

Contact details

Installers

Vaillant products are available for installers to purchase from reputable heating merchants in the UK. To find contact details for your nearest Vaillant Key Account Manager telephone: **0345 602 0262** or visit www.vaillant.co.uk/specifiers

General Enquiries

If you are unsure of who you need to speak to or you have a general enquiry, our friendly reception staff will happily point you in the right direction. Telephone: **0345 602 2922**

Training

To book or enquire about training courses and centres in your area, telephone: **0345 601 8885** or email training.enquiriesuk@vaillant-group.com

Specifiers

We can provide you with bespoke solutions to accommodate a variety of different installations. To discuss your requirements, please contact your nearest Vaillant Key Account Manager. Telephone: **0345 602 0262**

Technical Enquiries

For technical assistance:
Telephone: **0344 693 3133**
Email: technical@vaillant.co.uk

Spares Enquiries

Telephone: **01773 596 615**
Option 1: Vaillant stock availability
Option 2: If you require a part number

Vaillant is working in partnership with National Energy Action to reduce fuel poverty.

Vaillant Group UK Ltd.

Nottingham Road, Belper, Derbyshire DE56 1JT
Telephone: 0345 602 2922 www.vaillant.co.uk/specifiers info@vaillant.co.uk



Why Vaillant?

Because social housing is where we're right at home



Vaillant social housing boiler range

Contents

Why Vaillant?	4
Our social housing partners	6
Corporate Social Responsibility	7
How we can support you	10
ecoFIT sustain	12
ecoFIT sustain accessories	18
ecoTEC sustain	19
ecoTEC sustain accessories	25
Flue technical summary	26
Flue solutions	28
Schematics and wiring diagrams	30
Controls	34
Renewables solutions	38
Sustainability	40
Training	42
Contact	43





140 years of innovation

We're part of the Vaillant Group, a global leader in the development of high-efficiency heating and hot water products. Founded in Germany 140 years ago, the Vaillant Group supplies innovative solutions to more than 60 countries all over the world - saving energy, conserving resources and enhancing people's quality of living.

Values you can identify with

As a family-run company with a considerable reputation, we believe in an approach that's both ethical and responsible.

We're truly dedicated to making our products, services and relationships with our customers the very best we can. We think ahead, with one eye always firmly on the future, pioneering, innovating and always ready for the next step. We've long-built our reputation on being a company our customers know they can trust; and, of course, we put those customers at the heart of everything we do.

The Vaillant promise

We aim to be the leading premium brand for sustainable and responsible system solutions and services for heating, hot water and renewables.

"Wandsworth Borough Council have been installing Vaillant boilers for a number of years. Vaillant are our preferred boiler manufacturer due to the fantastic efficiency levels, long lifespan, high performance and great controllability of their products."

Peter Hedges, Heating Manager,
Housing Management Services,
Wandsworth Borough Council



Setting the standards since 1874

At Vaillant, we think ahead. By choosing our heating systems, you choose the pioneering excellence of German design and UK manufacturing expertise, created with the needs of the social housing market firmly in mind.

Over 40 years of experience in social housing

It's not simply about putting a boiler on the wall. With products designed specifically for the social housing market and a range of helpful support, we'll work closely with you to make managing your housing stock easier.

- Our world-class research and development team are committed to developing affordable and sustainable products
- We have a proud history of innovation, creating heating systems to meet future demand - standards that give you greater peace of mind
- Our sustainability strategy is key to our product development. The Vaillant Group combines its sustainability activities into one strategic programme, called S.E.E.D.S. with quantifiable targets in the areas of Sustainability in our Environment, Employees, Development & Products and Society (see pages 40 & 41)
- We invest heavily in our people. Gold Investors in People accredited, we're committed to state-of-the-art training and development at our seven UK regional centres of excellence
- Quality is key here: our products meet ISO 9001, 18001, 14000 and most are Quiet Mark approved, which means that they use innovative and efficient technology that guarantees reduced noise levels

Social housing: where we're right at home

You can rely on Vaillant's expertise in the social housing market to make the most of your heating portfolio.

We work in partnership with registered social providers and local authorities to provide long-term, low maintenance heating solutions. We understand the unique challenges of social housing, drawing on over 40 years of experience to provide solutions that are efficient, cost-effective and future-ready.



"Vaillant have provided our tenants with an improved product and service. We are installing more new Vaillant boilers every year. Reliable product and service to support makes my life a lot easier."

Howard Worwood, Gas Production Supervisor, Severn Vale Housing

"Moat have been installing Vaillant boilers for many years. Vaillant provide reliability, serviceability, best value and efficiencies of their extensive product range."

Jason Amos BSc, Director of Property Services, Moat

"Curo Group specify Vaillant products as our central heating boiler of choice due to the unrivalled quality of the product."

Dean Roberts, Gas Safety Manager, Curo Group

"Southampton City Council have used Vaillant as our preferred boiler for many years. This is down to Vaillant offering us, value for money, reliability and longevity."

Kevin Burke, Gas Technical Services Manager, Southampton City Council

"We have worked very closely with Vaillant for many years and have always

had a strong, reliable and trustworthy relationship. The service and support that we receive has always been of a high standard."

Jane Duckers, Procurement Officer, Wales & West Housing

"The Acis Group have been successfully using Vaillant for years. We specified them on the promise of quality and reduced lifecycle costs. Our repairs section are gradually benefiting from this decision."

James Hamilton, Project Manager, Acis Group

"Liverpool Mutual Homes has a trusted and long-serving partnership with Vaillant. Vaillant offer great professionalism and attention to detail to deliver what is a fantastic result for all concerned."

Chris Bowen, Assistant Development Director, Liverpool Mutual Homes

"Willerby were confident Vaillant would be able to provide cost-effective, energy-efficient heating systems for our homes. The easy installation of the Vaillant ecoTEC range made the whole process straightforward."

Phil Parks, Innovations Technical Sales Manager, Willerby

Helping local communities

Corporate Social Responsibility is right at the heart of Vaillant. We're incredibly proud of our work to benefit charities and local communities in need. Over the past year we've contributed our skills, people and facilities to aid a variety of projects nationally. For 2017 we have chosen to support National Energy Action (NEA) as our main charity.

Supporting National Energy Action (NEA)

Vaillant are a partner of NEA, a national charity seeking to end fuel poverty.

NEA work across England, Wales and Northern Ireland, with their sister charity Energy Action Scotland, to ensure that everyone can afford to live in a warm, dry home. In partnership with central and local government, fuel utilities, housing providers, consumer groups and voluntary organisations, NEA undertake a range of activities to address the causes and treat the symptoms of fuel poverty including;

- Campaigning to ensure that the needs of fuel-poor households are recognised and addressed
- Researching and analysing the causes and extent of fuel poverty and developing policies which will address the problem

- Developing and managing demonstration projects that show innovative ways of tackling fuel poverty
- Providing advice and guidance to installers on good practice in delivering energy efficiency services to low income households
- Developing national qualifications and managing their implementation to improve standards of practical work and quality of energy advice

For every ecoFIT sustain purchase we will be donating £2 to NEA



Derby Homes Normanton Project

Smartening up the streets for a better community



We joined forces with Derby Homes and Derby City Council to tidy up residential streets in Normanton, making a real impact on a community where there's a lack of clean, affordable and safe housing.

Clearing waste, weeding and washing the streets, painting window sills - and even getting local kids involved in planting hanging baskets for their homes - our volunteers helped build relationships with residents whilst giving the local streets a makeover.



South Staffordshire Housing Association

Reducing costs and pollution

We've supported a project to introduce a fleet of electric cars for their staff to use when they visit tenants. The E-cars, which are up to 80% cheaper to run, won't just save on travel costs, they'll also considerably reduce emissions.

The ecoFIT sustain

and ecoTEC sustain

A perfect fit for social housing



Affordable

Reduced total cost of maintenance thanks to easy-to-fit parts for servicing and warranty, combined with premium build quality.

Connected

A range of simple controls including the innovative vSMART™ provide tenants with a high-efficiency heating solution that can be controlled from a smartphone.

Manageable

Connects to the www.vaillant-solutions.co.uk asset management portal, which provides landlords with complete visibility of Vaillant products in every property.



ecoFIT sustain



ecoTEC sustain

More support, lower costs

Working with Vaillant has never been easier. From packages that predict maximum repair costs to technology that helps to reduce your costs, our solutions support you from start to finish.

Reduced total ownership costs

Vaillant products are manufactured here in the UK in our award-winning production facility, where our industry-leading manufacturing processes ensure outstanding quality and reliability. We can also provide cost of ownership models with extensive data analysis so you can see the whole life costing to predict a maximum cost for repairs and spare parts.

The Total Cost of Ownership model is made to your specification and includes boiler type, design life and warranty, and can also include merchant rebate and discounts, as well as labour rates and service costs illustrated with text and graphical data.

It makes ownership simple and straightforward: you benefit from a long-term lower cost of ownership, supported by the best service and warranty operation of any UK heating manufacturer.

To find out more about our Total Cost of Ownership model, please contact your local Key Account Manager. See page 43 for more information.

Easy asset management

The Vaillant Solutions portal makes life simple for social landlords and contractors, allowing you to manage your heating assets online.

View properties, projects, performance and system water test results at a glance online to make managing your heating assets quick and easy. Making sure the system water is clean can reduce the chance of future boiler breakdowns by up to 83%. With Vaillant Solutions, you'll be notified of the results as soon as they're completed.

Find all the information you need in one place, including; registering guarantees, fault code information, creating ErP labels and access to our user guides and spares catalogue.



Visit www.vaillant-solutions.co.uk for more information

“Vaillant Solutions allowed us to become more efficient with our day-to-day repairs, with all our order history stored online by address for easy reference. The Vaillant Solutions water testing facility keeps installation standards at a high level and leads to best practice. So there are no different rules for each department which can cause so many problems.”

Jane Duckers, Procurement Officer, Wales & West Housing

Connected solutions - helping you manage your heating stock

Vaillant have a number of advanced connectivity solutions available now and in the near future. We work with our clients to realise the best solution for their needs. These solutions can reduce costs of service and maintenance by remote monitoring and diagnosis. To find out more please contact your local Key Account Manager.

Spares and support, year after year

We are committed to responsible spares provision and provide spares for a minimum of 15 years after production ceases. We have a nationwide network of genuine spares stockists and a dedicated spare parts team to help you identify the parts you require.

Service you can count on

The quality of our products is matched by the quality and reliability of the Vaillant support and back-up we provide. On those rare occasions where it's needed, the industry's largest dedicated service department is here to help.

With over 200 national service engineers (and additional renewable and commercial engineers) with an outstanding 95% first-time fix rate, Vaillant have the expertise to provide fast, dependable support. You can rely on our next day service, dedicated call centre open 364 days a year, technical helplines and online information.



“Vaillant provide a breakdown service that is second to none... the availability of heating spares is paramount to us and the availability of items has not once been a concern to me.”

Dean Roberts, Gas Safety Manager, Curo Group



ecoFIT sustain boiler range

ecoFIT sustain is Vaillant's ErP 'A' rated boiler range that has been designed for specification in the social housing market with low maintenance in mind, offering a long-term predictable cost of ownership. Its compact, cupboard fit size has the option of rear or top flue, offering flexible siting and market-leading efficiency.

Designed using silicone composite automotive-grade aluminium, the boiler's heat exchanger is a high-quality, high-efficiency component that makes the boiler not only light to install, but also easy to maintain.

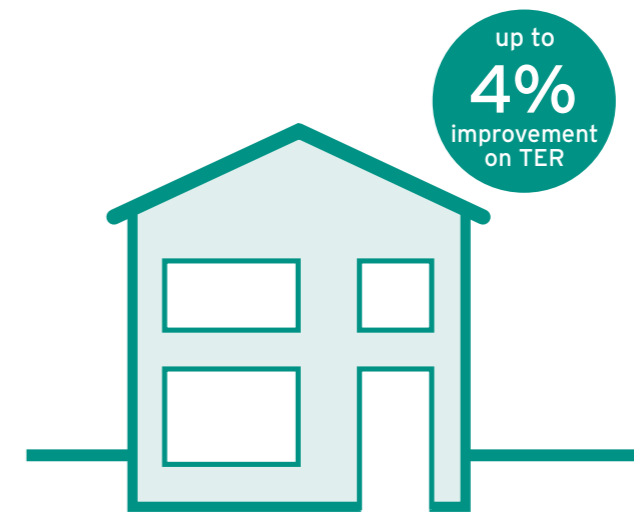
The ecoFIT sustain combination boiler has a wide range of outputs, and where a specification requires a system or regular open vent boiler, Vaillant's ecoFIT pure products can be used. All ecoFIT boilers are compatible with a wide range of Vaillant controls, including the innovative app-based vSMART™ control and wired or wireless room thermostats.



