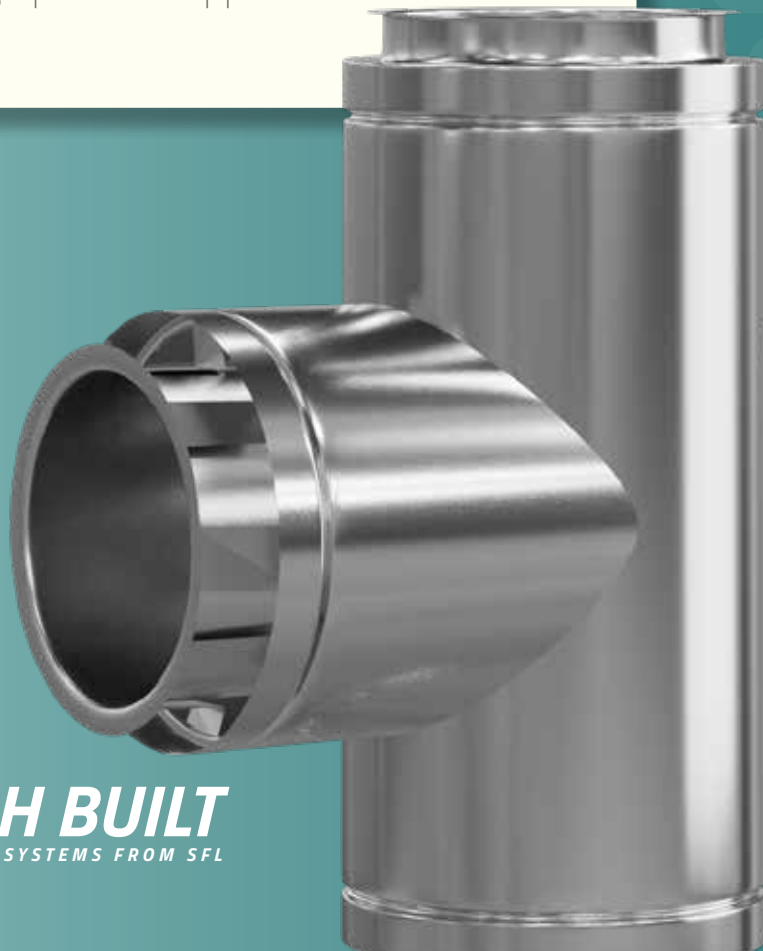




High pressure twin-wall stainless steel insulated multi-purpose exhaust vent and chimney system designed and built in Britain.
The EUROPA PLUS® range from SFL.

EUROPA PLUS

Twin Wall Insulated Flue System
high temperature and high pressure applications



BRITISH BUILT
FLUE & CHIMNEY SYSTEMS FROM SFL



Introduction

Europa Plus is part of the SFL Europa family of products and has been specifically designed for today's high performance appliances, offering an engineered system capable of meeting the demands of high temperature and high pressure applications.

Suitable for continuous flue gas temperatures up to 600°C (T600) and positive pressure applications up to 5000 Pa (H1), Europa Plus is the ideal product for standby generators and combined heating and power (CHP) plant as well as traditional chimney applications. The system has also been tested under soot fire conditions at 1000°C for 30 minutes.

Applications

- Electrical generators
- Combined heating & Power (CHP)
- Condensing / conventional heating and hot water appliances
- Catering / Kitchen extract duct
- Lightweight particle movement
- Industrial process fume extraction
- Smoke extraction

Product Description

Europa Plus is a prefabricated stainless steel exhaust vent, available in a range of insulation thickness to meet the most demanding applications. As standard, Europa Plus is offered as a twin wall insulated stainless steel exhaust vent and is available in twelve internal diameters ranging from 100mm to 600mm. The fully welded liner is manufactured from corrosion resistant 0.6mm 316L (1.4404 : X2CrNiMo 17-12-2) and a 304 (1.4301 : X5CrNiMo 18-10-2) outer case. As standard the Europa Plus product is offered with a 25mm annulus which is insulated with a high density, body soluble Insulfrax AES blanket to ensure rapid draught stabilisation and low surface temperature. The following specifications are available to order:-

Annulus	Inner	Outer	Code
25mm Insulated	316L	304	674XXXX
50mm Insulated	316L	304	644XXXX
100mm Insulated	316L	304	684XXXX

All components within the range are designed to be installed without the need for modification, welding or cutting of the product. Europa Plus offers a full range of components including set lengths, elbows, tees, appliance adaptors, terminals, and supports / fixings. Where used on condensing appliances, special angled components are available such as 93° Tees and 87° Elbows to facilitate drainage of condensation back through the system to suitable drainage locations. Various expansion components are also included within the range to facilitate expansion and contraction of the system with temperature.

Europa Plus features the use of a high temperature composite laminated graphite gaskets which is factory fitted to the flange on one end of the component. This removes the need for the application of traditional sealants applied within the 'U' Band, offering a more efficient and installer friendly installation experience. With no cure time as required for traditional sealant, Europa Plus can be ready for commissioning / operation as soon as the installation is complete.

Approvals

Europa Plus has been assessed and CE Marked to BS EN 1856-1: 2009 to the performance designation of Fig.1 below.

Fire Resistance

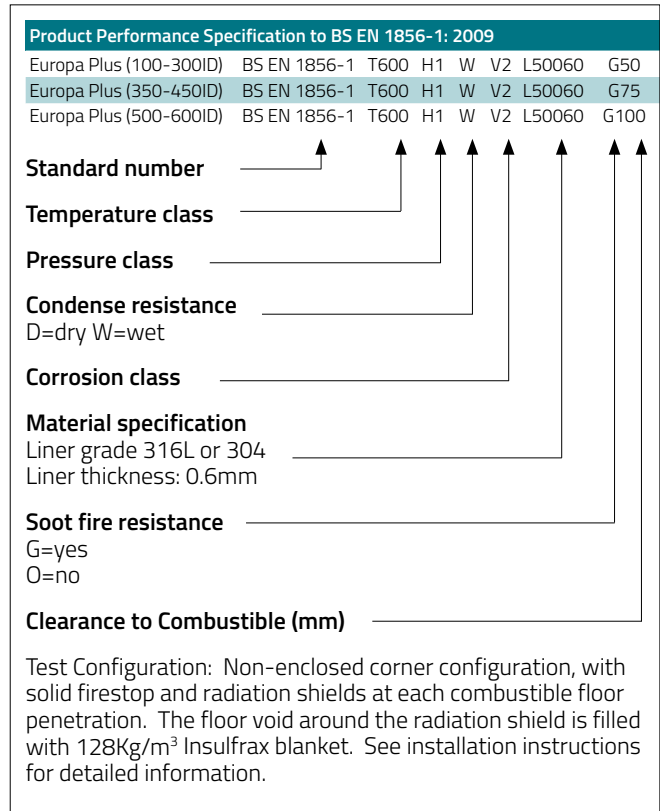
Europa Plus has been tested and assessed by the Building Research Establishment (BRE) offering a 4 hour fire resistance tested in accordance with the stability criteria of BS 476 Part 20. Test Report 302589 Issue 2

Quality Management

All components are manufactured under a quality assurance scheme, certificate No. FM557622, administered by The British Standards Institute in accordance with BS EN 9001: 2015. In addition SFL holds EC Certificates as required under the Construction Products Regulation for products manufactured to BS EN 1856-1/2. Certificate No's. 2797-CPR-496040 and 2797-CPR-559419. Europa Plus is also UKCE certified, license numbers 0086-CPR-740592 and 0086-CPR-740593 as administered by The British Standards Institute.



Fig. 1 - CE Performance Designation



IMPORTANT

Reference should always be made to the separate installation instructions before attempting to design and install any of the Europa family of products. Installation instructions for all SFL products can be found on our website.

Other Approvals

Europa Plus is listed by UL in North America and Canada as follows:

North America

- UL103 : USA requirements for Factory-built Chimneys for Residential Type and Building Heating Appliances
- UL2561 : 1400 Degree Fahrenheit Factory-Built Chimneys
- UL1777 : Chimney Liners
- UL1738 : Venting Systems for Gas-Burning Appliances, Categories II, III, and IV

Canada

- ULC/ORD-C959-1993 : 540°C and 760°C Industrial Chimneys
- ULC-S635-00 : Lining Systems for Existing Masonry or Factory-Built Chimneys or Vents
- ULC-S636-08 : Type BH Gas Venting Systems



Performance Specification

Temperature

Maximum Operating Temperature: 600°C
 Intermittent Operating Temperature: 700°C
 Thermal Shock: 1000°C for 30 minutes

Pressure Capability

Pressure rating to EN 1856-1: 5000Pa (H1)
 Leakage rating to EN 1856-1: $0.005 \text{ l/s/m}^2 \text{ (H1)}$
 Maximum Pressure Rating: 15kPa as tested to UL103

Expansion Components

Expansion Bellows: 15kPa @ 600°C
 Expansion Lengths: 5000Pa* @ 450°C
 *Restrictions apply, see page 6 for details

Miscellaneous

Condensate resistant
 Distance to Combustible Material @ 600°C:
 DN100-DN200 = 50mm
 DN350-DN450 = 75mm
 DN500-DN600 = 100mm

Joint Design

The Europa Plus product incorporates a unique joint design that removes the need for the application of different types of sealant as traditionally used for this type of system. This is achieved by the use of a high temperature / high pressure gasket that is factory fitted to the face of one of the joint flanges. For ease of installation, the same end also incorporates a location spigot to allow for easy alignment of the mating spigots during installation. Once the joint is made, the gasket is sandwiched between the mating flange faces. A 'U' Band** is then applied around the circumference of the flange.

