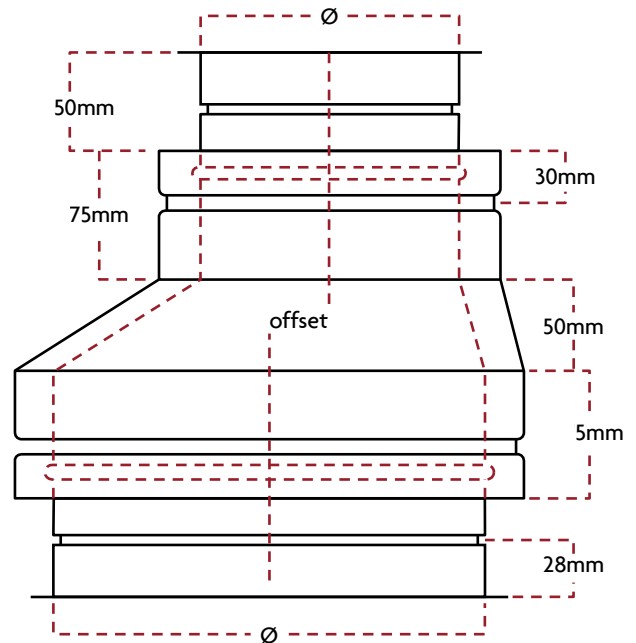
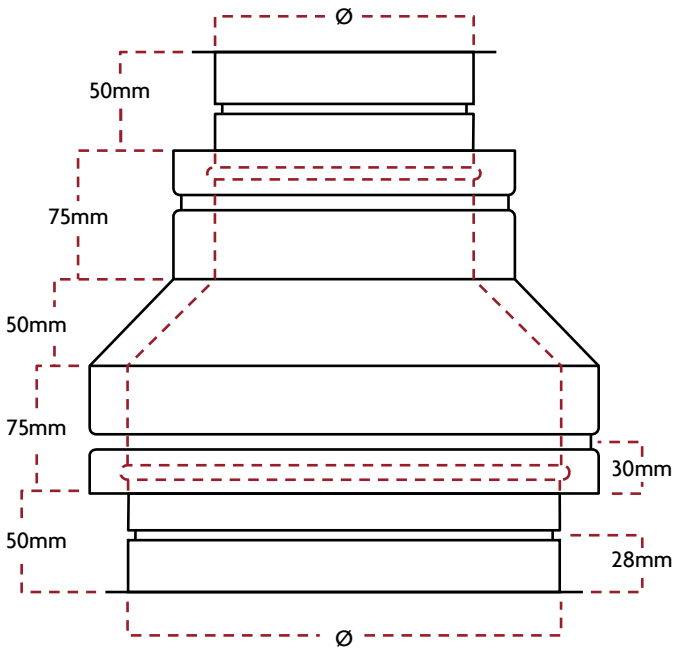
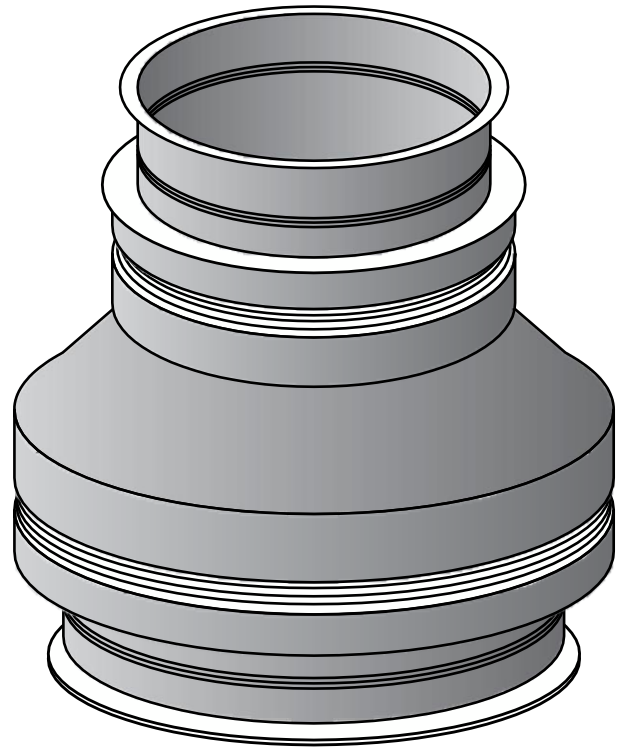
A Reducer/Incraser is the most effective and efficient method of diameter change within a flue system.

This special item from the Deltavent range allows for the steady transition of flue gases to limit resistance and is available to order in all diameters and at custom lengths above those given.

Reducers and Increases are processed and manufactured using the same method so the location of its male or female profile determines the application of use.

A1 Flue Systems acknowledge that there may be certain times where space is restricted. Therefore, the possibilities of developing unique items such as; offsets, reduced offsets or even increased offsets is often achievable, however the degree of offset may result in the lengthening of reducer or increaser.

(refer to illustration)



NOTE: All dimensions given are (standard minimum).

Appliance Adapters

Two types of Appliance Adapters are available for Deltavent, both of which are designed to facilitate (assist) the connection of the vertically or horizontally positioned Deltavent to an appliance outlet.

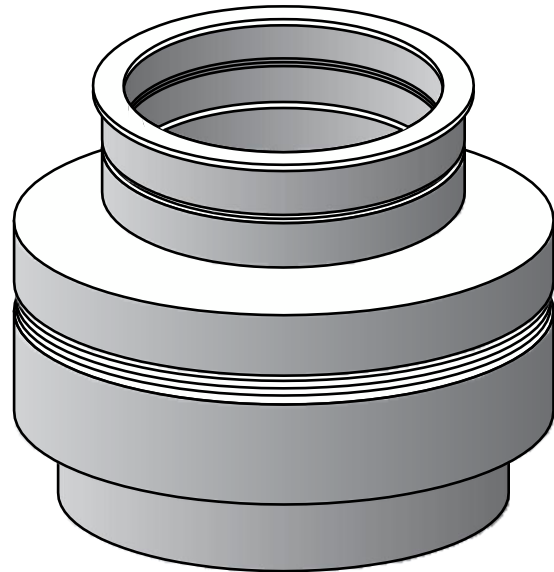
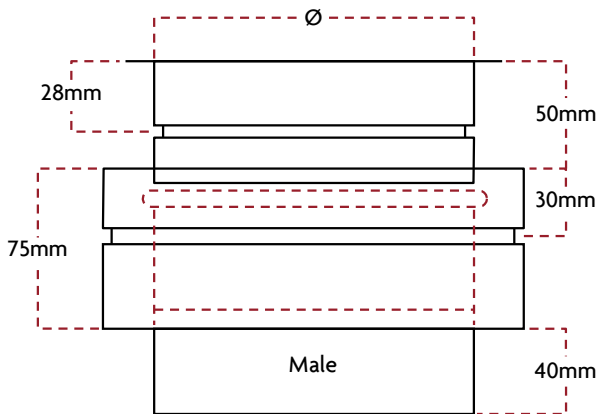
Manufacturing capabilities allow for the male connection spigot on either design to be supplied in all regular and irregular diameters and at increased lengths above those given.

