

ecoTEC range



High efficiency
condensing
boiler range

ecoTEC exclusive
ecoTEC plus 937
ecoTEC plus combination
ecoTEC plus system
ecoTEC plus open vent
ecoTEC pro

Introduction

Simply high performance

Vaillant - Intelligent System Solutions

Vaillant has been setting the standards in the heating market for more than 130 years, creating products that have revolutionised the industry.

Today, as Europe's number 1 heating technology manufacturer, our heating systems cover renewable technologies, domestic gas boilers, hot water cylinders, controls and products for commercial applications. All systems provide the same enviable reputation for performance, efficiency, quality and reliability that has become synonymous with the Vaillant brand.

This brochure has been designed to provide all the information needed to select your next heating and hot water system. Should you need any additional information please contact us to see how we can help.

Domestic and commercial heating

For both domestic and commercial heating, our products boast the highest energy efficiency ratings and lowest emissions. At the same time we continue to develop new solutions that further simplify boiler installation, commissioning and servicing and ease of use, both at home and in the workplace.

Renewable energy

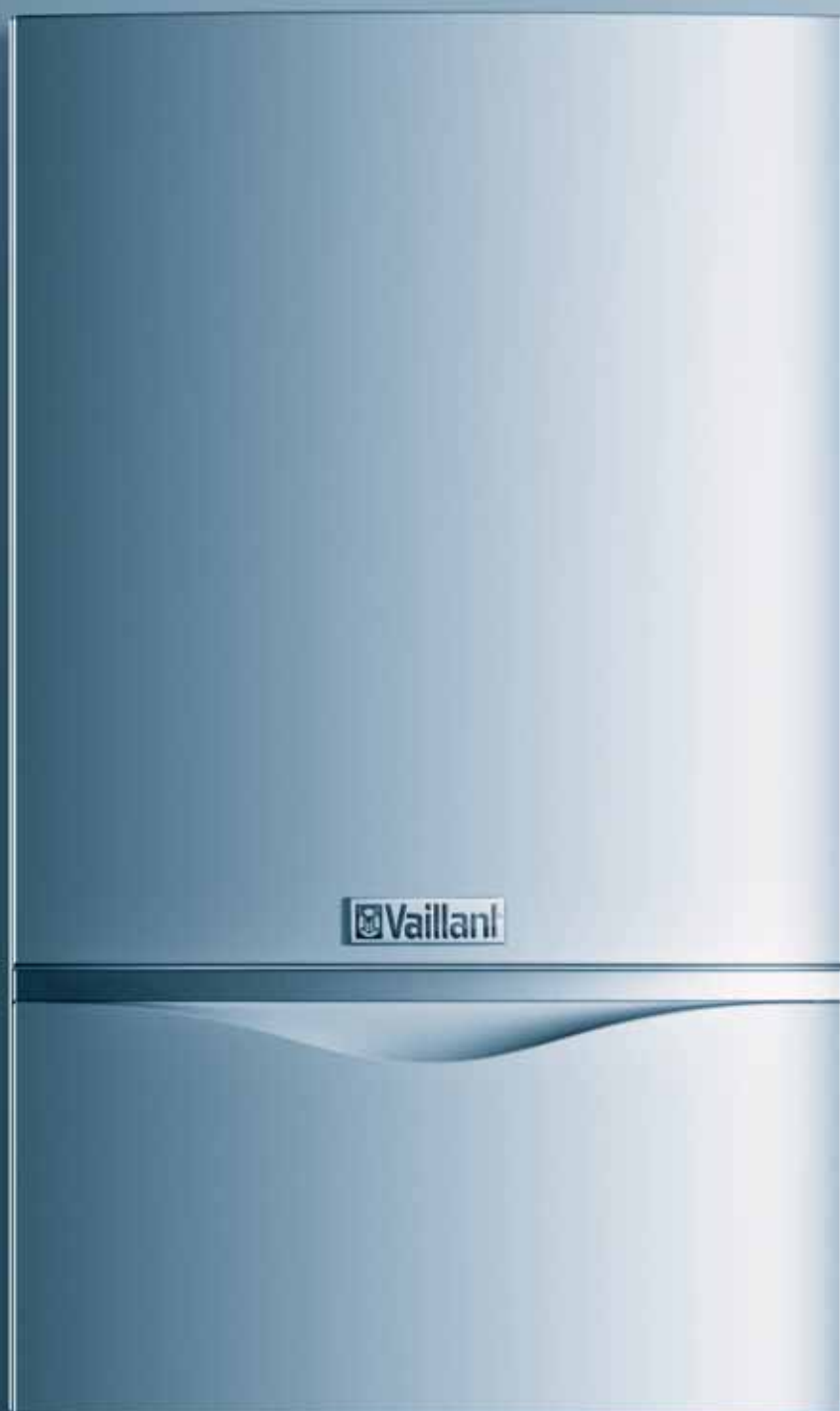
The Vaillant solar domestic hot water system is the most advanced complete solar heating system available. As constant innovators committed to renewable energy, Vaillant are always developing new products such as the geothermal heat pump which uses the natural heat stored in the earth to help provide hot water for your home.