Compact, cupboard fit and flexible with high SAP efficiency

ecoFIT sustain is compact in size, and for the first time in the Vaillant portfolio, a rear flue option can be installed for convenient cupboard fit installs. ecoFIT sustain's highly efficient aluminium heat exchanger delivers a high SAP rating for new builds, ensures compliance with the latest building regulations and most importantly, delivers lower fuel bills for your tenants.

With up to a 4% improvement above the Target Emission Rate (TER) for a typical 100m² property, ecoFIT sustain allows savings on other building materials such as the insulation.



Within the Product Characteristics Database (PCDB) the efficiency of a boiler is detailed under various conditions. The most common value is the SAP annual efficiency. This is the overall efficiency of the product measured across all heating seasons and includes the efficiency of the hot water supply for combination boilers. The summer and winter efficiency show how well the product performs for these specific seasons and the comparative hot water demonstrates how efficiently the product supplies the hot water compared to providing heating for the building.

Product Characteristics Database (PCDB) Category = boiler, mains gas, combi	ecoFIT sustain 25kW	ecoFIT sustain 30kW	ecoFIT sustain 35kW
Article number	0010020392	0010020393	0010020394
PCDB Index number	017958	017959	017960
SAP annual efficiency [% ,Hs]	89.3	89.3	89.3
SAP winter seasonal efficiency [% ,Hs] ❄️	90.2	90.2	90.2
SAP summer efficiency [% ,Hs] ☀️	87.3	87.3	87.3
Comparative hot water efficiency [% ,Hs] 🚰	81.1	78.7	81.5

Aluminium range of combination boilers

The ecoFIT sustain range of combination boilers offers an excellent size-to-output ratio, giving your tenants great comfort whilst ensuring a small footprint. Use of sustainable materials also means the boiler is highly recyclable. The range features 25, 30 and 35kW models to suit all types of tenant properties.

Key features and benefits:





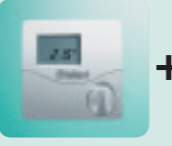

- **Cupboard fit**
Compact size 702mm (H) x 390mm (W) x 295mm (D) offers flexibility of siting including the option to cupboard fit
- **Choice of rear or top flue**
For flexible siting options in a wide variety of properties
- **High SAP performance**
Helps reduce new build costs by up to 4% on TER. Highly efficient and economical to run – up to an 89.3% efficiency rating (SAP 2009)
- **High-quality lightweight aluminium heat exchanger**
Lightweight, compact design offers long life with an excellent power-to-weight ratio to make installs/maintenance easier
- **Heat exchanger includes patented 4-sided cooling**
Increases efficiency and reduces stress to minimise the cost of maintenance over the life of the product
- **Familiar Vaillant diagnostics**
Offers quick and easy maintenance for your maintenance team
- **Patented condensate trap**
Easy install with a safety back-up

- **Fully modulating low NOx burner and fan**
For improved energy efficiency
- **Recognised Grundfos high-efficiency pump**
Modulating high-torque pump uses low energy to deliver a balanced output to meet the boiler demand, helping to reduce energy consumption
- **Built-in two-stage frost protection**
To ensure optimal performance all year round
- **Warm start function**
Provides tenants with instant hot water
- **Modulation range of up to 1:5**
Ensuring low energy consumption and maximum efficiency
- **Clear bright LCD display**
Easy-to-read boiler display wherever it is sited
- **Best-in-class flue length**
Flue lengths up to 10m
- **Controls compatibility**
Compatible with a wide range of Vaillant room thermostats, wired and wireless controls including the vSMART™ app-based control with weather compensation, reducing running costs for tenants
- **Quiet Mark accredited**
Thanks to being ultra-quiet whilst in operation
- **ErP 'A' rated product**
Suitable for both refurbishment and new build with lower running costs to reduce tenant heating bills

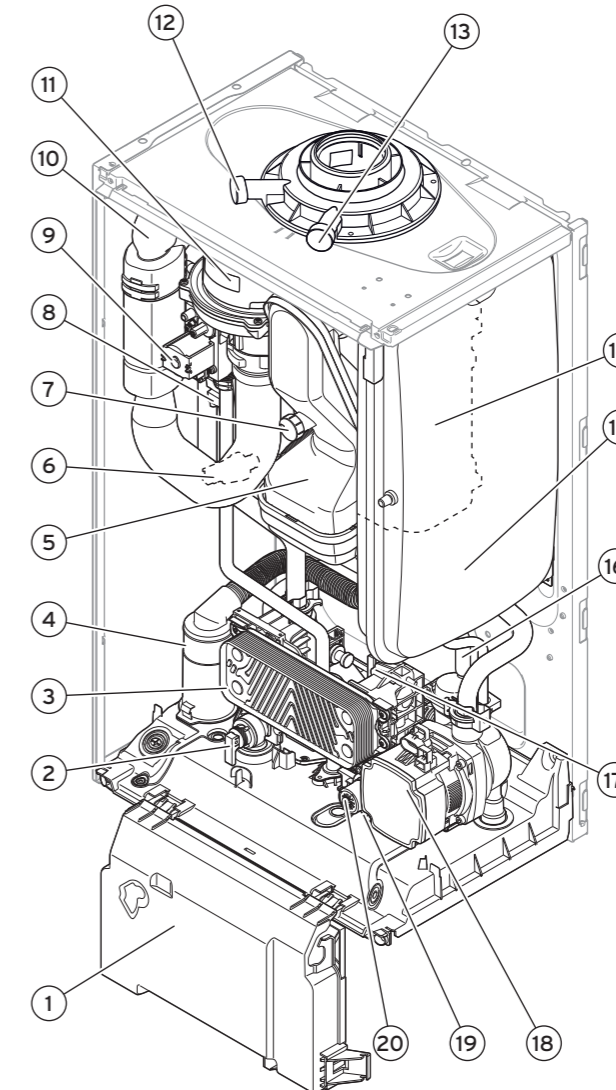


Vaillant controls designed to help maximise your system to its full potential. For full details of our range of compatible controls please see pages 34-37.

Heating controls:

			+			+	
vSMART™	VRT 350 VRT 350f	VRT 15		timeSWITCH 160	VRT 50		timeSWITCH 150
App controlled, programmable room thermostat	Wall mounted, programmable room thermostat (with wireless option)	230v analogue room thermostat		Fascia mounted 2 channel timer	Intelligent digital room thermostat		Fascia mounted analogue timer

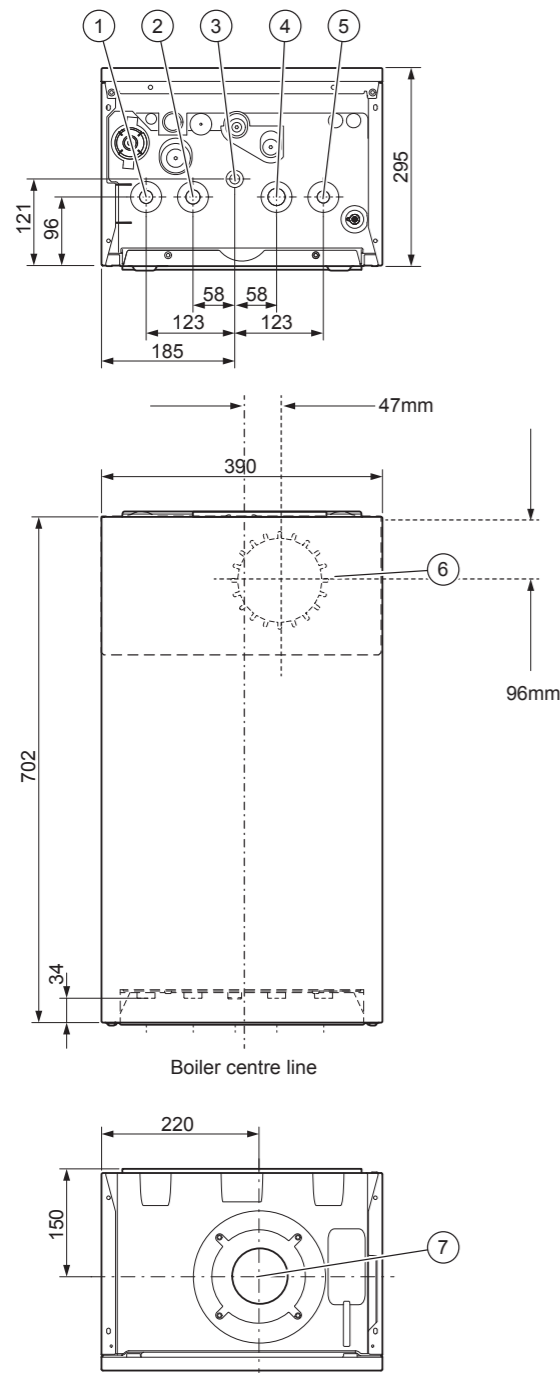
Combination boilers – ecoFIT sustain 25kW / 30kW / 35kW



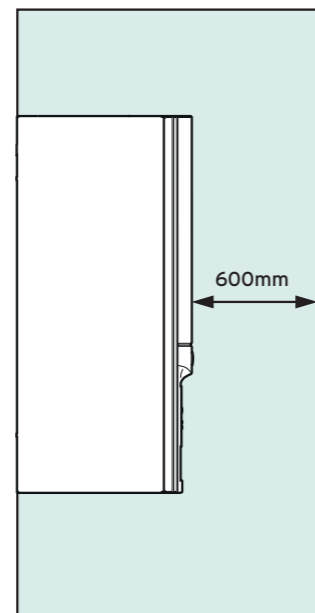
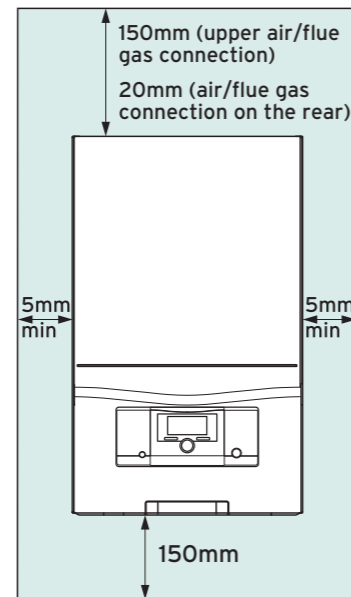
Key

- | | |
|---|--|
| 1. Electronics box | 12. Supply air measuring stub pipe (for upper flue gas connection) |
| 2. Heating circuit expansion relief valve | 13. Flue gas analysis point (for upper flue gas connection) |
| 3. Plate heat exchanger | 14. Primary heat exchanger |
| 4. Condensate trap | 15. Heating expansion vessel |
| 5. Flue gas pipe | 16. Purge hose |
| 6. Pressure sensor | 17. Volume flow sensor |
| 7. Flue gas analysis point (for rear flue gas connection) | 18. Heating pump |
| 8. Ignition transformer | 19. Bypass |
| 9. Gas valve | 20. Diverter valve |
| 10. Air intake pipe | |
| 11. Fan | |

Dimensions



Minimum clearances







600mm clearance in front of the heat generator to enable easy access for maintenance work (the same as a door opening)

Key

1. Heating flow
2. Hot water connection
3. Gas connection
4. Cold water connection
5. Heating return
6. Connection on the back of the air/flue pipe
7. Connection on the top of the air/flue pipe

