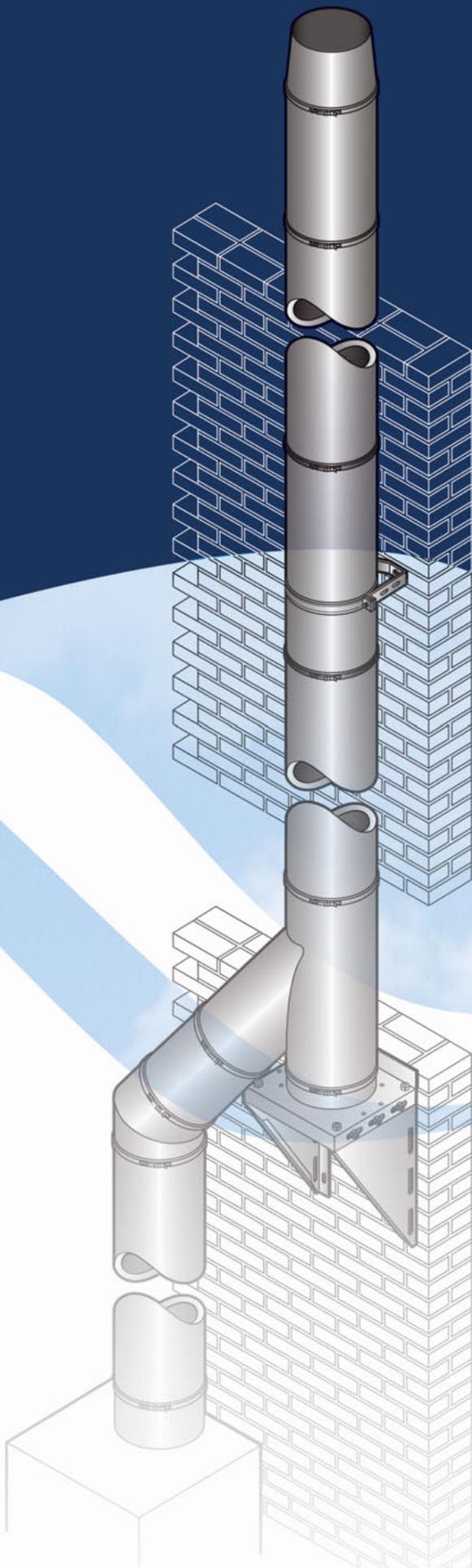


NOVA

Twin Wall, Insulated Stainless Steel Multi-Fuel Chimney System

Suitable for semi and
fully condensing appliances



Kamin + Schornstein Vertrieb



Lemmermöhle
www.edelstahl-schornsteine.com

Dörentner Str. 139b
48429 Rheine

Tel. 05971/807780
Fax. 05971/980929
free. 0800/52646984
mail. mail@edelstahl-schornsteine.com

INTRODUCTION

Nova Family Products

Nova SM and Nova SF are the first of a family of new products to be made available in all of the extensive markets served by SF Limited. Nova SC, a 50mm annulus version of Nova SM is also available to special order, and further details can be provided on request.

DESCRIPTION

Nova SM and Nova SF are prefabricated, factory made twin-wall insulated stainless steel chimney systems of identical manufacture excepting the insulation material. The fully welded construction combined with a high level of insulation, provides the minimum level of performance required of modern high efficiency combustion equipment burning oil, gas and solid fuel. The construction provides a high thermal resistance which ensures rapid stabilisation of the flue gas temperature and draught, whilst maintaining a relatively low temperature on the external surface of the chimney. The insulation format is dependant on the fuel type and combustion equipment application which the chimney serves. Please read the Specification section below.

Both versions are designed for internal and external application, and with natural draught or positive pressure at low temperatures (up to 200°C) and for appliances with flue-gas temperatures up to 540°C when subjected to continuous firing, and 760°C when subjected to short term firing.

Nova SM system is available in 13 diameters from 100mm to 600mm, and Nova SF in 8 diameters from 100mm to 350mm. A range of Lengths and fittings as well as various support components, enable flexibility in design and application. However, actual utilisation of the system must be kept within the limitations identified in this literature and any additional National Regulations and Standards.

Construction

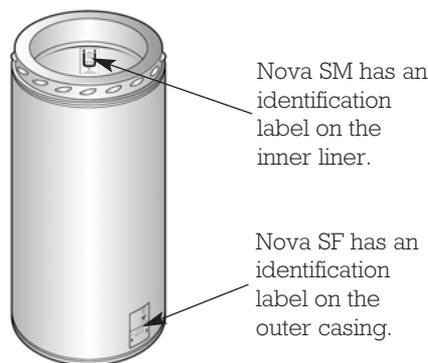
The system is available with two insulation specifications: - Nova SM and Nova SF. For either version, where residentially applied for oil or solid fuel use, and to comply with British Standards and Building Regulation requirements, special floor penetration components as described in this literature must be used for such application. **UK Building Regulations dictate similar requirements for any other prefabricated metal chimney system.** In both cases the inner liner, and the outer casing is made from stainless steel and the annulus between the two is filled with high quality insulation. This provides safe operation at high temperatures and also maintains the flue gas temperature throughout the chimney length. The weatherproof outer casing carries the structural load of the insulated components.

The joint design is innovative and unique. Elements are assembled using a barbed coupler joint which engage by a simple twist action and the joint is secured with a Locking Band. The outer casing is joined to both the male and female barbed couplers, the number of barbs dependant on product diameter. The inner liner, which forms an integral part of the welded male coupler, is free to expand or contract as the flue gas temperature varies.

Application

As heating equipment is increasingly evolving to exploit the latent heat in flue gases, condensation in the flue is inevitable. Conventional chimneys are unsuitable for the discharge of flue gases at low temperatures, which is why the system, particularly when used on natural draught applications, overcomes problems associated with moisture formation in the flue.

An optional joint seal is available where Nova SM is applied for low temperature applications of up to 200°C. With the joint seals fitted, Nova SM becomes moisture and pressure resistant making it ideal for serving appliances that operate under a positive pressure (1000 Pa or 4"wg.) and/or condensing conditions. When the system, is used without the Joint Seal, it is suitable for condensing equipment, providing there is a negative pressure within the flue, and any sloping runs are angled at not less than 5° from the horizontal. Any condensation which forms inside the system, must be allowed to run into either a condensate drainage component, or drainage facilities which are part of the equipment to which the system is connected.



Specification Identification

Each of the two versions has different packaging labels for identification purposes. Nova SM has blue labels, and Nova SF gold labels. However as the insulated components look alike, Nova SF has a clear plastic label on the external skin which clearly identifies the product as such. Nova SM has an identification label on the inside liner. See the illustration.

Nova SM Specification Available in the full 100mm - 600mm diameter range. The insulation is a high grade mineral fibre which enables the chimney to be used with all fuels, subject to the following.

Gas fired equipment

Although technically, the outer skin may be safely positioned in contact with non-structural combustible materials, all the support components provide a minimum 50mm air gap clearance from supporting surfaces.

Oil-fired equipment

A minimum 50mm air gap clearance must be maintained from the chimney to any combustible material, and where residentially applied, Building Regulations demand that prefabricated metal chimney systems have demonstrated compliance with BS4543: Part 3. Nova SM diameters 100mm to 200mm are Kitemarked to BS4543: Part 3.

Solid fuel equipment.

This specification may only be used with solid fuel combustion equipment under the following conditions.

1. Where Nova SM is constructed within and passes through non-combustible structures and is enclosed in a fire rated shaft.

2. Where Nova SM serves a solid fuel appliance, **which is located against an external non-combustible wall, and the chimney passes immediately through that wall so that it becomes externally located, and any internal chimney parts are provided with additional clearances from any combustible materials.** SF Limited consider that this latter arrangement is both safe and fit for purpose, and are entitled to state such within the dictates of England and Wales Building Regulations, Approved document J, Northern Ireland Technical Booklet L and the Building Standards (Scotland) Regulations, Section F. Figure 6 in the installation instructions on page 19 illustrates the arrangement.

For residential application and where a Nova system is constructed to pass through combustible floor or wall structures, Nova SF, as described in the following specification, must be applied.

Nova SF Specification Available as standard for the 100 to 200mm diameter range, and to order for 250mm - 350 range. The insulation is a high grade fibre reinforced volatilised mineral powder which enables the chimney to be used with all fuels. However it is specifically intended for, and must be used where the system is internally applied on any solid fuel combustion equipment where the chimney is located adjacent to combustible materials and/or passes through timber floor construction. A minimum 50mm air gap clearance must be maintained from the chimney to any combustible material. Building Regulations demand that prefabricated metal chimney systems used with solid fuel appliances must have demonstrated compliance with BS4543: Part 2, and are installed in accordance with and BS7566.

Nova SF diameters 130mm to 200mm are Kitemarked to BS4543: Parts 2 and 3.

Where using either specification for diameters 250mm and above, and the system is to pass through combustible floor structures, please consult SF Limited for additional guidance.

Fire Rating

Nova SM has been assessed by the Loss Prevention Council for fire resistance. A fire rating of two hours can be achieved in accordance with the stability and integrity criteria of BS476: Part 20, 1987 for duct type B.

Design Information

Comprehensive chimney sizing and design related to the application of the Nova system is available on request.

The thermal resistance for the insulated wall of Nova SM is 0.3m²K/W, relative to a hot face temperature of 200°C.

High efflux velocities should be attained in the system design to reduce pollution at ground level. There are pertinent Clean Air Act regulations in the UK. For further information, please read the section on Clean Air Act Requirements.

Product Guarantee

Depending on application and country where used, the SF Limited Nova Family products benefit from extended guarantee periods, for which written conditions are available on request.

Note

Those components within the system range which are fabricated from only a single skin, can be vulnerable when exposed to the products of combustion from solid fuel appliances. In the majority of cases, an open-ended terminal better suits appliance performance, but it is acknowledged that on occasions, other types of terminal from the range have to be used to reduce rain entry. Condensate Collectors and Locking Plugs when used with solid fuel are also vulnerable to flue gas by-products, particularly if the chimney is not regularly maintained and cleaned.

Such components are considered sacrificial and their life expectancy will vary dependant on application, location, maintenance and fuel usage. For that reason, Terminals, Condensate Collectors and Locking Plugs are not covered by any guarantee other than for a twelve month period against defective manufacture. It should also be borne in mind that chemically contaminated combustion air will affect the durability and therefore longevity of both the chimney and the appliance it serves.

SF Limited cannot accept responsibility for any installation, which seeks to combine Nova SM or Nova SF with any other form of chimney construction, excepting application where appropriate advice has been provided by SF Limited.

Clean Air Act requirements

In the UK, any chimney system must comply with the Clean Air Act Memorandum 1956, including those serving balanced draught / room-sealed boiler plant. This statute applies to all commercial and industrial boiler plant as well as diesel generators, and dictates the minimum height above which the chimney must discharge combustion gases into the atmosphere in relation to surrounding buildings, irrespective of the chimney design, type, or termination detail.

The appropriate heights must be calculated to take into account the combined emissions from all items of plant at one location.

Additional information can be obtained from the National Society for Clean Air, (01213 336313), in their publications, "The Pollution Handbook" and "Air Pollution Aspects of Room-Sealed Boiler Flue Systems". A Technical Guidance Note entitled "D1 - Guidelines on Discharge Stack Heights for Polluting Emissions", published by HM Inspectorate of Pollution, obtainable from HMSO, also provides useful information.

SF Limited have available a publication entitled "The Clean Air Act. Chimney Discharge Heights-what you need to know". Please ask for details.