NOTE:

- All dimensions provided are the standard minimum
- All Appliance Adapters consisting of diameters under 150mm are to be manufactured using, 0.7/0.6mm Grade 304 or 316 Stainless Steel.

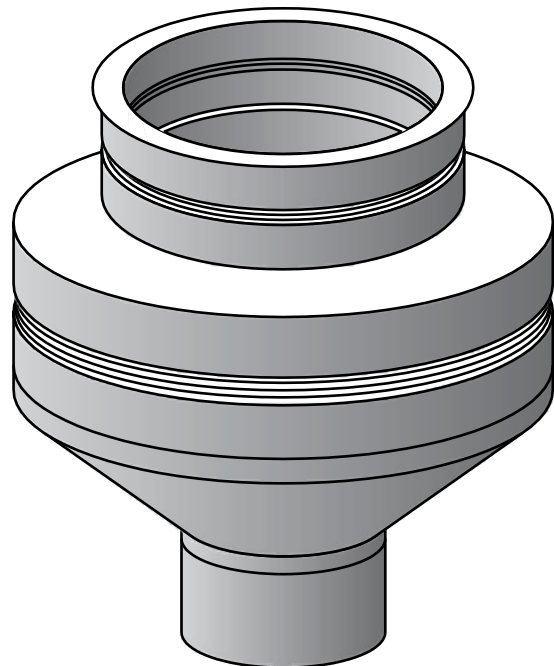
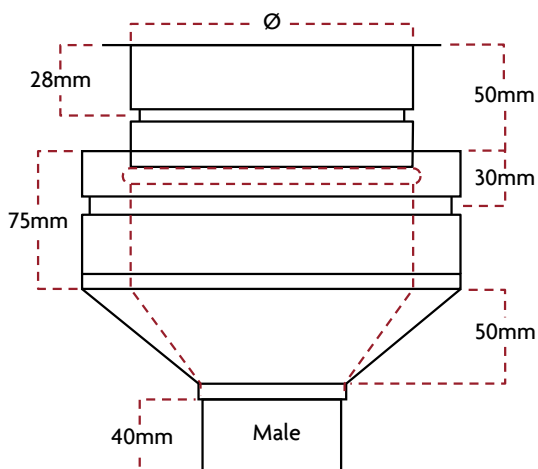
2-Piece Inner