** Patent No 2516315

The Patented 'U' Band is designed to compensate for the hoop expansion of the flange within its channel while still applying sufficient force to ensure the correct compression of the joint. The joint is finished by the application of insulating blanket to ensure continuity of insulation and an external Channel Band (supplied with the product).

Product Construction

Laminated Graphite Gasket

The gasket is factory fitted and installed over the spigot and bonded to the face of the flange. When the joint is assembled, the gasket is compressed between both mating flanges to form a gas tight seal.

Location Spigot

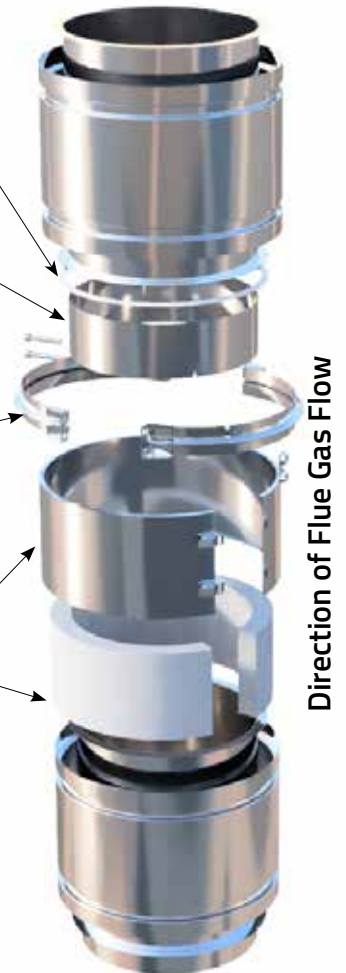
This is factory-fitted into the flange facing towards the appliance and facilitates easy alignment of the flanges to aid installation of the product.

'U' Band

The 'U' Band is positioned around the circumference of the mating flanges and secures the joint together while allowing for the hoop expansion / contraction of the flanges with temperature.

Channel band & Insulation

Once the joint is assembled and the 'U' Band correctly fitted and bolted together, insulation blanket is wrapped around the joint to maintain the insulation integrity throughout the installation. The joint is finished by the application of the Channel Band which is located in the outer case grooves of the mating components. Where the product is installed externally to the building, a bead of weatherproof sealant is applied around the top of the Channel Band to provide weathering. For horizontal external applications, both beads should be sealed with sealant.



Joint Construction



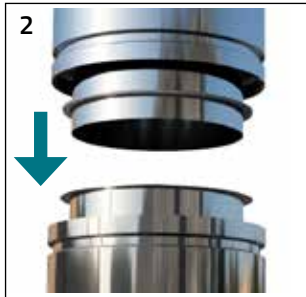
Insulation removed for clarity

Europa Plus Joint Assembly

It is important that the following assembly method is adopted when constructing the joints of Europa Plus and reference is made to the separate detailed Installation Instructions for the Europa family.

Europa Lite is always installed with the Location Spigot facing down towards the appliance.

1. Prior to assembly of the joint, it is important to ensure that the surfaces of the flanges are clean and free of any dirt or grit. The Graphite Gasket should be inspected to ensure that the graphite seal is securely bonded to the face of the flange and that there is no evidence of splits, cracks or any other damage that could compromise the integrity of the seal.



2. Align the Location Spigot with the flange of the mating component and bring the two components together, ensuring the integrity of the gasket.

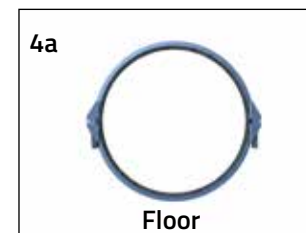


3. All joints are assembled using a 'U' Band which is supplied with each component. The 'U' Band is located around the mating flanges using the supplied fixings. The 'U' Band is secured using 4no. M6 x 40mm Hex Screws which are located through the 'U' Band Brackets and screwed into the captive nuts on the separate Backing Plate, located on the opposite 'U' Band Bracket. The Backing Plate provides easy installation of the fixings on site.



4. Loosely connect the two halves of the 'U' Band at one end only, using the fixing provided.

4a. Note: On horizontal runs, the 'U' Band must be installed with the fixings horizontally positioned and not vertically.

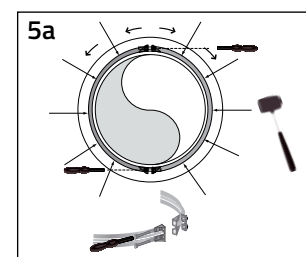


5. Place the 'U-Band around the mating flanges of the two components. Once located, gently tap around the circumference of the band, starting at the hinge previously made, to ensure that it is correctly aligned. Repeat for the opposite half of the band. Install the remaining fixings and tighten both sides of the band alternatively until tight. Continue this process of gently tapping around the circumference and alternatively tightening the fixings until there is no further movement in the band.



The bolts at this point should be tightened to a torque of approx. 4Nm.

6. Apply the supplied insulation blanked around the joint, ensuring that full insulation integrity is maintained between the two mating components.



7. The joint is finished with a Channel Band as supplied with the component. The Channel Band is located in the grooves located on the outer case of each component. Using the sprung latches, close the Channel Band to finish the joint.

N.B For outdoor installation, apply a bead of suitable external sealant in the groove at the upper edge of the Channel Band and at the overlap at its end.

CAUTIONS

1. The Channel Bands are designed to slide in their mating grooves. Do not attach by screws or other fixings into the outer casing.
2. Do not allow screws or bolts to penetrate the inner liner or outer case at any point.



Chimney Environment and Contamination

Although Europa Plus is supplied as standard with a high corrosive 316L austenitic stainless steel liner and 304 austenitic stainless steel outer case, a corrosive environment can lead to premature failure of the product. The two main considerations are the internal environment within the appliance plant room and the external environment. Where the chimney is installed in coastal areas, it is recommended that any external portion is protected with a suitable anti-corrosion coating. It is also recommended that only stainless steel support components are used. Where galvanised steel components are used within this environment, it is suggested that they are coated with a protective finish to help prevent corrosion. Care must also be taken to ensure that there is no possibility of chemical contamination of the combustion air supply in the internal environment. Halogens, especially chlorine and chloride when entering into the combustion process through the combustion air duct can lead to the formation of aggressive compounds. Prolonged exposure to such chemicals can lead to early deterioration of the chimney system.

Chemicals which may result in corrosion of the chimney system include (but are not limited to):

- chlorinated or halogenated dry cleaning solutions
- fluorocarbon aerosol propellants
- titanium tetrachloride
- chlorine based bleaches and associated cleaning products
- fluorocarbon refrigerants (CFC)
- vinyl based plastics when burnt
- plating or etching baths and solutions
- Swimming pool chlorination systems

Where extraction systems are discharging externally in close proximity to an external chimney and where the products of the discharge could be corrosive in nature, it is recommended that a suitable protective coating is applied.

Thermal Expansion Compensation

Europa Plus provides a continuous inner wall, so it is imperative that expansion of the system is allowed for. Any length of vent where expansion is likely to exceed 6mm between two fixed points, i.e., boiler outlet and elbow, wall supports, etc. must incorporate an expansion component to compensate for thermal movement.

It is also important that any fixed points between the expansion component is adequately braced in order to react against the exerted force of the expansion component.

The outer casing is free to expand independently of the inner liner. Floor and Wall Guides must be located to allow for the movement of any adjacent Channel Bands.

As a general rule, expansion of the Europa Plus system can be calculated by using the following formula: Liner expansion will be approximately 1mm per metre per 50°C rise of flue gas temperature.

For example:

A 25 metre run of Europa Plus installed between two fixed points and subjected to a flue gas temperature of 470°C above ambient. (Δt)

$$1 \times 25 \times \frac{470}{50} = 235\text{mm}$$

Therefore, total expansion which needs to be accommodated is 235mm. Always assume 1100°C for kitchen / catering equipment extract ducts to allow for potential grease / duct fire and also where full 4 hour fire resistance is required.