Approvals

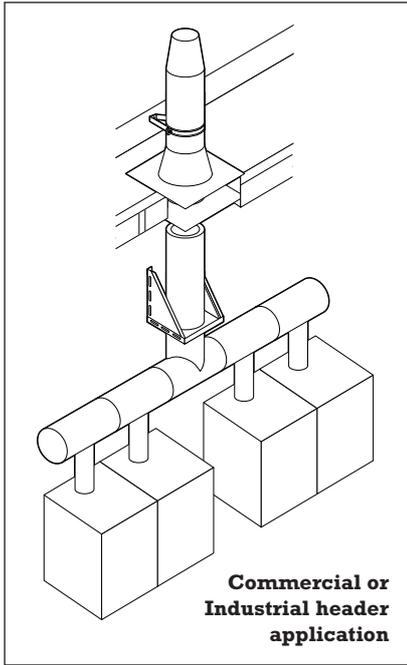
Nova SM

Diameters 100mm to 200mm inclusive are manufactured, tested and Kitemarked to BS 4543: Part 3, 1990. Also to German DIN 18160 and to French Afnor requirements. The system has also been fully assessed and approved by the institute Fur Bau Technik in Germany in accordance with the DIN guidelines for moisture resistant chimney systems.

Nova SF

Diameters 130mm to 200mm inclusive are manufactured, tested and Kitemarked to BS 4543: Parts 2 and 3, 1990. Both Nova systems are manufactured under a Quality Assurance Scheme Certificate No. FM01079 administered by British Standards in accordance with BS EN ISO 9001:2000.

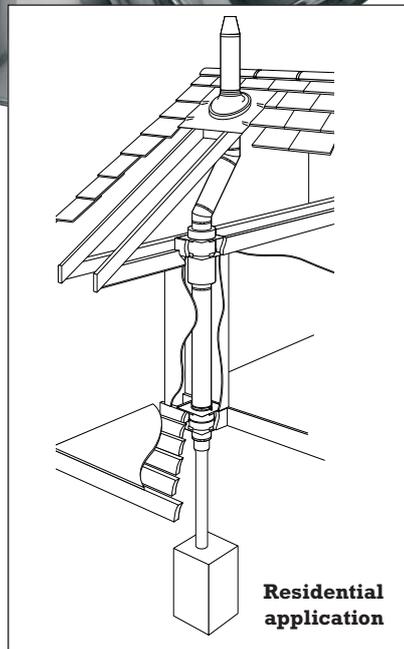
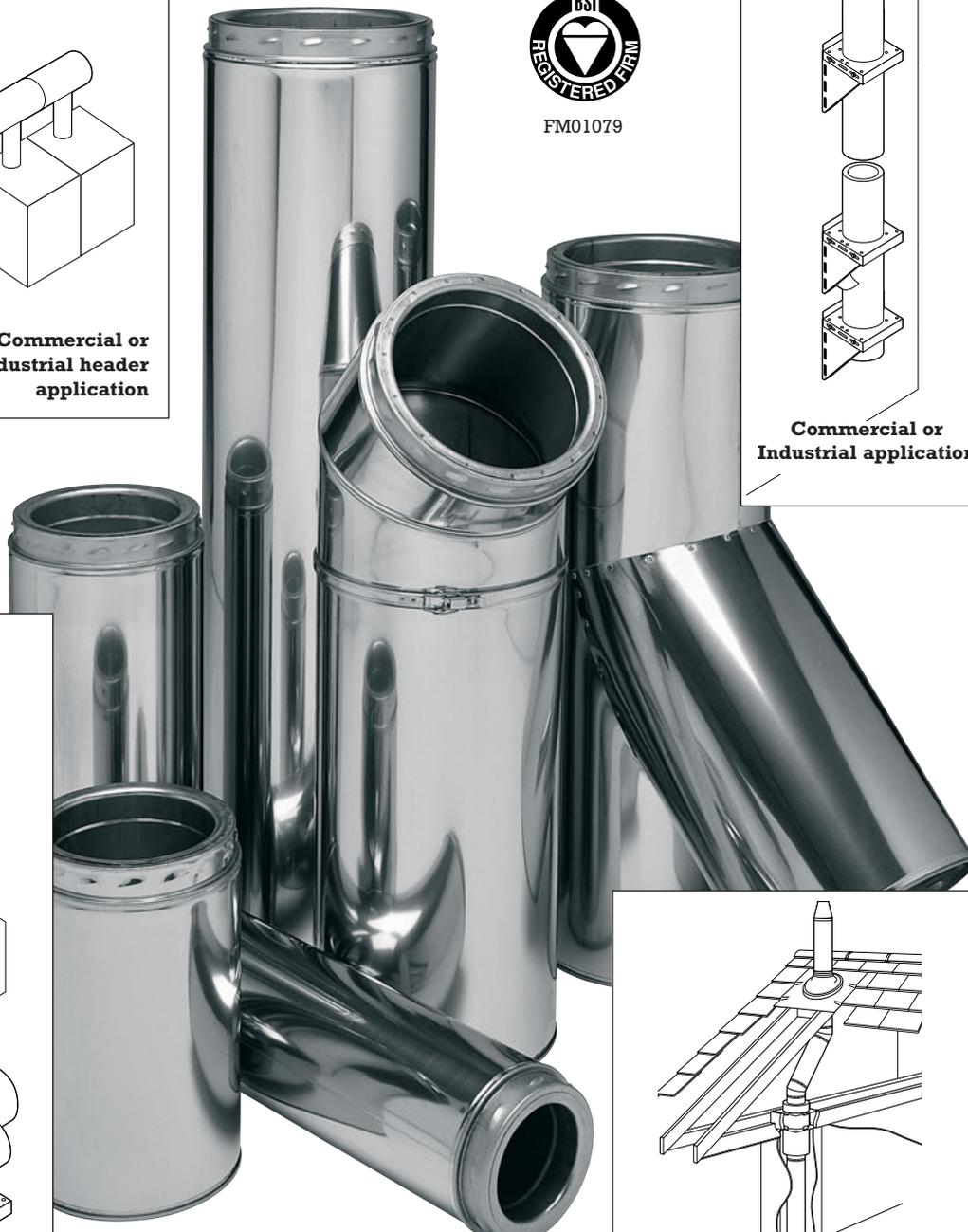
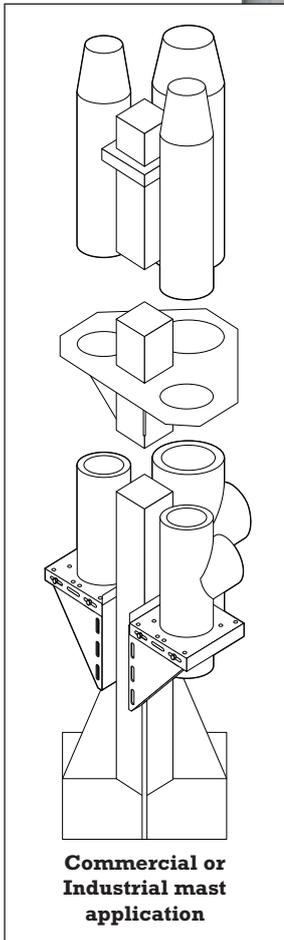
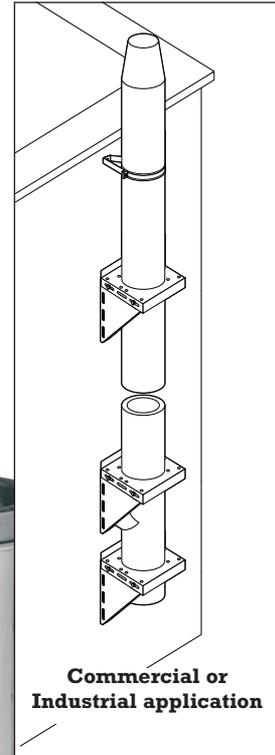
TYPICAL APPLICATIONS



BS 4543: Parts 2 and 3

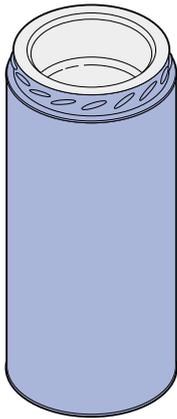


FM01079



The information contained in this brochure was accurate at the time of publishing. However, the company reserves the right to introduce at any time modifications and change of details as may be necessary. To avoid any misunderstandings, interested parties should contact the company to confirm whether any material alterations have been made since the date of this brochure, which will be found on the back page.

LENGTHS



Straight Lengths

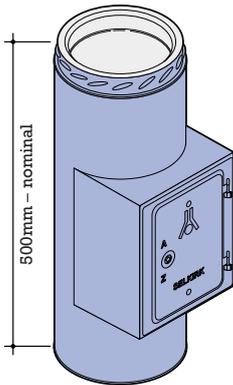
Straight lengths are available in nominal installed lengths of 1000mm, 500mm, 300mm and 120mm.

Size	Nova SM Code numbers			
	1000mm	500mm	300mm	120mm
100mm	4575004	4575104	4575204	4575304
130mm	4575005	4575105	4575205	4575305
150mm	4575006	4575106	4575206	4575306
180mm	4575007	4575107	4575207	4575307
200mm	4575008	4575108	4575208	4575308
250mm	4575010	4575110	4575210	4575310
300mm	4575012	4575112	4575212	4575312
350mm	4575014	4575114	4575214	4575314
400mm	4575016	4575116	4575216	4575316
450mm	4575018	4575118	4575218	4575318
500mm	4575020	4575120	4575220	4575320
550mm	4575022	4575122	4575222	4575322
600mm	4575024	4575124	4575224	4575324

Size	Nova SF Code numbers			
	1000mm	500mm	300mm	120mm
100mm	4545004	4545104	4545204	4545304
130mm	4545005	4545105	4545205	4545305
150mm	4545006	4545106	4545206	4545306
180mm	4545007	4545107	4545207	4545307
200mm	4545008	4545108	4545208	4545308
250mm	4545010	4545110	4545210	4545310
300mm	4545012	4545112	4545212	4545312
350mm	4545014	4545114	4545214	4545314

Inspection Length – Standard

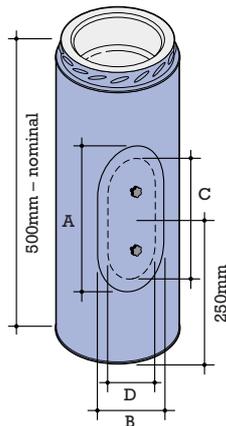
Used to provide access for inspection or cleaning via an insulated lockable door. NB. Negative flue pressure applications only.



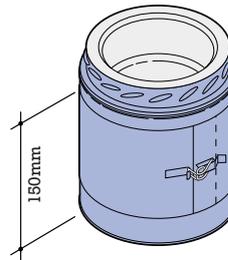
Size	Code number
100mm	4576204
130mm	4576205
150mm	4576206
180mm	4576207
200mm	4576208
250mm	4576210
300mm	4576212
350mm	4576214
400mm	4576216
450mm	4576218
500mm	4576220
550mm	4576222
600mm	4576224

Inspection Length – Metu

Used to provide access for inspection or cleaning. To be used where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C.



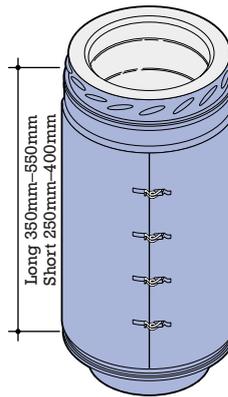
Size	Dimensions				Code number
	A	B	C	D	
100mm	220	130	180	70	4576304
130mm	220	160	180	80	4576305
150mm	240	180	200	100	4576306
180mm	240	180	200	100	4576307
200mm	240	180	200	100	4576308
250mm	240	180	200	100	4576310
300mm	240	180	200	100	4576312
350mm	240	180	200	100	4576314



Probe Length

Fitted with a cover over an M16 tapped hole and plug, which provides access for flue gas testing. To be used where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C.

Size	Code number
100mm	4576704
130mm	4576705
150mm	4576706
180mm	4576707
200mm	4576708
250mm	4576710
300mm	4576712
350mm	4576714
400mm	4576716
450mm	4576718
500mm	4576720
550mm	4576722
600mm	4576724



Adjustable Length

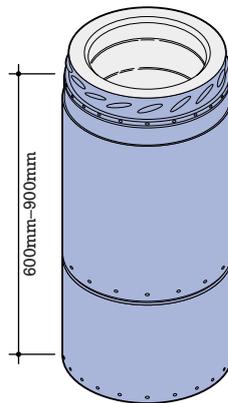
As the insulation density will vary with application, these components should always be located at least 100mm from any combustible material. Neither version is load bearing. In both cases, the insulation material is supplied for insertion into its annulus once the installed length has been determined.