Use where boiler female connections within +/- 10mm of flue liner \varnothing



3-Piece Inner

Use where boiler female connection exceeds +/- 10mm of flue liner \varnothing

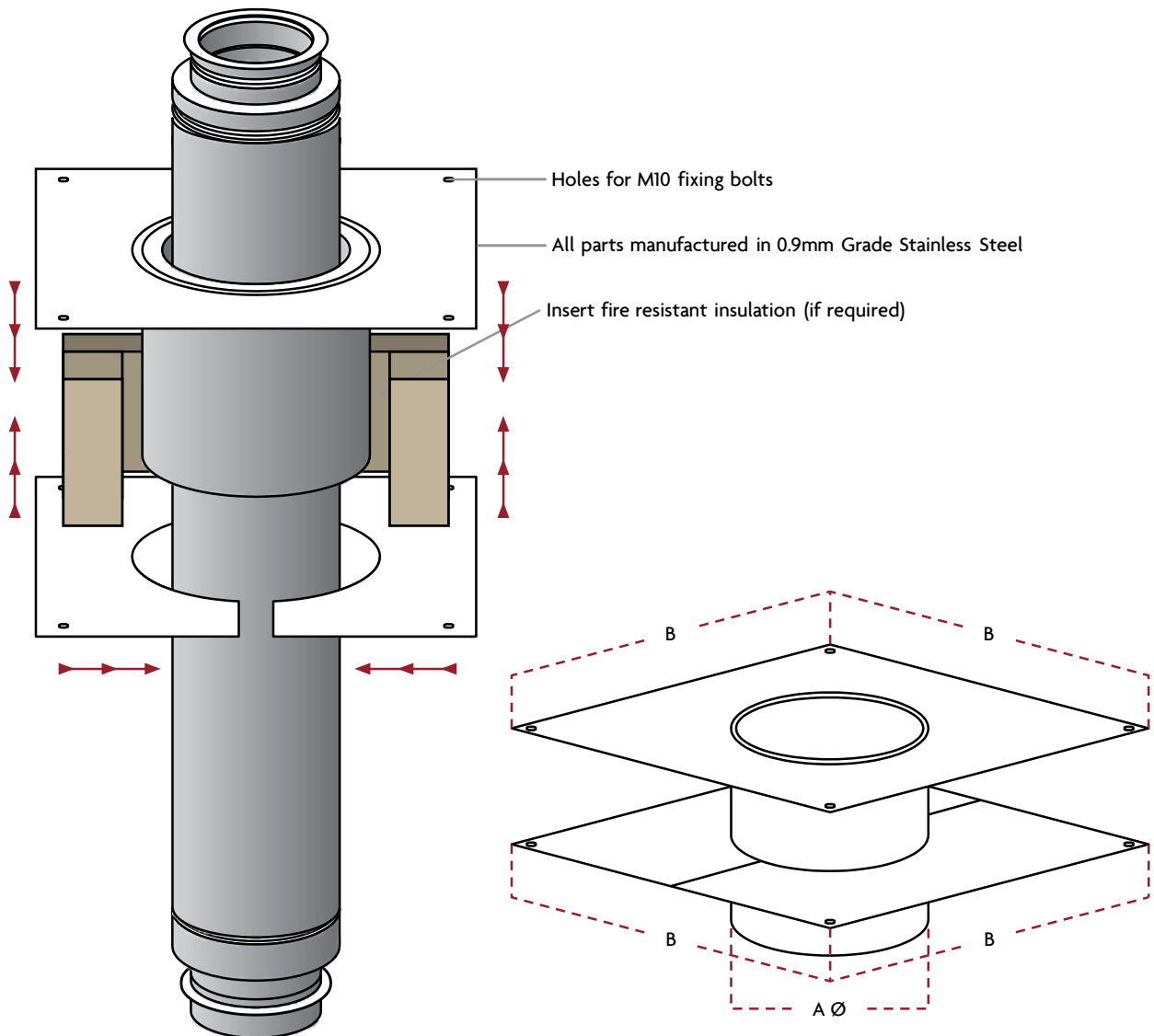


Standard Industrial Fire Stop Kits

Designed to be applied where the Deltavent chimney system requires a compartmental fire rating for both horizontal and vertical structure penetrations of up to four hours.

All dimensions provided below relate to the 25mm annulus Deltavent. However, dimensions for the 50, 75 and 100mm can also be established using this table.

	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
A	156		206	231	256	281	306	356	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206
B	350		400	425	450	475	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400



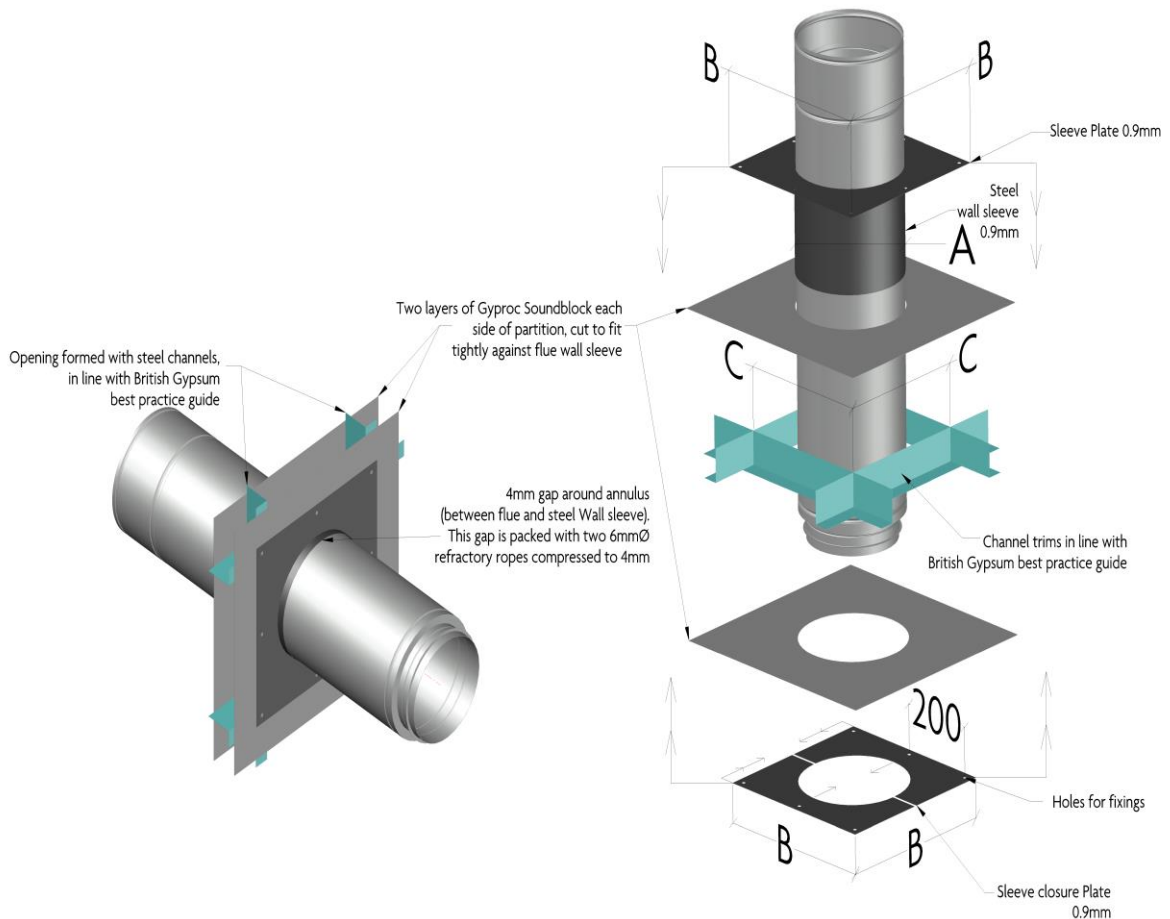
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Drywall Partition Industrial Fire Stop Kits

Designed to be applied where the Deltavent chimney system requires a compartmental fire rating for both horizontal and vertical structure penetrations of up to two hours.

All dimensions provided below relate to the 25mm annulus Deltavent. However, dimensions for the 50, 75 and 100mm can also be established using this table.