Correctly installed, the chimney will expand and contract along its entire length dependent upon the temperatures to which it is subjected. Conventional methods of attaching guys and braces directly to the outer wall must therefore not be used.

Guide Band assemblies will provide adequate lateral support to the chimney and at the same time allow for thermal movement. Any additional support required for extensions of the vent beyond a roof or parapet level may require additional supports depending upon the freestanding height. When installed in the vertical and when terminating through a roof, a Telescopic Flat Flashing should be used to compensate for expansion and contraction of the system.

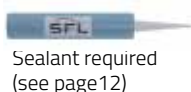
Product Range - Starter Component

Adjustable Appliance Adaptor

Used to provide a straight connection to an appliance spigot of nominal flue size, clamping around the outside of the spigot. The clamp offers a degree of adjustment as specified in the table below.



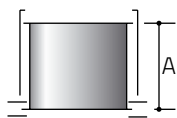
Size (mm)	I.D. min (mm)	I.D. max (mm)	Code number
100	100.5	106.5	6768904
150	150.5	156.5	6768906
175	175.5	181.5	6768907
200	200.5	206.5	6768908
250	250.5	256.5	6768910
300	300.5	306.5	6768912
350	350.5	356.5	6768914
400	400.5	406.5	6768916
450	450.5	456.5	6768918
500	500.5	506.5	6768920
550	550.5	556.5	6768922
600	600.5	606.5	6768924



Sealant required (see page 12)

Flange Adaptor

These are manufactured to order based on the required flange parameters. Part Number: 67644XX, where XX is the diameter.



A = 85mm

Flange to customer requirement.

Plain Appliance Adaptor

Used to provide a straight connection to appliance.

Size	Code number
100	6769004
150	6769006
175	6769007
200	6769008
250	6769010
300	6769012
350	6769014
400	6769016
450	6769018
500	6769020
550	6769022
600	6769024

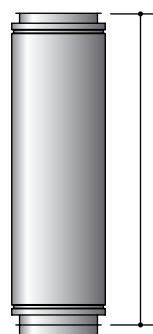


Custom bespoke adaptors can be manufactured to order

Lengths

Standard Lengths

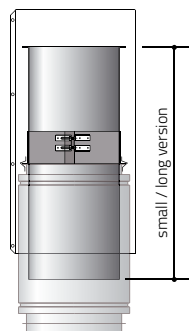
Fixed straight sections are available in four lengths - 245mm, 510mm, 775mm and 1040mm. These are the actual installed lengths.



Size (mm)	Code number			
	Lengths (mm)			
	245	510	775	1040
100	XXX1804	XXX1404	XXX1204	XXX1004
150	XXX1806	XXX1406	XXX1206	XXX1006
175	XXX1807	XXX1407	XXX1207	XXX1007
200	XXX1808	XXX1408	XXX1208	XXX1008
250	XXX1810	XXX1410	XXX1210	XXX1010
300	XXX1812	XXX1412	XXX1212	XXX1012
350	XXX1814	XXX1414	XXX1214	XXX1014
400	XXX1816	XXX1416	XXX1216	XXX1016
450	XXX1818	XXX1418	XXX1218	XXX1018
500	XXX1820	XXX1420	XXX1220	XXX1020
550	XXX1822	XXX1422	XXX1222	XXX1022
600	XXX1824	XXX1424	XXX1224	XXX1024

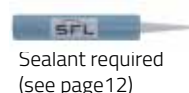
Adjustable / Variable Lengths

Designed to provide a degree of adjustment between two fixed points where standard components are not suitable. The component consists of a slip section which is designed to engage into a preceding single standard length and this is secured with a flanged clamp band. The component is finished with insulation blanket and a Cover Jacket.



Note: These components do not bear load nor should they be used as an expansion component.

Minimum engagement of the slip length must be half the diameter of the flue.



Sealant required (see page 12)

Size (mm)	Code number		
	Min. Length (mm)	Short (500mm)	Long (750mm)
100	210	6XX2904	6XX2804
150	210	6XX2906	6XX2806
175	210	6XX2907	6XX2807
200	210	6XX2908	6XX2808
250	210	6XX2910	6XX2810
300	210	6XX2912	6XX2812
350	210	6XX2914	6XX2814
400	210	6XX2916	6XX2816
450	210	6XX2918	6XX2818
500	210	6XX2920	6XX2820
550	210	6XX2922	6XX2822
600	210	6XX2924	6XX2824

For maximum and minimum adjustment, see page 19.

Please refer to Installation Instructions for detailed information on this component.

Inspection Lengths (T250 P1 Only)

A low pressure (200Pa) / low temperature access component for inspection/cleaning via a rubber-sealed door. For high temperature/pressure applications, use a tee/inspection elbow with blanking plate.



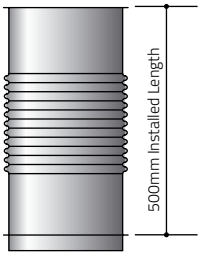
Installed length (A) = 510mm

Size (mm)	Code number
100	6XX6304
150	6XX6306
175	6XX6307
200	6XX6308
250	6XX6310
300	6XX6312
350	6XX6314
400	6XX6316
450	6XX6318
500	6XX6320
550	6XX6322
600	6XX6324

Expansion Components

Lined Expansion Bellows

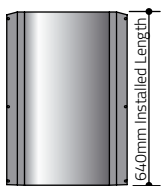
Lined expansion bellows are suitable for positive pressure applications up to 5000 Pa at a maximum temperature of 760°C and specifically for use on engine exhausts. See separate Installation Instruction for detailed information.



Size (mm)	Code number
100	1753004
150	1753006
175	1753007
200	1753008
250	1753010
300	1753012
350	1753014
400	1753016
450	1753018
500	1753020
550	1753022
600	1753024

Insulated Bellows Jacket

Used in conjunction with the Lined Expansion Bellows in order to close off the product annulus as well as to protect and thermally insulate the bellow.



Insulated bellow jackets are supplied as standard with 25mm of insulation. Note: the jacket has an outside diameter 50mm larger than the outside diameter of the vent.

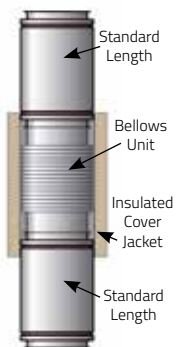
Please note that this item exceeds the outer diameter of the product by the insulation thickness stated.

Size (mm)	25mm jacket		
	25mm Annulus Product	50mm Annulus Product	100mm Annulus Product
100	6749104	6749106	6749110
150	6749106	6749108	6749112
175	6749107	6749109	6749113
200	6749108	6749110	6749114
250	6749110	6749112	6749116
300	6749112	6749114	6749118
350	6749114	6749116	6749120
400	6749116	6749118	6749122
450	6749118	6749120	6749124
500	6749120	6749122	*
550	6749122	6749124	*
600	6749124	*	*

* Please consult SFL regarding these sizes.

Uninsulated Bellows Jacket

Uninsulated bellow jackets are available to order using part number XXX90XX, e.g. 6779010 for 250ID 25mm annulus or 6479010 for 50mm annulus. For 100mm annulus, use the next size up from the 50mm annulus, e.g. 250ID 100mm annulus 6479016.



Expansion Length

A lower cost alternative to bellows for positive or negative pressure applications up to 5kPa (H2-external applications) or 1.5kPa (M1) (internal applications) at a maximum temperature of 450°C. The expansion length can also be used as an adjustable component on such systems when standard lengths are not suitable for the space required. The Expansion Lengths are available in two sizes (Short and Long) supplied with cover jacket and insulation. Note: These components are not bear load and require adequate bracing.

Size (mm)	Code number	
	Short (500mm)	Long (750mm)
100	8XX2704	8XX2604
150	8XX2706	8XX2606
175	8XX2707	8XX2607
200	8XX2708	8XX2608
250	8XX2710	8XX2610
300	8XX2712	8XX2612
350	8XX2714	8XX2614
400	8XX2716	8XX2616
450	8XX2718	8XX2618
500	8XX2720	8XX2620
550	8XX2722	8XX2622
600	8XX2724	8XX2624

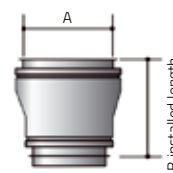
For maximum and minimum adjustment, see page 19.

See separate Installation Instruction for detailed information.

Increasesers & Reducers

Increasesers

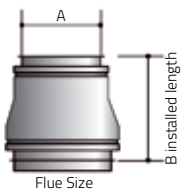
Increasesers are available in One-Step or Two-Step versions and are tapered in construction to minimise flow resistance.