100mm 350mm range

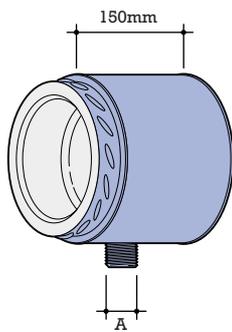
Telescopic sections designed to provide small increments in installed length. There is a short and long version. As the liner of this component may, depending on degree of adjustment, project into the component below, it should only be connected to a Straight Length. For pressure applications, it will need to be used with the separately ordered Adjustable Length Locking Band and Seal, code 45798##

400mm 600mm range

Likewise designed for installed linear adjustment. It has no seal option, and the same installation/application criteria apply. It is adjusted to length and secured with supplied self tapping screws.



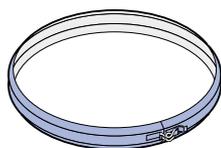
Long version for 100mm-350mm size	
Size	Code number
100mm	4574604
130mm	4574605
150mm	4574606
180mm	4574607
200mm	4574608
250mm	4574610
300mm	4574612
350mm	4574614
Short version for 100mm-350mm size	
Size	Code number
100mm	4576604
130mm	4576605
150mm	4576606
180mm	4576607
200mm	4576608
250mm	4576610
300mm	4576612
350mm	4576614
Version for 400mm-600mm size	
Size	Code number
400mm	4576616
450mm	4576618
500mm	4576620
550mm	4576622
600mm	4576624



Duct Drain

Used in a horizontal or inclined position to trap condensate and permit drainage. It is fitted with a BSP stainless steel thread.

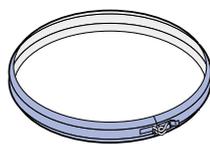
Size	Dimension	Code number
100mm	1" BSP	4576804
130mm	1" BSP	4576805
150mm	1" BSP	4576806
180mm	1" BSP	4576807
200mm	1" BSP	4576808
250mm	1" BSP	4576810
300mm	1" BSP	4576812
350mm	1" BSP	4576814
400mm	2" BSP	4576816
450mm	2" BSP	4576818
500mm	2" BSP	4576820
550mm	2" BSP	4576822
600mm	2" BSP	4576824



Locking Band

The Locking Band must be used on all joints, and is ordered separately, OTHER than where it is identified as supplied with a component.

Size	Code number
100mm	4578604
130mm	4578605
150mm	4578606
180mm	4578607
200mm	4578608
250mm	4578610
300mm	4578612
350mm	4578614
400mm	4578616
450mm	4578618
500mm	4578620
550mm	4578622
600mm	4578624



Liner Locking Band & Seal

This component is required for the Adjustable Length. It should always be used where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C. It provides a seal at the overlap of the sliding joints, and is independent of the normal Joint Sealing Ring. The Locking Band MUST only be applied one way round. See Installation Instructions on page 16.

Size	Code number
100mm	4579804
130mm	4579805
150mm	4579806
180mm	4579807
200mm	4579808
250mm	4579810
300mm	4579812
350mm	4579814
400mm	4579816
450mm	4579818
500mm	4579820
550mm	4579822
600mm	4579824



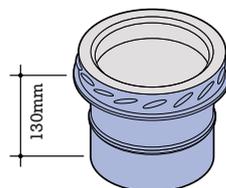
Joint Sealing Ring

This optional component is available for diameters between 100mm and 350mm, and is located in the joint as explained in the Installation Instructions on page 16.

The Seal provides a moisture and gas resistant seal to a pressure of 1000 Pascal, (4" wg.) The seal would normally be fitted to any application where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C.

Size	Code number
100mm	4578004
130mm	4578005
150mm	4578006
180mm	4578007
200mm	4578008
250mm	4578010
300mm	4578012
350mm	4578014
400mm	4578016
450mm	4578018
500mm	4578020
550mm	4578022
600mm	4578024

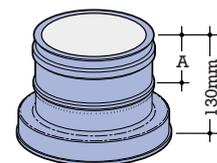
FITTINGS



Adaptor

Designed to enable connection from the appliance as well as Supra.

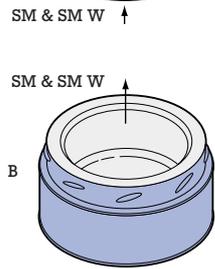
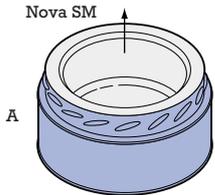
Size	Code number
100mm	4579604
130mm	4579605
150mm	4579606
180mm	4579607
200mm	4579608
250mm	4579610
300mm	4579612
350mm	4579614
400mm	4579616
450mm	4579618
500mm	4579620
550mm	4579622
600mm	4579624



Female Adaptor

Designed to enable connection from Nova SM to Supra.

Size	Dimension A	Code number
100mm	63	4579704
130mm	63	4579705
150mm	63	4579706
180mm	42	4579707
200mm	42	4579708
250mm	42	4579710
300mm	42	4579712
350mm	42	4579714



Nova to SM Adaptors

There are two versions, both of which have an installed length of 75mm. They are designed to allow connection of Nova to existing SM and SM W installations.

Size	Code number	
	A	B
127/130mm	4574805	4574705
152/150mm	4574806	4574706
178/180mm	4574807	4574707
203/200mm	4574808	4574708
254/250mm	4574810	4574710
304/300mm	4574812	4574712
355/350mm	4574814	4574714

15° Elbow

Provides a 15° change of direction from the vertical. See the technical data on page 15 for Elbow dimensions.

Size	Code numbers	
	Nova SM	Nova SF
100mm	4575404	4545404
130mm	4575405	4545405
150mm	4575406	4545406
180mm	4575407	4545407
200mm	4575408	4545408
250mm	4575410	4545410
300mm	4575412	4545412
350mm	4575414	4545414
400mm	4575416	-
450mm	4575418	-
500mm	4575420	-
550mm	4575422	-
600mm	4575424	-

30° Elbow

Provides a 30° change of direction from the vertical. See the technical data on page 15 for Elbow dimensions.

Size	Code numbers	
	Nova SM	Nova SF
100mm	4575504	4545504
130mm	4575505	4545505
150mm	4575506	4545506
180mm	4575507	4545507
200mm	4575508	4545508
250mm	4575510	4545510
300mm	4575512	4545512
350mm	4575514	4545514
400mm	4575516	-
450mm	4575518	-
500mm	4575520	-
550mm	4575522	-
600mm	4575524	-

40° Elbow

Provides a 40° change of direction from the vertical. See the technical data on page 15 for Elbow dimensions.

Size	Code number
100mm	4575604
130mm	4575605
150mm	4575606
180mm	4575607
200mm	4575608
250mm	4575610
300mm	4575612
350mm	4575614
400mm	4575616
450mm	4575618
500mm	4575620
550mm	4575622
600mm	4575624



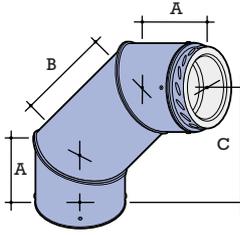
45° Elbow

Provides a 45° change of direction. See the technical data on page 15 for Elbow dimensions.

Size	Code numbers	
	Nova SM	Nova SF
100mm	4575704	4545704
130mm	4575705	4545705
150mm	4575706	4545706
180mm	4575707	4545707
200mm	4575708	4545708
250mm	4575710	4545710
300mm	4575712	4545712
350mm	4575714	4545714
400mm	4575716	-
450mm	4575718	-
500mm	4575720	-
550mm	4575722	-
600mm	4575724	-

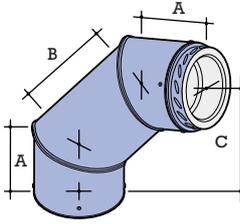
85° Elbow

Provides an 85° change of direction from the vertical.



Dimension lines relate to centre line of the flue.

Size	Dimensions			Code number
	A	B	C	
100mm	91	126	192	4575804
130mm	98	136	207	4575805
150mm	102	144	217	4575806
180mm	108	156	233	4575807
200mm	112	165	244	4575808
250mm	123	185	270	4575810
300mm	133	206	296	4575812
350mm	143	227	323	4575814
400mm	154	247	350	4575816
450mm	164	268	376	4575818
500mm	174	289	403	4575820
550mm	185	310	430	4575822
600mm	195	330	456	4575824

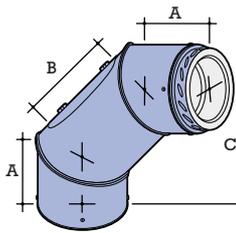


Dimension lines relate to centre line of the flue.

90° Elbow

Provides a 90° change of direction.

Size	Dimensions			Code number
	A	B	C	
100mm	91	126	180	4575904
130mm	98	136	193	4575905
150mm	102	144	204	4575906
180mm	108	156	219	4575907
200mm	112	165	229	4575908
250mm	123	185	254	4575910
300mm	133	206	279	4575912
350mm	143	227	304	4575914
400mm	154	247	329	4575916
450mm	164	268	354	4575918
500mm	174	289	379	4575920
550mm	185	310	404	4575922
600mm	195	330	429	4575924

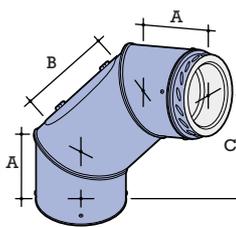


Dimension lines relate to centre line of the flue.

85° Inspection Elbow

Provides an 85° change of direction from the vertical, and incorporates a cleaning access. To be used where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C.

Size	Dimensions			Code number
	A	B	C	
100mm	91	272	291	4576004
130mm	98	272	306	4576005
150mm	102	282	318	4576006
180mm	108	282	325	4576007
200mm	112	282	330	4576008
250mm	123	282	342	4576010
300mm	133	282	352	4576012
350mm	143	282	363	4576014

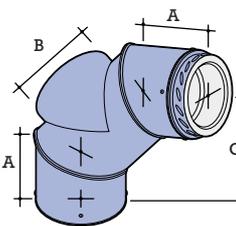


Dimension lines relate to centre line of the flue.

90° Inspection Elbow – Metu Seal

Provides a 90° change of direction, and incorporates a cleaning access. To be used where the flue gases are likely to condense and where the flue gas temperature does not exceed 200°C.

Size	Dimensions			Code number
	A	B	C	
100mm	91	272	283	4576104
130mm	98	272	290	4576105
150mm	102	282	301	4576106
180mm	108	282	307	4576107
200mm	112	282	311	4576108
250mm	123	282	322	4576110
300mm	133	282	332	4576112
350mm	143	282	342	4576114



Dimension lines relate to centre line of the flue.

90° Inspection Elbow – Extended Branch

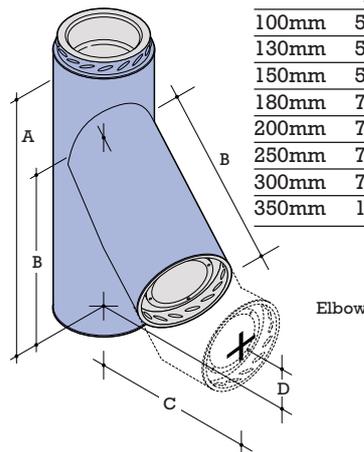
Available in the full diameter range, provides a 90° change of direction. This component incorporates a female branch which can be closed off with a Locking Plug. For condensing and pressure applications, it can be used with the Joint Sealing ring, with same temperature limitations applying.