You can be sure that when it comes to creating the ideal environment, Vaillant has it all under control.





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ecoTEC exclusive

combination boilers

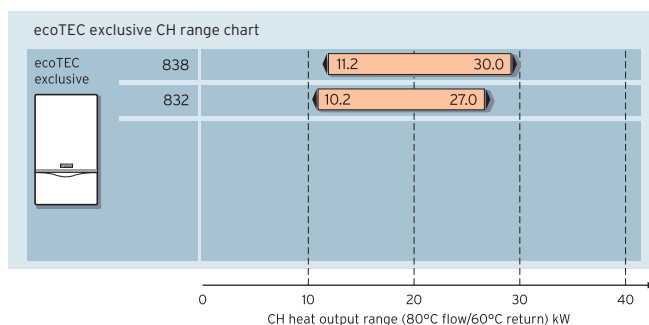
The two ecoTEC exclusive combination boilers feature an innovative low energy pump and eBUS electronics, which allows the use of the full range of Vaillant energy saving controls. For use with sealed heating systems both models are SEDBUK band A rated, have a 3 year warranty and offer outputs of 32kW DHW-27kW CH or 38kW DHW-30kW CH. The stylish appearance includes an intuitive user interface with back light and plain text display, making it an attractive addition to any household.

ecoTEC exclusive key features

- 2 models - higher outputs to suit larger hot water and heating applications
- New low energy circulation pump
- Compatible with the Vaillant range of high efficiency flues and Variable Termination Kit
- Compatible with Vaillant eBUS controls range, including VRT 360 programmable room thermostat and VRC 430 weather compensator
- Compatible with ecoLEVEL condensate pump
- Stainless steel heat exchanger
- Easy to install
- Back-lit plain text display

Easy installation

- Case dimensions 800mm x 480mm x 450mm
- Lift weight from 44kg
- Easy wiring consistent with Vaillant family
- Energy saving two stage frost protection
- Push-fit flue system with telescopic accessories
- All models can be converted to LPG
- Compatible with wide range of existing controls
- Compatible with the full range of easy to install, advanced controls from Vaillant
- Re-designed filling loop for fast installation





ecoTEC plus 937

ecoTEC plus 937

combination boiler

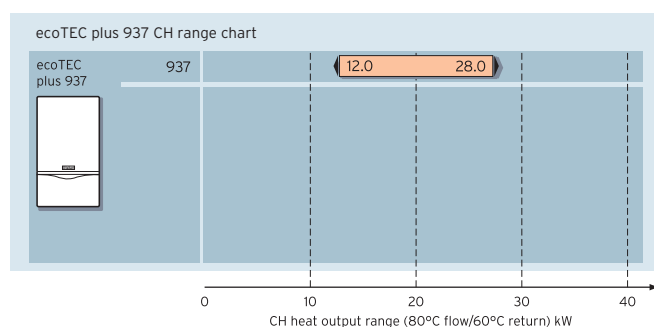
The ecoTEC 937 high efficiency storage combination boiler provides a high level of hot water comfort and is ideally suited to properties with higher hot water demands. It is SEDBUK band A rated, has a 2 year warranty and offers an output of 37kW DHW-28kW CH.