One Step Installed Length:
One Step Installed Length
25mm Annulus B = 300mm
50mm & 100mm Annulus B = 386mm

Two Step Installed Length:
Installed Length 25mm Annulus B = 400mm
50mm & 100mm Annulus B = 486mm

Size (mm)	One Step		Two Step	
	A	Code	A	Code
100	150	8XX1504	200	8XX1604
150	200	8XX1506	250	8XX1606
175	200	8XX1507	250	8XX1607
200	250	8XX1508	300	8XX1608
250	300	8XX1510	350	8XX1610
300	350	8XX1512	400	8XX1612
350	400	8XX1514	450	8XX1614
400	450	8XX1516	500	8XX1616
450	500	8XX1518	550	8XX1618
500	550	8XX1520	600	8XX1620
550	600	8XX1522		



Reducers

Reducers are available in One-Step or Two-Step versions and are tapered in construction to minimise flow resistance.

One Step Installed Length:
Installed Length 25mm Annulus B = 300mm
50mm & 100mm Annulus B = 386mm
Two Step Installed Length:
Installed Length 25mm Annulus B = 400mm
50mm & 100mm Annulus B = 486mm

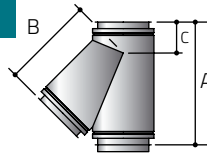
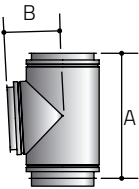
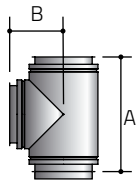
Size (mm)	One Step		Two Step	
	A	Code	A	Code
150	100	6XX3006	-	-
175	150	6XX3007	100	6XX3107
200	175	6XX3008	150	6XX3108
250	200	6XX3010	175	6XX3110
300	250	6XX3012	200	6XX3112
350	300	6XX3014	250	6XX3114
400	350	6XX3016	300	6XX3116
450	400	6XX3018	350	6XX3118
500	450	6XX3020	400	6XX3120
550	500	6XX3022	450	6XX3122
600	550	6XX3024	500	6XX3124

Size (mm)	Dimensions 50mm & 100mm Annulus	
	A	B
100	602	301
150	652	326
175	677	340
200	702	351
250	752	376
300	802	401
350	852	426
400	902	451
450	952	476
500	1002	501
550	1052	526
600	1102	551

Tees

Equal Tee 90°, 93° & 95°

Designed to provide connection, a change of direction and cleaning access if required. Angled Tees can be used to offer an incline to allow back flow of condensation through the system. Please refer to page 18 for vertical loading data.



Size (mm)	Code Number		
	90° Tee	93° Tee	95° Tee
100	8XX1904	8XX9304	8XX9504
150	8XX1906	8XX9306	8XX9506
175	8XX1907	8XX9307	8XX9507
200	8XX1908	8XX9308	8XX9508
250	8XX1910	8XX9310	8XX9510
300	8XX1912	8XX9312	8XX9512
350	8XX1914	8XX9314	8XX9514
400	8XX1916	8XX9316	8XX9516
450	8XX1918	8XX9318	8XX9518
500	8XX1920	8XX9320	8XX9520
550	8XX1922	8XX9322	8XX9522
600	8XX1924	8XX9324	8XX9524

Tees with specific dimensions can be manufactured to order, please contact our specials team for details.

Size (mm)	Dimensions (mm) 25mm Annulus	
	A	B
100	500	160
150	500	185
175	500	198
200	500	210
250	500	235
300	600	260
350	600	285
400	700	310
450	700	335
500	750	360
550	750	385
600	825	410

135° Equal Tee

Used at the base of a vertical chimney, or for horizontal header configurations where a smooth transition is required. Can also be used as an inspection / cleaning point when used with a Blanking Cap or as a drainage component when used with the Drain Tee Cap.

Size (mm)	Dimensions (mm) 25mm Annulus			Code number
	A	B	C	
100	415	285	130	8XX2004
150	500	328	172	8XX2006
175	500	358	142	8XX2007
200	600	388	212	8XX2008
250	600	449	151	8XX2010
300	700	509	191	8XX2012
350	750	570	180	8XX2014
400	825	630	195	8XX2016
450	900	690	210	8XX2018
500	950	751	199	8XX2020
550	1025	811	214	8XX2022
600	1100	871	229	8XX2024

Size (mm)	Dimensions (mm) 50mm & 100mm Annulus		
	A	B	C
100	713	510	203
150	784	570	214
175	819	600	219
200	855	630	225
250	925	690	235
300	996	750	246
350	1066	810	256
400	1137	870	267
450	1208	930	278
500	1279	990	289
550	1350	1050	300
600	1420	1110	310

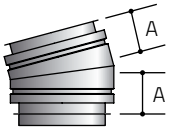
Standard Prefix Codes
316 Inner / 304 Outer

Annulus	Code
25mm	874XXXX
50mm	844XXXX
100mm	884XXXX

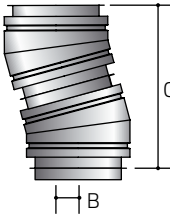
Elbows

15° Elbow

Designed to change direction by 15°.



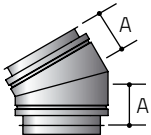
Size (mm)	Dimensions (mm) 25mm Annulus			Code number
	A	B	C	
100	110	57	432	8XX2204
150	113	58	444	8XX2206
175	115	59	452	8XX2207
200	117	60	460	8XX2208
250	120	62	472	8XX2210
300	123	64	484	8XX2212
350	126	65	495	8XX2214
400	130	67	511	8XX2216
450	133	69	523	8XX2218
500	136	70	535	8XX2220
550	140	72	550	8XX2222
600	143	74	562	8XX2224



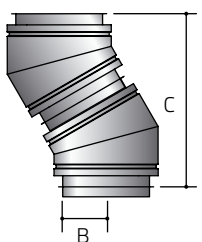
Size (mm)	Dimensions (mm) 50mm & 100mm Annulus		
	A	B	C
100	163	84	640
150	166	86	653
175	168	87	660
200	169	88	666
250	173	89	679
300	176	91	705
350	179	93	718
400	183	95	731
450	186	96	744
500	189	98	757
550	193	100	770
600	196	101	783

30° Elbow

Designed to change direction by 30°.



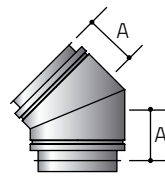
Size (mm)	Dimensions (mm) 25mm Annulus			Code number
	A	B	C	
100	120	120	448	8XX2304
150	127	127	474	8XX2306
175	130	130	485	8XX2307
200	134	134	500	8XX2308
250	141	141	526	8XX2310
300	147	147	549	8XX2312
350	154	154	575	8XX2314
400	161	161	601	8XX2316
450	167	167	623	8XX2318
500	174	174	649	8XX2320
550	181	181	676	8XX2322
600	187	187	698	8XX2324



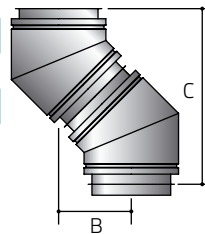
Size (mm)	Dimensions (mm) 50mm & 100mm Annulus		
	A	B	C
100	183	183	685
150	190	190	710
175	194	194	722
200	197	197	735
250	204	204	760
300	210	210	785
350	217	217	810
400	224	224	835
450	230	230	860
500	237	237	885
550	244	244	910
600	250	250	935

45° Elbow

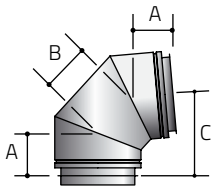
Designed to change direction by 45°.



Size (mm)	Dimensions (mm) 25mm Annulus			Code number
	A	B	C	
100	132	187	451	8XX2404
150	142	201	485	8XX2406
175	147	208	502	8XX2407
200	152	215	519	8XX2408
250	163	231	557	8XX2410
300	173	245	591	8XX2312
350	183	259	625	8XX2414
400	194	274	662	8XX2416
450	204	288	696	8XX2418
500	214	303	731	8XX2420
550	225	318	768	8XX2422
600	235	332	802	8XX2424



Size (mm)	Dimensions (mm) 50mm & 100mm Annulus		
	A	B	C
100	206	291	702
150	216	305	737
175	221	313	755
200	226	320	772
250	237	335	808
300	247	349	843
350	257	364	879
400	268	379	914
450	278	393	949
500	288	408	985
550	299	422	1020
600	309	437	1055

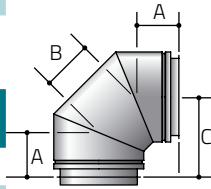


85° Elbow

Allows a 5° incline to facilitate back-flow of condensation through system.

