



Linear collection

Specification guide

Rinnai

Important

Rinnai is constantly improving its products, and as such, information and specifications are subject to change without notice. For the most up-to-date information, go to www.rinnai.co.nz.

We'd love to hear from you

If you have any feedback about this guide we'd love to hear from you. Either email us at info@rinnai.co.nz, place 'Rinnai specification guide feedback' in the subject heading, or call customer services.

Help is here

For more information about buying, using, and servicing of Rinnai appliances call 0800 RINNAI (0800 746 624).

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We are proud of being New Zealand's largest provider of industry online learning, giving vital advice and support to technical institutes and other learning organisations, as well as all the people involved in selling, specifying, and installing Rinnai product.

There is online training available for Rinnai gas fireplaces with new courses being uploaded regularly.

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Linear Collection

single and double sided

specification summary

Inbuilt power flued convection fan fire operated by a simple infra-red remote or by the Rinnai Wi-Fi app that allows full thermostatic control as well as other features such as timers. Available models detailed below come in NG or ULPG, and single and double-sided options.

- Linear 800 FlameTech log set
- Linear 800 standard log set
- Linear 1000 log set
- Linear 1000 modern media (crushed glass)
- Linear 1500 log set
- Linear 1500 modern media (crushed glass)

Model	Input	Output*	Heating area**	Efficiency (on high)	Weight (net)	Weight (gross)
Linear 800	14-35 MJ/h	3.2-8.0 kW	62-106 m ²	>75%	100 kg	120 kg
Linear 800 FT	14-35 MJ/h	3.3-8.3 kW	62-106 m ²	>75%	100 kg	120 kg
Linear 1000	14-35 MJ/h	3.2-8.0 kW	67-120 m ²	>75%	100 kg	125 kg
Linear 1500	14-40 MJ/h	3.21-9.2 kW	78-133 m ²	>75%	110 kg	140 kg

* Will vary according to gas type and flue configuration

** Will vary depending on geographical location in NZ

Suitability

Ideal for living rooms and open plan areas. Versatile power flue makes for easy installation in almost any living space, including bedrooms. The Linear is ideal for a new build installation.

Installation considerations

Room size—smaller rooms will heat up quickly, and due to the efficiency of the appliance, if in thermostat mode, will reduce to a low flame profile.

Installation of the Linear higher up the wall, in some room configurations, can create draughts due to the convection air being pushed out from the top of the appliance.



Cavity ventilation

Cavity ventilation of at least 2000 mm² is recommended in the installation cavity, ideally below the base of the fire. This is to provide room air at ambient room temperature to the fire thermistor located in the base of the fire¹. Ventilation can be via a vent or an open toe kick at the base of the cavity—it must be in the same room as the fire.

Additionally the top of the cavity needs to be ventilated into the room or another space. This ventilation opening must also be at least 2000 mm². This opening prevents heat build up inside the cavity, which if left unvented could cause damage to wall surfaces/coverings and/or cause the fire to cut out.

Convection fan

2-speed fan, warm air is distributed from the top of the appliance.

Data plate

Inside the appliance—base of the combustion chamber.

Gas connection

½ " BSP, the gas supply terminates inside the unit—lower left hand side of the appliance.

Ignition

Continuous spark electronic ignition.

Noise level: 37-45 dB(A)

Power flue

Inner flue 50 mm, outer flue 70-80 mm.
Appliance must be installed with a Rinnai flue system.

Electrical

High: 50 W
Standby: <8 W

1.5 m power cord with a three pin plug supplied. The power cord passes through a slot in the right hand side to the unit.

Safety devices

Flame failure sensing system, pressure relief, overheat safety switch, air temperature sensor, thermal fuse, overcurrent fuse, and spark detection.

Temperature control

Operated using a basic infra-red remote, or for more features, such as timers and thermostatic control, using the Rinnai Wi-Fi fireplace controller app.

¹ Alternatively provide a way of moving the room temperature thermistor into the room, for example under the hearth—ensure it can be accessed/removed for service.

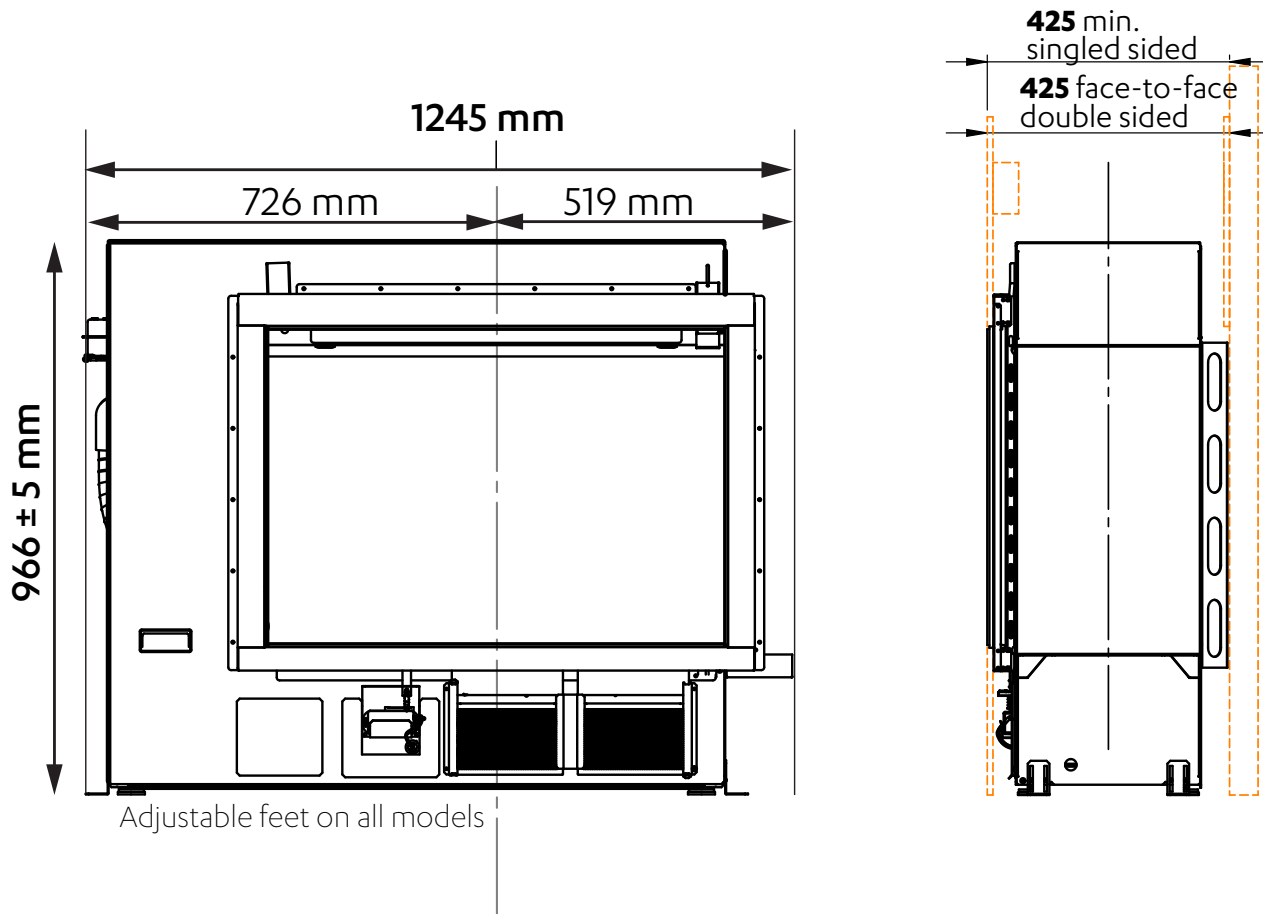


Linear 800 unit dimensions single and double sided

IMPORTANT

These are the unit dimensions only, not the framing/cavity dimensions, refer p.12-14.