ecoTEC plus 937 key features

- High efficiency SEDBUK band 'A' rating
- Fully modulating low NOx burner and fan (Class 5)
- Separate 15 litre "actoSTOR" provides exceptional hot water delivery and comfort
- Powerful bath filling and shower performance - up to 200 litres of blended hot water ($\Delta T=35^{\circ}\text{C}$) in 10 minutes
- 15.2l/min flow rate @ 65°C
- "actoSTOR" fully recharges in just 2 minutes
- DHW output up to 37.0 kW
- Low energy DC storage charging pump

Easy installation

- No G3 qualification required
- Boiler and tank separate for easier handling
- Boiler case dimensions 720 mm x 440 mm x 598 mm
- "actoSTOR" dimensions 720mm x 440mm x 195mm
- All major components built-in
- Push-fit flue system with telescopic accessories
- Operation on low water pressure (1.3 bar)
- Compatible with the full range of easy to install, advanced controls from Vaillant
- LPG conversion kit available





ecoTEC plus combi

ecoTEC plus

combination boilers

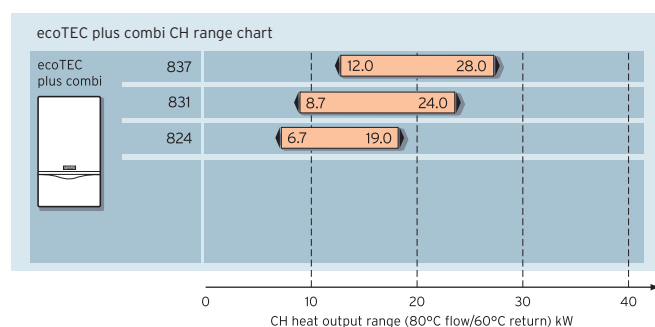
ecoTEC plus high efficiency combination boilers are all SEDBUK Band 'A' rated, have a 2 year warranty and offer outputs of 23-37kW DHW and 19-28kW CH across three models. With Vaillant's 'AquaComfort' system, ecoTEC plus combination boilers offer excellent hot water performance providing instantaneous hot water at a constant temperature.

ecoTEC combination boilers key features

- 3 models with powerful hot water performance
- Large surface area stainless steel heat exchanger to maximise heat transfer
- Comprehensive status and diagnostic information and push button programming
- Single electronic circuit board simplifies commissioning
- Compatible with ecoLEVEL condensate pump
- Compatible with the Vaillant range of high efficiency flues and Variable Termination Kit

Easy installation

- Compact case dimensions
 - 824: 720mm (H) x 440mm (W) x 335mm (D)
 - 831: 720mm (H) x 440mm (W) x 335mm (D)
 - 837: 720mm (H) x 440mm (W) x 403mm (D)
- Low lift weight from 36.8kg
- Easy wiring consistent with Vaillant family
- Energy saving two stage frost protection
- Push-fit flue system with telescopic accessories
- Compatible with a wide range of existing controls
- Compatible with the full range of easy to install, advanced controls from Vaillant





ecoTEC plus system

ecoTEC plus

system boilers

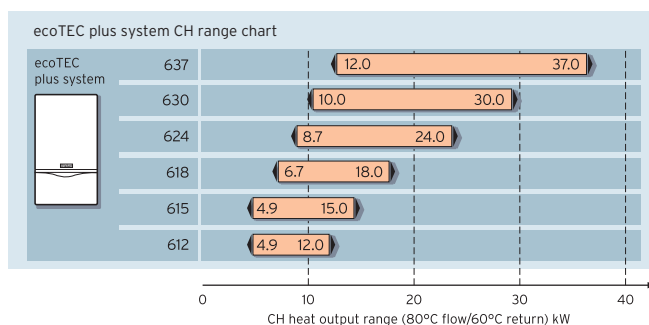
The ecoTEC system boiler range comprises of 6 models, all are SEDBUK band A rated, have a 2 year warranty and offer outputs of 4kW-37kW CH.