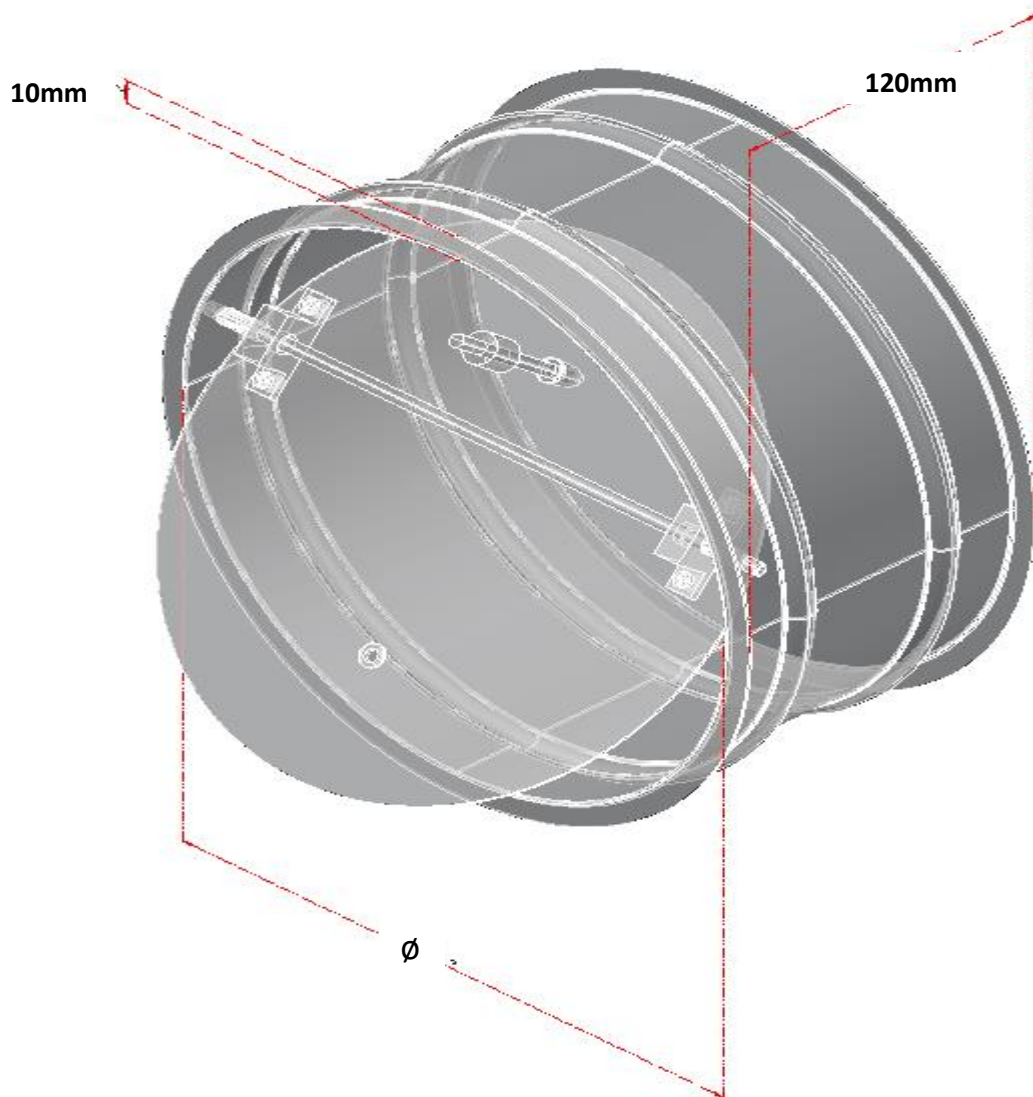
	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
A	156		206	231	256	281	306	356	406	456	506	556	606	656	706	756	806	856	906	956	1006	1056	1106	1156	1206
B	350		400	425	450	475	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400
C	200		250	275	300	325	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250



Draught Stabiliser

Draught Stabilisers are used for the control of draught within a Deltavent chimney system caused by the effect of lighter flue gases rising within the chimney stack.

The effectiveness of the Draught Stabiliser is established using a swinging vertical gate pivoted slightly above centre, such that under static conditions the gate will hang vertically down. This gate can be weighted accordingly so that it is lighter or heavier to move, and in doing so varies the draught (suction) level.



This component is manufactured (as standard) to the values provided using either 0.9mm Grade 304 or 0.9mm Grade 316 and is secured into position with a V-Band. This enables frequent easy access for both cleaning and inspections.

NOTE : There are certain locations where these devices are best situated, for example; within a vertical part of the boiler connection for effect on the individual appliance, at the end of a combined header or below the Base Tee of the riser for overall effect.

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Terminations

Three types of terminations are available for the Deltavent product, all of which have been designed to allow/aid the safe release of flue gases whilst giving a decorative end finish.

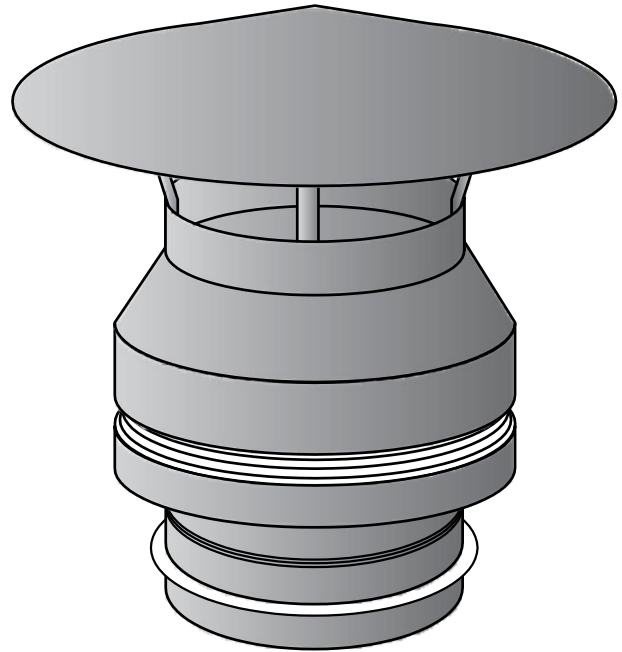
Deltavent terminals comprise of male locating spigots conjoined within a 10mm connection flange. All are fixed/secured to the top section of a vertical rise using both V-Band and locking Clamp bands provided.

Deltavent Rain caps

Designed for multiple appliances, as well as providing a less restrictive, all weather protected vent into the atmosphere.