Technical data	Unit of measure	ecoFIT sustain 25	ecoFIT sustain 30	ecoFIT sustain 35
General				
Boiler type		combi	combi	combi
Model output		25kW	30kW	35kW
Article number		0010020392	0010020393	0010020394
Boiler dimensions (HxWxD)	mm	702 x 390 x 295	702 x 390 x 295	702 x 390 x 295
Gas Council number		47-044-71	47-044-72	47-044-73
Flue options		Rear and top flue	Rear and top flue	Rear and top flue
Heating				
Nominal heat output range at 50/30°C (condensing mode)	kW	5.3 - 19.1	6.5 - 19.1	7.5 - 19.1
Nominal heat output range at 80/60°C (non-condensing mode)	kW	5.1 - 18.3	6.1 - 18.3	7.2 - 18.3
Maximum flow temperature	°C	80	80	80
Flow temperature range	°C	10 - 80	10 - 80	10 - 80
Flow temperature factory setting	°C	75	75	75
Approximate condensate volume at 50/30°C	litres/hr	1.84	1.84	1.84
Modulation (maximum/minimum)	1 : X	1 : 5	1 : 5	1 : 5
Domestic hot water				
Maximum heat output for water generation	kW	25.7	30.6	35.7
Lowest water pressure to operate boiler	bar	0.3	0.3	0.3
Lowest water flow for operation	l/min	1.9	1.9	1.9
Lowest water pressure for maximum flow rate	bar	1	1	1
Domestic hot water flow rate (at DT = Δ 35K)	l/min	10.4	12.2	14.2
Hot water output temperature range	°C	35 - 60	35 - 60	35 - 60
Mechanical				
Expansion vessel size	litres	8	8	8
Gas inlet connection (pipe size)	mm	15	15	15
Heating flow and return connections (pipe size)	mm	22	22	22
Hot and cold water connections (pipe size)	mm	15	15	15
Heat exchanger material	Stainless/Aluminium	Aluminium	Aluminium	Aluminium
Boiler lift weight (dry boiler)	kg	32	33	33
Maximum horizontal flue length 60/100	m	10	10	10
Permissible flue classifications		C13, C33, C43, C53	C13, C33, C43, C53	C13, C33, C43, C53
Performance				
NOx (EN 15502-2-1)	mg/kWh	38.9	38.3	37.2
ErP efficiency (Heating/DHW)	A, A/A, A+	A/A	A/A	A/A
ErP decibel rating (sound power)	dBa	49	49	49
PCDB seasonal efficiency	%	89.3	89.3	89.3

Article number	Description	Image
0020237908	Small - aesthetic pipe cover panel	
0020229924	Small spacing frame	
0020237907	Universal upward piping kit	
0020228140	Telescopic rear flue	

Spares availability

We are committed to responsible spares provision and provide spares for a minimum of 15 years after production ceases. We have a nationwide network of genuine spares stockists and a dedicated spare parts team to help you identify the parts you require.



ecoTEC sustain boiler range

ecoTEC sustain is a new generation of boiler, designed for specification in the social housing market with ease of use, longevity and low maintenance in mind.

The ecoTEC sustain has the same footprint as Vaillant's ecoTEC pro making it ideal for new installations and retrofit. The range includes a top flue, simple controls and a 34kW output suitable for larger tenant properties.

The complete ecoTEC sustain range of combination boilers includes 24, 28 and 34kW models to suit all types of social housing properties and is supplied complete with a fittings pack.

Simple to use and competitively priced




Vaillant has developed the ecoTEC sustain using its market-leading experience to meet the needs of customers who require a competitively priced option.

ecoTEC sustain has removable side panels and a push-fit flue system designed for easy access to all major components to make installation and maintenance quick and simple. Its widely proven stainless steel heat exchanger is designed for long life.

A large, easy-to-read illuminated LED display with simple control interface makes it easy to operate wherever it is sited and a new, uniquely designed condensate trap with a safety back-up make it straightforward to install. ecoTEC sustain is also compatible with current Vaillant flue components.

ecoTEC sustain's highly efficient stainless steel heat exchanger delivers a high SAP rating for new builds, ensures compliance with the latest building regulations and most importantly, delivers lower fuel bills for your tenants.

Within the Product Characteristics Database (PCDB), the efficiency of a boiler is detailed under various conditions. The most common value is the SAP annual efficiency. This is the overall efficiency of the product measured across all heating seasons and includes the efficiency of the hot water supply for combination boilers. The summer and winter efficiency show how well the product performs for these specific seasons and the comparative hot water demonstrates how efficient the product is between supplying the hot water compared to providing heating for the building.

Product Characteristics Database (PCDB) Category = boiler, mains gas, combi	ecoTEC sustain 24kW	ecoTEC sustain 28kW	ecoTEC sustain 34kW
Article number	0010019980	0010019981	0010019982
PCDB Index number	18118	18119	18120
SAP annual efficiency [%Hs]	89.2	89.1	85.2
SAP winter seasonal efficiency [%Hs] 	90.1	90.0	90.1
SAP summer efficiency [%Hs] 	80.0	79.9	80.0
Comparative hot water efficiency [%Hs] 	62.5	62.4	62.5

Stainless steel range of combination boilers

The ecoTEC sustain range of combination boilers feature a high-quality stainless steel heat exchanger, designed with front access for ease of service, resulting in less time and money spent on repairs and ensuring your tenants' peace of mind.

The range features 24, 28 and 34kW models to suit all types of tenant properties.

Key features and benefits:

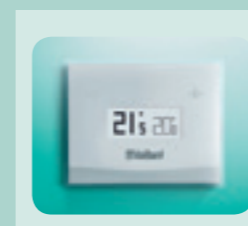
- **Compact dimensions:**
720mm (H) x 440mm (W) x 338mm (D)
For flexible siting options (ecoTEC sustain is the same size as ecoTEC pro)
- **High-quality heat exchanger**
Stainless steel heat exchanger designed for long life and easy maintenance
- **Removable side panels and push-fit flue system**
For improved accessibility and ease of installation
- **Modulating low NOx burner and fan**
Lower emissions fulfil social housing green credentials
- **Recognised Grundfos high-efficiency pump**
Modulating high-torque pump uses low energy to deliver a balanced output to meet the boiler demand, helping to reduce energy consumption
- **Patented condensate trap**
Easy install with a safety back-up

- **Large illuminated blue on black LED display**
Easy-to-read boiler display wherever it is sited with simple fault code identifications
- **Compatible with aroTHERM air-to-water heat pump hybrid system**
Making the perfect entry into renewable systems
- **Familiar footprint and flue position**
Makes replacing an existing ecoTEC pro with an ecoFIT sustain quicker and easier; compatible with all existing Vaillant flue components
- **Controls compatibility**
Compatible with a wide range of Vaillant room thermostats, wired and wireless controls including the vSMART™ app-based control with weather compensation, reducing running costs for tenants
- **ErP 'A' rated product**
Suitable for both refurbishment and new build with lower running costs to reduce tenant heating bills



Vaillant controls designed to help maximise your system to its full potential. For full details of our range of compatible controls please see pages 34-37.

Heating controls:



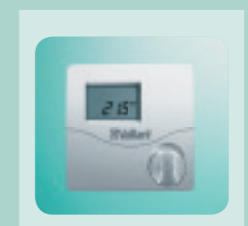
vSMART™

App controlled, programmable room thermostat



VRT 350

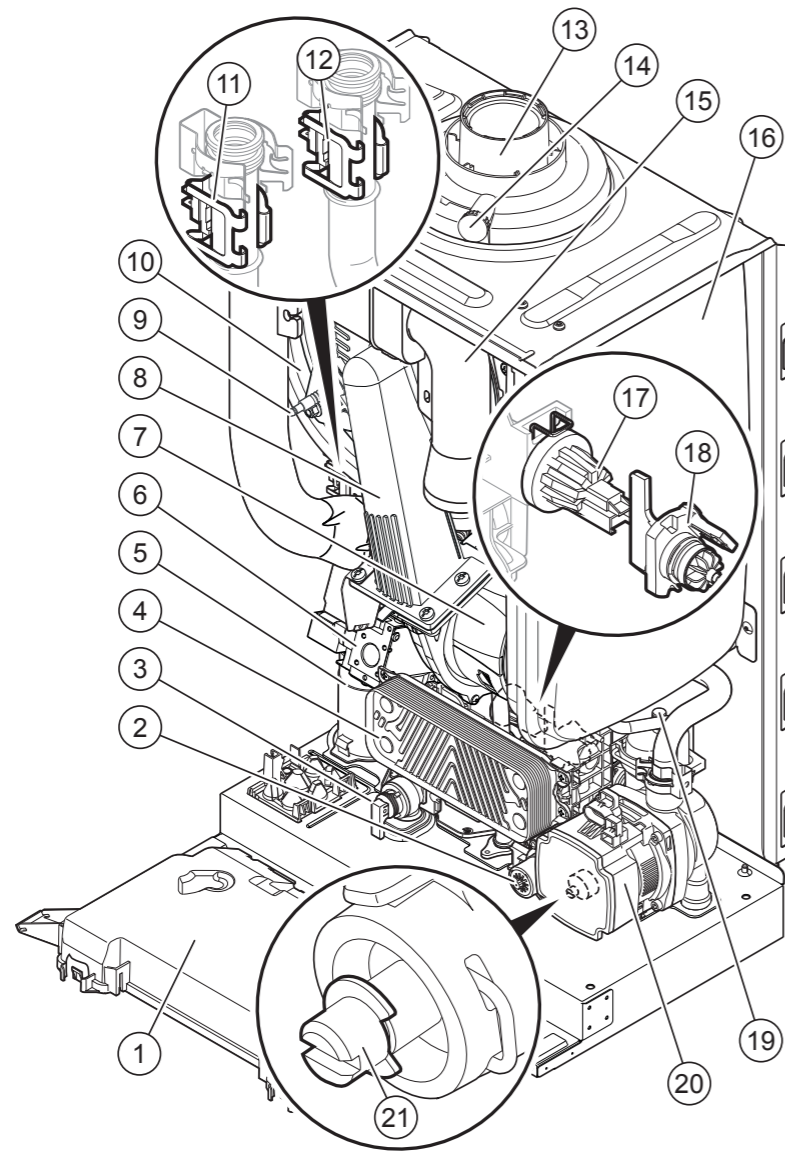
Wall mounted, programmable room thermostat



VRT 50

Intelligent digital room thermostat

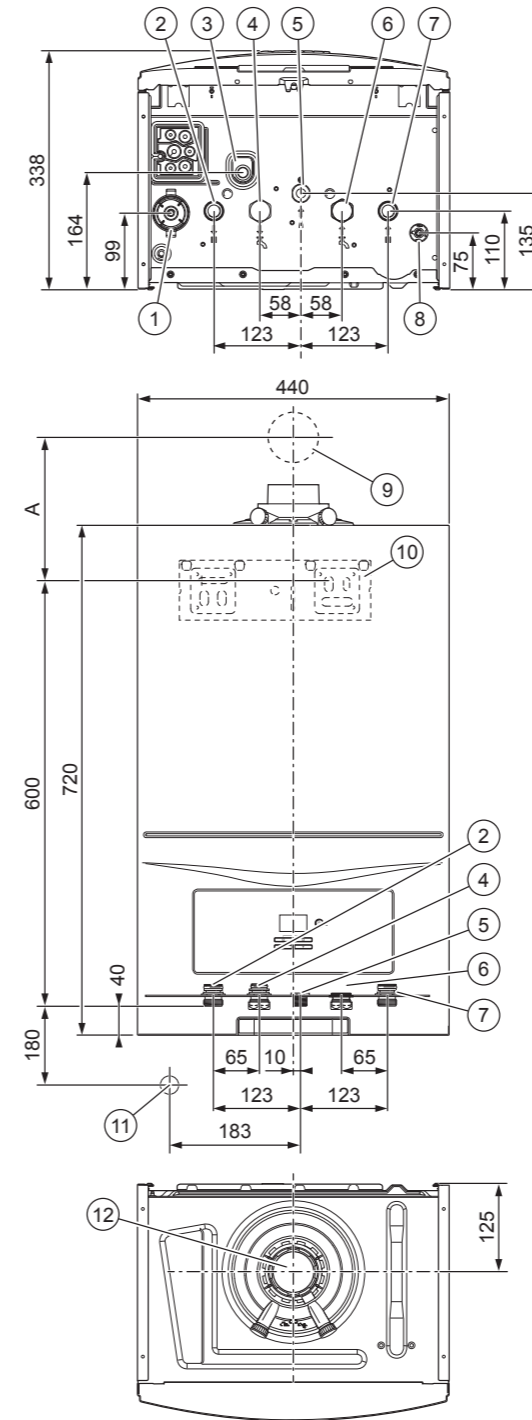
Combination boilers - ecoTEC sustain 24kW / 28kW / 34kW