Size	Dimensions			Code number
	A	B	C	
100mm	91	272	283	4574904
130mm	98	272	290	4574905
150mm	102	282	301	4574906
180mm	108	282	307	4574907
200mm	112	282	311	4574908
250mm	123	282	322	4574910
300mm	133	282	332	4574912
350mm	143	282	342	4574914
400mm	154	370	329	4574916
450mm	164	392	354	4574918
500mm	174	424	379	4574920
550mm	185	460	404	4574922
600mm	195	488	429	4574924

135° Tee

Used at the base of a vertical flue, or for horizontal header configurations.

Size	Dimensions		Nova SM Code number
	A	B	
100mm	500	325	4576504
130mm	500	340	4576505
150mm	500	375	4576506
180mm	750	420	4576507
200mm	750	450	4576508
250mm	750	520	4576510
300mm	750	585	4576512
350mm	1000	650	4576514
400mm	1000	675	4576516
450mm	1000	750	4576518
500mm	1000	810	4576520
550mm	1000	785	4576522
600mm	1000	850	4576524

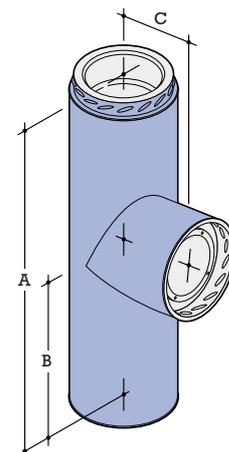


Size	Dimensions		Nova SF Code number
	A	B	
100mm	500	325	4546504
130mm	500	340	4546505
150mm	500	375	4546506
180mm	750	420	4546507
200mm	750	450	4546508
250mm	750	520	4546510
300mm	750	585	4546512
350mm	1000	650	4546514

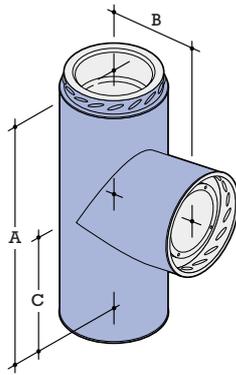
Size	Dimensions			
	With 40° Elbow		With 45° Elbow	
	C	D	C	D
100mm	385	23	385	31
130mm	407	22	408	30
150mm	439	29	439	38
180mm	481	37	481	47
200mm	509	43	509	53
250mm	577	55	578	65
300mm	640	66	614	77
350mm	703	77	704	89
400mm	740	75	740	89
450mm	810	89	810	104
500mm	869	89	870	114
550mm	870	83	871	99
600mm	933	94	934	111

95° Tee

Used at the base of a vertical flue, or for horizontal header configurations.



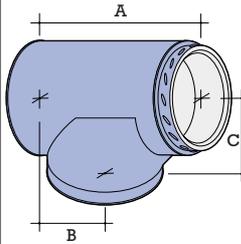
Size	Dimensions			Code number
	A	B	C	
100mm	500	287	140	4576404
130mm	500	288	155	4576405
150mm	500	289	165	4576406
180mm	500	290.5	180	4576407
200mm	500	291	190	4576408
250mm	500	293.5	215	4576410
300mm	500	287.5	240	4576412
350mm	750	375	270	4576414
400mm	1000	500	500	4576416
450mm	1000	500	500	4576418
500mm	1000	500	500	4576420
550mm	1000	500	500	4576422
600mm	1000	500	500	4576424



90° Tee

Used at the base of a vertical flue, or for horizontal header configurations.

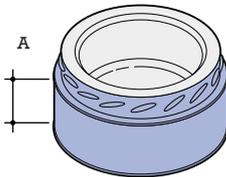
Size	Dimensions			Code number
	A	B	C	
100mm	300	140	180	4573004
130mm	330	155	195	4573005
150mm	350	165	205	4573006
180mm	380	180	220	4573007
200mm	400	190	230	4573008
250mm	450	215	255	4573010
300mm	500	240	280	4573012
350mm	550	265	305	4573014
400mm	1000	500	500	4577616
450mm	1000	500	500	4577618
500mm	1000	500	500	4577620
550mm	1000	500	500	4577622
600mm	1000	500	500	4577624



Booted Tee

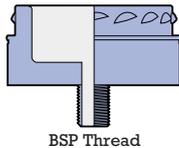
Used singly or in multiples for swept connection to appliance.

Size	Dimensions			Code number
	A	B	C	
400mm	750	325	412.5	4574516
450mm	825	350	450	4574518
500mm	875	375	487.5	4574520
550mm	950	400	525	4574522
600mm	1000	425	562.5	4574524



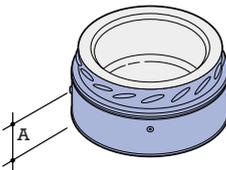
Condensate Collector

Used at the bottom of a vertical chimney run. Fitted with a stainless steel BSP external thread.



BSP Thread

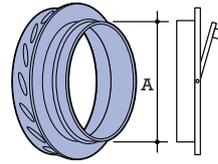
Size	BSP Thread	Dim. A	Code number
100mm	1"	50	4576904
130mm	1"	50	4576905
150mm	1"	50	4576906
180mm	1"	50	4576907
200mm	1"	50	4576908
250mm	1"	50	4576910
300mm	1"	50	4576912
350mm	1"	50	4576914
400mm	2"	50	4576916
450mm	2"	50	4576918
500mm	2"	50	4576920
550mm	2"	50	4576922
600mm	2"	50	4576924



Locking Plug - Insulated

Used to close off the branch of a Tee. Supplied with a Locking Band.

Size	Dimension A	Code number
100mm	50	4579104
130mm	50	4579105
150mm	50	4579106
180mm	50	4579107
200mm	50	4579108
250mm	50	4579110
300mm	50	4579112
350mm	50	4579114
400mm	50	4579116
450mm	50	4579118
500mm	50	4579120
550mm	50	4579122
600mm	50	4579124



Regulator by others

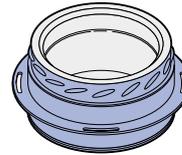
Draught Regulator Plug

Locates in the branch of a 90° Tee, and accommodates commonly available draught stabilisers.

Size	Dim. A	Code number
130mm	130	4578505
150mm	131	4578506
180mm	131	4578507
200mm	131	4578508
250mm	131	4578510
300mm	181	4578512
350mm	181	4578514

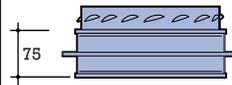
A is the internal diameter of the projecting stub.

SUPPORT & BRACING COMPONENTS

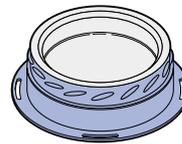


Support Length

A 75mm installed length which incorporates a welded plate located 32mm from the bottom edge and features slotted holes for rotational adjustment. It is designed always to be used with the common support plate which MUST be ordered separately.

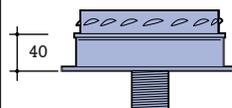


Size	Code number
100mm	4578804
130mm	4578805
150mm	4578806
180mm	4578807
200mm	4578808
250mm	4578810
300mm	4578812
350mm	4578814
400mm	4578816
450mm	4578818
500mm	4578820
550mm	4578822
600mm	4578824

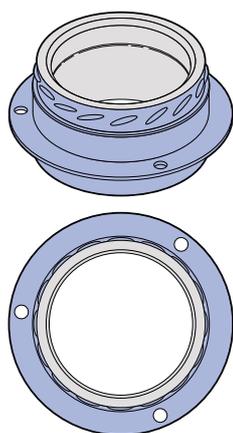


Anchor Plate with Drain

Applied at the bottom of a vertical run, and always used with a Common Support Plate. Fitted with a 1" or 2" BSP external thread for 100mm - 350mm diameters and 400mm - 600mm diameters respectively.



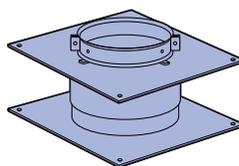
Size	Code number
100mm	4579304
130mm	4579305
150mm	4579306
180mm	4579307
200mm	4579308
250mm	4579310
300mm	4579312
350mm	4579314
400mm	4579316
450mm	4579318
500mm	4579320
550mm	4579322
600mm	4579324



Strut/Guy Attachment Length

A 150mm installed length which incorporates a welded ring with three anchoring points to which guys, or preferably rigid stays, can be secured with M6 nuts and bolts. Made from stainless steel.

Size	Code number
100mm	4579204
130mm	4579205
150mm	4579206
180mm	4579207
200mm	4579208
250mm	4579210
300mm	4579212
350mm	4579214
400mm	4579216
450mm	4579218
500mm	4579220
550mm	4579222
600mm	4579224

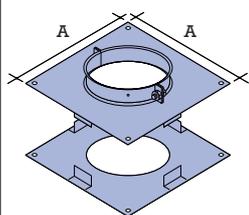


Telescopic Ceiling Support

Provides 50mm air gap clearance to combustible material. Is used with 100mm to 200mm diameter range, and features a radiation shield. This component **MUST** be used when the chimney penetrates combustible floors, and where a Nova SF chimney serves a solid, multi-fuel or oil-burning appliance, or where Nova SM serves an oil-burning appliance, and in either case, where the weight of the chimney is taken at the first ceiling penetration above an appliance. The maximum chimney height supported is 6m, part or all of which may be suspended.

Size	Code number
100mm	4508304
130mm	4508305
150mm	4508306
180mm	4508307
200mm	4508308

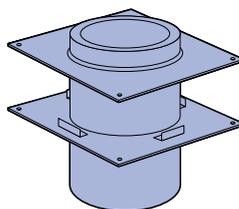
NB. 100mm not legal for solid fuel appliances in the UK



Ceiling Support

Provides a 50mm air-gap clearance to a penetrated floor or ceiling. Is used where Nova SM serves gas fired equipment and the system penetrates any floor construction. Where Nova SM serves any other fuel, it must only be used where the chimney penetrates a non-combustible floor. The maximum chimney height supported is 6m, part or all of which may be suspended.

Size	Code number
100mm	4502704
130mm	4502705
150mm	4502706
180mm	4502707
200mm	4502708
250mm	4502710
300mm	4502712
350mm	4502714

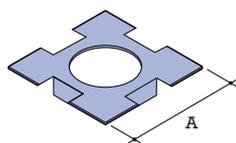


Firestop Joist Shield

Used at floor or ceiling level to provide a 50mm air gap clearance to combustible material. Is used with 100mm to 200mm diameter range, and **MUST** be used where the Nova SF chimney serves a solid, multi-fuel or oil-burning appliance, or where Nova SM chimney serves an oil-burning appliance, and where, in either case the chimney penetrates combustible floors and the chimney beneath the floor penetration is located within an enclosure. It is not load-bearing.

Size	Code number
100mm	4508204
130mm	4508205
150mm	4508206
180mm	4508207
200mm	4508208

NB. 100mm not legal for solid fuel appliances in the UK



Firestop Spacer

Used to provide location, fire and dust stopping where either version of Nova penetrates non-combustible floors. Provided singly, but usually used in pairs. Not load-bearing. *NB. Not to be used at penetration of combustible floors where the chimney serves solid fuel, multi-fuel or oil-burning appliances. Use a Firestop Joist Shield or Telescopic Ceiling Support for such application*

Size	Dimension A	Code number
100mm	300	4508704
130mm	330	4508705
150mm	355	4508706
180mm	381	4508707
200mm	406	4508708
250mm	457	4508710
300mm	507	4508712
350mm	558	4508714

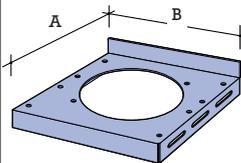
SUPPORT BRACKETRY

Support Bracketry

These components provide both load-bearing and lateral bracing. As some of the elements can be used with other structural arrangements, they are available separately as well as in combined kit form, so different code numbers apply.

A significant feature of the Common Support bracketry is that where these, and only these are used, the upper end of the chimney can free-stand a distance not exceeding 3 vertical metres above the point of last support. That applies to all diameters except 100mm where the maximum unsupported height must not exceed 2 metres. See Fig. 7 on page 19 for additional requirements.