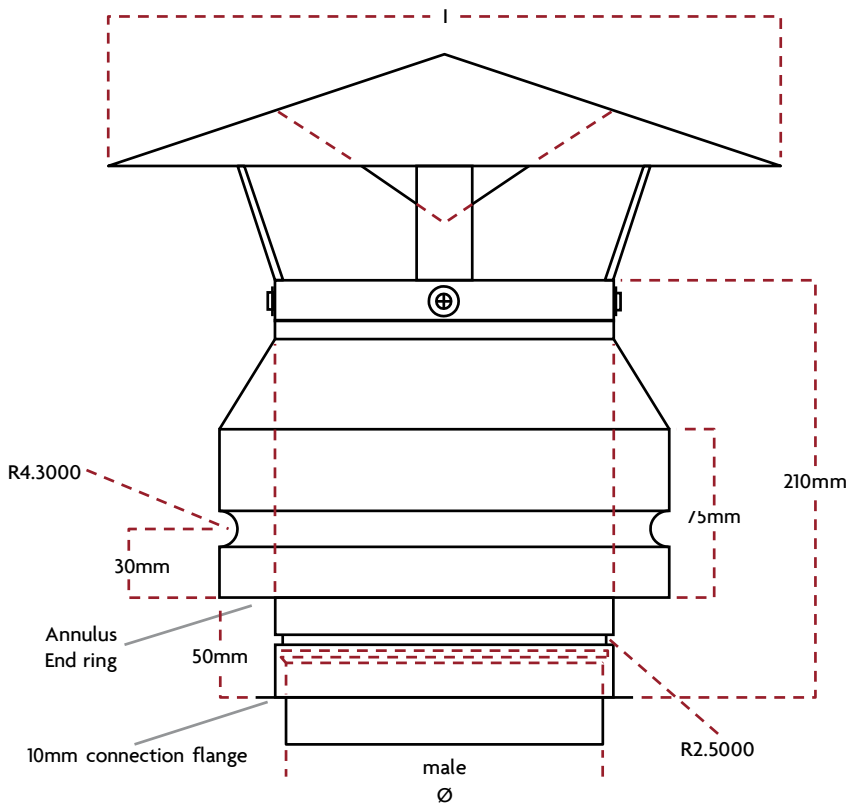
Deltavent Double-Inverted Rain caps

For the use on induced draught systems to prevent back pressure within the flue. The internal inverted cone is only used in the Double-Inverted Rain cap.



150Ø - 300Ø I = Ø x 2

350Ø - Above I = Ø x 1.75



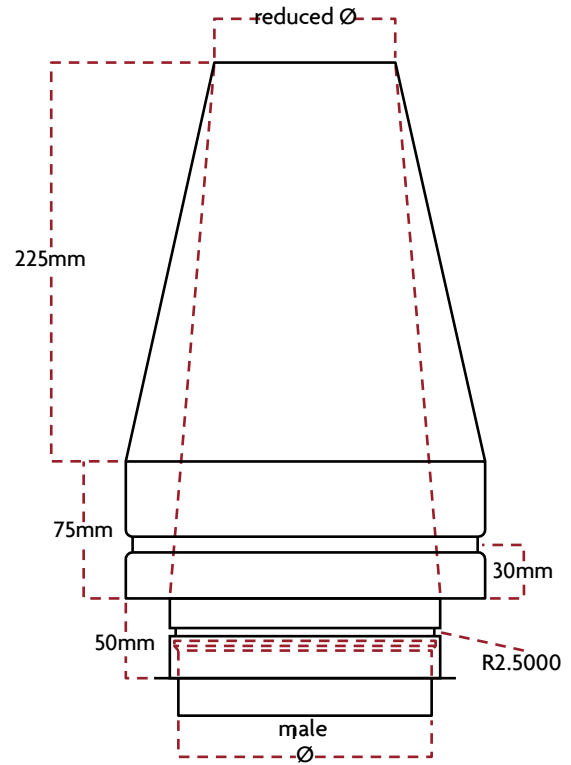
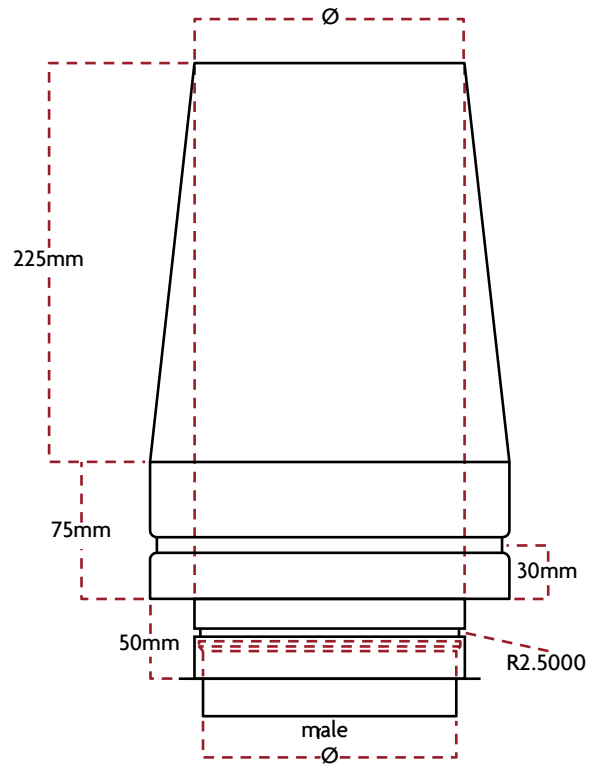
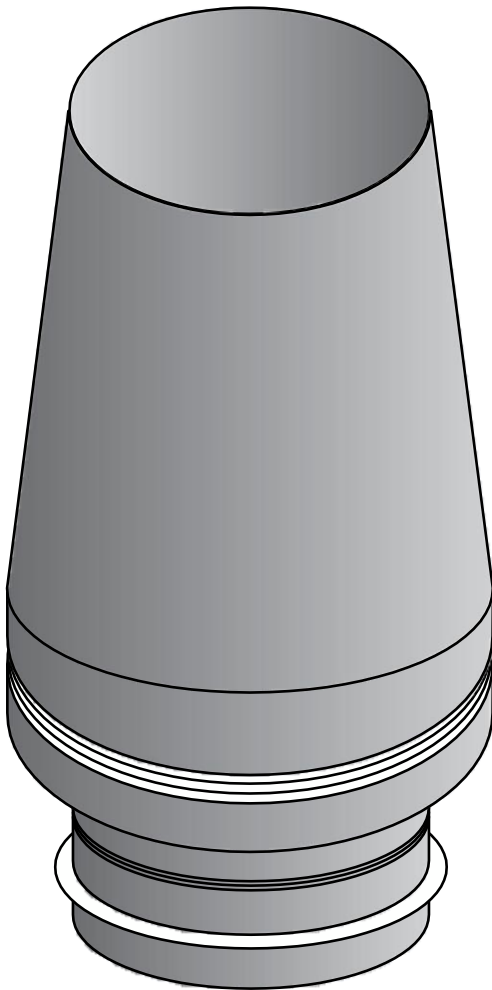
Deltavent Top Stub

Top Stubs allow for the unrestricted rapid release of flue gases into the atmosphere.