ecoTEC plus system boilers key features

- Compact and lightweight for easy installation and excellent siting flexibility
- Built-in two stage frost protection
- Large surface area, stainless steel heat exchanger to maximise heat transfer
- Comprehensive status and diagnostic information and push button programming
- Compatible with ecoLEVEL condensate pump
- Compatible with the Vaillant range of high efficiency flues and Variable Termination Kit

Easy installation

- Compact case dimensions
 - 612, 615, 618, 624: 720mm (H) x 440mm (W) x 335mm (D)
 - 630: 720mm (H) x 440mm (W) x 369mm (D)
 - 637: 720mm (H) x 440mm (W) x 403mm (D)
- Low lift weight from 36.8kg
- Single electronic circuit board simplifies commissioning
- Easy wiring consistent with Vaillant family
- Energy saving two stage frost protection
- Push-fit flue system with telescopic accessories
- Compatible with a wide range of existing controls
- Compatible with the full range of easy to install, advanced controls from Vaillant





ecoTEC plus open vent

ecoTEC plus

open vent boilers

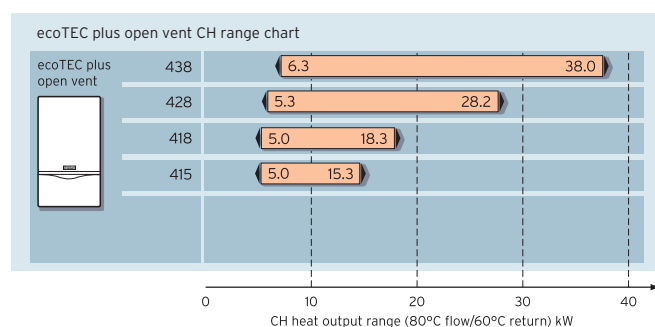
ecoTEC plus open vent boilers are the ideal solution for traditional open-vented heating systems. All four models are SEDBUK band A rated, have a 2 year warranty and offer outputs of 15, 18, 28 and 38kW CH.

ecoTEC plus open vent boilers key features

- Compact and lightweight for easy installation and excellent siting flexibility
- Built-in two stage frost protection
- Large surface area stainless steel heat exchanger to maximise heat transfer
- Comprehensive status and diagnostic information and push button programming
- Compatible with ecoLEVEL condensate pump
- Compatible with the Vaillant range of high efficiency flues and Variable Termination Kit

Easy installation

- Compact case dimensions 600mm (H) x 375mm (W) x 340mm (D)
- Low lift weight from 31kg
- Easy wiring consistent with Vaillant family
- Energy saving two stage frost protection
- Push-fit flue system with telescopic accessories
- Compatible with a wide range of existing controls
- Compatible with the full range of easy to install, advanced controls from Vaillant





ecoTEC pro 24 & 28

ecoTEC pro 24 & 28

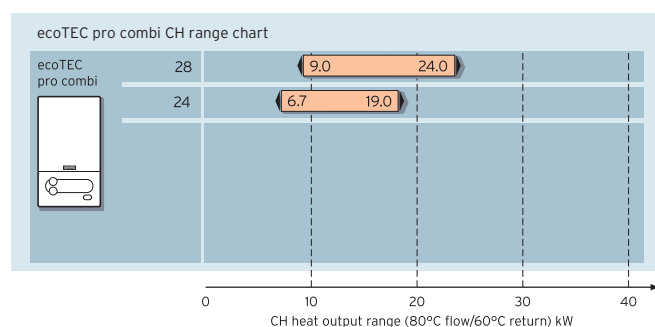
combination boilers

The ecoTEC pro 24 and 28 combination boilers have the same high build quality as ecoTEC plus combi models but with a more basic specification.