Key

- | | |
|--|--|
| 1. Electronics box | 12. Temperature sensor in the heating return |
| 2. Diverter valve | 13. Connection for the flue pipe |
| 3. Expansion relief valve | 14. Flue gas measuring stub pipe |
| 4. Plate heat exchanger | 15. Air intake pipe |
| 5. Condensate siphon | 16. Expansion vessel |
| 6. Gas valve | 17. Pressure sensor |
| 7. Fan | 18. Impeller sensor (hot water) |
| 8. Compact thermal module | 19. Automatic air vent |
| 9. Ionisation and ignition electrode | 20. Heating pump |
| 10. Primary heat exchanger | 21. Bypass |
| 11. Temperature sensor in the heating flow | |

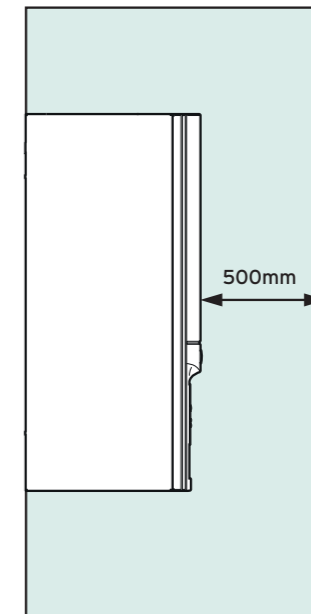
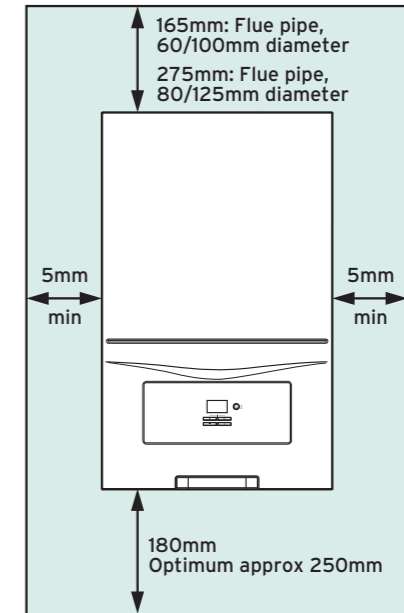
Dimensions



Key



- | | |
|--|----------------------------------|
| 1. Condensate siphon (condensate discharge connection, 21.5mm diameter) | 6. Cold water connection |
| 2. Heating flow connection | 7. Heating return connection |
| 3. Heating expansion relief valve drain pipework connection, 15mm diameter | 8. Drain cock |
| 4. Hot water connection | 9. Flue pipe wall duct |
| 5. Gas connection | 10. Mounting bracket |
| | 11. Condensate siphon connection |
| | 12. Flue pipe connection |

Minimum clearances



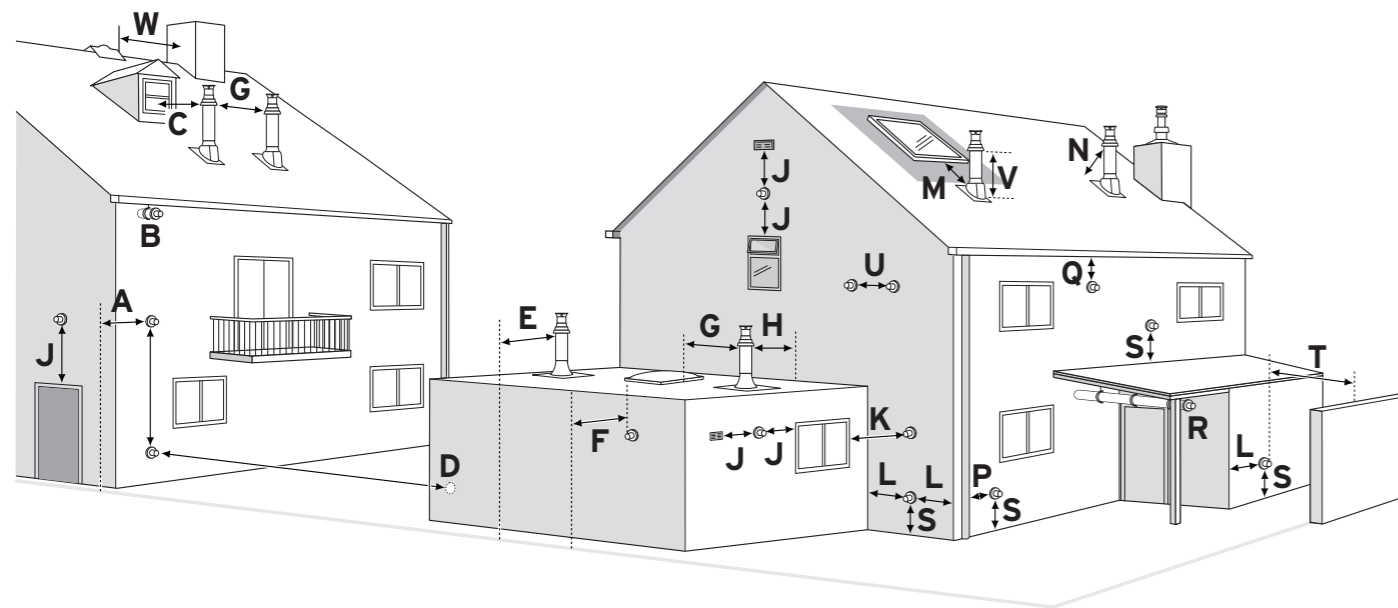
500mm clearance in front of the heat generator to enable easy access for maintenance work (the same as a door opening)

Technical data	Unit of measure	ecoTEC sustain 24	ecoTEC sustain 28	ecoTEC sustain 34
General				
Boiler type		combi	combi	combi
Model output		24kW	28kW	34kW
Article number		0010019980	0010019981	0010019982
Gas Council number		47-044-79	47-044-80	47-044-81
Boiler dimensions (HxWxD)	mm	720 x 440 x 338	720 x 440 x 338	720 x 440 x 338
Flue options		Top flue only	Top flue only	Top flue only
Heating				
Nominal heat output range at 50/30 °C (condensing mode)	kW	7.0 - 20.1	8.0 - 20.1	9.1 - 19.9
Nominal heat output range at 80/60 °C (non-condensing mode)	kW	6.4 - 18.5	7.4 - 18.5	8.4 - 18.5
Maximum flow temperature	°C	80	80	80
Flow temperature range	°C	30 - 80	30 - 80	30 - 80
Flow temperature factory setting	°C	75	75	75
Approximate condensate volume at 50/30 °C	litres/hr	1.87	1.87	1.87
Modulation (maximum/minimum)	1 : X	1 : 3.8	1 : 3.8	1 : 4
Domestic hot water				
Maximum heat output for water generation	kW	24.3	28.1	34.0
Lowest water pressure to operate boiler	bar	0.3	0.3	0.3
Lowest water flow for operation	l/min	1.7	1.7	1.7
Lowest water pressure for maximum flow rate	bar	0.8	0.8	0.8
Domestic hot water flow rate (at DT = Δ 35K)	l/min	9.9	11.6	14.1
Hot water output temperature range	°C	35 - 60	35 - 60	35 - 60
Mechanical				
Expansion vessel size	litres	8	8	8
Gas inlet connection (pipe size)	mm	15	15	15
Heating flow and return connections (pipe size)	mm	22	22	22
Hot and cold water connections (pipe size)	mm	15	15	15
Heat exchanger material	Stainless/ Aluminium	Stainless Steel	Stainless Steel	Stainless Steel
Boiler lift weight (dry boiler)	kg	31.8	31.8	33.8
Maximum horizontal flue length 60/100	m	9	9	6
Permissible flue classifications		C13, C33, C43, C53	C13, C33, C43, C53	C13, C33, C43, C53
Performance				
NOx (EN 15502-2-1)	mg/kWh	32.8	34.2	31.1
ErP efficiency (Heating/DHW)	A, A/A, A+	A/A	A/A	A/A
ErP decibel rating (sound power)	dBa	49	48	43
PCDB seasonal efficiency	%	89.2	89.1	89.2

Article number	Description	Image
002370109	Security fixing bracket	
308650	Distance frame	

Spares availability

We are committed to responsible spares provision and provide spares for a minimum of 15 years after production ceases. We have a nationwide network of genuine spares stockists and a dedicated spare parts team to help you identify the parts you require.



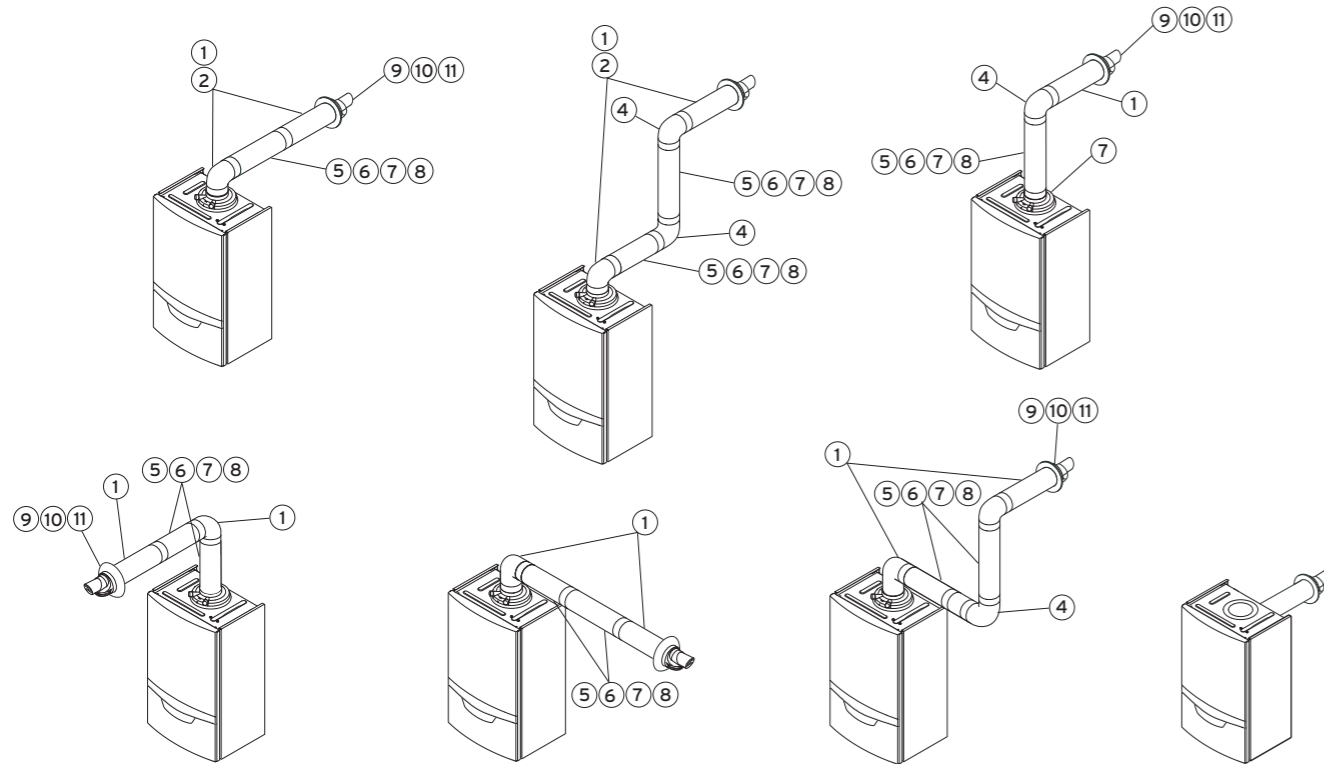
Please see relevant flue manuals for exact flue lengths required for each model.