Size (mm)	Dimensions 25mm Annulus			Code Number
	A	B	C	
100	132	113	223	8XX8704
150	142	134	249	8XX8706
175	147	144	262	8XX8707
200	152	154	274	8XX8708
250	163	175	301	8XX8710
300	173	196	327	8XX8712
350	183	217	352	8XX8714
400	194	237	378	8XX8716
450	204	258	404	8XX8718
500	214	279	430	8XX8720
550	225	299	456	8XX8722
600	235	320	482	8XX8724

Size (mm)	Dimensions 50mm & 100mm Annulus		
	A	B	C
100	206	175	348
150	216	196	373
175	221	206	386
200	226	217	399
250	237	237	425
300	247	258	451
350	257	279	477
400	268	299	503
450	278	302	516
500	288	341	554
550	299	362	581
600	309	382	606



Size (mm)	Dimensions 50mm & 100mm Annulus		
	A	B	C
100	206	175	337
150	216	196	362
175	221	206	374
200	226	217	387
250	237	237	413
300	247	258	438
350	257	279	463
400	268	299	488
450	278	302	500
500	288	341	538
550	299	362	564
600	309	382	588

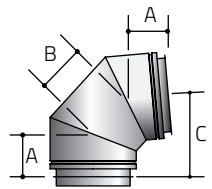
90° Elbow

Designed to change direction by 90°.

Size (mm)	Dimensions 25mm Annulus			Code Number
	A	B	C	
100	132	113	212	8XX8504
150	142	134	236	8XX8506
175	147	144	249	8XX8507
200	152	154	261	8XX8508
250	163	175	289	8XX8510
300	173	196	311	8XX8512
350	183	217	336	8XX8514
400	194	237	361	8XX8516
450	204	258	386	8XX8518
500	214	279	411	8XX8520
550	225	299	436	8XX8522
600	235	320	461	8XX8524

87° Elbow

Allows a 3° incline to facilitate back-flow of condensation through system. N.B. Always use 5° incline unless head room is limited.



Size (mm)	Dimensions 25mm Annulus			Code Number
	A	B	C	
100	132	113	217	8XX9204
150	142	134	242	8XX9206
175	147	144	254	8XX9207
200	152	154	274	8XX9208
250	163	175	301	8XX9210
300	173	196	317	8XX9212
350	183	217	342	8XX9214
400	194	237	367	8XX9216
450	204	258	392	8XX9218
500	214	279	417	8XX9220
550	225	299	443	8XX9222
600	235	320	468	8XX9224

Size (mm)	Dimensions 50mm & 100mm Annulus		
	A	B	C
100	206	175	330
150	216	196	355
175	221	206	367
200	226	217	380
250	237	237	405
300	247	258	430
350	257	279	454
400	268	299	480
450	278	302	504
500	288	341	529
550	299	362	555
600	309	382	579

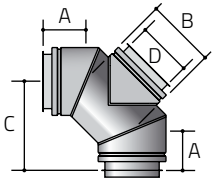
Standard Prefix Codes
316 Inner / 304 Outer

Annulus	Code
25mm	874XXXX
50mm	844XXXX
100mm	884XXXX

Components

90° Access Elbow

Designed to change direction by 90°, and made with a branch to facilitate both cleaning, inspection and drainage. Used with either a Blanking Cap or Drain Tee Cap (Must be ordered separately)

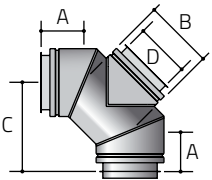


Size (mm)	Dimensions (mm) 25mm Annulus				Code Number
	A	B	C	D	
100	132	189	266	100	6XX8604
150	142	218	296	150	6XX8606
175	147	233	312	175	6XX8607
200	152	248	327	200	6XX8608
250	163	277	359	250	6XX8610
300	173	306	389	250	6XX8612
350	183	335	420	250	6XX8614
400	194	365	452	250	6XX8616
450	204	394	483	250	6XX8618
500	214	423	513	250	6XX8620
550	225	453	545	250	6XX8622
600	235	482	576	250	6XX8624

Size (mm)	Dimensions (mm) 50mm & 100mm Annulus			
	A	B	C	D
100	206	313	427	100
150	216	342	458	150
175	221	357	473	175
200	226	372	489	200
250	237	401	521	250
300	247	430	551	250
350	257	459	582	250
400	268	489	614	250
450	278	519	645	250
500	288	547	675	250
550	299	577	707	250
600	309	606	738	250

85° Access Elbow

As per the 90° Access Elbow but allowing a 5° incline.



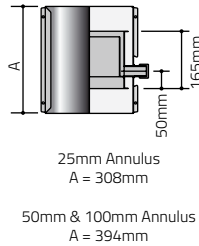
Size (mm)	Dimensions (mm) 25mm Annulus				Code Number
	A	B	C	D	
100	132	189	277	100	6XX8804
150	142	218	309	150	6XX8806
175	147	233	325	175	6XX8807
200	152	248	341	200	6XX8808
250	163	277	373	250	6XX8810
300	173	306	404	250	6XX8812
350	183	335	436	250	6XX8814
400	194	365	469	250	6XX8816
450	204	394	500	250	6XX8818
500	214	423	532	250	6XX8820
550	225	453	565	250	6XX8822
600	235	482	596	250	6XX8824

Size (mm)	Dimensions (mm) 50mm & 100mm Annulus			
	A	B	C	D
100	206	313	445	100
150	216	342	477	150
175	221	357	493	175
200	226	372	509	200
250	237	401	541	250
300	247	430	573	250
350	257	459	604	250
400	268	489	637	250
450	278	519	669	250
500	288	547	700	250
550	299	577	733	250
600	309	606	764	250

Drainage / Inspection Components

Vertical Drain Section

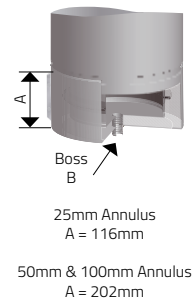
For use with open vent terminations for draining off rainwater or condensation from within the vent. Should be located inside building to prevent freezing. Provided with a Cover Jacket, insulation and incorporates a 1" BSP externally threaded stainless steel drain tube and protective cap.



Size	Code number
100	6XX4004
150	6XX4006
175	6XX4007
200	6XX4008
250	6XX4010
300	6XX4012
350	6XX4014
400	6XX4016
450	6XX4018
500	6XX4020
550	6XX4022
600	6XX4024

Drain Tee Cap

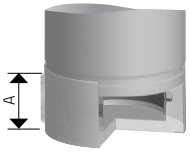
Used to facilitate removal of condensation or rainwater from the system.



Size	B	Code number
100	1" BSP	6XX3604
150	1" BSP	6XX3606
175	1" BSP	6XX3607
200	1" BSP	6XX3608
250	1" BSP	6XX3610
300	1" BSP	6XX3612
350	1" BSP	6XX3614
400	2" BSP	6XX3616
450	2" BSP	6XX3618
500	2" BSP	6XX3620
550	2" BSP	6XX3622
600	2" BSP	6XX3624

Blanking Plate

Used to close off the unused opening of Tees and Access Elbows where used for cleaning / inspection access.



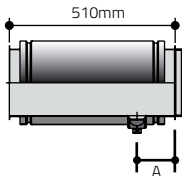
25mm Annulus
A = 116mm

50mm & 100mm Annulus
A = 202mm

Size	Code number
100	6XX7404
150	6XX7406
175	6XX7407
200	6XX7408
250	6XX7410
300	6XX7412
350	6XX7414
400	6XX7416
450	6XX7418
500	6XX7420
550	6XX7422
600	6XX74 24

Duct Drain

Used in a horizontal / inclined position, this component is designed to drain off grease / residues inside grease ducts as well as condensation in conventional exhaust systems. It has a small vertical dam to channel the run off to a 1" BSP externally threaded stainless steel drain tube with galvanised plug.



25mm Annulus
A = 115mm

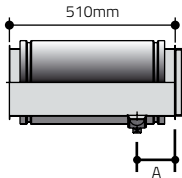
50mm & 100mm Annulus
A = 160mm

Size	Code number
100	6XX3804
150	6XX3806
175	6XX3807
200	6XX3808
250	6XX3810
300	6XX3812
350	6XX3814
400	6XX3816
450	6XX3818
500	6XX3820
550	6XX3822
600	6XX3824

Nozzle Section

For use as a fire suppression nozzle or hot water / detergent maintenance section (where used as a grease duct).

Fitted with a 1 1/2" BSP parallel internally threaded stainless steel drain tube with galvanised plug. Can also be used as a sample point.



25mm Annulus
A = 115mm

50mm & 100mm Annulus
A = 160mm

Size	Code number
100	6XX3904
150	6XX3906
175	6XX3907
200	6XX3908
250	6XX3910
300	6XX3912
350	6XX3914
400	6XX3916
450	6XX3918
500	6XX3920
550	6XX3922
600	6XX3924

Standard Prefix Codes
316 Inner / 304 Outer

Annulus	Code
25mm	874XXXX
50mm	844XXXX
100mm	884XXXX

Ancillaries / Spares

'U' Band (Spare)

Supplied with fixing kit. The 'U' Band is used to secure the flange joint and is supplied as standard with all lengths and fittings.