Vaillant's ecoTEC pro range of combination boilers feature comprehensive status and diagnostic information with simple push button operation for easy commissioning and servicing.

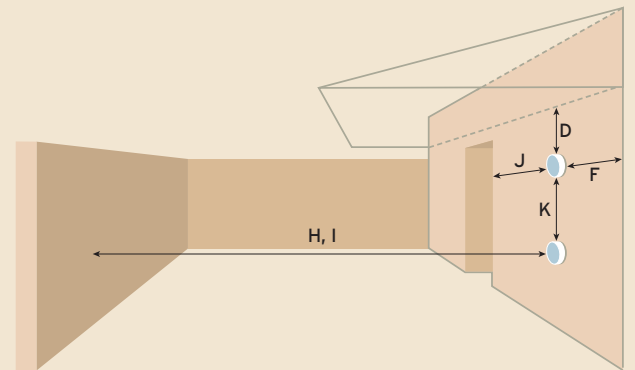
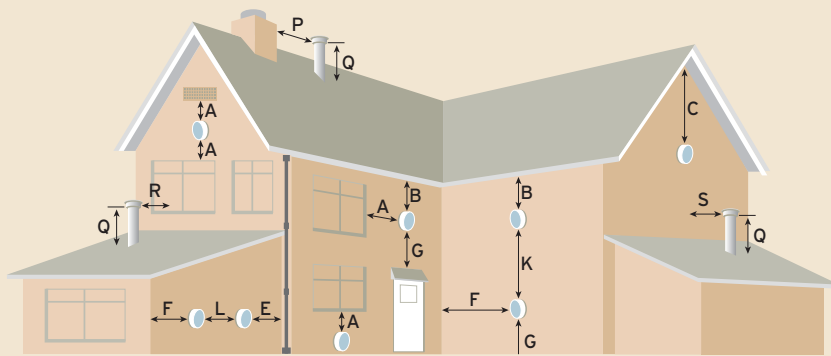
Both models feature Vaillant's 'Aquacomfort' system that provides instantaneous hot water at a constant temperature and are compatible with the ecoLEVEL condensate.

Our ecoTEC pro range have the benefit of a 1 year warranty.



Flue location and ventilation

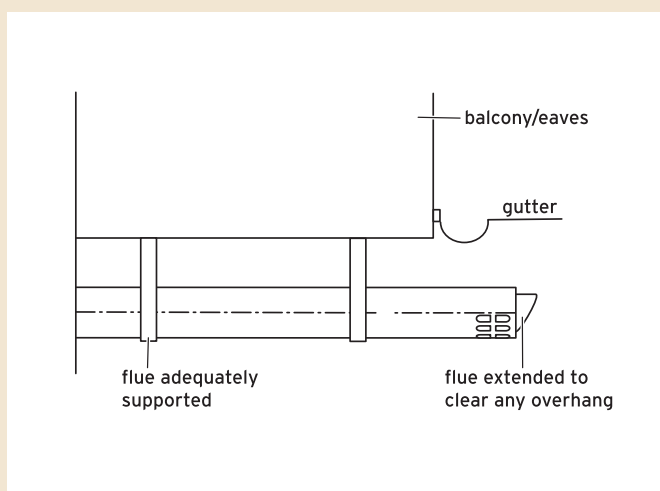
Regulations and standards to be observed.



Note

Vertical flues must not terminate within 600 mm of an openable window, air vent or any other ventilation opening.