See page 15 for **Wall Support Technical Information.**



* Note that 11mm holes are provided at each side in the top of the plate for such bracketry, but that the bracketry will not pass through the front of the plate

Common Support Plate

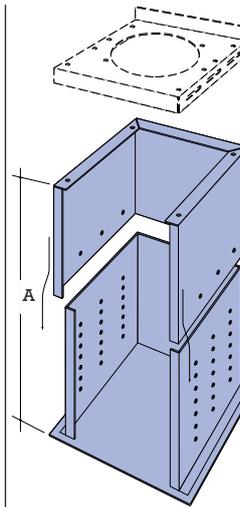
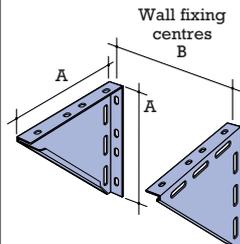
Can be used with the Side Brackets or Telescopic Floor Support as well as custom support systems such as Unistrut or Neissing.* Where used with the Side Brackets, it can be adjusted to provide variable wall clearance. The Plate supports the chimney using either a Support Length or an Anchor Plate with Drain. See the load-bearing and additional data on page 15.

Size	Dimensions		Code number	
	A	B	Stainless	Galvanised
100mm	281	252	3111159	3112159
130mm	311	282	3111189	3112189
150mm	331	302	3111209	3112209
180mm	360	331	3111234	3112234
200mm	384	355	3111259	3112259
250mm	432	403	3111309	3112309
300mm	482	453	3111359	3112359
350mm	533	504	3111409	3112409
400mm	580	551	3111459	3112459
450mm	631	602	3111509	3112509
500mm	680	651	3111559	3112559
550mm	731	702	3111609	3112609
600mm	780	751	3111659	3112659

Side Brackets

Used with the Support Plate. See the load-bearing and additional data on page 15.

Size	Dimension		Code number	
	A	B	Stainless	Galvanised
100mm	281	225	3113159	3114159
130mm	311	255	3113189	3114189
150mm	331	275	3113209	3114209
180mm	360	304	3113234	3114234
200mm	384	328	3113259	3114259
250mm	432	347	3113309	3114309
300mm	482	424	3113359	3114359
350mm	533	475	3113409	3114409
400mm	580	518	3113459	3114459
450mm	631	569	3113509	3114509
500mm	680	618	3113559	3114559
550mm	731	669	3113609	3114609
600mm	780	718	3113659	3114659



Telescopic Floor Support Base

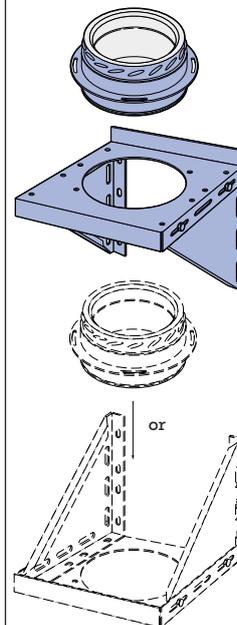
Used at floor level with the Support Plate. The installed height, dimension A, is the same for all sizes, and ranges between 296 and 536mm at 30mm increments. Note that the Support Plate must be purchased separately. See the load-bearing and additional data on page 15.

Size	Code number	
	Stainless	Galvanised
100mm	3117159	3118159
130mm	3117189	3118189
150mm	3117209	3118209
180mm	3117234	3118234
200mm	3117259	3118259
250mm	3117309	3118309
300mm	3117359	3118359
350mm	3117409	3118409
400mm	3117459	3118459
450mm	3117509	3118509
500mm	3117559	3118559
550mm	3117609	3118609
600mm	3117659	3118659

Wall Support with Support Length

A kit comprising the Support Length the Support Plate and Side Brackets. Dimensions and application as described for those components.

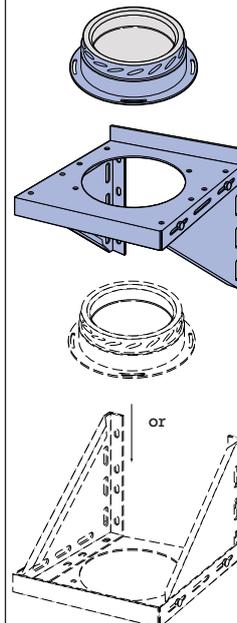
Size	Code number	
	Stainless	Galvanised
100mm	4572304	4572204
130mm	4572305	4572205
150mm	4572306	4572206
180mm	4572307	4572207
200mm	4572308	4572208

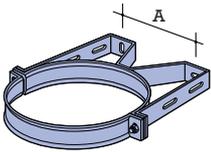


Wall Support with Anchor Plate and Drain

A kit comprising the Anchor Plate and Drain, the Support Plate and Side Brackets. Dimensions and application as described for those components.

Size	Code number	
	Stainless	Galvanised
100mm	4572104	4572004
130mm	4572105	4572005
150mm	4572106	4572006
180mm	4572107	4572007
200mm	4572108	4572008





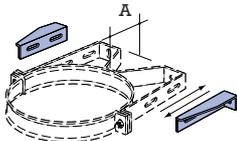
Wall Band

These components provide a guide around the outer casing of the chimney, and with a 50mm wall clearance. They must be used at intervals not exceeding 4 metre centres to provide lateral guidance only above any load bearing support.

Size	Dimension		Code number	
	A		Stainless	Galvanised
100mm	118		3115154	3116154
130mm	149		3115185	3116185
150mm	167		3115205	3116205
180mm	196		3115234	3116234
200mm	217		3115255	3116255
250mm	267		3115305	3116305
300mm	317		3115355	3116355
350mm	371		3115405	3116405
400mm	421		3115455	3116455
450mm	472		3115505	3116505
500mm	522		3115555	3116555
550mm	572		3115605	3116605
600mm	622		3115655	3116655

Wall Band Extension Pieces

Used with Wall Bands, these components allow the clearance between the wall and the outer surface of the chimney to be increased. Where externally applied, the intervals between Wall Band fixing centres must be reduced from 4 metres to 3.5metres.



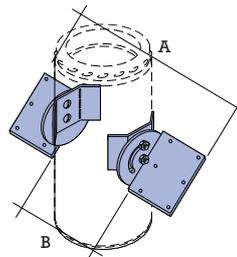
Maximum wall clearance

Size	Code number		Code number		Code number	
	3**136	31**180	31**245	Min	Max	Min
100	65	123	110	167	174	230
130	50	107	95	125	162	215
150	50	109	85	122	162	217
180	50	106	76	123	152	133
200	50	104	58	121	120	150
250	50	78	50	120	97	153
300	50	76	50	118	74	151
350	-	-	-	-	50	118
400	-	-	-	-	50	110
450	-	-	-	-	50	110
500	-	-	-	-	50	110
550	-	-	-	-	50	110
600	-	-	-	-	50	110

Code numbers ** use 19 for Stainless steel, and 20 for Galvanised.

Roof Support

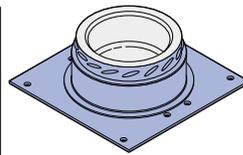
Provided with adjustable gimbal plates to permit a chimney to be supported on roof joists, trussed rafters etc. Maximum suspended chimney length supported is 6m and maximum total length supported is 9m.



Size	Dimensions		Code number
	A*	B	
100mm	253	466	0102900
130mm	280	490	0102900
150mm	304	515	0102900
180mm	330	545	0102900
200mm	356	570	0102900
250mm	406	618	0102900
300mm	456	668	0102900
350mm	506	719	0102900

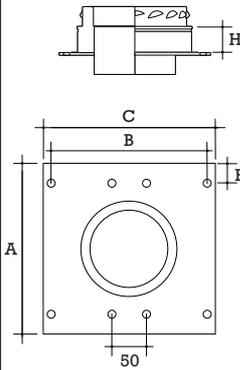
*minimum distance between roof trusses.

NOTE: All roof supports have the same common code number irrespective of product diameter:



Anchor Plate

Designed to be used when connecting Nova SM to a lintel or Nova SF to a Pre-Cast Chamber. A short section of liner projects a nominal 32mm through the bottom of the plate. Installed length "H" is 40mm and 50mm for the 100mm - 350mm and 400mm - 600mm size respectively. There are 8 x 11mm fixing holes at the centres shown. All stainless steel construction.



Size	Dimensions				Code number
	A	B	C	E	
100mm	281	196	252	27	4577504
130mm	311	226	282	27	4577505
150mm*	331	246	302	27	4577506
180mm	360	275	331	27	4577507
200mm*	384	299	355	27	4577508
250mm	432	345	403	27.5	4577510
300mm	482	395	453	27.5	4577512
350mm	533	446	504	27.5	4577514
400mm	580	469	551	27.5	4577516
450mm	631	540	602	27.5	4577518
500mm	680	589	651	27.5	4577520
550mm	731	640	702	27.5	4577522
600mm	689	751	604	27.5	4577524

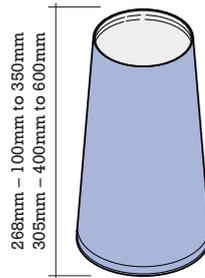
* Only these diameters are used with the Selkirk Pre-cast Chamber

TERMINALS & FLASHINGS & TRIMS

The terminals illustrated are suitable for all fuels, with the exception of gas appliances where the chimney is 150mm or less. For such application, the Komo Terminal Code 45843## should be used.

Top Stub

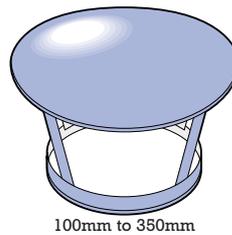
External skin tapers to an open ended terminal. Secured with a Locking Band.



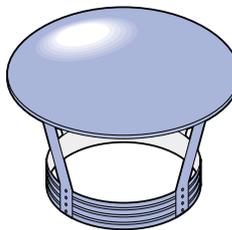
Size	Code numbers	
	Nova SM	Nova SF
100mm	4577204	4547204
130mm	4577205	4547205
150mm	4577206	4547206
180mm	4577207	4547207
200mm	4577208	4547208
250mm	4577210	4547210
300mm	4577212	4547212
350mm	4577214	4547214
400mm	4577216	-
450mm	4577218	-
500mm	4577220	-
550mm	4577222	-
600mm	4577224	-

Rain Cap

100mm to 350mm diameters secured with a Locking Band. 400mm to 600mm diameters secured with Integral Band. 600mm diameter has a flat top, not a dome.

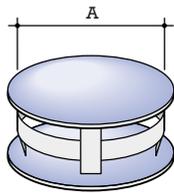


100mm to 350mm



400mm to 600mm

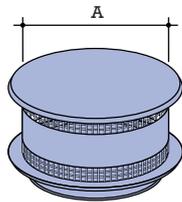
Size	Code number
100mm	4577304
130mm	4577305
150mm	4577306
180mm	4577307
200mm	4577308
250mm	4577310
300mm	4577312
350mm	4577314
400mm	4577316
450mm	4577318
500mm	4577320
550mm	4577322
600mm	4577324



Round Top

Secured with a Locking Band.

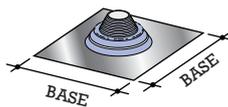
Size	Dimensions		Code number
	A		
100mm	247		4573104
130mm	247		4573105
150mm	269		4573106
180mm	310		4573107
200mm	343		4573108
250mm	438		4573110
300mm	518		4573112
350mm	576		4573114



Komo Terminal

A terminal which incorporates an optional steel mesh to act as a debris and bird deflector. Where Nova SM of diameters 100mm to 150mm inclusive is used over gas fired appliances, the meshed version should be used. This component has been assessed to NEN7207 by Gastec Nv Holland, and is approved for use with flue systems serving both residential and commercial gas fired equipment. Certificate Q 96/003-02 to Gastec QA Criteria applies.

Size	Dimensions			Code numbers
	A	With mesh	Without mesh	
100mm	150	4584404	4584304	
130mm	195	4584405	4584305	
150mm	225	4584406	4584306	
180mm	270	4584407	4584307	
200mm	300	4584408	4584308	
250mm	375	4584410	4584310	



Seldek Flashings

Use the matrix below to establish the Flashing No. required for the SF Limited product and diameter, and also to determine at which cutting groove the cone should be trimmed.