Size	Code number
100	1754804SET
150	1754806SET
175	1754807SET
200	1754808SET
250	1754810SET
300	1754812SET
350	1754814SET
400	1754816SET
450	1754818SET
500	1754820SET
550	1754822SET
600	1754824SET

Fixing Pack for 'U' Band (Spare)

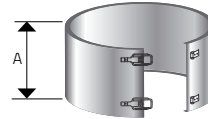
Comprises 4x cap-head hex bolts and two double-nut backing plates. Fixing packs are supplied with 'U' Bands as standard.

Code number

FXP0008

Standard Channel Band (Spare)

The Channel Band is used to finish the joint and is supplied with a strip of insulation. Channel Bands are provided as standard with all lengths and fittings



25mm Annulus
A = 115mm

50mm & 100mm Annulus
A = 202mm



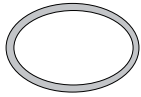
Use appropriate silicone sealant to weatherproof channel bands

Use Sikaflex Weathering Sealant Code: 1758206 when installing channel bands externally to be painted

Size	Code number	Code number
25mm Annulus		
100	6774704	
150	6774706	
175	6774707	
200	6774708	
250	6774710	
300	6774712	
350	6774714	
400	6774716	
450	6774718	
500	6774720	
550	6774722	
600	6774724	

Size	Code number	Code number
	50mm Annulus	100mm Annulus
100	6474704	6474708
150	6474706	6474710
175	6474707	6874707
200	6474708	6474712
250	6474710	6474714
300	6474712	6474716
350	6474714	6474718
400	6474716	6474720
450	6474718	6474722
500	6474720	6474724
550	6474722	6474726
600	6474724	6474728

Flange Gasket



A Flange Gasket is supplied as standard with all lengths and fittings. The gasket is supplied with a self-adhesive backing.

NOTE: The gasket is extremely delicate. Great care must be exercised during handling.

Before fitting the gasket to the flange face of the spigot end, ensure that the flange face is clean and free of dirt and grease and not damaged or distorted.

Size	Code number
100	6700104
150	6700106
175	6700107
200	6700108
250	6700110
300	6700112
350	6700114
400	6700116
450	6700118
500	6700120
550	6700122
600	6700124

Joint Sealants

Sealant is required by some components (indicated by the cartridge icon next to the product).

Temperature rating is prescribed by the application.

Low temperature Sealant

Use for components requiring sealant where gas temperatures do not exceed 250°C Capable of resisting positive pressures of 5000Pa

Code number
1756506

High temperature

Use where flue gas temperatures exceed 250°C. Capable of resisting positive pressures of 5000Pa once cured correctly.

Code number
1783108

Weathering Sealant (Sikaflex)

For application to Channel Band joints on vertical external Europa applications where the flue is to be painted.

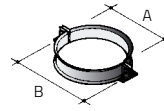
Code number
1758206

Diameter	Number of joints per 310ml cartridge at 25mm annulus	
100mm	16.0	350mm 5.4
150mm	10.7	400mm 4.8
175mm	9.5	450mm 4.3
200mm	8.6	500mm 3.9
250mm	7.1	550mm 3.5
300mm	6.1	600mm 3.3

310ml cartridges for use in a standard skeleton gun.

Support Components

Most support components are common and used for Europa, Europa Plus and Europa Lite.



B = Fixing Hole Centres

Guide Band

Guide and lateral support, which locates the vent and at the same time permits linear thermal expansion. This component does not support vertical load.

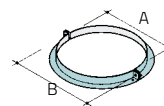
Size (mm)	Dimensions (mm)		Code number
	A	B	
25mm Annulus			
100	155	195	17X7504
150	205	245	17X7506
175	230	270	17X7507
200	255	295	17X7508
250	305	345	17X7510
300	355	395	17X7512
350	405	445	17X7514
400	455	495	17X7516
450	505	545	17X7518
500	555	595	17X7520
550	605	645	17X7522
600	655	695	17X7524

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5

Size (mm)	Annulus Matrix	
	50mm	100mm
100	17X7506	17X7510
150	17X7508	17X7512
175	17X7509	17X7513
200	17X7510	17X7514
250	17X7512	17X7516
300	17X7514	17X7518
350	17X7516	17X7520
400	17X7518	17X7522
450	17X7520	17X7524
500	17X7522	17X7526*
550	17X7524	17X7528*
600	17X7526*	17X5230*

* These Code Numbers use the heavy duty version, please refer to table below for related dimensions.

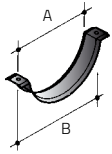
Heavy Duty Version



B = fixing hole centres

Code number	Dimensions (mm)	
	A	B
17X7526	708	764
17X7528	758	814
17X7530	808	864

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5



B = Fixing Hole Centres

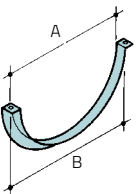
Support Cradle

Provides cradle support for horizontal runs.

Size (mm)	Dimensions (mm)		Code number
	A	B	
	25mm Annulus		
100	155	205	17X7604
150	205	254	17X7606
175	230	283	17X7607
200	255	304	17X7608
250	305	354	17X7610
300	355	404	17X7612
350	405	458	17X7614
400	455	508	17X7616
450	505	559	17X7618
500	555	609	17X7620
550	605	659	17X7622
600	655	710	17X7624

Size (mm)	Annulus Matrix	
	50mm	100mm
100	17X7606	17X7610
150	17X7608	17X7612
175	17X7609	17X7613
200	17X7610	17X7614
250	17X7612	17X7616
300	17X7614	17X7618
350	17X7616	17X7620
400	17X7618	17X7622
450	17X7620	17X7624
500	17X7622	17X7626*
550	17X7624	17X7628*
600	17X7626*	17X7630*

Heavy Duty Version

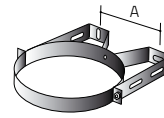


B = Fixing Hole Centres

* These Code Numbers use the heavy duty version, please refer to table below for related dimensions.

Code number	Dimensions (mm)	
	A	B
17X7626	708	764
17X7628	758	814
17X7630	808	864

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5



A = Fixing Hole Centres

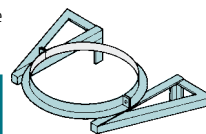
Wall Guides

Provides lateral support to product. Does not bear vertical load.

Size (mm)	Dimensions (mm)		Code number
	A	25mm Annulus	
100	117	17X7904	
150	166	17X7906	
175	195	17X7907	
200	216	17X7908	
250	266	17X7910	
300	316	17X7912	
350	372	17X7914	
400	422	17X7916	
450	473	17X7918	
500	523	17X7920	
550	573	17X7922	
600	624	17X7924	

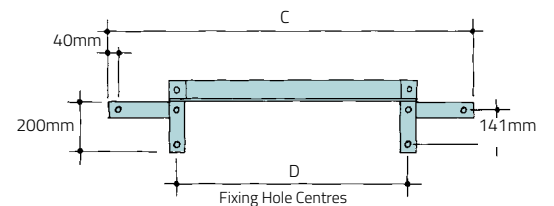
Size (mm)	Annulus Matrix	
	50mm	100mm
100	17X7906	17X7910
150	17X7908	17X7912
175	17X7909	17X7913
200	17X7910	17X7914
250	17X7912	17X7916
300	17X7914	17X7918
350	17X7916	17X7920
400	17X7918	17X7922
450	17X7920	17X7924
500	17X7922	17X7926*
550	17X7924	17X7928*
600	17X7926*	17X7930*

Heavy Duty Version



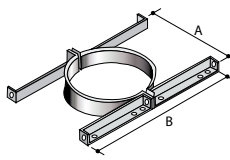
* These Code Numbers use the heavy duty version, please refer to table below for related dimensions.

Code number	Dimensions (mm)	
	C	D
17X7926	1058	764
17X7928	1122	814
17X7930	1184	864



For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5

Floor Guide



A = Fixing hole centres

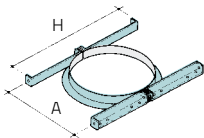
Installed at each floor level to ensure correct vertical alignment and free expansion. Maximum hole through floor equals pipe inside diameter plus 250mm. Assembly consists of a Guide Band, 4 struts and nuts / bolts.