Glass dimensions: 800 x 505 mm





Linear 1000 and 1500 unit dimensions single and double sided

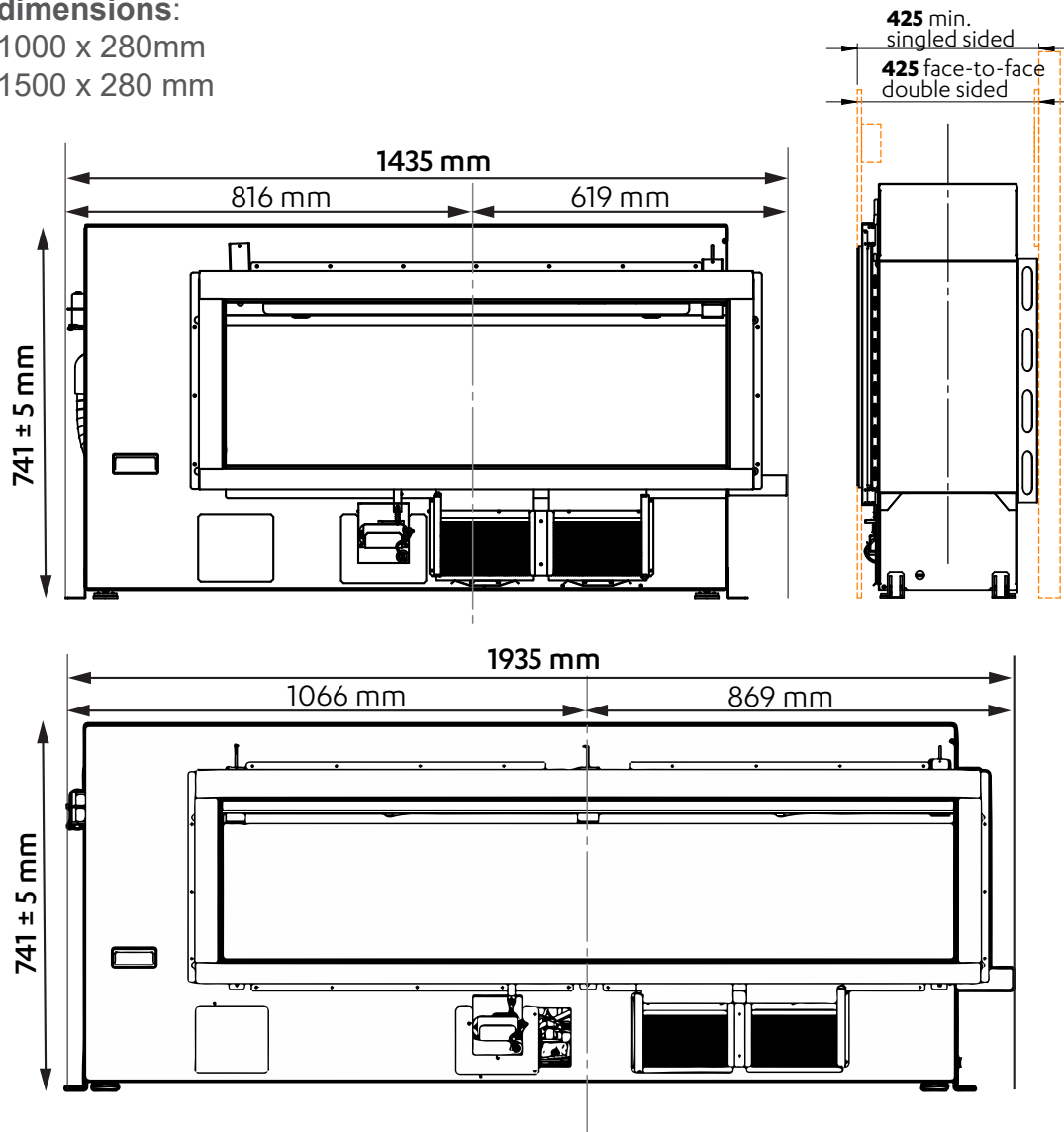
IMPORTANT

These are the unit dimensions only, not the framing/cavity dimensions, refer p.12-14.

Glass dimensions:

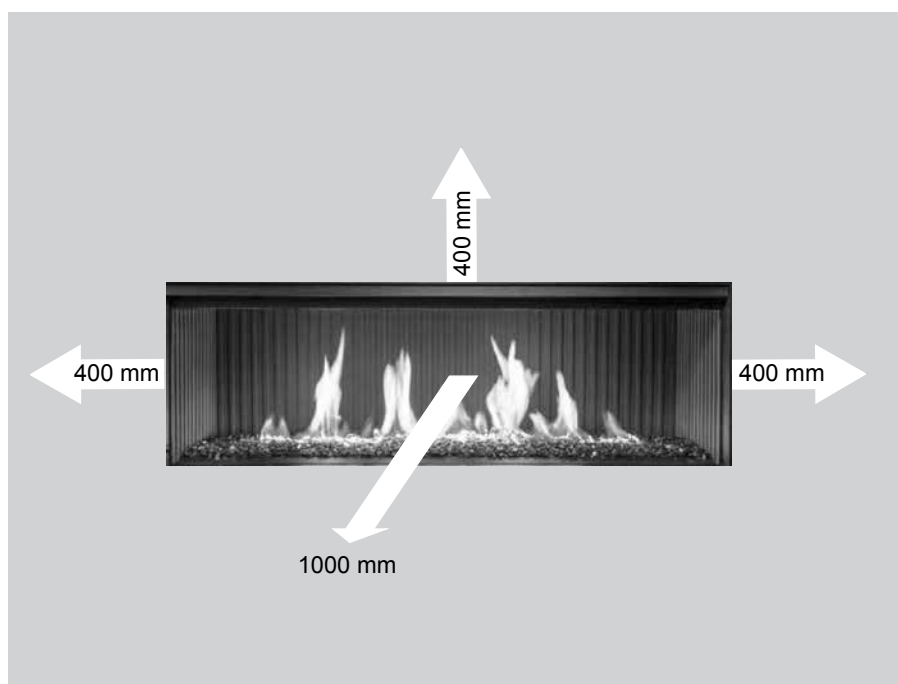
1000: 1000 x 280mm

1500: 1500 x 280 mm



Clearances from combustibles

The clearances listed below, measured from the **edge of the glass**, are minimum clearances unless otherwise stated.



While the heater is operating

The appliance must not be installed where curtains or other combustible materials could come into contact with the fire. The 400 mm side clearance includes side walls. The 1000 mm clearance is in front of the fire.