Please note that not all four Flashings will accommodate roof pitches up to 45°. Actual limitations for each product diameter and Flashing No. are clearly indicated in the matrix.

Having established the correct Flashings to use, trim the cone in the groove indicated for the appropriate product diameter. Note that the top of the cone represents "A", for which **NO CUTTING** is required, and that the arrow always points to the relevant groove.

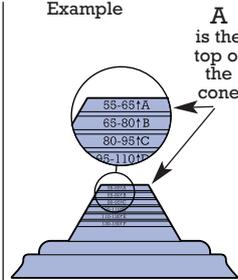
See the figure on the right.

The Seldek Flashing system has been developed to compliment the wide range of SF Limited Chimney and Flue products.

There are four flashings, each of which is designed to weatherproof a different diameter range of SF Limited chimneys and flue products, and each Flashing is designed to accommodate flat through angled roof pitches. In most cases, pitches up to 45° can be accommodated, but for full details and Flashing Number requires.

Seldek Flashings consist of a base manufactured from a soft and malleable aluminium, to which an EPDM (Ethylene Propylene Diene Monomer Polymer) flexible cone is secured. The cone is marked to provide an index of cutting grooves identified for different external diameters, and Installation Instructions and compatibility information is provided with every Flashing.

Example



Whilst the aluminium base is of a very malleable grade, some roof tiles may have profiles too severe for this product. Please check with SF Limited if in doubt.

Seldek Flashings will accommodate all SF Limited chimney system of external diameter between 60mm and 450mm, and will effectively seal and remain pliant over a wide range of temperature extremes from -30° to 115°C. The EPDM cones have been proven to withstand intermittent temperatures of up to 150°C.

Where SF Limited flue and chimney systems are correctly applied to heating equipment operated in accordance with the manufacturers instructions, it is unlikely that the external temperature of the chimney or flue will reach 150°C. Extensive tests have confirmed no deterioration to the EPDM cone when assembled as instructed at termination level and when the chimney was fired at 1000°C, as defined in the BS 4543 soot fire test.

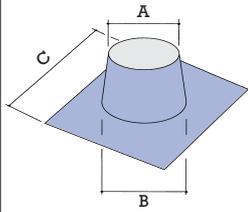
Whilst designed specifically for SF Limited chimney and flue systems, Seldek Flashings may also, with the same temperature limitations applying, be fitted to any circular section projection which requires weathering at a roof penetration. The pipe diameter range is also indicated in the matrix below.

Size	Ext Dia.	Roof Pitch	Flash-ing No.	Cone Index Cut Line
100mm	150	flat to 45°	2	C
130mm	180	flat to 40°	2	E
150mm	200	flat to 30°	2	F
150mm	200	flat to 45°	3	C
180mm	230	flat to 40°	3	D
200mm	250	flat to 35°	3	F
250mm	300	flat to 30°	3	I
250mm	300	flat to 45°	4	A
300mm	350	flat to 40°	4	C
350mm	400	flat to 35°	4	F

	Flue Diameter	External Diameter Range	Roof Pitch	Cutting
Groove				
Flashing No. 2	130	110-130	45°	A
Base = 600mm x 600mm	138	135-145	45°	B
Product order Code No. 4901020	150	145-160	45°	C
Suitable for products of external diameters between 110mm and 200mm	163	160-175	45°	D
	175	160-175	40°	D
	175	175-190	40°	E
	180	175-190	35°	F
	200	190-200	30°	F
Flashing No. 3	163	160-175	45°	A
Base = 764mm x 764mm	175-180	175-190	45°	B
Product order Code No. 4901030	200	200-215	45°	C
Suitable for products of external diameters between 160mm and 300mm	225-230	215-230	40°	D
	230	230-245	40°	E
	245	230-245	35°	E
	250	245-260	35°	F
	265	260-275	35°	G
	280	275-290	30°	H
	300	290-300	30°	I
Flashing No. 4	300	300-315	45°	A
Base = 956 x 956mm	330	315-330	40°	B
Product order Code No. 4901045	330	330-350	40°	C
Suitable for products of external diameters between 300mm and 450mm	350	350-370	35°	D
	380	370-390	35°	E
	400	300-410	35°	F
	420	410-430	30°	G
	450	430-450	25°	H

Aluminium Flashings

For the 400mm – 600mm diameter range, traditional aluminium flashings are available as described below.

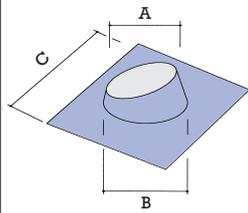


Flat Flashing

For flat or nearly flat roofs.

Size	Dimensions			Code number
	A	B	C*	
100mm	160	250	455	70000006
130mm	190	280	495	70000007
150mm	210	300	495	70000009
180mm	240	330	610	70000010
200mm	260	350	610	70000011
250mm	310	400	610	70000012
300mm	360	450	660	70000013
350mm	410	500	762	70000014
400mm	460	550	862	70000015
450mm	510	600	914	70000016
500mm	560	650	965	70000017
550mm	610	700	1015	70000018
600mm	660	750	1066	70000019

*base is square (C x C)

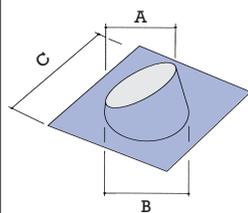
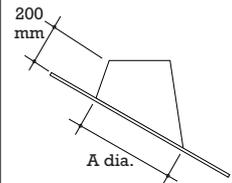


5°-30° Adjustable Flashing

For low pitched roofs.

Size	Dimensions			Code number
	A	B	C*	
100mm	160	247	455	70053006
130mm	190	281	495	70053007
150mm	210	304	508	70053009
180mm	240	335	550	70053010
200mm	260	361	578	70053011
250mm	310	419	610	70053012
300mm	360	476	678	70053013
350mm	410	533	762	70053014
400mm	460	652	952	70053015
450mm	510	710	1010	70053016
500mm	560	766	1066	70053017
550mm	610	824	1124	70053018
600mm	660	880	1180	70053019

*base is square (C x C)

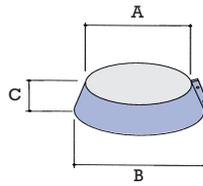


32°-45° Adjustable Flashing

For high pitched roofs.

Size	Dimensions			Code number
	A	B	C*	
100mm	160	332	559	70324506
130mm	190	375	578	70324507
150mm	210	403	610	70324509
180mm	240	428	650	70324510
200mm	260	475	678	70324511
250mm	310	546	737	70324512
300mm	360	617	820	70324513
350mm	410	689	889	70324514
400mm	460	750	1041	70324515
450mm	510	812	1124	70324516
500mm	560	892	1220	70324517
550mm	610	963	1300	70324518
600mm	660	1034	1300	70324519

*base is square (C x C)



Storm Collar

Used as a weathering with a Flashing.

Size	Dimensions			Code number
	A	B	C	
100mm	152	255	70	70123406
130mm	177	280	70	70123407
150mm	202	301	70	70123409
180mm	227	330	70	70123410
200mm	252	351	70	70123411
250mm	302	401	70	70123412
300mm	352	451	70	70123413
350mm	402	501	70	70123414
400mm	452	625	150	70123415
450mm	502	675	150	70123416
500mm	552	725	150	70123417
550mm	602	775	150	70123418
600mm	652	825	150	70123419

Trim Collar

Polished stainless steel circular collar with a nominal 105mm wide circular flange to provide a neat finish at the ceiling or where exposed internal chimneys meet the appliance.

Size	Code number
100mm	4583204
130mm	4583205
150mm	4583206
180mm	4583207
200mm	4583208
250mm	4583210
300mm	4583212
350mm	4583214

TECHNICAL DATA

Elbow Offset Dimensions

This data relates to just two Elbows used to form an offset as shown in Fig. 1 below.

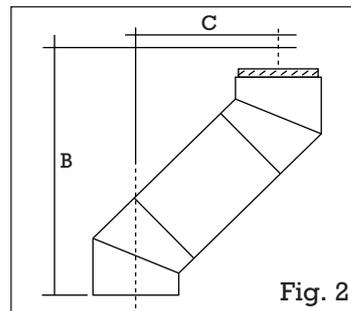
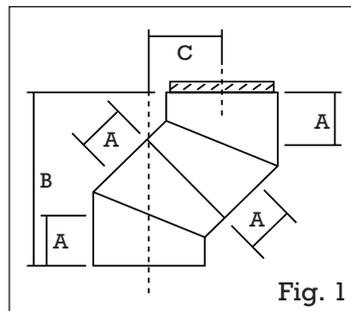
It also indicates the installed lengths of the Elbow Segments (A).

15°					30°					40°					45°				
ø	A	B	C		ø	A	B	C		ø	A	B	C		ø	A	B	C	
100	91	358	47		100	91	340	91		100	91	321	117		100	91	311	129	
130	98	385	51		130	98	366	98		130	98	346	126		130	98	335	139	
150	102	401	53		150	102	381	102		150	102	360	131		150	102	348	144	
180	108	425	56		180	108	403	108		180	108	381	139		180	108	369	153	
200	112	440	58		200	112	418	112		200	112	396	144		200	112	382	158	
250	123	484	64		250	123	459	123		250	123	434	158		250	123	420	174	
300	133	523	69		300	133	496	133		300	133	470	171		300	133	454	188	
350	143	562	74		350	143	534	143		350	143	505	184		350	143	488	202	
400	154	606	80		400	154	575	154		400	154	544	198		400	154	526	217	
450	164	645	85		450	164	612	164		450	164	579	211		450	164	560	232	
500	174	684	90		500	174	649	174		500	174	615	224		500	174	594	246	
550	185	727	96		550	185	690	185		550	185	653	238		550	185	632	262	
600	195	767	101		600	195	728	195		600	195	689	251		600	195	666	276	

Variations of B and C where a Length is used to provide a greater offset between Elbows. This data relates to Fig. 2 below.

ø	120mm Length								300mm Length								500mm Length								1000mm Length							
	15°		30°		40°		45°		15°		30°		40°		45°		15°		30°		40°		45°		15°		30°		40°		45°	
100	474	78	444	151	413	194	396	214	648	125	600	241	551	310	523	341	841	177	773	341	704	438	664	482	1324	306	1206	591	1087	760	1018	836
130	501	82	470	158	438	203	420	224	675	128	626	248	576	319	547	351	868	180	799	348	729	447	688	492	1351	310	1232	598	1112	769	1042	846
150	517	84	485	162	452	208	433	229	691	130	640	252	590	324	560	356	884	182	814	352	743	453	702	498	1362	312	1247	602	1128	774	1055	851
180	541	87	507	168	473	216	454	238	714	134	663	258	611	332	581	365	908	185	836	358	764	460	722	506	1391	315	1269	608	1148	782	1076	860
200	556	89	522	172	488	221	467	243	730	136	678	262	625	337	595	371	923	187	851	362	779	465	736	512	1406	317	1284	612	1162	787	1089	865
250	600	95	563	183	526	235	505	259	730	141	719	273	664	351	632	686	967	193	892	373	817	780	774	528	1450	322	1325	623	1200	801	1127	881
300	639	100	600	193	562	248	539	273	813	146	756	283	700	364	666	400	1008	198	929	383	853	492	808	542	1489	328	1362	633	1236	814	1161	895
350	676	105	638	203	597	261	573	287	852	152	793	293	735	377	700	414	1045	203	967	393	888	805	842	556	1528	333	1400	643	1271	827	1195	909
400	722	111	679	214	638	275	611	303	896	158	835	304	774	391	738	430	1089	209	1008	404	927	519	880	572	1572	339	1441	654	1310	841	1233	925
450	761	116	716	224	671	288	645	317	935	163	872	314	809	404	772	444	1128	214	1045	414	962	532	914	586	1611	344	1478	664	1345	854	1267	939
500	800	121	753	234	707	301	679	331	974	168	909	324	845	417	806	458	1167	219	1082	424	998	545	948	600	1650	349	1515	674	1381	867	1301	953
550	843	127	794	245	745	315	717	347	1017	174	950	335	883	431	844	474	1210	225	1123	435	1036	559	986	616	1693	350	1556	685	1419	881	1339	969
600	883	132	832	255	781	328	791	361	1056	179	988	345	919	444	878	488	1250	230	1161	445	1072	572	1020	630	1733	355	1594	695	1455	894	1373	983

Elbows are not load-bearing. Vertical runs after changes of direction should be re-supported appropriately.