A	300mm adjacent to a boundary.
B	The dimension below eaves, balconies and car ports can be reduced to 25mm, as long as the flue terminal is extended to clear any overhang. External flue joints must be sealed with a suitable silicon sealant.
C	1500mm between a vertical flue terminal and a window or dormer window.
D	1200mm between terminals facing each other.
E	Vertical flue clearance, 300mm adjacent to a boundary line.
F	600mm distance to a boundary line, unless it will cause a nuisance. BS 5440: Part 1 recommends that care is taken when siting terminal in relation to boundary lines.
G	300mm minimum clearance from a skylight to a vertical flue or to another vertical flue.
H	Vertical flue clearance, 500mm to non-combustible building material, and 1500mm clearance to combustible building material.
J	300mm above, below and either side of an opening door, air vent or opening window.
K	600mm diagonally to an opening door, air vent or opening window.
L	300mm to an internal or external corner.
M	2000mm below a Velux window, 600mm above or to either side of the Velux window.
N	400mm from a pitched roof or 500mm in regions with heavy snowfall.
P	25mm from vertical drain pipes and soil pipes.
Q	200mm below eaves and 75mm below gutters, pipe and drains.

R	The dimension below eaves, balconies and car ports can be reduced to 25mm, as long as the flue terminal is extended to clear any overhang. External flue joints must be sealed with suitable silicon sealant.
S	300mm above adjacent ground or balcony or storm porch.
T	600mm distance to a surface facing a terminal, unless it will cause a nuisance. BS 5440: Part 1 recommends that care is taken when siting terminals in relation to surfaces facing a terminal.
U	300mm clearance alongside another terminal.
V	300mm above roof.
W	300mm from a vertical structure on the roof.

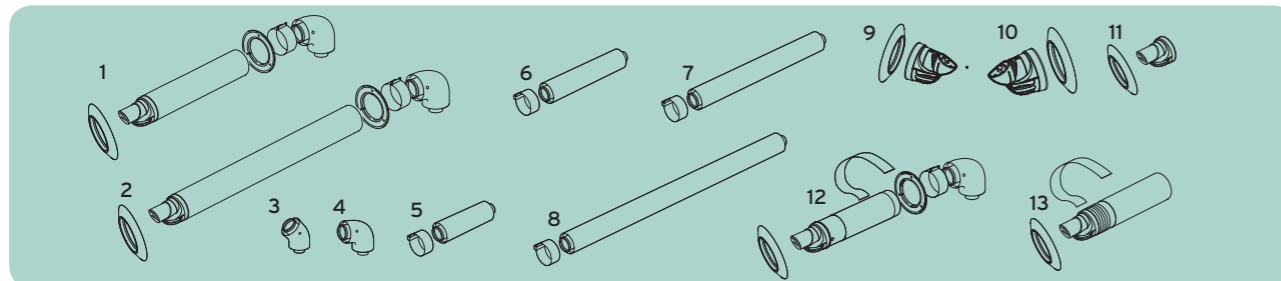
- All measurements are the minimum clearances required
- Terminals must be positioned so as to avoid combustion products entering the building
- Support the flue at approximately one metre intervals and at a change of direction, use suitable brackets and fixings
- Installations in car ports are not recommended
- A flue outlet should be protected with a guard if people could come into contact with it or if it could be damaged
- The flue cannot be lower than 1 metre from the top of a light well due to the build up of combustion products
- Dimensions from a flue terminal to a fanned air inlet to be determined by the ventilation equipment manufacturer

Horizontal flue configurations (Please note rear flue configurations are applicable to ecoFIT sustain only)



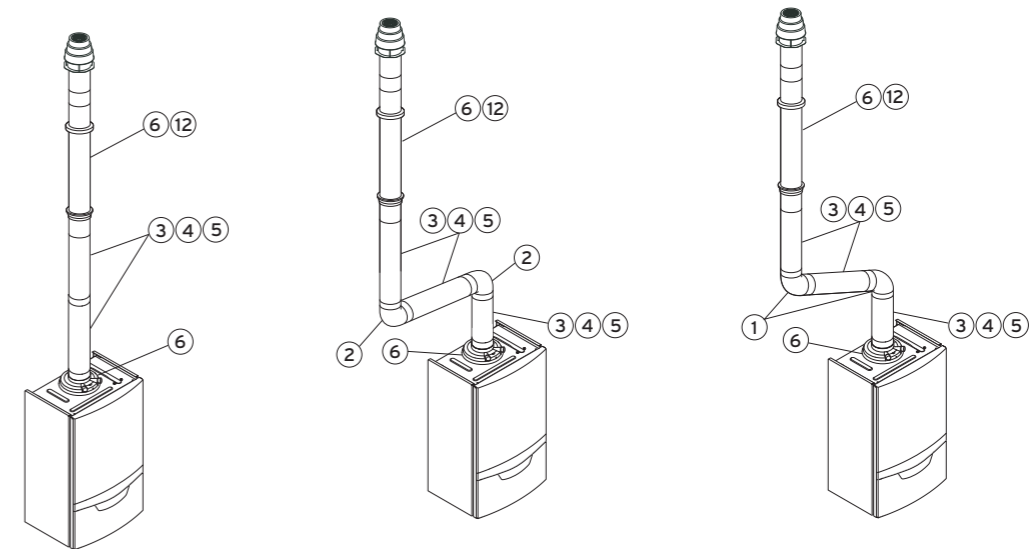
Horizontal flue accessories

See manual for flue lengths.



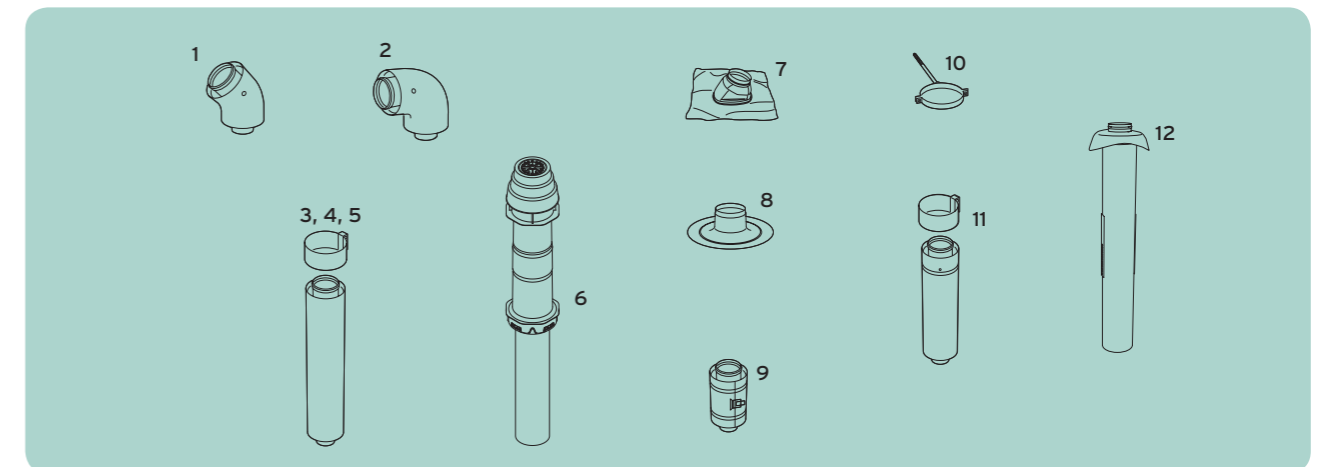
Component	Description	Part Number Ø60/100	Part Number Ø80/125
1	Standard horizontal air/flue duct with elbow and terminal	0020219517	303209
2	Horizontal air/flue duct with elbow and terminal 1770mm	0020219519	N/A
3	Bends 45° (pack of 2)	303911	303211
4	Elbow 87°	303910	303210
5	Air/flue duct extension (470mm)	303902	303202
6	Air/flue duct extension (970mm)	303903	303203
7	Air/flue duct extension (1970mm)	303905	303205
8	Air/flue duct extension (4000mm)	0020138174	N/A
9	Plume deflector horizontal (black)	0020219533	N/A
10	Plume deflector horizontal (white)	0020219534	N/A
11	Black terminal kit for horizontal air/flue duct	0020219537	N/A
12	Horizontal telescopic air/flue duct with elbow and terminal	0020219518	N/A
13	Rear flue (black)	0020228140	N/A

Vertical flue configurations



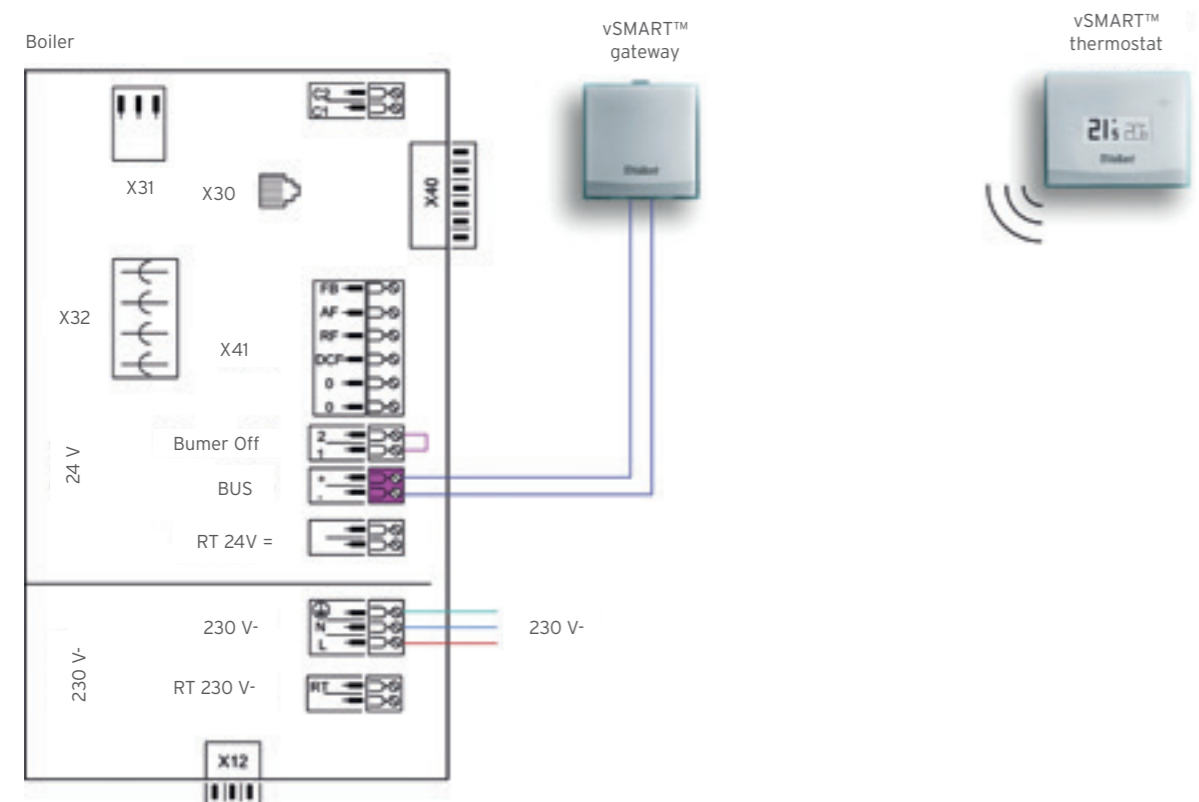
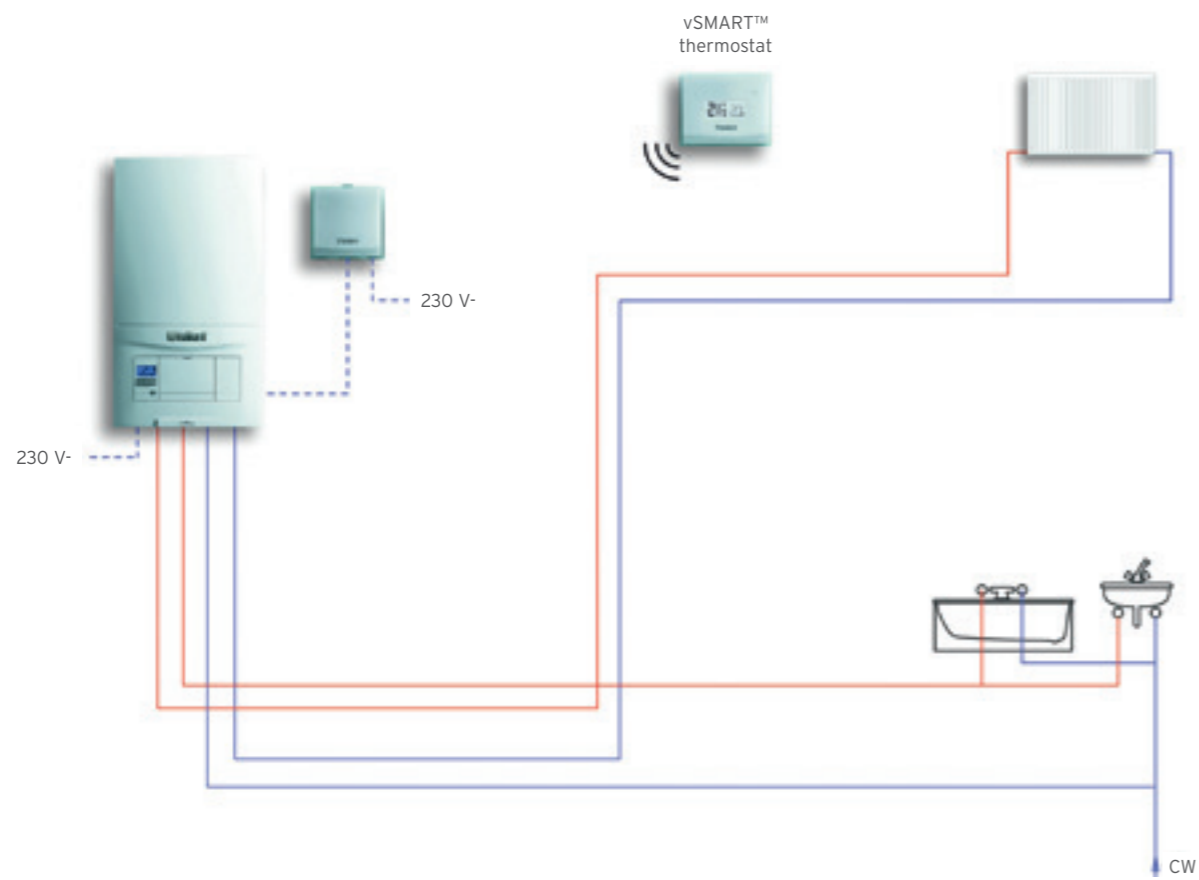
The overall maximum flue length must not be exceeded. Horizontal sections must have a continuous fall of at least 2.5° (44mm/metre) back to the boiler.