Floor protection

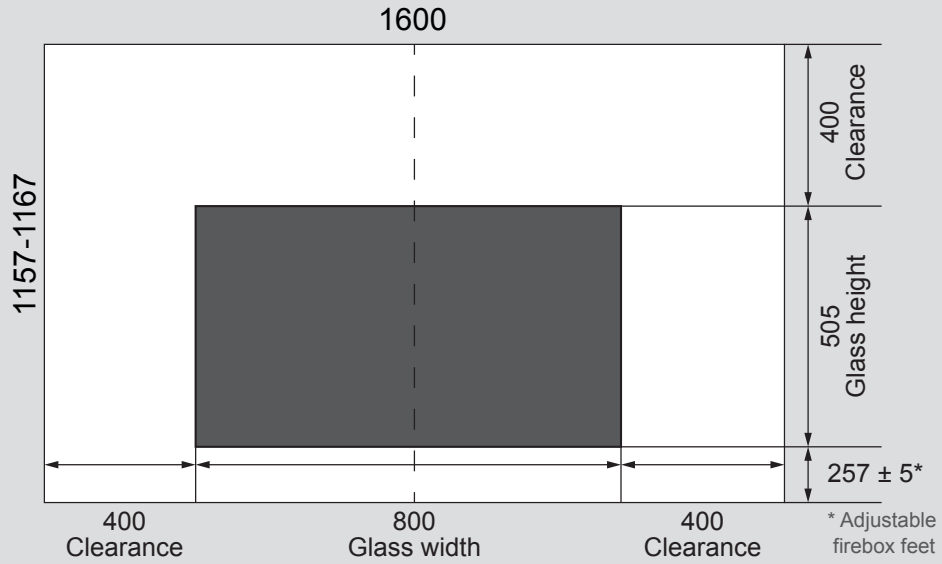
Heat emanating from this fire may over time affect the appearance of some materials used for flooring, such as, carpet, vinyl, cork or timber. This may be amplified if the air contains cooking vapours or cigarette smoke. To avoid this occurring, it is recommended that a mat be placed in front of the appliance.

Hearths

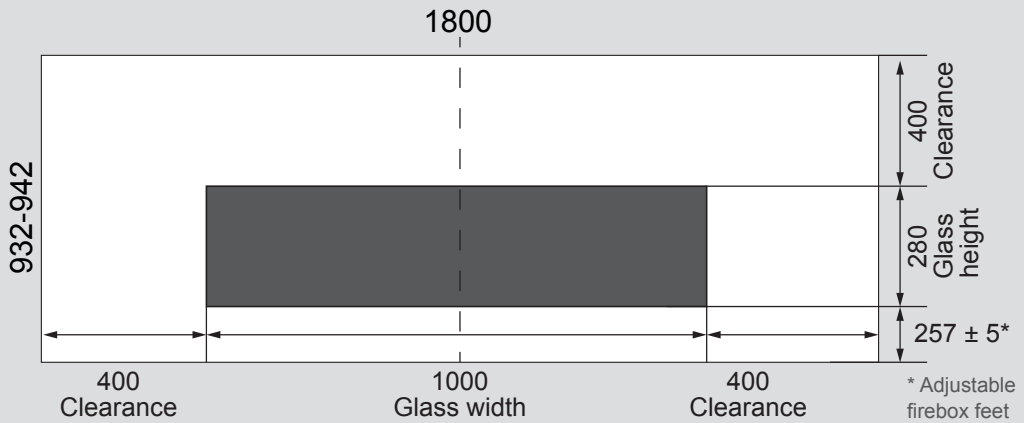
A hearth is not necessary but can be used for decorative purposes or protection of sensitive flooring if required. A hearth must not obscure the front of the fire or obstruct the fire in any way.

The below diagrams are to assist in determining the full clearance area around the Linear.

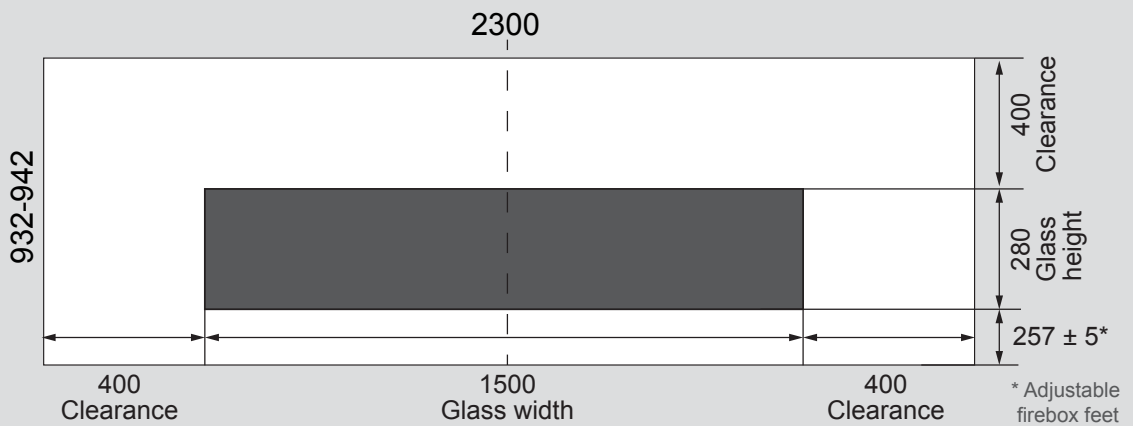
Linear 800



Linear 1000

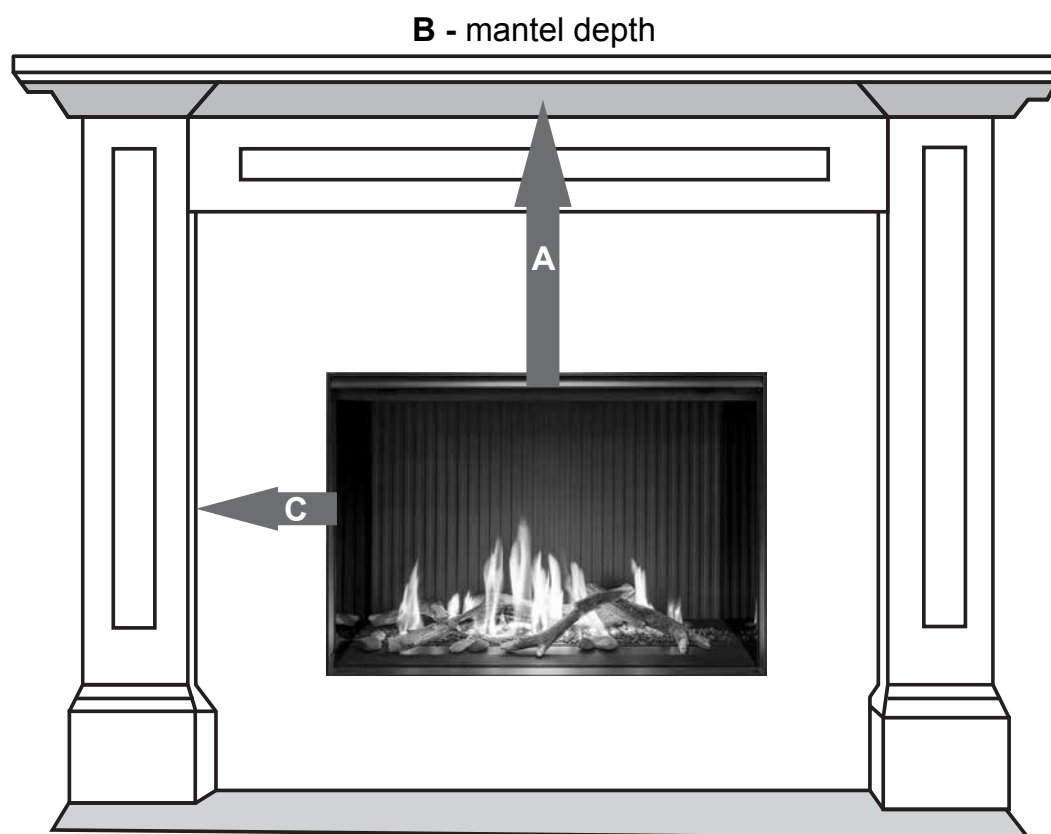


Linear 1500



Mantels and surrounds

Combustible mantels and surrounds require clearance from the unit to minimise the risk of fire. Mantels and surrounds, made of combustible materials such as wood, are allowed providing they are outside the minimum clearances shown.