All tees have a limitation on the weight of chimney they can bear. The table below provides the maximum height of chimney above a support, above which the chimney must be re-supported appropriately.

Size	100	130	150	180	200	250	300	350	400	450	500	550	600
Maximum height m	65	65	61	50	43	33	26	21	21	21	21	21	21

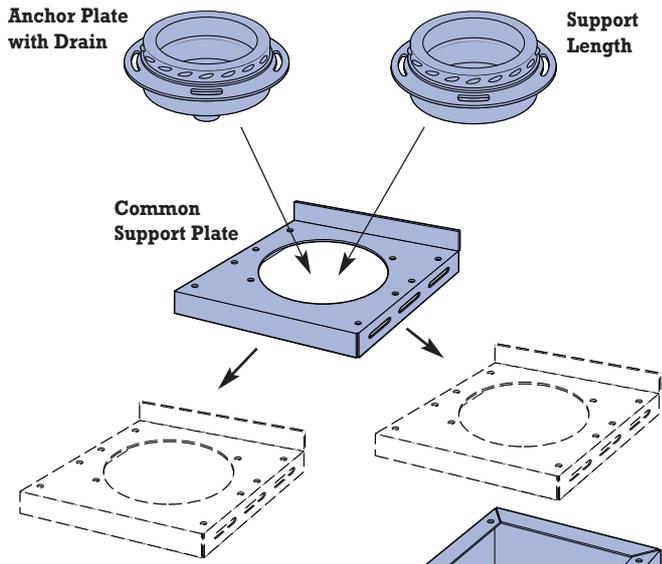
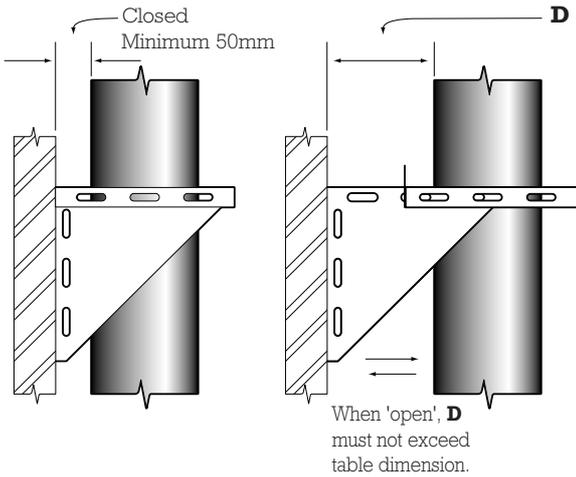
Weights

Maximum weight of NOVA SM per metre run installed, excluding Support Components.			
Dia.	Kg.	Dia.	Kg.
100	6.6	350	19.7
130	8.1	400	22.3
150	9.2	450	24.9
180	10.8	500	27.5
200	11.8	550	30.1
250	14.5	600	32.7
300	17.1		

Cross sectional area of flue

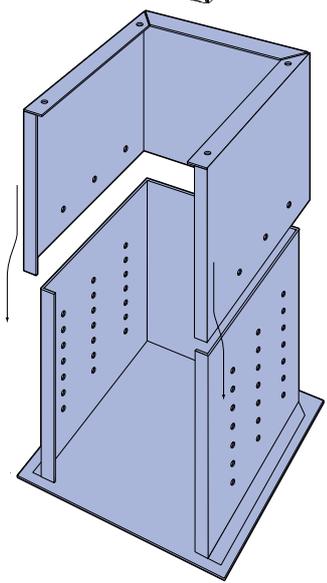
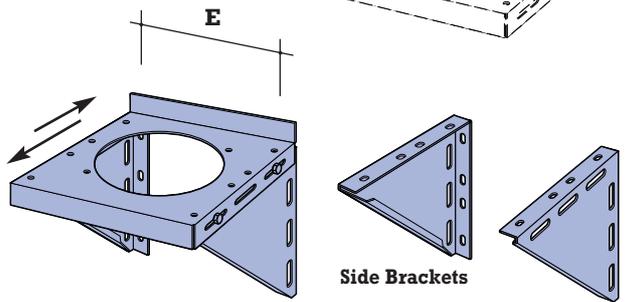
Diameter mm	Area mm ²	Diameter mm	Area mm ²
100	7,854	350	96,211
130	13,273	400	125,664
150	17,671	450	159,043
180	25,447	500	196,350
200	31,416	550	237,583
250	49,087	600	282,783
300	70,686		

WALL SUPPORT TECHNICAL INFORMATION



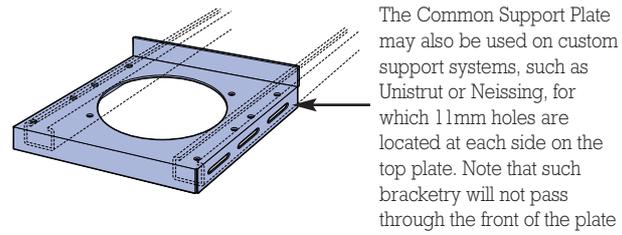
Side Bracket fixing centres

Size mm	E	Size mm	E
100	225	350	475
130	255	400	518
150	275	450	569
180	304	500	618
200	328	550	669
250	347	600	718
300	424		



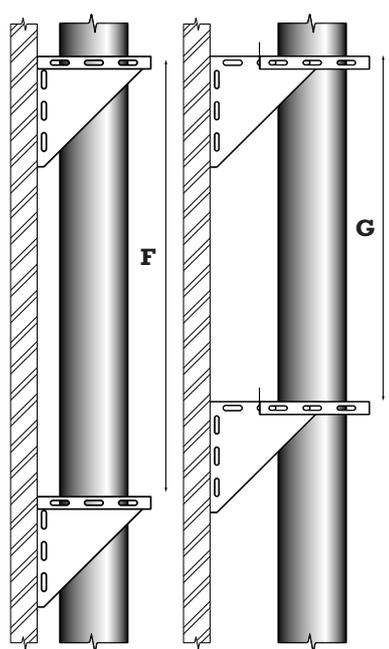
Maximum wall clearance

Size mm	D	Size mm	D
100	150	350	293
130	150	400	314
150	150	450	340
180	200	500	364
200	200	550	390
250	220	600	414
300	267		



Telescopic Floor Support Base

Side Brackets under Support Plate



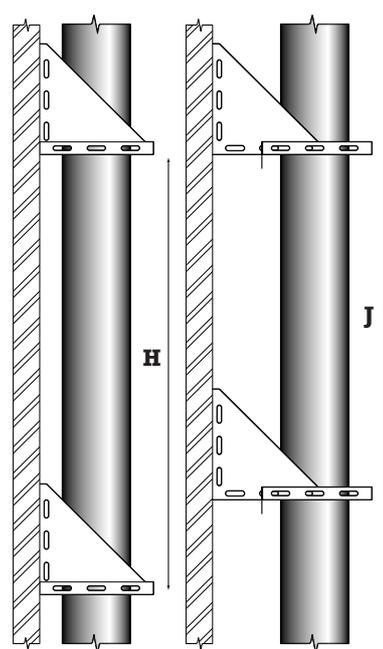
Wall Support frequency

Maximum distance between Wall Supports (m)

Size mm	F	G	H	J
100	30	30	30	30
130	30	28	30	30
150	30	23	30	30
180	24	20	30	28
200	22	18	30	19
250	36	20	30	30
300	27	18	22	30
350	20	16	18	24
400	30	25	30	25
450	30	21	30	21
500	30	21	30	21
550	21	16	21	16
600	19	16	16	16

Wall Support Side Brackets must be secured to a structure using 8mm diameter fixings which ensure adequate attachment and support

Side Brackets over Support Plate



INSTALLATION INSTRUCTIONS

Detailed Installation Instructions are provided with the Adaptors and all Terminals, and are also available separately on request.

1. GENERAL

It is important to consult with the Building Regulations and, in the UK, where the equipment served exceeds 150kW, due regard must be taken of the discharge requirements which apply to ALL chimney types are dictated by the Clean Air Act Memorandum, Chimney Heights 3rd Edition 1956. See comments on the Clean Air Act on page 3.

The internal diameter of the chimney must conform to the requirements of the heating appliance manufacturer's instructions and should not, under any circumstances, be less than the diameter of the appliance outlet. In any event, the diameter and configuration should be calculated to safely evacuate all products of combustion.

The termination height of the chimney will depend on appropriate regulations and standards, as well as the fuel used by the equipment the chimney serves. SF Limited have available Technical Data which provides chimney sizing criteria for any configuration.

2. APPLIANCE CONNECTION

Connection to the appliance can either be direct using an Adaptor or a length of flue pipe can be connected to the Adaptor. ANY flue pipe connection to the chimney MUST be made in the same room as the appliance. Note that to conform with UK Building Regulations pertinent to solid fuel application, the chimney must be accessible for inspection and cleaning. Use either an Inspection Length or a Tee to provide easy access, (unless such inspection and cleaning can be achieved through the appliance).

3. COMPONENT JOINTING

Each chimney section and associated fitting shall be used as manufactured for assembly on site without any alteration or cutting. Components are easily connected by rotating them so that the barbs engage. Make sure that the elements are installed the right way up, with the male coupler uppermost. Once assembled, Locking Bands must be fitted to every joint. See Fig.1

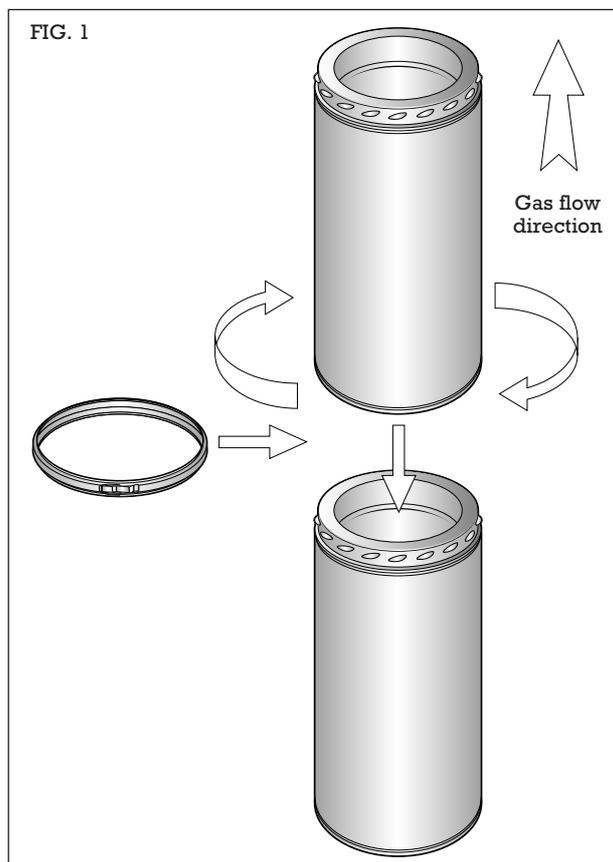
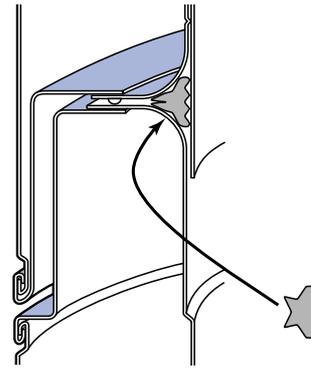


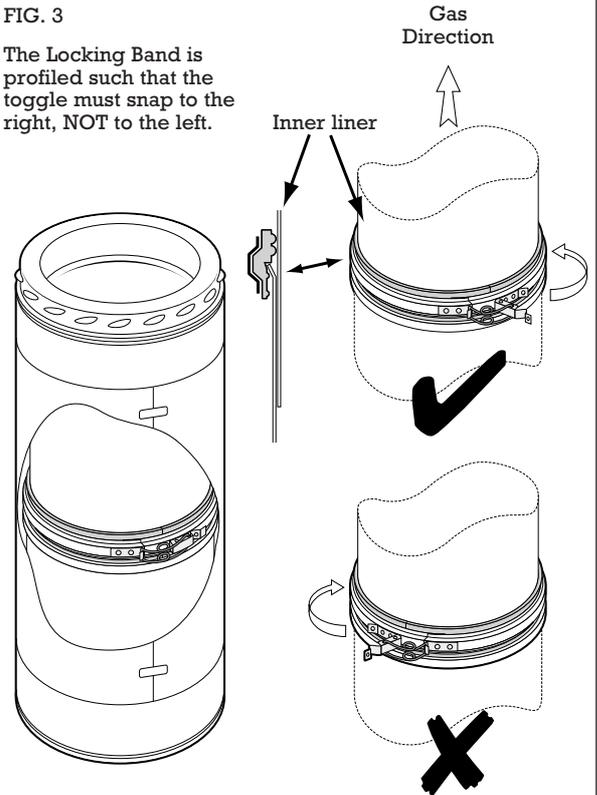
FIG. 2



Position the seal ring as shown by locating over the projecting end of the liner at the female end of the component. The seal is pushed up so that it seats against the liner and the curve of the female coupler. Closing the joint compresses the seal between the coupler faces.