Vertical flue accessories

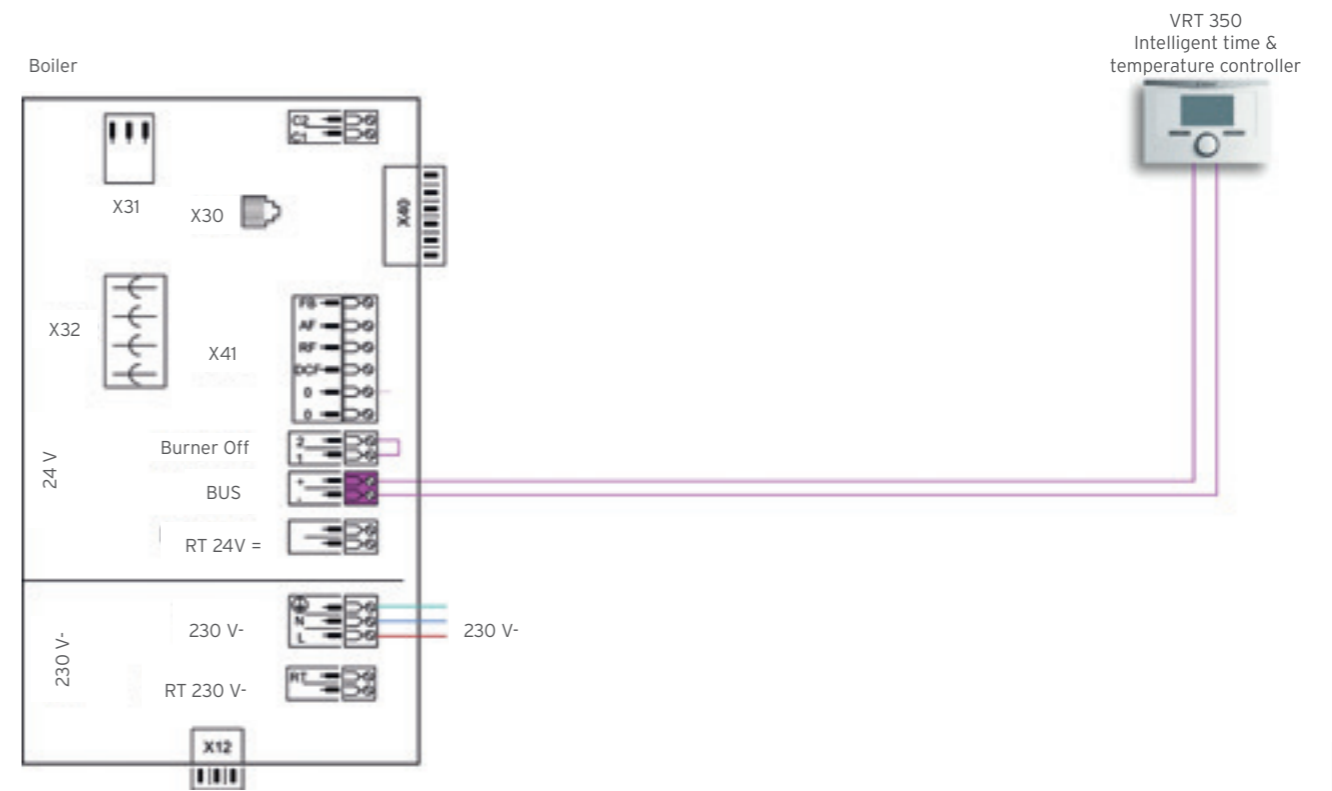
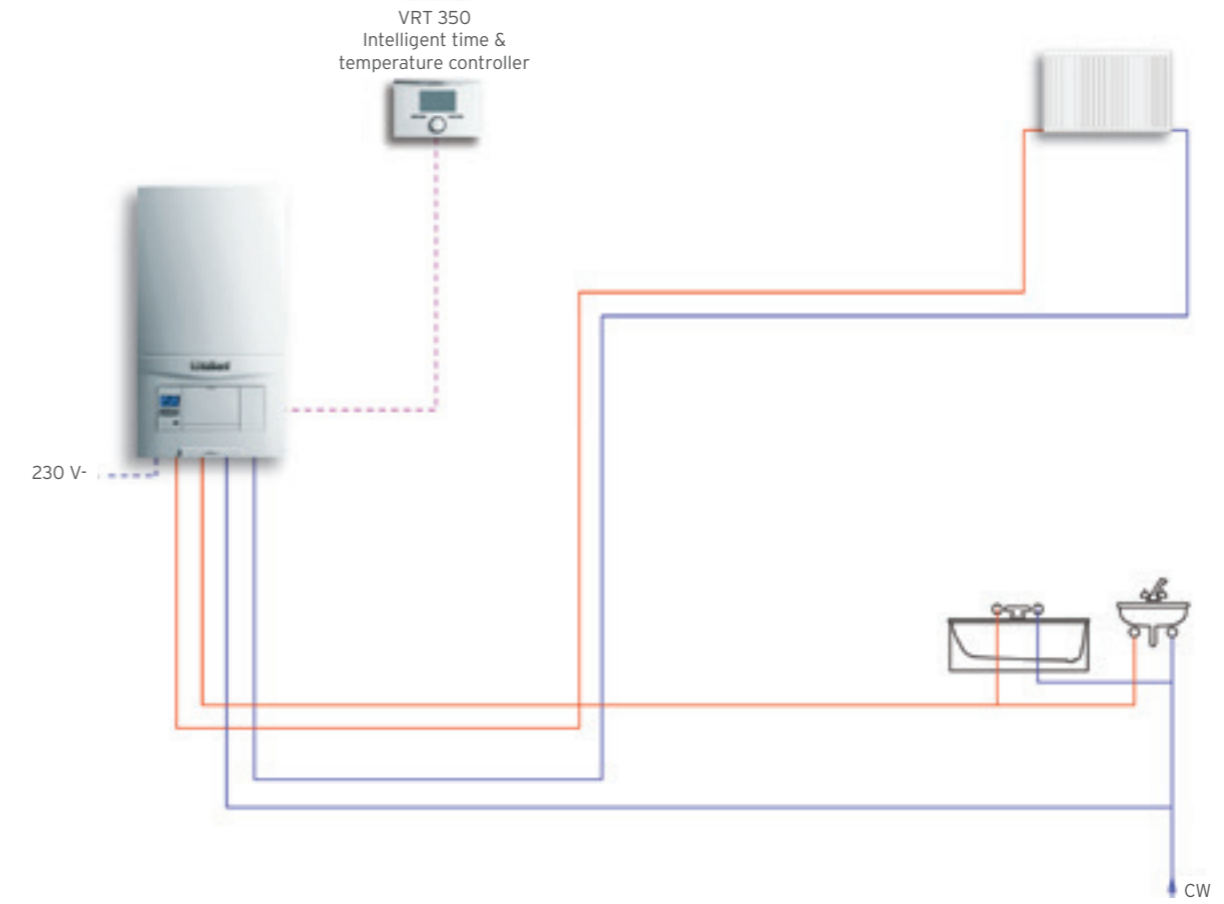


Component	Description	Part Number Ø60/100	Part Number Ø80/125
1	Bends 45° (pack of 2)	303911	303211
2	Elbow 87°	303910	303210
3	Air/flue duct extension (470mm)	303902	303202
4	Air/flue duct extension (970mm)	303903	303203
5	Air/flue duct extension (1970mm)	303905	303205
6	Vertical air/flue duct and terminal	0020223472	303200
7	Flexible roof seal	303980	303980
8	Flat roof penetration collar	009056	009056
9	Sliding sleeve	303915	303215
10	Adjustable flue support (pack of 3)	303935	303616
11	Telescopic air/flue duct extension	303906	N/A
12	Flue terminal for ridge tile	303982	N/A