The effectiveness of the Deltavent terminal is established by its outlet diameter (free surface area). This outlet can be manufactured and supplied with or without Stainless Steel mesh and at a reduced diameter (if required), which will increase velocity of its existing gasses.

Due to the nature of this open outlet design it is strongly recommended that the Deltavent Top Stub should always work in conjunction with either a moisture (condensate) release point at the base of a vertical rise or with a vertical Drainage Length fitted with an Internal Drain Drip.

NOTE: All dimensions given are (standard minimum).



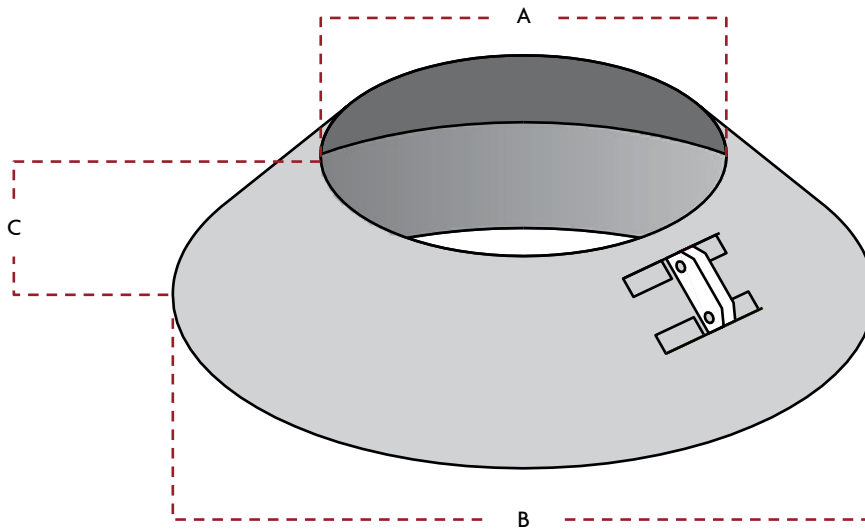
Twinwall Deltavent VB, US & USG

Storm Collars

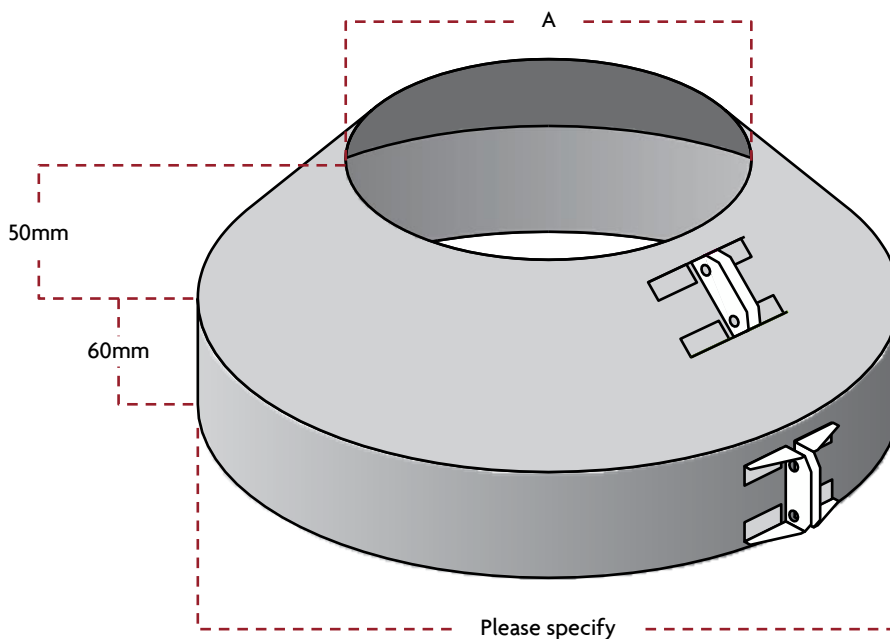
Storm Collars are obtainable in two well established designs which are to be used to apply an all-weather impermeable seal around a Deltavent vertical rise immediately after the exit through a Flashing.

Once the positioning has been achieved (directly above a flashing), the angled profile of the Storm Collar will divert and deny any access between the chimney flue case and Flashing upstand.

All dimensions provided below are a (standard minimum). However, non-standard dimensions and diameters can also be accommodated if required.



∅	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
A	150		200	225	250	275	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
B	300		350	375	400	425	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350
C	80								100								150								

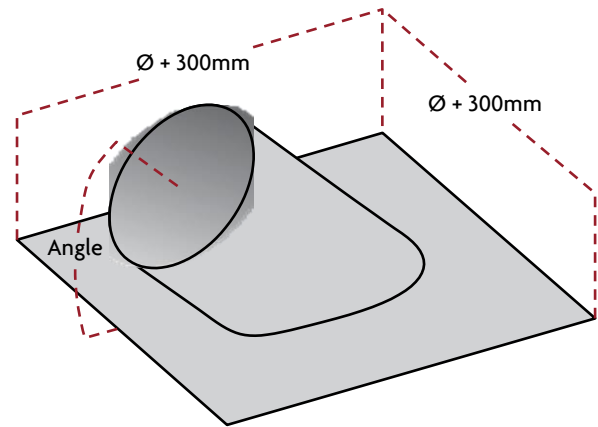
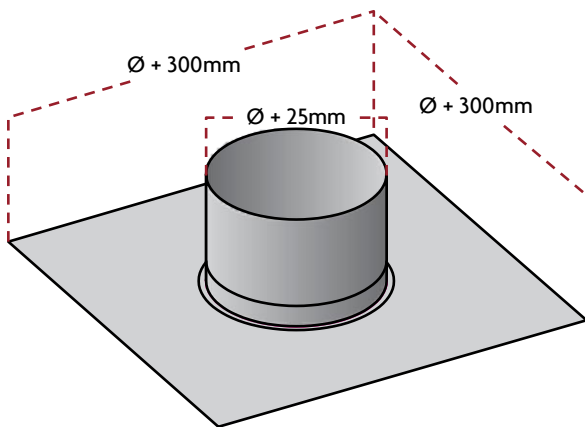