-
- | | |
|----------|--|
| A | Mantel needs to be a minimum of 400 mm away from the edge of the glass |
| B | Maximum mantel depth at 400 mm (A) is 250 mm maximum |
| C | Surround needs to be a minimum of 400 mm away from the edge of the glass |
-

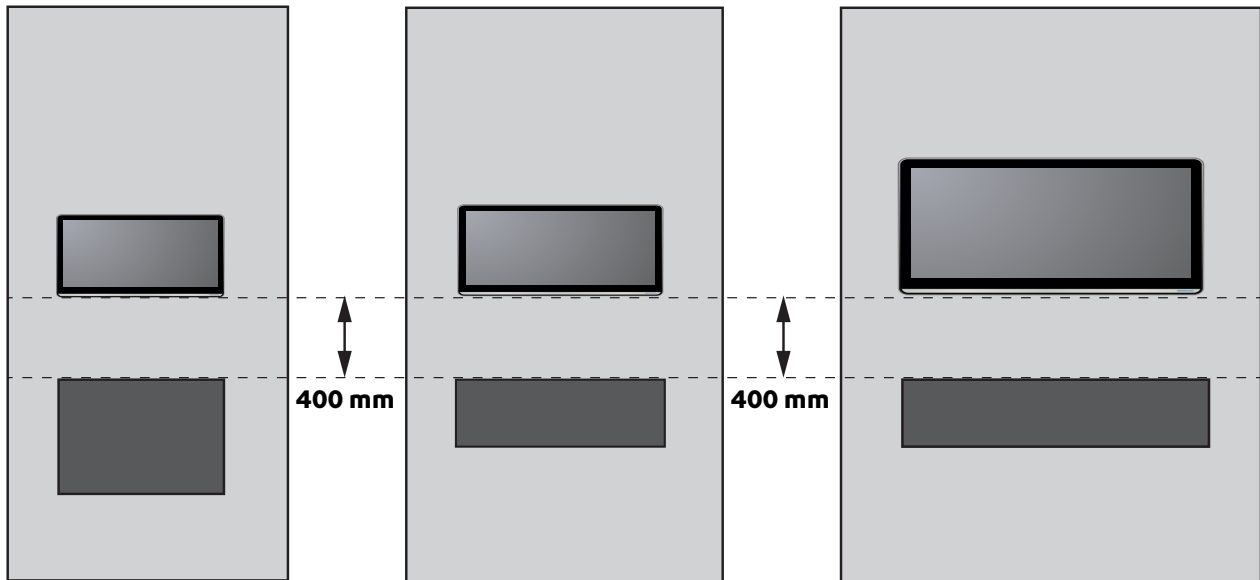
For every 50 mm of added mantel depth there must be an additional 100 mm of clearance from the edge of the glass. For example:

Mantel depth A: clearance required

300 mm	500 mm
350 mm	600 mm
400 mm	700 mm

TV installation

The Linear has a fan that distributes warm air from the top of the appliance out into the room. As warm air is dispersed outwards and not directly upwards, installation of a TV may be an option.



The diagram shows recommended clearances when installing a TV directly above the Linear, or into a recess. All dimensions are in millimetres.

Always check with the TV manufacturer

It is up to the owner to check the TV installation with the TV manufacturer—some have warranty conditions that state a TV is not to be installed above a fireplace.

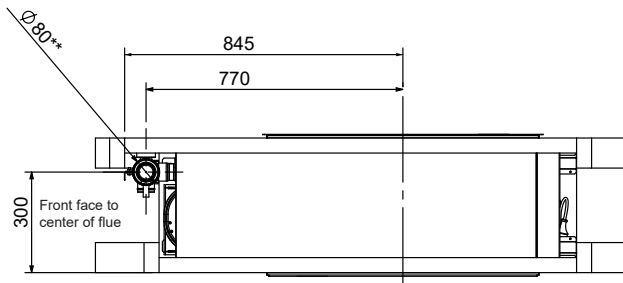
Rinnai does not accept any responsibility for damage to a TV resulting from the use of this information.

Linear 800 minimum framing dimensions (mm)

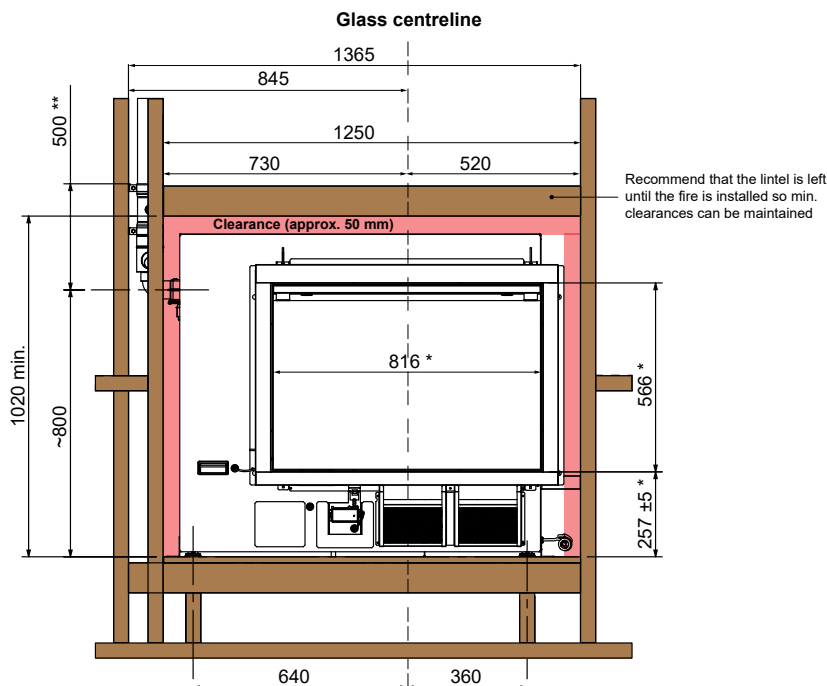
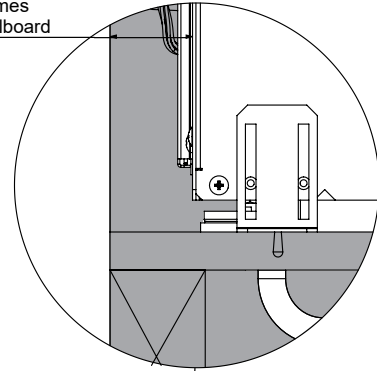


The framing dimensions have the studs offset. This is because the cavity needs to be framed based on the centreline of the Linear glass, NOT the opening size.

Where there is a requirement for a symmetrical installation, the cavity size will need to increase. To calculate a rough opening width, double the flue to centreline figure.

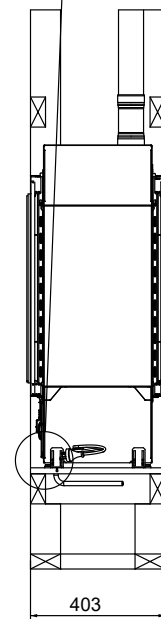


39 assumes 10 mm wallboard



Recommend that the lintel is left until the fire is installed so min. clearances can be maintained

Shaded area denotes a clearance around the fire of approx. 50 mm. On the RHS this is automatically achieved with the carry bar.



403 mm assumes a 10 mm wallboard on both sides of a double-sided unit.

415 mm is the min. for a single-sided unit to maintain 50 mm clearance to the back of the fire.