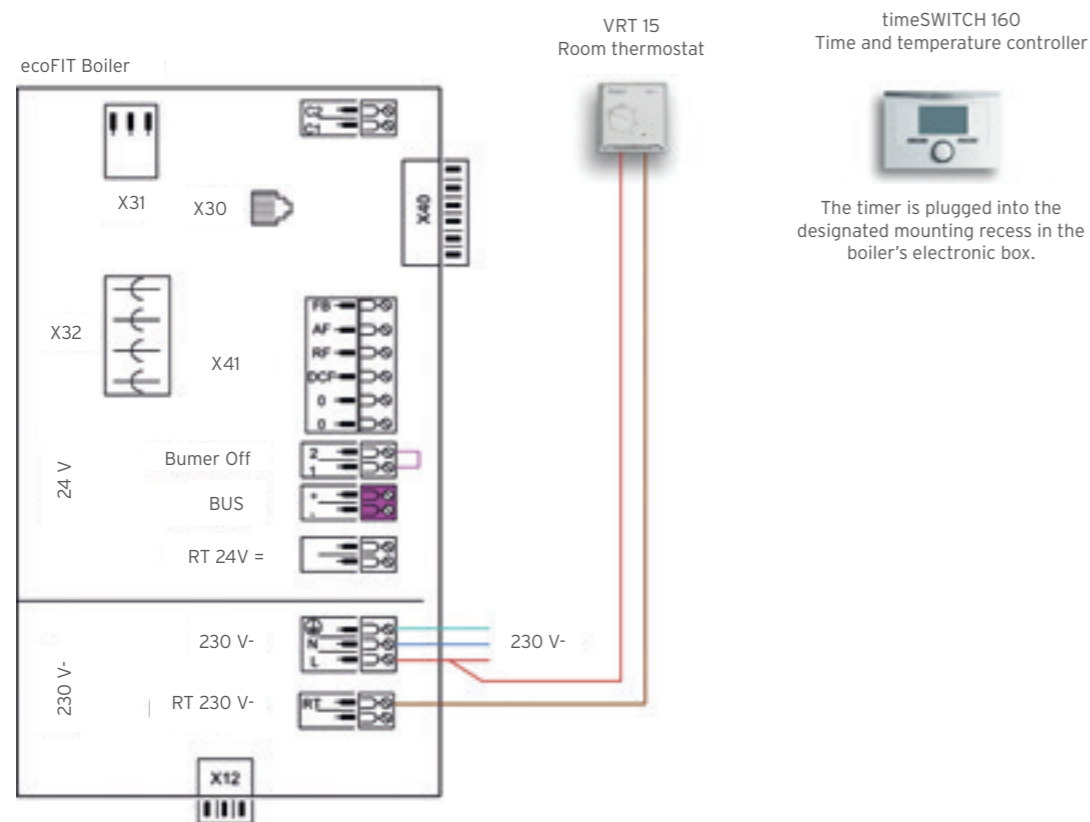
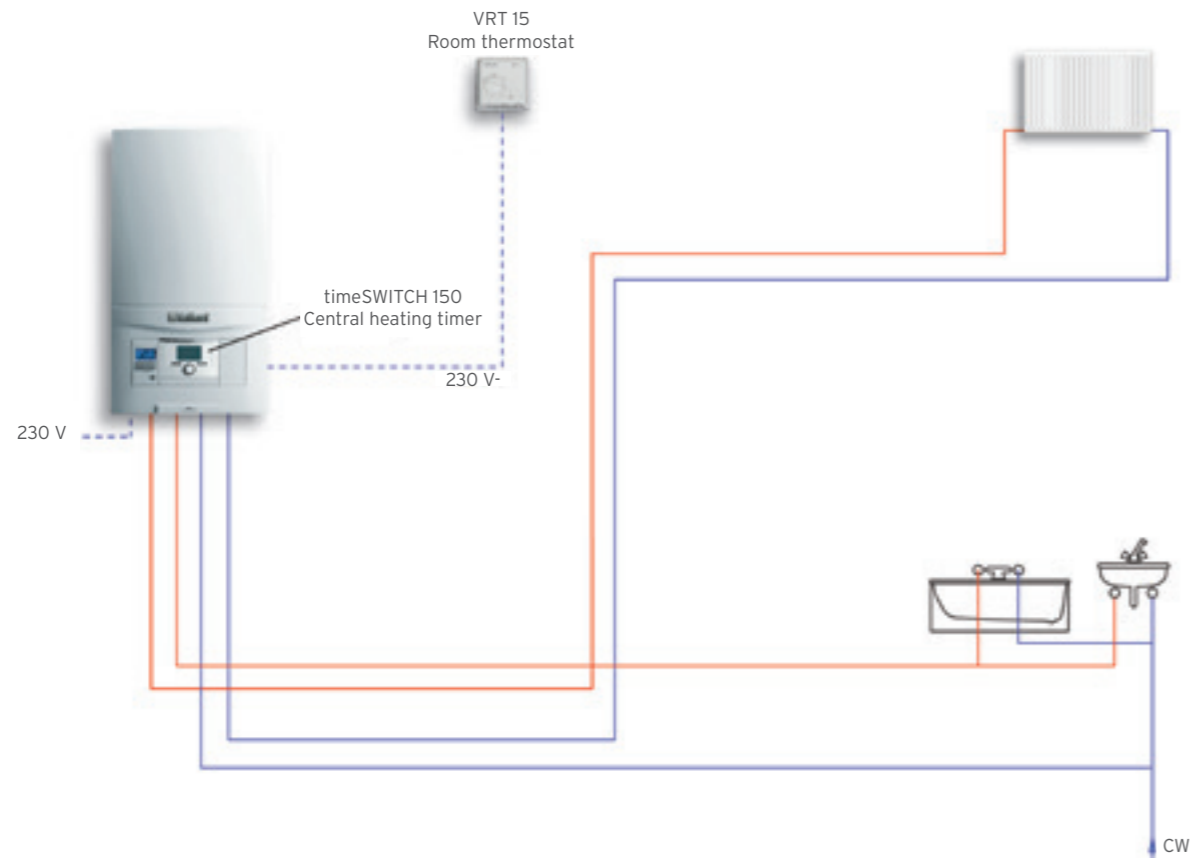
ecoFIT sustain or ecoTEC sustain boiler fitted with vSMART™ app controlled programmable room thermostat



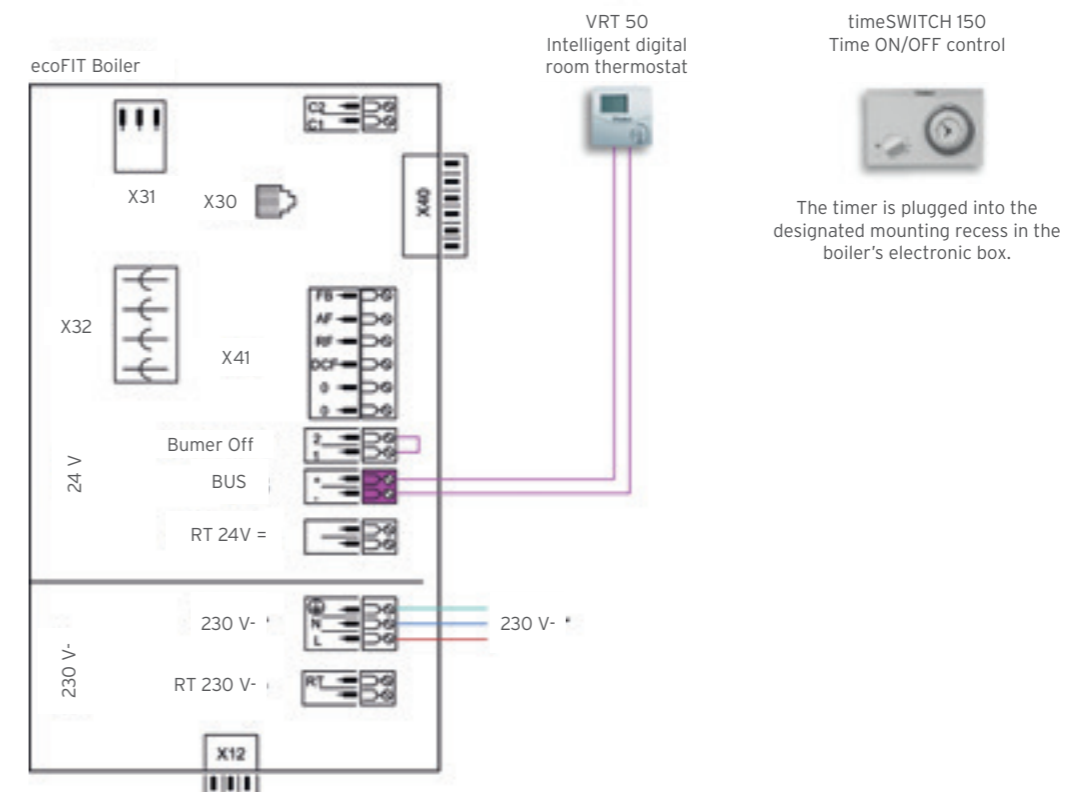
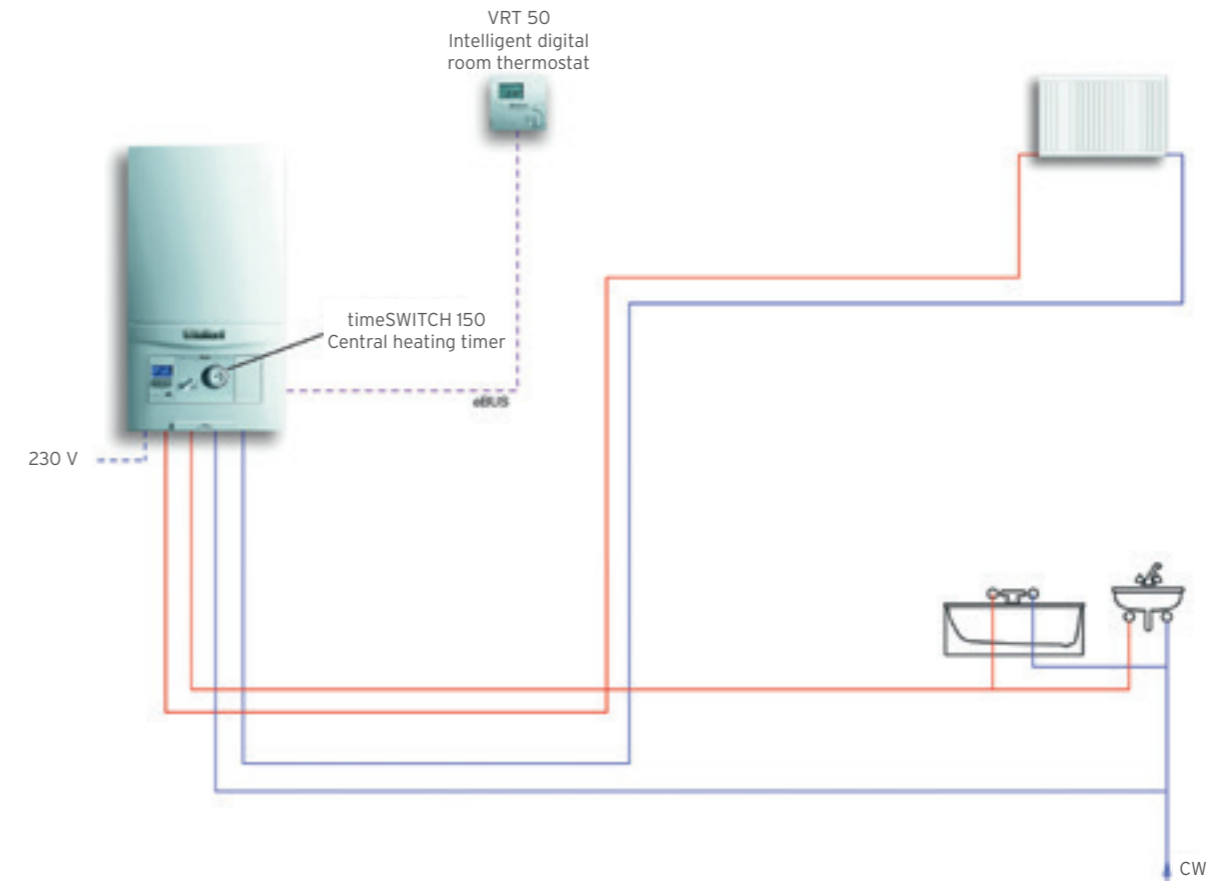
ecoFIT sustain or ecoTEC sustain boiler fitted with VRT 350 programmable room thermostat



ecoFIT sustain boiler fitted with VRT 15 and timeSWITCH 160



ecoFIT sustain boiler fitted with VRT 50 digital room thermostat and timeSWITCH 150



Other wiring diagrams and schematics are available on request from your Key Account Manager. See details on page 43.

(Please note rear flue configurations are applicable to ecoFIT sustain only)

Controls

Central heating and hot water controls are a simple addition that bring higher efficiencies and can offer connected solutions, providing a comfortable living environment whilst helping to minimise tenants' fuel costs. Designed to work harmoniously with all Vaillant boilers, our range of controls ensures your tenants' heating and hot water systems are working at peak performance whilst maintaining optimum efficiency.

Our ecoFIT and ecoTEC boiler ranges and smart controllers speak to each other in the same Vaillant language (eBUS) to get the most out of your tenants' Vaillant system.

vSMART™

vSMART™ is a single zone, wireless heating and hot water internet-based control and smartphone app, giving your tenant the ability to take control of their heating from anywhere, at any time.

• Self-learning

From the moment vSMART™ is installed, it begins to learn the thermal behaviour of the tenant's home and selects the best profile for their heating and hot water needs

• Internet weather compensation

Optimises system flow temperatures based on weather conditions



- **Multiple personalised usage profiles**
Profiles can be added to provide a completely tailored heating and hot water system
- **Boiler modulation**
eBUS connection fully modulates the boiler to ensure peak performance
- **No connection, no problem**
Room thermostat is always ready to adjust the room temperature, whilst vSMART™ will continue to control the system from its memory with or without an internet connection
- **High ErP performance**
ErP class VI control increases system efficiency by 4%
- **Android and Apple iOS Application**
App allows remote control of heating and hot water on the move, from anywhere
- **Easy-to-read display**
'Electronic paper' technology display offers crystal clear information and only uses power when the display is being refreshed
- **Holiday function**
Ensures the heating is off whilst the tenant is away, and back on for when they return
- **Service, maintenance and fault indicator**
Appliance service, low water pressure, fault and maintenance indicators are displayed in the vSMART™ app
- **Safe and secure**
vSMART™ is fully VDE Smart Home Security approved
- **Mounting options**
Option to wall mount or use freestanding (stand included with control)



VRT 350 and 350f



VRT 350 / 350f

A programmable room thermostat available in wired (VRT 350) and wireless (VRT 350f) options, which offers flexible time programs, including three heating periods that can be set for 7 days, weekdays/weekends or daily schedules.