Flashings

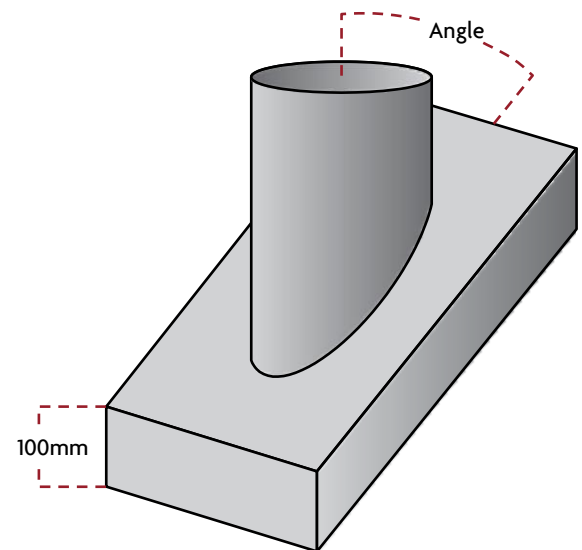
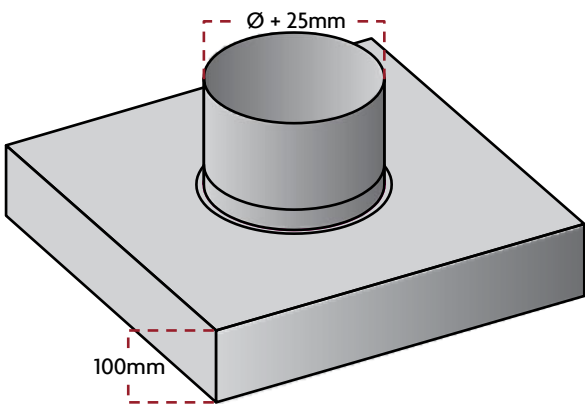
Flashings are to be used as an effective method of providing weather protection to all building structures immediately after roof or chimney penetration of a vertically rising Deltavent chimney.

Two types of Flashings are obtainable for this system, both of which can be fabricated and supplied to suit all roof angles and chimney flue diameters including the irregular.

Flat Flashings



Box Flashings



NOTE: Picture illustrations and values provided are for standard items. However, unique Flashings combined with multiple upstands and increased values can also be accommodated if required.

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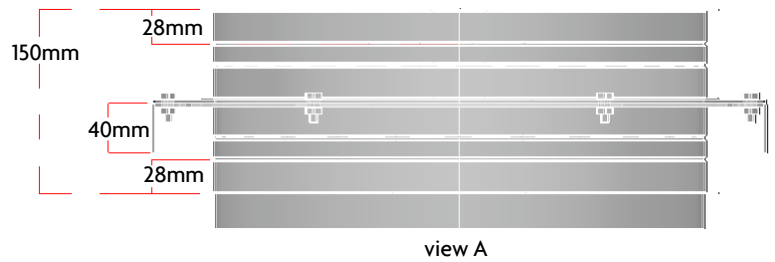
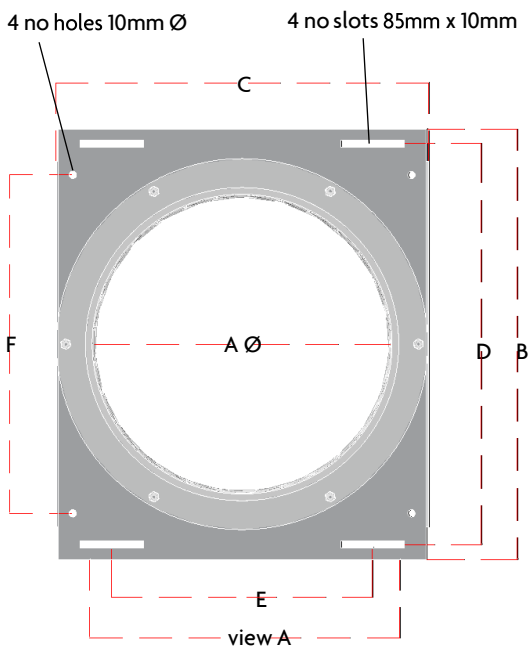
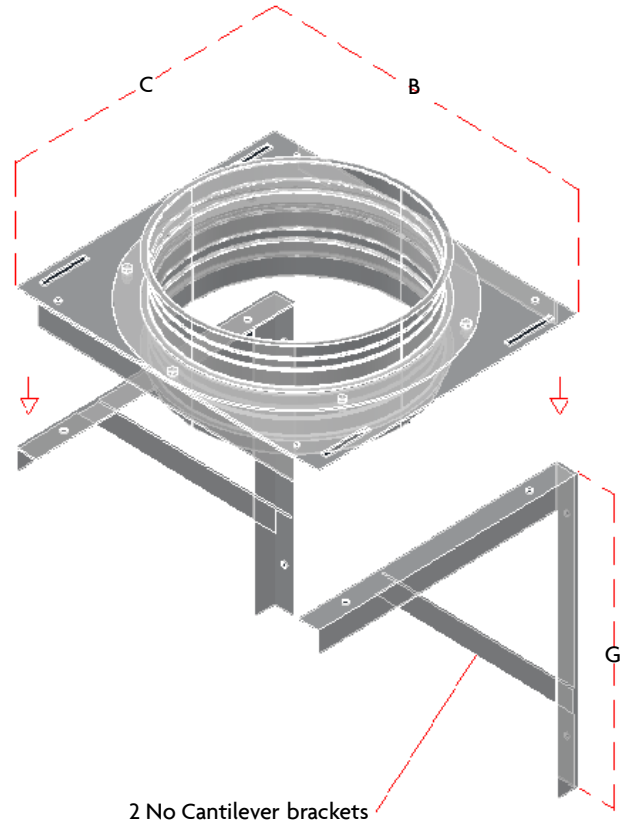
Support Components

The complete range of support components listed below have been successfully designed and tested to accommodate the chimney's weight whilst providing flexibility and ease on installation.

Thrust Support Plate

Thrust Support Plates provide load bearing lateral support for the vertically adjoined Deltavent. This component is suitable for supporting on both Uni-Strut or Cantilever brackets and can be constructed in either 3mm Stainless Steel (for external applications) or 3mm Galvanized Steel (for internal applications).