* Minimum wallboard cutout, refer installation guide for more details on wall linings

** Maintain 25 mm clearance to combustibles for the first 500 mm of flue

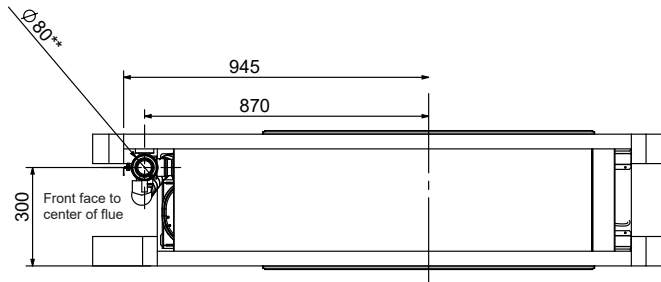
- All dimensions are assuming a 10 mm wallboard
- Studs and joist are required directly below the support feet of the fire
- Framing shown is 90 x 45 mm
- Fire platform shown is 18 mm plywood
- Allow room underneath the appliance for the gas supply to enter the fire cavity (min. 100 mm)

Linear 1000 minimum framing dimensions (mm)

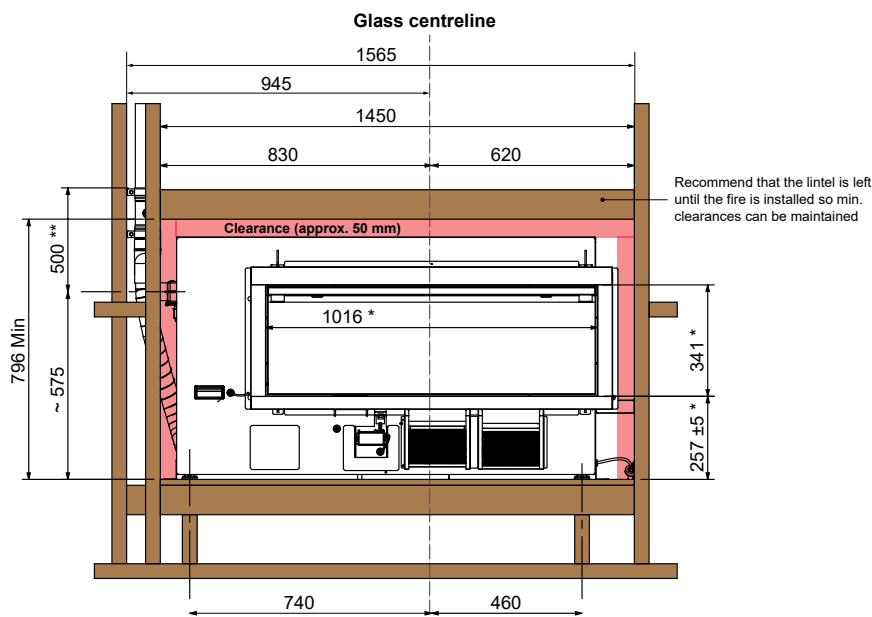
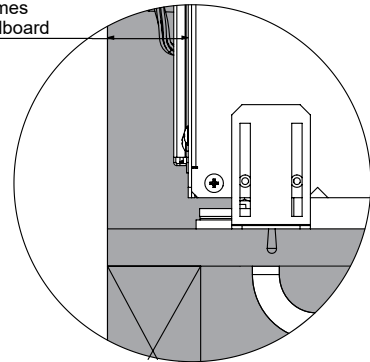


The framing dimensions have the studs offset. This is because the cavity needs to be framed based on the centreline of the Linear glass, **NOT** the opening size.

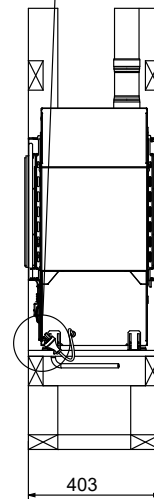
Where there is a requirement for a symmetrical installation, the cavity size will need to increase. To calculate a rough opening width, double the flue to centreline figure.



39 assumes 10 mm wallboard



Shaded area denotes a clearance around the fire of approx. 50 mm. On the RHS this is automatically achieved with the carry bar.



403 mm assumes a 10 mm wallboard on both sides of a double-sided unit.

415 mm is the min. for a single-sided unit to maintain 50 mm clearance to the back of the fire.

* Minimum wallboard cutout, refer installation guide for more details on wall linings

** Maintain 25 mm clearance to combustibles for the first 500 mm of flue

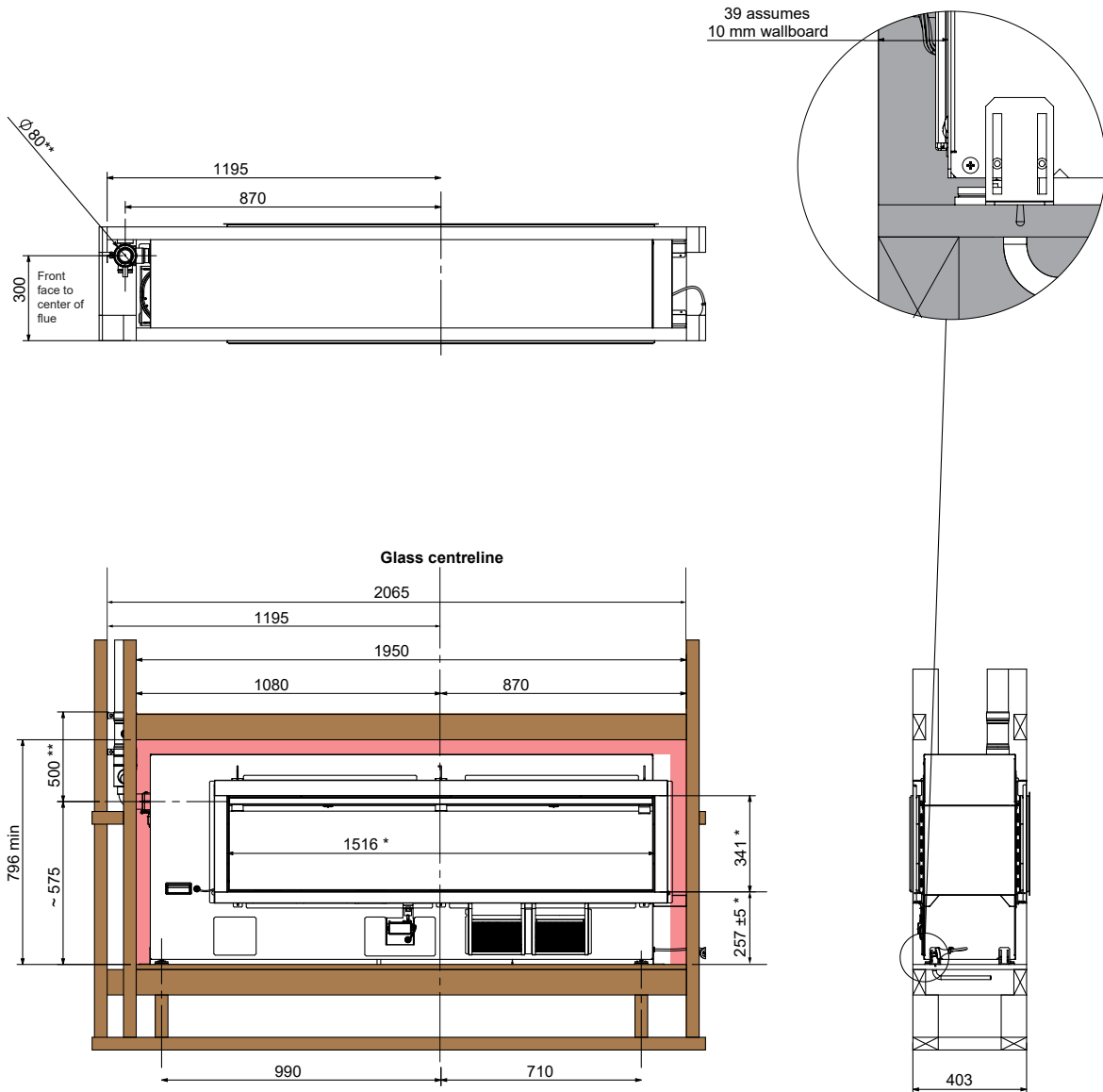
- All dimensions are assuming a 10 mm wallboard
- Studs and joist are required directly below the support feet of the fire
- Framing shown is 90 x 45 mm
- Fire platform shown is 18 mm plywood
- Allow room underneath the appliance for the gas supply to enter the fire cavity (min. 100 mm)