• Ease of installation

The VRT 350 requires a simple, two-core low voltage wired connection. The VRT 350f receiver discreetly plugs into the fascia of the ecoFIT boiler - no wiring required. For the ecoTEC sustain boiler, the receiver plugs into the mounting box (included with control) close to the boiler and is simply wired back to the boiler using two-core low voltage wire

• Delayed start function

Included as standard for improved SAP performance

• Quick mode selection menu

Easily overrides heating schedules without making any changes to existing programs

• Enhanced load compensation

Modulates the output of the Vaillant boiler for increased energy efficiency - adds up to 3% to SAP efficiency rating

• Automatic adjustment

Adjusts heating and hot water to British summer/winter time

• Boiler modulation with eBUS protocol

Stores programs even in the event of a power failure

• Simple menu with clear display

Easy-to-use, simple menu layout for setting heating time programs with low energy consumption

• Holiday function

Ensures the heating is off whilst the tenant is away, and back on for when they return

• Service, maintenance and fault indicator

Important information alerts

For more information about Vaillant's range of controls please visit www.vaillant.co.uk

VRT 15 and timeSWITCH 160

Compatible with ecoFIT sustain only



VRT 15 (used with the timeSWITCH 160)

A single zone control with simple, easy-to-use settings.

- **Ease of installation**
Can be installed using existing cable, with a two-core 230V AC wired connection
- **Simple settings**
Can be adjusted to a wide range of heat settings from 8 - 30°C
- **Easy-to-read display**
A clear mechanical dial sets and displays requested temperature
- **Braille indicator**
Makes the position of 20°C easy to find

timeSWITCH 160 (used with the VRT 15 room temperature control)

A single zone, plug-in timer offers flexible time programs, including three heating time periods that can be set for 7 days, weekdays/weekends or daily schedules.

- **Ease of installation**
Timer plugs directly into the boiler's fascia – no wiring required
- **Quick mode selection menu**
Easily overrides heating schedules without making any changes to your programs
- **Automatic adjustment**
Adjusts heating and hot water to British summer/ winter time
- **Holiday function**
Ensures the heating is off whilst the tenant is away, and back on for when they return
- **Service, maintenance and fault indicator**
Alerts the tenant to important information
- **Easy-to-read display**
High contrast, blue backlit, low energy display provides clear information with simple controls to set heating time programs

VRT 50 and timeSWITCH 150

timeSWITCH 150 compatible with ecoFIT sustain only



VRT 50 (used with the timeSWITCH 150 for ecoFIT sustain and with 3rd party controls for ecoTEC sustain)

A single zone control with simple, easy-to-use settings offering advanced intelligent functionality.

- **Ease of installation**
Simple, two-core low voltage wired connection
- **Enhanced load compensation**
Using enhanced load compensation, the VRT 50 can intelligently reduce the output of the Vaillant boiler for increased energy efficiency whilst maintaining comfort levels
- **Heating and hot water mode on indicator**
Displays flame/tap symbol when the boiler is in heating and hot water modes
- **Simple settings**
Can be adjusted to a wide range of heat settings from 5 - 30°C
- **Boiler modulation with eBUS protocol**
Ensures efficient boiler operation
- **Service, maintenance and fault indicator**
Alerts the tenant to important information
- **Easy-to-read display**
Digital display with 0.5°C temperature intervals

timeSWITCH 150 (used with the VRT 50 room temperature control for ecoFIT sustain only)

A single zone, plug-in 24 hour mechanical timer to time the heating system

- **Ease of installation**
Timer plugs directly into the boiler's fascia – no wiring required
- **Quick mode selection**
Off, constant on and timed
- **Simple settings**
Sliding tappets with a large analogue clock display
- **Manual override function**
Will not adjust the set time programs when switched on/off
- **Flexible programming**
Up to 48 heating on/off times can be programmed (can set time periods as short as 15 minutes)



Refresh your portfolio

Save your tenants money, enjoy long-term benefits with Vaillant renewables.

How can renewables work for you?

Renewable technology offers an alternative heating option to social landlords and provides a sustainable and cost-effective solution for tenants. Renewable technology is already a popular choice for properties that are off-gas and use oil, LPG or coal as a main heating source. Long-term gains can also be realised in properties that have a non-condensing gas boiler installed thanks to hybrid heat pumps that work in harmony with existing heating installations, to reduce overall energy consumption and help generate savings on energy bills.

The renewables portfolio from Vaillant caters for a variety of property types, making them ideal for social landlords – so whether you are managing a series of terraced houses, high-rise apartment blocks or a number of large-scale residential estates, there will be a renewable heating solution to match your needs.

At Vaillant, we understand that your time is precious, which is why we have worked hard to ensure that the

specification and installation process is made as simple as possible. All of our renewable products come with the high-quality and robust design that you would expect from Vaillant products and ongoing maintenance is made straightforward and cost-effective as a result.

All of our heat pumps are recognised independently by the Noise Abatement Society with the “Quiet Mark” accreditation as testament that Vaillant heat pumps are amongst the quietest heat pumps on the market.

Our renewable heating solutions are also eligible for the government’s Renewable Heat Incentive scheme, which provides financial rewards for heat generation by renewable sources. Qualifying Vaillant installations could be eligible for quarterly payments, proportionate to its renewable energy output.

Contact your Key Account Manager to find out more, and start the move to renewable heating for your properties.

flexoTHERM

flexoTHERM heat pumps generate heat from the ground. However, a range of accessories can be utilised to adapt flexoTHERM to draw energy from the outside air or from a water source instead. The flexoTHERM with Green iQ carries the highest energy efficiency label in its class: ErP rating ‘A+++’ when used with the supplied controls. The Green iQ operation mode also helps reduce your customers’ electricity bills.



geoTHERM

geoTHERM heat pumps draw heat directly from the ground to heat the property. With a range of larger output installations available, geoTHERM heat pumps can even be used to heat commercial properties, making them a great investment for multiple occupancy dwellings.



aroTHERM

aroTHERM heat pumps utilise a discreet exterior unit which draws energy from the outside air to generate heat inside the property. The tough design of the aroTHERM casing means it is resistant to vandalism and incorporates anti-corrosive properties. ErP ‘A++’ rated.



uniSTOR

Working in perfect harmony with the Vaillant range of heat pumps, the uniSTOR cylinder range uses state-of-the-art insulation to give the ultimate efficiency and best-in-class heat retention.

Ranging from 150 up to 800 litres, our uniSTOR heat pump cylinders are available in both pre-plumbed (150-300 litres only) and standard options, giving you and your tenants even more flexibility.



The Vaillant Group has combined all its sustainability activities into one strategic programme. Under the name S.E.E.D.S., binding, quantifiable targets have been set in the following fields of focus: Sustainability in our Environment, Employees, Development & Products, and Society. We develop specific measures based on these targets and continuously monitor the results.

Responsibility as a principle

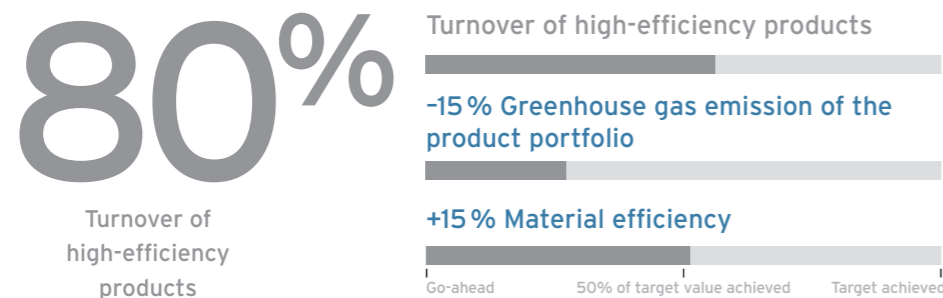
Sustainability

Sustainability is an integral part of our corporate culture and strategy. Our goal is to take a leading position in key sustainability areas and to serve as a role model. Sustainability generated by the highest level of efficiency is demanded throughout the entire product lifecycle and involves all of the divisions within our family-owned company: from Planning and Development to Purchasing, Sales, and Production through to Service and Recycling; all our employees are dedicated to implementing S.E.E.D.S.



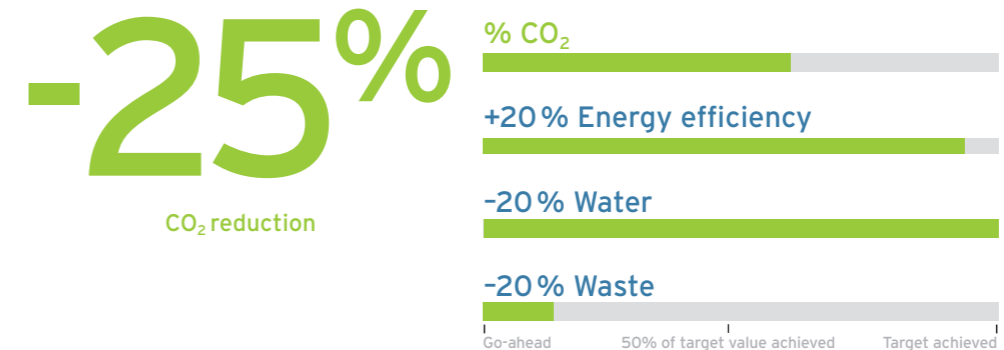
Development & Products

Our goal is to offer our customers energy-efficient and environmentally friendly products throughout the entire product life cycle - from development to purchasing, production and use, and all the way to service and recycling.



Environment

Protecting the environment and resources is an important part of the Vaillant Group's sustainability strategy. We aim to use resources responsibly, to consistently lower CO₂ emissions, prevent negative influences on the environment and actively use opportunities for improvement.



Employees

Our employees form the foundation and the soul of the Vaillant Group. We pursue the goal of being the employer of choice for job applicants and current employees.



Society

The Vaillant Group acknowledges its social responsibility. The company makes an active contribution where it operates, for social progress and the welfare of people. This year we are supporting NEA Action for Warm Homes, helping to eradicate fuel poverty in social housing.



If you'd like to receive more information on our performance please speak to your Key Account Manager.



Always here to help

With well over 40 years of experience together, we know how to help things run smoothly for our social providers. Here are just a few of the ways we can help:

Industry-leading training

Our team of fully qualified industry experts have unrivalled knowledge on all of our product portfolio as well as industry regulations. Vaillant training courses are tailored to suit your needs for now and into the future.

We can offer an exclusive package of training at any of our seven dedicated Centres of Excellence, from a full day of hands-on installation, commissioning and servicing on the ecoTEC and ecoFIT sustain range through to our wide range of heat pumps and control systems. Half day installation and commissioning training courses on the appliance only can also be provided.

On site

We can offer a half day commissioning course that covers electrical installation and commissioning sequences. This can be at one of our Centres of Excellence or it can be conducted on site (conditions apply).

Tailored training

For special projects involving different types of appliances and systems, our dedicated training team will arrange a training programme for your contractors or sub contractors; this will give them the required skill sets they need to install the products with ease and confidence with as little down time as possible.

Centres of Excellence

Located in Glasgow, Elland (near Leeds), Belper (near Derby), Cambridge, Farnborough, Bristol and Maidstone, you can be sure there is a centre never far away from where you are. Our centres have been developed and designed with you in mind, offering a full and varied training environment with working products for a truly hands-on product familiarisation session.

“Vaillant offer a very good training programme which we use to get our new employees up to speed with Vaillant products. As a council, the fact that Vaillant offer hands-on training free of charge is a great benefit.”

Kevin Burke, Gas Technical Services Manager, Southampton City Council

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Northern Specification Director

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