NOTE: Picture illustrations and values provided are for standard items. However, unique Thrust Support Plates combined with multiple Thrust Collars and increased values can also be accommodated if required.

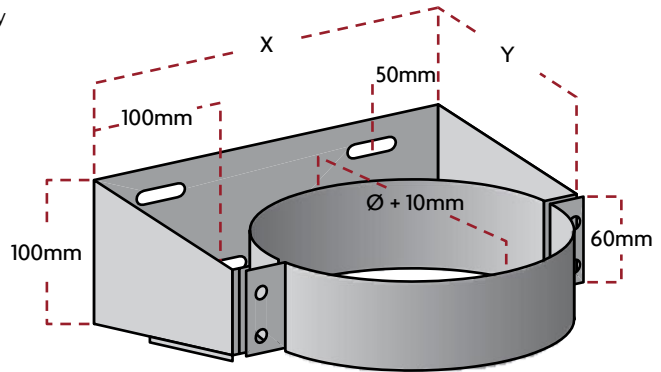


25 Annulus																						
∅ A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
B	290		312	331	357	382	434	478	529	580	631	682	752	803	854	905	944	994	1044	1094	1144	1194
C	234		254	273	299	324	356	400	451	502	553	604	654	705	756	807	846	896	946	996	1046	1096
D	250		272	291	317	342	394	439	489	540	591	642	712	763	814	865	904	954	1004	1054	1104	1154
E	103		103	122	148	173	205	249	300	351	402	453	503	554	605	656	695	745	795	845	895	945
F	188		208	227	253	278	310	354	405	456	507	558	608	659	710	761	795	850	900	950	1000	1050
G	200		254	273	299	324	356	400	451	502	553	604	654	705	756	807	846	896	946	996	1046	1096

Guide B-Type

Guide B-Types are used to provide additional lateral stability and to permit the movement of thermal expansion from within a Deltavent vertical run.

The Guide B-Type also applies a 50mm clearance (as standard) between an adjacent structure and external case of the adjoining flue and is obtainable in both Stainless and Galvanized steels.



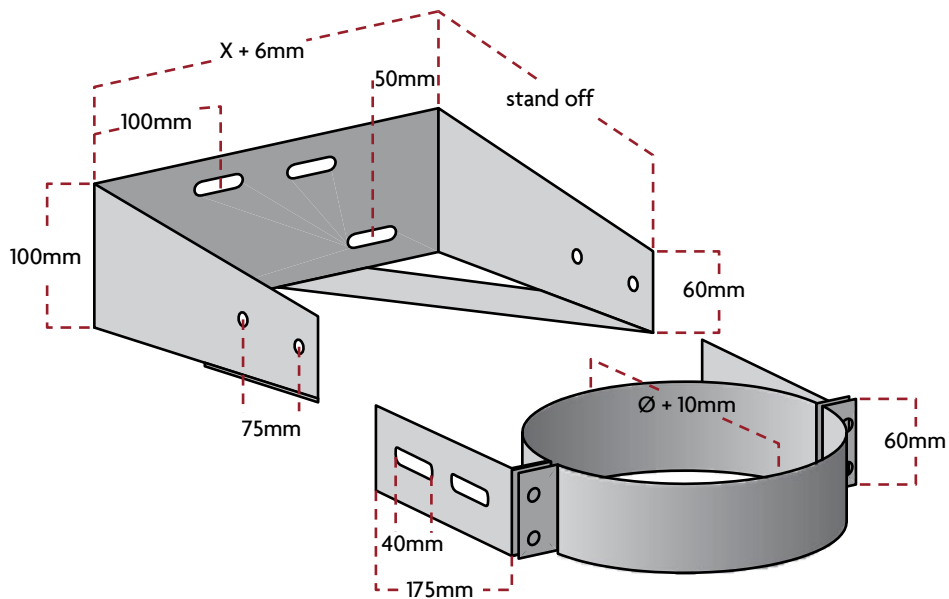
Ø A	100	125	150	175	200	225	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
X	177		227	252	277	302	327	377	427	477	527	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277
Y	100		125	138	150	163	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650

Adjustable Guide B-Types

Adjustable Guide B-Types are offered when a greater clearance (stand-off) between the adjacent structure and external case of the adjoining flue is desired, applying flexibility on both the design and installation of a Deltavent chimney system.

CAUTION: THIS BRACKET HAS NO LOAD BEARING CAPABILITY.

Manufacturing capabilities allow for this bracket component to be constructed in either Stainless or Galvanized steel and to your custom requirements.



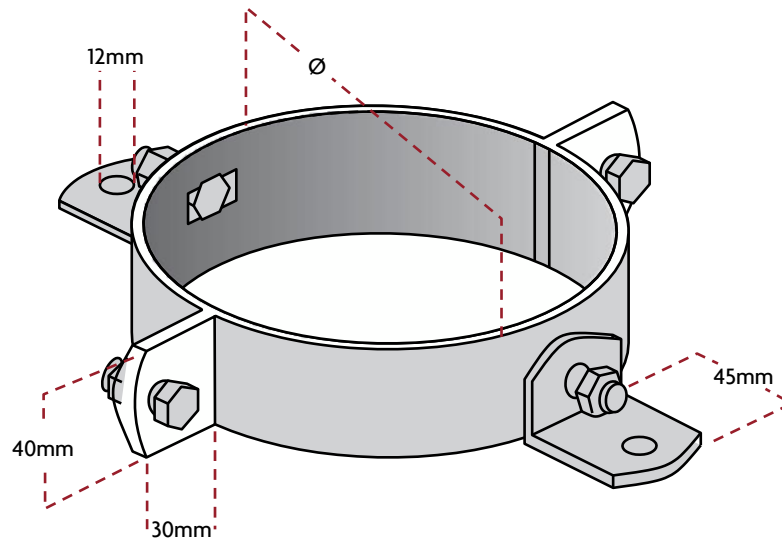
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Universal Rings

Universal Rings are to be used to achieve the lateral stability and accurate alignment of a Deltavent chimney system.

This component is available with or without swivel lugs incorporated and is suitable for supporting horizontal or inclined runs off 10mm Drop Rod at intervals not exceeding 3metres.

Universal Rings are manufactured using Stainless Steel and to the values provided below. However, non-standard, unique items can also be accommodated if required.





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