Linear 1500 minimum framing dimensions (mm)



The framing dimensions have the studs offset. This is because the cavity needs to be framed based on the centreline of the Linear glass, NOT the opening size.

Where there is a requirement for a symmetrical installation, the cavity size will need to increase. To calculate a rough opening width, double the flue to centreline figure.



Shaded area denotes a clearance around the fire of approx. 50 mm. On the RHS this is automatically achieved with the carry bar.

403 mm assumes a 10 mm wallboard on both sides of a double-sided unit.

415 mm is the min. for a single-sided unit to maintain 50 mm clearance to the back of the fire.

* Minimum wallboard cutout, refer installation guide for more details on wall linings

** Maintain 25 mm clearance to combustibles for the first 500 mm of flue

- All dimensions are assuming a 10 mm wallboard
- Studs and joist are required directly below the support feet of the fire
- Framing shown is 90 x 45 mm
- Fire platform shown is 18 mm plywood
- Allow room underneath the appliance for the gas supply to enter the fire cavity (min. 100 mm)

Linear collection burn media



Linear 800 FlameTech log set

Utilising innovative log technology, flames emanate from the logs themselves giving a more realistic flame picture.



Linear 800 traditional log set

Mimicking natural drift wood and beach stones.



There are no part numbers for the 800 FlameTech or traditional log sets as they are included with the fire—double check you have the correct engine code when ordering.



R2902: Linear 1000 traditional log set

Mimicking natural drift wood and beach stones (ordered separately).



R2904: Linear 1000 modern media

Modern media in the form of reflective black crushed glass (ordered separately).



R2903: Linear 1500 traditional log set

Mimicking natural drift wood and beach stones (ordered separately).



R2905: Linear 1500 modern media

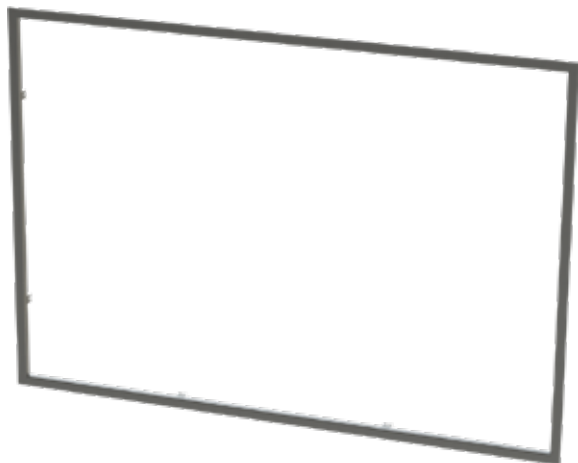
Modern media in the form of reflective black crushed glass (ordered separately).

Linear collection accessories

Linear outer finishing trim (black)

- 800 R2915
- 1000 R2916
- 1500 R2917

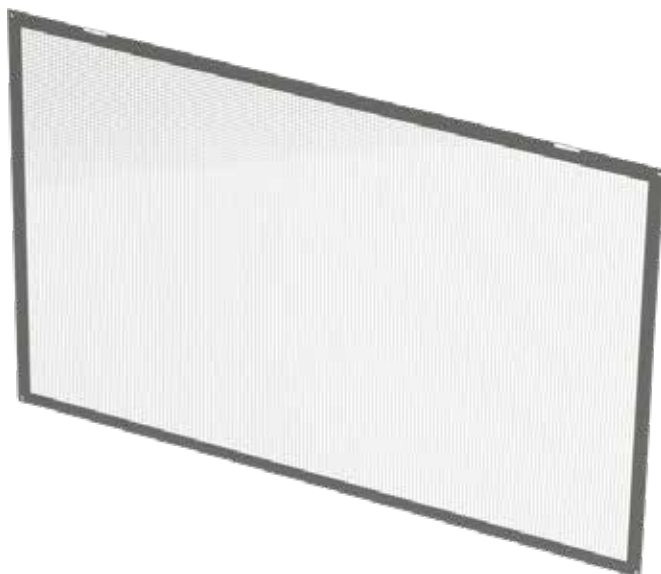
Installation of the Linear requires the wall lining to be installed flush with the lips of the appliance. With plasterboard a smooth flush finish can be problematic. The outer finishing trim accessory, powder coated black, is designed to help achieve a smooth edge finish without plastering against the fire, which your tradie plasterers will love you for.



Linear mesh guard (black)

- 800 R2912
- 1000 R2913
- 1500 R2914

Designed to protect against touching the hot surface of the glass. No fixing required, the mesh guard, via two top slots, sits over the glass frame tabs, with the lower section secured in the same channel that holds the glass front.



Linear black magic reflective side panels (two in a set)

- 800 R2910
- 1000/1500 R2911

Black glass reflector panels. Enhances the flame picture by producing a mirror image of the flames in the side panels. The images below show the Linear 1000 double-sided log set with the side panels installed, and the Linear 1000 double-sided crushed glass with the standard ceramic grooved side panels. Ideally installed at the same time as the Linear as retrofitting will require removing a number of internal components, which will add cost and time.

Black magic reflective side panels installed



Standard ceramic grooved side panels



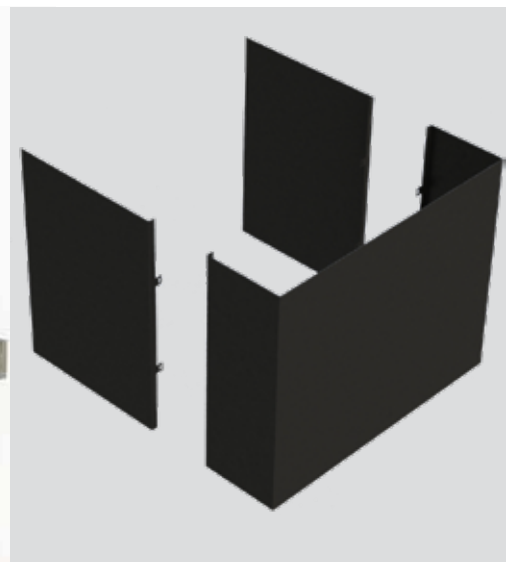
Linear peninsular pack (black)