FIG. 3

The Locking Band is profiled such that the toggle must snap to the right, NOT to the left.



The optional Joint Sealing Ring, available for diameters up to 350mm, should be located as shown in FIG.2.

The Adjustable Length for diameters between 100mm and 350mm features a special Liner Locking Band and Seal, described on page 5. It requires the temporary removal of the outer cover and is important that it is applied in the correct manner See Fig.3. Supplied with separate insulation which must be placed in the annulus before the cover is replaced.

4. CLEARANCE FROM COMBUSTIBLE MATERIALS

A minimum 50mm air gap must be maintained between the chimney outer casing and any combustible material. For installation and access reasons, the support components provide a 50mm clearance to adjacent structure, but this can be reduced to 25mm if required, but only where the chimney is used to serve gas fired equipment. The selection of chimney elements should be made so that no joints occur within the thickness of a combustible floor construction.

Where used with SOLID FUEL or OIL appliances of rated output up to 45kW clearances at floor and ceiling joists must be established with the installation of a Firestop Joist Shield or a Telescopic Ceiling Support. Both incorporate Firestop spacers which are designed to provide a 50mm air gap clearance from combustibles. Elsewhere, a

minimum 50mm air gap must be maintained between the chimney outer casing and any combustible material. Do not place any additional insulation material around any part of the chimney. See also the section on Specification Identification at the beginning of this literature, and Fig. 6.

Where serving Solid Fuel or Oil appliances, any part of the chimney which passes through any room other than that in which the appliance using the chimney is situated, should be protected to prevent both damage and the accidental location of combustible materials against the outer skin. It is a UK Building Regulation requirement that ANY factory made insulated chimney should be enclosed when passing through a cupboard, storage space or accessible roof space. Any such enclosure must be constructed of materials and applied in such a way that they can be considered as providing access to the chimney.

5. SUPPORT

The system must be adequately supported with elements described in this literature. Where externally used, the chimney must be supported on a wall or mast. The support components must be used at intervals depending on the load bearing criteria quoted in tables in the Technical Data section. Wall Bands are not load-bearing and should be used to provide lateral stability only, and at intervals not exceeding the criteria quoted.

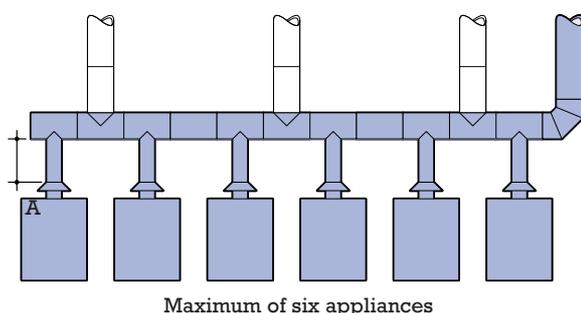
A significant feature of the Common Support bracketry is that where these, and only these are used, the upper end of the chimney can free-stand a distance not exceeding 3 vertical metres above the point of the last support. That applies to all diameters except 100mm where the maximum unsupported height must not exceed 2 metres. Should it be necessary to construct the chimney so that it extends a greater distance, the extension must be provided with additional support. A Strut/Guy Attachment Length is intended for this purpose, to which rigid stays, preferably angle iron, should be connected.

6. CHANGES IN FLUE DIRECTION

Any change of direction in a flue will create resistance to the flue gas movement. Other than for purpose designed header configurations, where the system may be commercially applied, horizontal runs should be avoided. It is desirable to keep the number of elbows and angled sections to a minimum.

UK Building Regulations, Approved Document J does not permit any part of the chimney system to form an angle greater than 45° from the vertical, and where the system is used for solid fuel and oil, no system can be constructed with more than two elbows in the run. The only permitted exception is where it is necessary to use an additional 45° Elbow to make the connection to an appliance. The length of chimney between two elbows must not exceed 20% of the total length of the chimney. The range of Elbows will permit significant routing options, and the tables on page 14 identify the offset permutations available.

FIG. 4 Vertical vent location not relevant



A = Connector height

The component range caters for appliances operating under condensing conditions, and the system should be applied such that any sloping runs are at an angle of 5° from the horizontal to permit drainage of condensation, either back to the appliance, or through the drain components included in the NOVA range.

Where NOVA is used to provide configuration such as illustrated in Fig.4, the maximum number of appliances that can be connected to any header configuration, MUST not exceed 6. The minimum height of the "connector" between the appliance and the "header" should be not less than 500mm. In some cases, appliance manufacturers will require a greater height. If the minimum connector height is ignored, the system is unlikely to operate.

In addition to these instructions, and those provided by the appliance manufacturer, additional guidance can be found in the British Gas publication, "IM/11 - Flues for commercial and industrial gas fired boilers and air heaters", available from the institute of Gas Engineers, 21 Portland Place, London W1N 3AF.

7. TERMINATION

Minimum termination requirements will depend on the fuel being served and the rating of the appliance, and National Regulations. Figure 5 illustrates minimum UK legal requirements for solid fuel and oil. Where Nova SM serves gas-fired equipment of Rating exceeding 60kW, the terminal should always be at least 1m above both the roof penetration point, and/or any surrounding structure within 2.5m of the chimney, as per BS 6644. However, the Clean Air Act must also be complied with. See the text on the subject on page 3.

Flue termination requirements for solid fuel and wood burning appliances, and draft-hooded oil fired appliances.

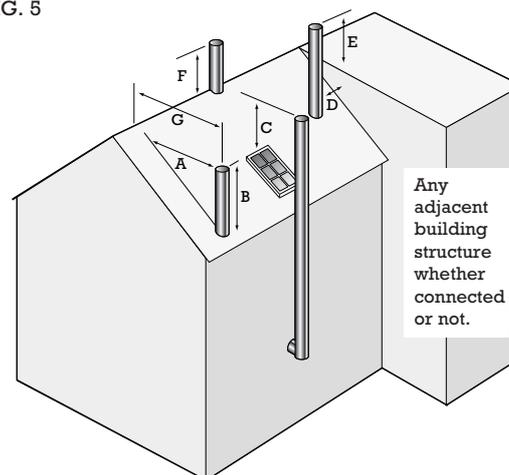
Dim. Minimum distance measured from the top of the chimney excluding a Rain Cap, (if fitted).

- A 2.3 metres horizontally clear of the roof surface, eg. if the roof pitch is 45°, then the chimney should project 2.3 metres above it.
- B 1 metre, provided A is satisfied, or 600mm if the top of the chimney is above the ridge.
- C 1 metre above the top of any flat roof, and the top of any openable roof light, dormer window or ventilator, etc, if it is located within 2.3 metres
- D/E If D is less than 2.3 metres, E shall be not less than 600mm.
- F 600mm above the ridge.
- G Edge of chimney to roof ridge.

Note

If the chimney serves an oil-fired appliance with a **pressure jet oil burner**, the chimney terminal need only be located so that it is above roof level, and such that the discharge is a **minimum 600mm from any opening into the building**.

FIG. 5



8. WEATHERING

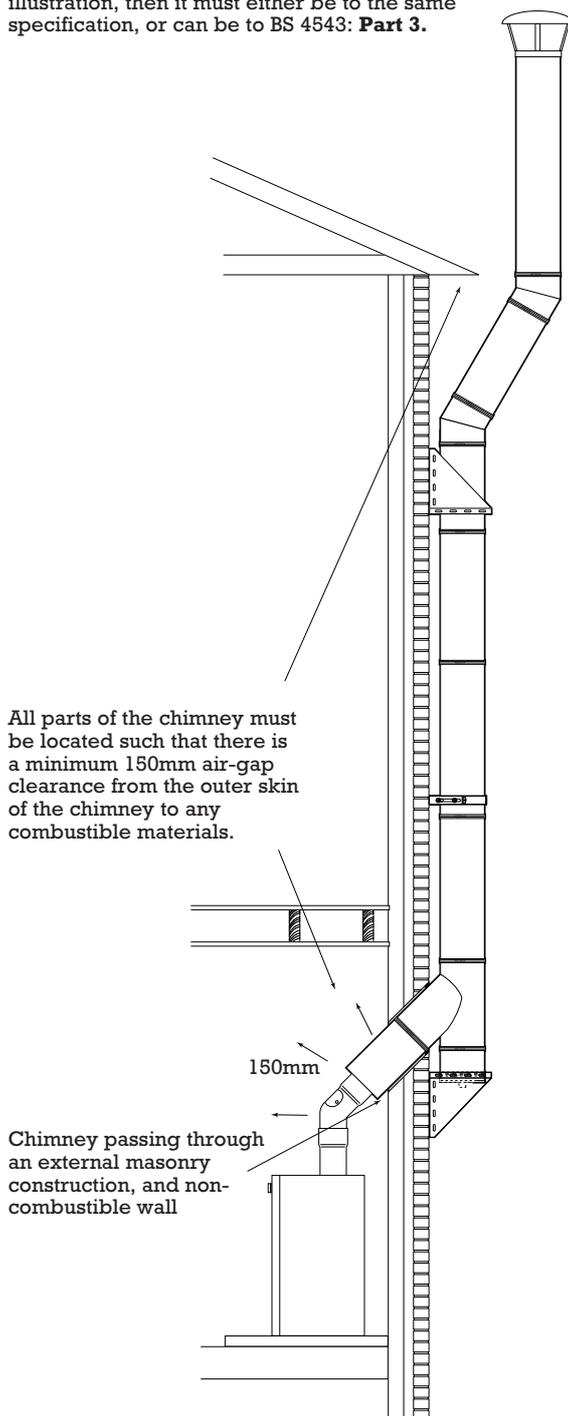
NOVA is constructed of materials which are weather resistant. However, it is strongly recommended that any galvanised support components that are externally applied, are thoroughly protected by painting or a suitable alternative.

FIG. 6

Minimum installation conditions enabling Nova SM to be used with solid fuel appliances

If the chimney is to be **internally** applied and serves a solid fuel or wood-fired appliance, then it must be to the specification which is assessed, certificated and Kitemarked to BS 4543: **Part 2**.

If the system is used **externally** applied as illustrated here, and serves a solid fuel or wood-fired appliance, and is applied with clearance criteria shown in this illustration, then it must either be to the same specification, or can be to BS 4543: **Part 3**.



Unsupported Termination detail

See comments in Section 5, **Support**, on page 18.