- Vaillant ecoTEC boilers are certified as heating boilers with corresponding flue systems according to EC Directive 90/396/EEC on gas-fired devices.
- These instructions should be read in conjunction with the instructions for installation and servicing supplied with the boiler. Ensure also that all legislation, rules, regulations and directives mentioned in the installation instructions are observed.
- The installation of the boiler and its flue must be carried out by a competent person who is registered with Gas Safe Installers (UK & Isle of Man) or CORGI (Northern Ireland).
- The installation of the boiler and flue must be in accordance with the Gas Safety (Installation and Use) Regulations 1998 and the Building Regulations and BS 5440 Part 1.
- Two types of flue system are available for ecoTEC boilers. The standard concentric flue system (100 mm outside diameter) and a larger diameter concentric system (125 mm outside diameter) which allows longer air/flue duct lengths to be achieved.
- The air/flue duct operates at very low temperatures therefore no clearance is necessary between the air duct and adjacent services.
- Ensure while installation work is being carried out that no debris such as swarf, filings or fragments of mortar are allowed to remain in the air/flue duct.



Flue termination under balcony/eaves

Flue termination

The following details refer to both flue systems.

- a. The terminal must be located where the combustible substances can escape freely at all times.
- b. A plume of water vapour will sometimes be visible from the flue terminal. Positions where this could be a nuisance should be avoided.
- c. If the terminal is fitted less than 2 m above a balcony, above ground or above a flat roof to which people have access then a suitable terminal guard must be provided and fitted (made by Tower Flue Components, Tonbridge, TN9 1TB, Model K3, plastic coated).

1) Dimensions B, C, and D:

These clearances may be reduced to 25 mm without affecting the performance of the boiler. In order to ensure that the condensate plume does not affect adjacent surfaces the terminal should be extended as shown opposite.

2) Dimension F:

This clearance may be reduced to 25 mm without affecting the performance of the boiler. However, in order to ensure that the condensate plume does not affect adjacent surfaces, a clearance of 300 mm is preferred. For IE, recommendations are given in the current edition of IS 813.

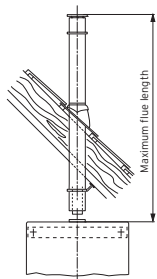
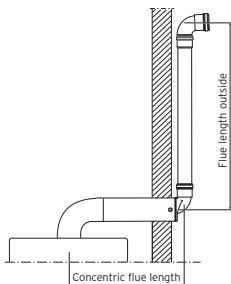
Flexible solutions

As you would expect, Vaillant are at the forefront of technology that offers you flexible boiler siting solutions. Vaillant's Variable Termination Kit allows plume vapour to be redirected away from neighbouring properties, while our ecoLEVEL condensate pump has been designed to solve the problems encountered where a high efficiency boiler is installed remote from the waste drain system. For full details see pages 22 & 23.

Terminal position		mm
A	Directly below an opening, above an opening or horizontal to an opening, air brick, opening windows etc.	300
B	Below gutters, soil pipes or drain pipes	75
C	Below eaves	200
D	Below balconies	200
E	From vertical drain pipes and soil pipes	25
F	From internal or external corners	300
G	Above ground, roof or balcony	300
H	From a surface facing a terminal	600
I	From a terminal facing a terminal	1200
J	From an opening in the car port (e.g. door, window) into the dwelling	1200
K	Vertically from a terminal on the same wall	1500
L	Horizontally from a terminal on the same wall	300
Vertical Flues		
P	From another terminal	600
Q	Above roof level	300
R	From adjacent opening window	600
S	From adjacent wall to flue	500

Note

In addition, the terminal should not be nearer than 150 mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window.



Accessories

Planning the air/flue duct layout Ø 60/100

Alternative termination accessories available



303 900 = Vertical air/flue duct (black)

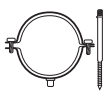


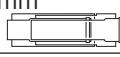
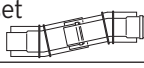
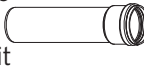
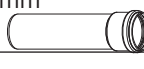
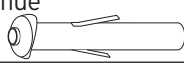
303 933 = Horizontal air/flue duct