- 800 R2920
- 1000/1500 R2921

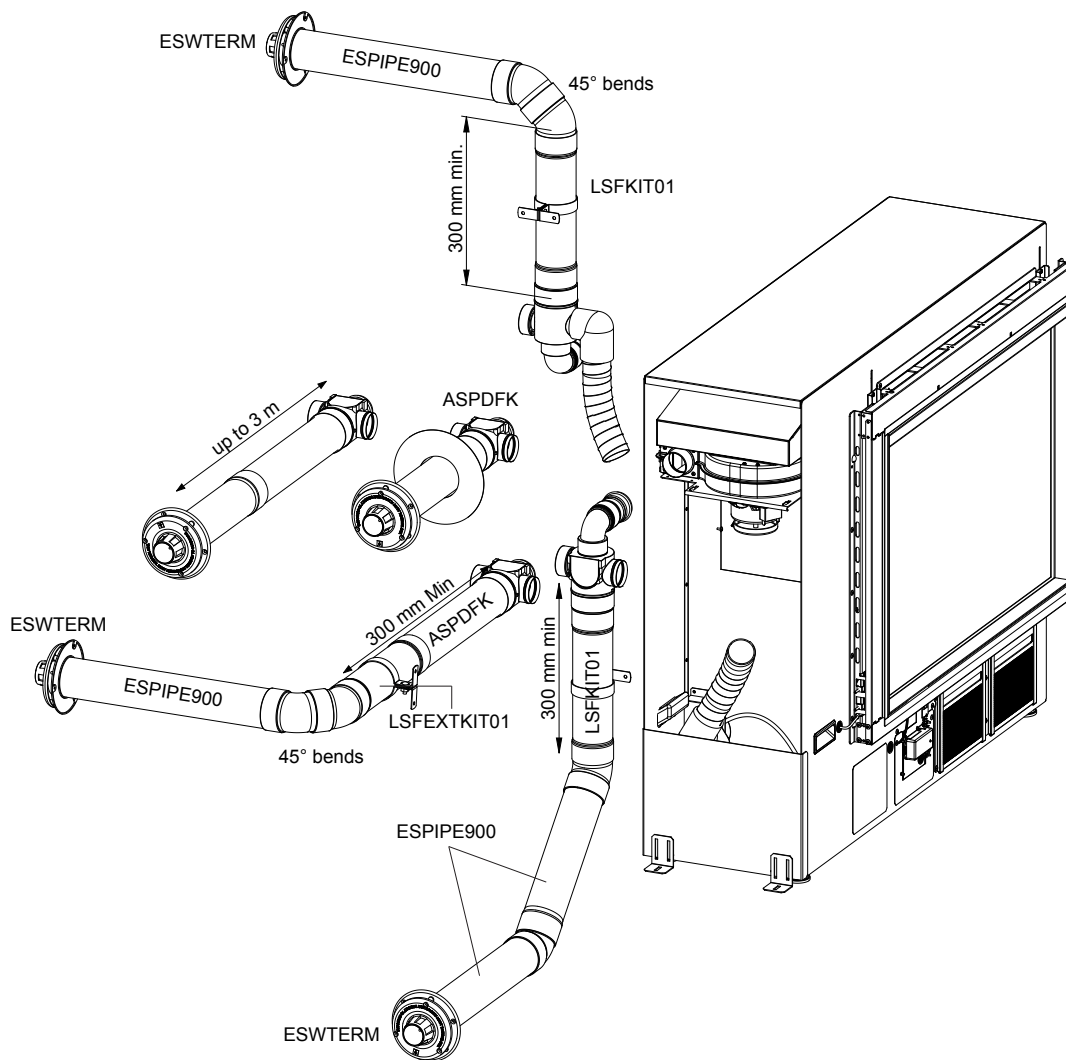
A series of metal panels designed to fit around the fire to create a peninsular design on a double-sided model, as shown in the image below . Kit comes in three sections, two flat pieces and one folded endcap—powder coated black.



Example of the 1500 peninsular pack installed



Linear collection flueing options



Maximum flue length: 8.5 m
Maximum number of bends: three

For every 90° bend, the overall length must be reduced by 1 m. For example, if an installation has three 90° bends, the maximum flue length can be 5.5 m.

The Linear flue installation differs to Arriva and Evolve power flue installations as the elbow component of the Adaption flue (LSFKIT01) **is not** counted as a 90° bend.

300 mm of straight flue before any bends

300 mm minimum of straight flue is required before any bends. This is required due to heat produced from the initial section of the flue. The LSFKIT01 has this built in, and the LSFEXTKIT01 (flue transition extension) is used after the ASPDFK before any bends.

Horizontal flue terminals

Allow for a continuous 2° fall from the heater connection point to the wall terminal—there must be a 300 mm clearance between the flue terminal and ground level.

Condensate

A condensate trap is not required. Little or no condensate is produced because the flue runs hotter in Linear installations.

Side direct, side extended, side and back flueing

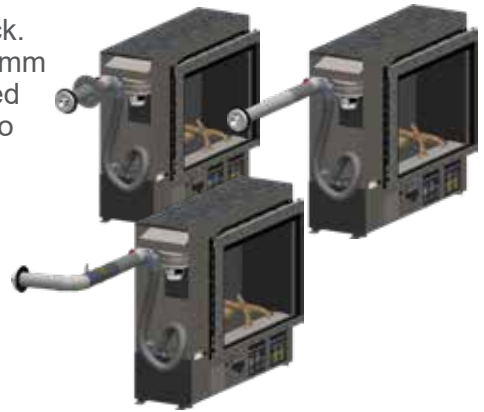
Side direct through-the-wall flueing for walls up to 385 mm thick. Flue can be extended if the wall thickness is greater than 385 mm by using additional lengths of flue pipe, and flue can be directed behind using the flue transition extension and bend kit. Refer to p.40 for more information.

Flue components used:

- Direct flue kit (ASPDFK)¹
- Flue transition extension (LSFEXTKIT01)²
- Flue pipes (ESPIPE900)
- 45° bends (ESBEND) to change direction

¹ Flue terminal section is reusable when making the flue longer

² Required to be added to the ASDFK before any bends



Up and back, and up and over flueing

Up and back direct through the wall flueing for walls up to 385 mm thick. Flue can be extended if the wall thickness is greater than 385 mm by using additional lengths of flue pipe. Change of direction achieved using the bend kit.

Flue components used:

- Adaption flue (LSFKIT01)
- 45° bends (ESBEND) to change direction
- Flue pipes (ESPIPE900)
- Wall terminal (ESWTERM)



Down and out flueing

The down and out flue allows for the adaption flue component to face downwards, and for the flue to run vertically through a hole in the floor, and then terminate horizontally outside. Refer to p.41 for more information.

Flue components used:

- Adaption flue (LSFKIT01)
- 45° bends (ESBEND) to change direction
- Flue pipes (ESPIPE900)
- Wall terminal (ESWTERM)



Vertical flueing

The vertical in-wall flue installation is installed against an internal wall or other suitable cavity, and is run vertically upwards to a vertical termination point.

Flue components used:

- Adaption flue (LSFKIT01)
- 45° bends (ESBEND) to change direction
- Flue pipes (ESPIPE900) to extend flue length
- Vertical terminal (ESROOFCOWL)



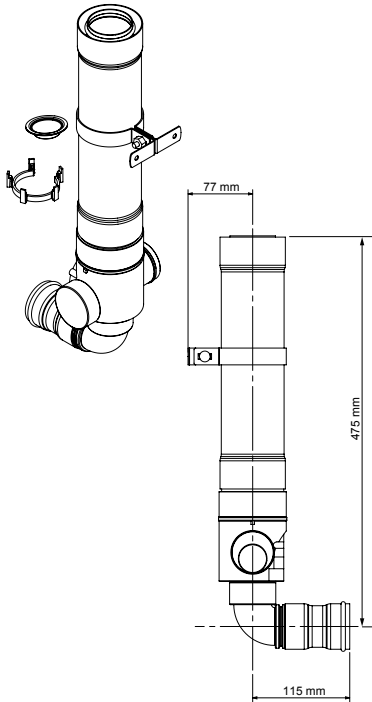
Linear flue components

Adaption flue kit Linear

Code: LSFKIT01

Includes:

- flue adaptor
- flue extension
- flue bracket
- flue slide stopper (4822)
- O-ring silicone grease.