Size (mm)	Dimensions (mm)		Code number
	A	B	
			25mm Annulus
100	199	686	17X8004
150	229	686	17X8006
175	249	686	17X8007
200	299	686	17X8008
250	349	686	17X8010
300	399	686	17X8012
350	449	826	17X8014
400	499	826	17X8016
450	549	826	17X8018
500	599	826	17X8020
550	649	826	17X8022
600	699	826	17X8024

Size (mm)	Annulus Matrix		Code number
	50mm	100mm	
100	17X8006	17X8010	
150	17X8008	17X8012	
175	17X8009	17X8013	
200	17X8010	17X8014	
250	17X8012	17X8016	
300	17X8014	17X8018	
350	17X8016	17X8020	
400	17X8018	17X8022	
450	17X8020	17X8024	
500	17X8022	17X8026*	
550	17X8024	17X8028*	
600	17X8026*	17X8030*	

*Heavy Duty Version

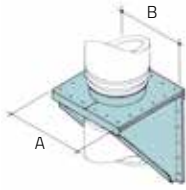
* These Code Numbers use the heavy duty version, please refer to table below for related dimensions.



B = Fixing Hole Centres

Code number	Dimensions (mm)	
	A	H
17X8026	764	1012
17X8028	814	1012
17X8030	864	1012

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5

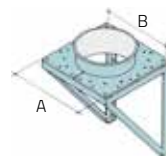


b = Fixing hole centres

Installed height of Support Length 170mm.

Corresponding Cover Jacket set required (see overleaf)

*Heavy Duty Version



Installed height of Support Length 170mm.

Corresponding Cover Jacket set required (see overleaf)

Wall Support Assembly

Designed to provide either vertical or horizontal support for the system. The assembly consists of two side brackets, a split top and bottom plates, support length and fixing flange. The Wall Support Assembly is designed to provide a 50mm clearance as standard for non-combustible structures. Cover Jackets are ordered separately.

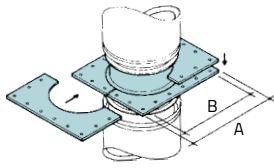
Size (mm)	Dimensions (mm)		Code number
	A	B	
			25mm Annulus
100	252	212	87X8404
150	302	262	87X8406
175	327	287	87X8407
200	352	312	87X8408
250	402	362	87X8410
300	452	412	87X8412
350	502	462	87X8414
400	552	512	87X8416
450	602	562	87X8418
500	652	612	87X8420
550	702	662	87X8422
600	752	712	87X8424*

Size (mm)	Dimensions (mm)		Code number
	A	B	
			50mm Annulus
100	302	262	84X8404
150	352	312	84X8406
175	377	337	84X8407
200	402	362	84X8408
250	452	412	84X8410
300	502	462	84X8412
350	552	512	84X8414
400	602	562	84X8416
450	652	612	84X8418
500	702	662	84X8420
550	752	712	84X8422
600	804	754	84X8424*

Size (mm)	Dimensions (mm)		Code number
	A	B	
			100mm Annulus
100	402	362	88X8404
150	452	412	88X8406
175	477	437	88X8407
200	502	462	88X8408
250	552	512	88X8410
300	602	562	88X8412
350	652	612	88X8414
400	702	662	88X8416
450	752	712	88X8418
500	804	754	88X8420*
550	854	804	88X8422*
600	904	854	88X8424*

* These Code Numbers use the heavy duty version, please refer to table below for related dimensions.

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5



Corresponding Cover Jacket set required (opposite)

Support Plate Assembly

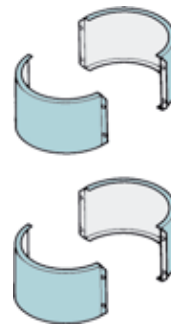
The Support Plate is design for use with on-site fabricated bracketry as a dead weight support or as thrust / bracing plates for bellows and changes of direction. Consists of two sets of half plates, split flange and Support Length. The assembly MUST be mounted on all four sides to a structural frame and attached to the building structure. Cover Jackets are ordered separately.

Size (mm)	Dimensions (mm)		Code number
	A	B	
			25mm Annulus
100	252	212	87X8304
150	302	262	87X8306
175	327	287	87X8307
200	352	312	87X8308
250	402	362	87X8310
300	452	412	87X8312
350	502	462	87X8314
400	552	512	87X8316
450	602	562	87X8318
500	652	612	87X8320
550	702	662	87X8322
600	752	712	87X8324

Size (mm)	Dimensions (mm)		Code number
	A	B	
			50mm Annulus
100	302	262	84X8304
150	352	312	84X8306
175	377	337	84X8307
200	402	362	84X8308
250	452	412	84X8310
300	502	462	84X8312
350	552	512	84X8314
400	602	562	84X8316
450	652	612	84X8318
500	702	662	84X8320
550	752	712	84X8322
600	804	754	84X8324

Size (mm)	Dimensions (mm)		Code number
	A	B	
			100mm Annulus
100	402	362	88X8304
150	452	412	88X8306
175	477	437	88X8307
200	502	462	88X8308
250	552	512	88X8310
300	602	562	88X8312
350	652	612	88X8314
400	702	662	88X8316
450	752	712	88X8318
500	804	754	88X8320
550	854	804	88X8322
600	904	854	88X8324

For Stainless Steel replace 'X' with 7
For Galvanised Steel replace 'X' with 5



Cover Jacket Set

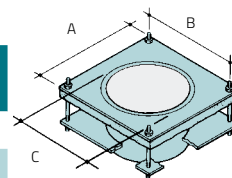
Use to close off the annulus on each side of a Support plate or Wall Support Assembly.

Size (mm)	Dimensions (mm)		Code number
	A	B	
			25mm Annulus
100	252	212	6778104
150	302	262	6778106
175	327	287	6778107
200	352	312	6778108
250	402	362	6778110
300	452	412	6778112
350	502	462	6778114
400	552	512	6778116
450	602	562	6778118
500	652	612	6778120
550	702	662	6778122
600	752	712	6778124

Size (mm)	Annulus Matrix	
	50mm	100mm
100	6478104	6478108
150	6478106	6478110
175	6478107	6478113
200	6478108	6478112
250	6478110	6478114
300	6478112	6478116
350	6478114	6478118
400	6478116	6478120
450	6478118	6478122
500	6478120	6478124
550	6478122	6478126
600	6478124	6478128

Firestop Kit for Fast Track Buildings (Non-Combustible Structure)

Designed to be applied where Europa passes through structures requires a compartmental fire rating of up to 4 hours, (stability and integrity). See separate installation instructions for full details.



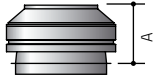
Size (mm)	Dimensions (mm)			Code number
	A	B	C	
100mm	130	340	158	1757304
150mm	380	340	208	1757306
175mm	405	340	233	1757307
200mm	430	390	258	1757308
250mm	480	440	308	1757310
300mm	530	490	358	1757312
350mm	580	540	408	1757314
400mm	630	590	458	1757316
450mm	680	640	508	1757318
500mm	730	690	558	1757320
550mm	780	740	608	1757322
600mm	830	790	658	1757324

For combustible floor penetrations, please contact SFL.

Terminals & Flashings

Parallel Vent Terminal

An open ended terminal to provide a zero resistance outlet.

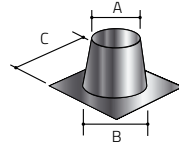


25mm Annulus
A=160mm

50mm Annulus
A=252mm

100mm Annulus
A=360mm

Size	Code number
100	6XX6704
150	6XX6706
175	6XX6707
200	6XX6708
250	6XX6710
300	6XX6712
350	6XX6714
400	6XX6716
450	6XX6718
500	6XX6720
550	6XX6722
600	6XX6724



Height of cone is 250mm from base plate.

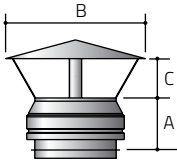
Universal Flat Flashing

For flat or nearly flat roofs. If vertical expansion exceeds 100mm, use the telescopic Flat Flashing.

Size (mm)	Dimensions (mm)			Code number
	A	B	C	
				25mm Annulus
100	160	250	495	7000006
150	210	300	495	7000009
175	235	325	660	7000010
200	260	350	660	7000011
250	310	400	660	7000012
300	360	450	660	7000013
350	410	500	820	7000014
400	458	550	862	7000015
450	508	600	914	7000016
500	558	650	965	7000017
550	608	700	1015	7000018
600	658	750	1066	7000019

Vent Cap

Provides a degree of protection from rain ingress into the vent system.



25mm Annulus
A=160mm

50mm Annulus
A=252mm

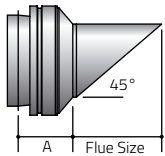
100mm Annulus
A=360mm

Size (mm)	Dimensions		Code number
	B	C	
100	150	46	6XX3404
150	260	71	6XX3406
175	305	85	6XX3407
200	346	94	6XX3408
250	430	121	6XX3410
300	520	146	6XX3412
350	650	167	6XX3414
400	735	193	6XX3416
450	820	217	6XX3418
500	905	243	6XX3420
550	990	268	6XX3422
600	1080	293	6XX3424

Size (mm)	Annulus Matrix	
	50mm	100mm
100	7000009	7000012
150	7000011	7000013
175	7000024	7000025
200	7000012	7000014
250	7000013	7000015
300	7000014	7000016
350	7000015	7000016
400	7000016	7000018
450	7000017	7000019
500	7000018	See Note 1
550	7000019	See Note 1
600	See Note 1	See Note 1

Exhaust Terminal with Mesh

Designed for use on generator exhausts and where the terminal discharges at the end of a horizontal run. Can also be used with a 90° Elbow for vertical chimney termination.