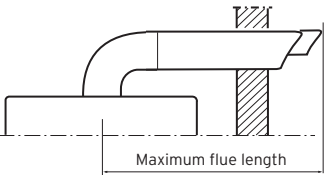
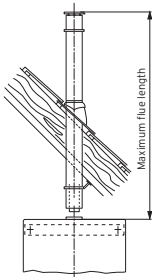
303 936 = Horizontal telescopic air/flue duct

* Delivered with support clips

Optional connection accessories	Article No.	303 900	303 933	303 936
Air/flue duct extensions, concentric 470 mm - Ø 60/100 	303 902	✓	✓	✓
Air/flue duct extensions, concentric 970 mm - Ø 60/100 	303 903	✓	✓	✓
Air/flue duct extensions, concentric 1970 mm - Ø 60/100 	303 905	✓	✓	✓
Bends (PP), concentric (pack of 2) 45° - Ø 60/100 	303 911	✓	✓	✓
Elbow, concentric 87° - Ø 60/100 	303 910	✓	✓	✓
Flue support clips (pack of 5) - Ø 100 	303821	✓	✓	✓
Adjustable flue support clips (pack of 3) - Ø 100 	303 935	✓	✓	✓

Optional connection accessories	Article No.	303 900	303 933	303 936
Sliding sleeve (PP) Ø 60/100 	303 915	✓	✓	✓
Adjustable roof tiles for pitched roof 	009 076 black	✓	✓	✓
Flexible pitched roof seal 	303 980	✓		
Flat roof penetration collar 	009 056	✓		
Telescopic extension 440 mm - 690 mm Ø 60/100 	303 906	✓	✓	✓
Telescopic offset section 	303 919	✓	✓	✓
Black terminal kit for horizontal air/flue duct 	303 934		✓	✓
Variable termination kit - black* 	303 942		✓	✓
Extension pipe for variable termination kit VTK Ø 60 mm 1 m - black* 	303 943		✓	✓
87° elbow for variable termination kit - black* 	303 944		✓	✓
45° bend for variable termination kit - black (2 pieces) 	303 945		✓	✓
Variable termination kit - white* 	303 946		✓	✓
Extension pipe for variable termination kit VTK Ø 60 mm 1 m - white* 	303 947		✓	✓
87° elbow for variable termination kit - white* 	303 949		✓	✓
45° bend for variable termination kit - white (2 pieces) 	303 948		✓	✓
Ridge tile flue terminal 	303 982	✓		

Maximum flue lengths

Ø 80/125		ecoTEC range					
Accessories	Article No.	612 615	618 624 630 824 831	637 837 937	832 838	pro 24 pro 28	415 418 428 438
Horizontal flue systems 	303 209	Max. permitted concentric flue length					
		13.0 m incl 1 elbow 87°	25.0 m incl 1 elbow 87°	21.0 m incl 1 elbow 87°	21.0 m incl 1 elbow 87°	25.0 m incl 1 elbow 87°	20.0 m incl 1 elbow 87°
		Maximum length of flue is reduced by 2.5 m for each additional 87/90° elbow and by 1.0 m for each additional 45° elbow					
Vertical flue systems 	303 200	14.0 m	27.0 m	23.0 m	22.0 m	27.0 m	20.0 m
		Maximum length of flue is reduced by 2.5 m for each additional 90° elbow and by 1.0 m for each additional 45° elbow					

Accessories

Planning the air/flue duct layout Ø 80/125

Alternative termination accessories available



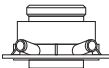
303 200 = Vertical air/flue duct (black)



303 209 = Horizontal air/flue duct

Optional connection accessories	Article No.	303 200	303 209
Air/flue duct extensions (PPs), concentric 470 mm - Ø 80/125 	303 202	✓	✓
Air/flue duct extensions (PPs), concentric 970 mm - Ø 80/125 	303 203	✓	✓
Air/flue duct extensions (PPs), concentric 1970 mm - Ø 80/125 	303 205	✓	✓
Bends (PPs), concentric (pack of 2) 45° - Ø 80/125 	303 211	✓	✓
Elbow (PPs), concentric 87° - Ø 80/125 	303 210	✓	✓

This accessory is required to allow connection of Ø 80/125 flue system to the boiler.