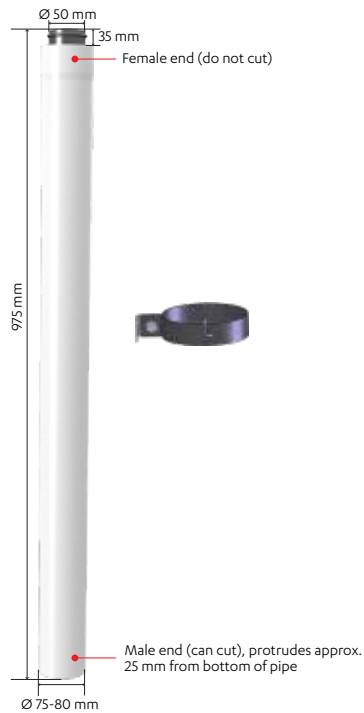


Coaxial flue pipe 900 mm

Code: ESPIPE900

Extension pipe used to construct horizontal, vertical, and downwards flueing. Can be cut to size.

Inner is aluminium, outer white PVC plastic. Comes with; wall bracket (x1), o-ring (4350), spacer (4351).



Vertical roof terminal

Code: ESROOFCOWL

Roof cowl and connecting pipe for termination of a vertical flue—can be cut to size.

Galvanised steel, powder coated black.



Direct flue kit

Code: ASPDFK (aluminium)

- Suitable for walls up to 385 mm (can be cut to length)
- Can also be used with ESPIPE900 for longer flueing
- Flue terminal is reusable when making the flue longer

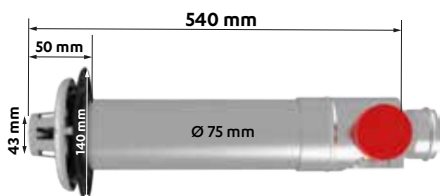


Photo showing what the wall terminal of the ASPDFK looks like coming out of a wall

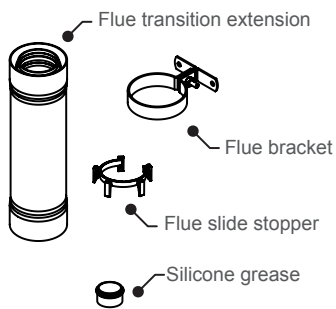


Flue transition extension

Code: LSFEXTKIT01

Flue transition extension, approx. 300 mm. When connected reduces 45 mm each end (approx). **MUST BE** used with the ASPDFK before any bends, for example in side and back flueing.

Includes; flue extension, flue bracket, flue slide stopper (4822), O-ring, silicone grease.



45° flue bends (two bends in a kit)

Code: ESBEND

Two 45° bends used to facilitate between horizontal, vertical, and downwards flueing. Two spacers are included. Can be used separately, or together as a 90° bend.



Steel flue guard

Code: R1370

Protection against hot flue gases when the termination is low to the ground. Colour - warm white.

- 220 x 220 mm
- Ø 146 mm



Wall terminal kit

Code: ESWTERM

Used to terminate the ESPIPE900 in horizontal flue installations when used in conjunction with LSFKIT01.

- Contains:
- External wall plate (black PVC)
 - Flue terminal (aluminium)



Wall plate

Code: ESPLATE

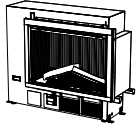
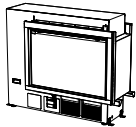
Used if an extra wall cover is required to tidy any installation through the wall, ceiling, or floor.

Outer diameter 170 mm.

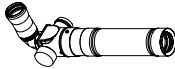

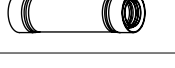

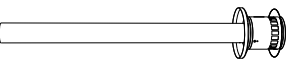






Linear 800 ordering guide





- 1** Decide on the engine type. There are eight in total, it will depend on whether it is a single or double-sided option, whether it is FlameTech or a standard log set burner, and whether it is NG or ULPG.

Linear 800 single-sided engines		800 FlameTech log set	800 Standard log set
	Linear 800 single-sided NG	RHFE0800SF1N	RHFE0800S1N
	Linear 800 single-sided LPG	RHFE0800SF1L	RHFE0800S1L
Linear 800 double-sided engines			
	Linear 800 double-sided NG	RHFE0800DF1N	RHFE0800D1N
	Linear 800 double-sided LPG	RHFE0800DF1L	RHFE0800D1L
Supplied with the engine; glass frame, remote control (batteries incl.), flue lock bracket and truss screws (x2), operation, installation, and burn media guides, burn media placement sheet (attached to the glass frame), commissioning sheet, reducing flare, and log set (inside the engine).			

- 2** Decide on flue configuration and select flue components.

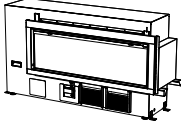
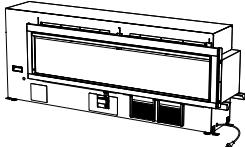
Description		Code
Adaption flue kit		LSFKIT01
Direct flue kit		ASPDFK
Flue transition extension		LSFEXTKIT01
Coaxial flue pipe 900 mm		ESPIPE900
Vertical terminal		ESROOFCOWL
45 ° flue bends (two in a kit)		ESBEND
Wall terminal		ESWTERM
Wall plate		ESPLATE
Steel flue guard		R1370

- 3** Decide on optional accessories

Accessory		Code
Linear 800 outer finishing trim		R2915
Linear 800 mesh guard		R2912
Linear 800 black magic reflective side panels		R2910
Linear 800 peninsular pack	 comes in 3 sections, two flat panels and an end-cap	R2920

Linear 1000 and 1500 ordering guide

- 1 Decide on the engine type. There are eight in total, it will depend on whether it is a single or double-sided option, whether it is a 1000 or 1500 model, and whether it is NG or ULPG.

Linear 1000 engines		Linear 1000
	Linear 1000 single-sided NG	RHFE1000S1N
	Linear 1000 single-sided LPG	RHFE1000S1L
	Linear 1000 double-sided NG	RHFE1000D1N
	Linear 1000 double-sided LPG	RHFE1000D1L
Linear 1500 engines		Linear 1500
	Linear 1500 single-sided NG	RHFE1500S1N
	Linear 1500 single-sided LPG	RHFE1500S1L
	Linear 1500 double-sided NG	RHFE1500D1N
	Linear 1500 double-sided LPG	RHFE1500D1L
Supplied with the engine; glass frame, remote control (batteries incl.), flue lock bracket and truss screws (x2), operation, installation, and burn media guides, burn media placement sheet (attached to the glass frame), commissioning sheet, and reducing flare.		

- 2 Decide on the burn media, traditional log set or modern media (crushed glass).

Burn media		Linear 1000	Linear 1500
Traditional log set		R2902	R2903
Modern media		R2904	R2905

- 3 Decide on flue configuration and select flue components. Refer Linear 800 flue components table on previous page.

- 4 Decide on optional accessories.

Accessory		Linear 1000	Linear 1500
Outer finishing trim		R2916	R2917
Mesh guard		R2913	R2914
Black magic reflective side panels		R2911	
Peninsula pack	 comes in 3 sections, two flat panels and an end-cap	R2921	



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