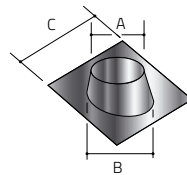


25mm Annulus
A=160mm

50mm Annulus
A=252mm

100mm Annulus
A=360mm

Size	Code number
100	6XX7104
150	6XX7106
175	6XX7107
200	6XX7108
250	6XX7110
300	6XX7112
350	6XX7114
400	6XX7116
450	6XX7118
500	6XX7120
550	6XX7122
600	6XX7124

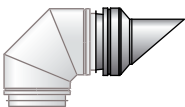


Universal 5° - 30° Flashing

For sloping roof penetrations of angles between 5° and 30°.

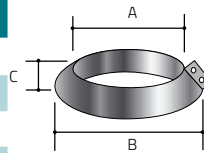
Size (mm)	Dimensions (mm)			Code number
	A	B	C	
				25mm Annulus
100	160	250	495	70053006
150	210	300	660	70053009
175	235	325	660	70053010
200	260	350	660	70053011
250	310	400	660	70053012
300	360	450	820	70053013
350	410	500	965	70053014
400	458	652	952	70053015
450	508	710	1010	70053016
500	558	766	1066	70053017
550	608	824	1124	70053018
600	658	880	1180	70053019

All flashings are made from malleable aluminium



Used with a 90° Elbow for vertical chimney terminations.

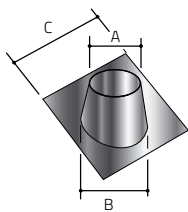
Size (mm)	Annulus Matrix	
	50mm	100mm
100	70053009	70053012
150	70053011	70053013
175	70053024	70053025
200	70053012	70053014
250	70053013	70053015
300	70053014	70053016
350	70053015	70053017
400	70053016	70053018
450	70053017	70053019
500	70053018	See Note 1
550	70053019	See Note 1
600	See Note 1	See Note 1



Storm Collar

Used over the aluminium flashing and secured to the outer case of the chimney. Provided with silicone sealant.

Size (mm)	Dimensions (mm)			Code number
	A	B	C	
25mm Annulus				
100	152	255	70	70123406
150	202	301	70	70123409
175	227	330	70	70123410
200	252	351	70	70123411
250	302	401	70	70123412
300	352	451	70	70123413
350	402	501	70	70123414
400	450	623	150	70123415
450	500	673	150	70123416
500	550	723	150	70123417
550	600	773	150	70123418
600	650	823	150	70123419



32° - 45° Flashing

For sloping roof penetrations of angles between 32° and 45°.

Size (mm)	Dimensions (mm)			Code number
	A	B	C	
25mm Annulus				
100	160	332	660	70324506
150	210	403	660	70324509
175	240	440	820	70324510
200	260	475	820	70324511
250	310	546	820	70324512
300	360	617	820	70324513
350	410	689	1219	70324514
400	458	761	1219	70324515
450	508	831	1219	70324516
500	558	895	1219	70324517
550	608	974	1219	70324518
600	658	1038	1219	70324519

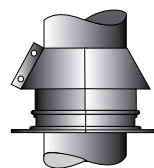
Size (mm)	Annulus Matrix	
	50mm	100mm
100	70324509	70324512
150	70324511	70324513
175	70324524	70324525
200	70324512	70324514
250	70324513	70324515
300	70324514	70324516
350	70324515	70324517
400	70324516	70324518
450	70324517	70324519
500	70324518	See Note 1
550	70324519	See Note 1
600	See Note 1	See Note 1

NOTE 1 - Flashings for these sizes are manufactured to the customer's specific requirements and dimensions and must be confirmed prior to order.

Size (mm)	Annulus Matrix	
	50mm	100mm
100	70123409	70123412
150	70123411	70123413
175	70123424	70123425
200	70123412	70123414
250	70123413	70123415
300	70123414	70123416
350	70123415	70123417
400	70123416	70123418
450	70123417	70123419
500	70123418	See Note 1
550	70123419	See Note 1
600	See Note 1	See Note 1

Telescopic Flat Flashing

This component weatherproofs the Europa's passage through the roof, and must be used where the expansion of the duct is calculated to exceed 100mm. The telescopic drum section of the Flashing is secured to the roof. The storm collar is located with silicone sealant to the outer Europa casing and is free to rise with the expansion. Only available for 25mm annulus.



Size	Code number
100	1757204
150	1757206
175	1757207
200	1757208
250	1757210
300	1757212
350	1757214
400	1757216
450	1757218
500	1757220
550	1757222
600	1757224

Loading Data

When calculating loading, the mechanical and thermally induced loads must be summed. Elbows, adjustable lengths, expansion lengths are not load-bearing and must be adequately supported. Always use a support component above such components.

Size	Support Plates	Wall Supports	Tees (Base Supported)
	Loading (Kg)	Loading (Kg)	Loading (Kg)
100mm (4")	425	400	100
150mm (6")	450	450	100
175mm (7")	525	500	100
200mm (8")	600	550	125
250mm (10")	750	625	150
300mm (12")	900	700	175
350mm (14")	1050	800	200
400mm (16")	1250	875	225
450mm (18")	1350	950	250
500mm (20")	1500	1050	275
550mm (22")	1650	1125	312
600mm (24")	1800	1200	350

GUIDE AND LATERAL BRACING

The Europa Plus product must be adequately supported or given lateral bracing in accordance with the following table, bearing in mind the above loading characteristics and product weights.

Size	Application		Freestanding height above last Support or Guide
	Vertical	Horizontal	
100mm	4.0 Mtrs	2.5 Mtrs	2.5 Mtrs
150mm - 600mm*	4.0 Mtrs	3.0 Mtrs	3.0 Mtrs

* Where either 50mm or 100mm insulation (150mm - 600mm), the maximum horizontal distance between supports is reduced to 2.5 metres.

Approx. Product Weights (Per Metre)

Size	25mm Annulus	50mm Annulus	100mm Annulus
	Kg	Kg	Kg
100mm (4")	5.66	9.75	16.06
150mm (6")	7.66	11.92	18.58
175mm (7")	8.67	12.99	19.95
200mm (8")	9.67	14.14	21.27
250mm (10")	11.7	16.35	24.99
300mm (12")	13.73	18.58	27.75
350mm (14")	15.76	21.92	30.51
400mm (16")	18.95	24.25	33.29
450mm (18")	21.04	26.6	36.05
500mm (20")	23.2	28.94	38.78
550mm (22")	25.35	31.28	41.57
600mm (24")	27.5	33.63	44.33

Minimum and Maximum Installed Length for Expansion Lengths

Dia (mm)	Expansion Length			
	Short (XXX27XX)		Long (XXX26XX)	
	Min (mm)	Max (mm)	Min (mm)	Max (mm)
100	210	450	210	700
150	210	425	210	675
175	210	412	210	662
200	210	400	210	650
250	210	375	210	625
300	210	350	210	600
350	210	325	210	575
400	210	300	210	550
450	210	275	210	525
500	210	250	210	500
550	210	225	210	475
600	210	300	210	450

Minimum and Maximum Installed Length for Adjustable / Variable Length

Size (mm)	Minimum Extension All Sizes (mm)	Maximum Extension (mm)	
		Short	Long
100	130	457	707
150	130	432	682
175	130	419	669
200	130	407	657
250	130	382	632
300	130	357	607
350	130	332	582
400	130	307	557
450	130	282	532
500	130	257	507
550	130	232	482
600	130	207	457

About Us

Since 1969 we have provided expertise in system design and innovation for commercial, domestic and industrial applications, with uncompromised customer service. Our portfolio of trusted brands are known throughout the world for their engineering excellence.

We are proud of our British built heritage at SFL. All our products are fabricated at our manufacturing centre in Barnstaple, Devon, UK. As well as investment in the latest manufacturing system, we also have an extensive R&D centre ensuring continuous product development and testing to the latest European Standards.

Our Brands

SFL branded products are synonymous with the highest quality – it is this reputation that enables specifiers, contractors and house-holders to use our products with total confidence.



Get in touch

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SFL pursues a policy of continuous improvement in both design and performance of its products and therefore reserves the right to change, amend or vary specifications without notice. Whilst the details contained herein are believed to be correct they do not form the basis of any contract and interested parties should contact the Company to confirm whether any material alterations have been made since publication of this brochure.