Optional connection accessories	Article No.
Appliance connection piece Ø 80/125 	303 926

Optional connection accessories	Article No.	303 200	303 209
Flue support clips (pack of 5) Ø 125 	303 616	✓	✓
Sliding sleeve (PPs) Ø 80/125 	303 215	✓	✓
Adjustable roof tiles for pitched roof (not suitable for slate roofs) 	009076 black	✓	✓
Flat roof penetration collar 	009 056	✓	✓
Flexible pitched roof seal (Suitable for slate roofs) 	303 980	✓	

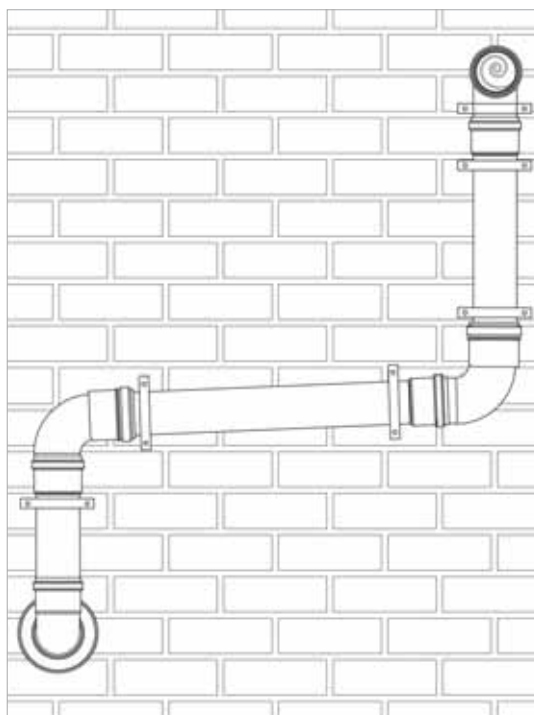
VTK

Vaillant's Variable Termination Kit (VTK) is the latest high efficiency accessory designed to overcome the visual and siting issues often associated by plume.

The VTK enables the flue outlet to be re-sited away from the boiler reducing the visual impact and nuisance plumbing causes. A unique design, push-fit connections and a choice of colour pipework all save the time and inconvenience of boiler relocation.

The VTK has been developed to satisfy the needs of installers, specifiers and service engineers. And what's more, the VTK comes with additional components offering solutions to all installations.

Variable termination kit	Article no:
Black	303 942
White	303 946



ecoLEVEL

ecoLEVEL condensate pump

The Vaillant ecoLEVEL condensate pump has been designed to solve the problems encountered where a high efficiency boiler is installed remote from the waste drain system. It is the ideal accessory for high efficiency boilers where the boiler can not be situated close to a suitable drain point. This removes the time and expense involved in relocating a boiler.

The ecoLEVEL condensate pump is compact and extremely quiet when running and will be unobtrusive when installed in almost all areas of the home.

Designed to be fixed to a wall close to the boiler, the pump is supplied with all necessary wall fixings and pipes ensuring that the pump is simple and quick to install.

ecoLEVEL technical features:

- Low operating noise <40 dB(A)
- Two status LED's indicating operation and fault
- Maximum vertical pump height 4 metres
- Maximum delivery 150 litres / hour condensate at 4 metres vertical height
- Alarm cable delivered with two plugs already fitted to enable direct connection to all ecoTEC boilers

Key technical data:	
Dimensions (mm)	160 x 180 x 100
Nominal capacity	0.5 litre
Voltage	230 V
Max power rating	1 W
Max pump height	4 m
Weight (filled)	1.8 kgs
Delivery volume	150 litres / hour at 4m head



ecoLEVEL

Performance

heating controls



VRC 430

Vaillant offer a comprehensive range of performance heating controls for the ecoTEC range, which help provide a comfortable living environment and minimise fuel costs.

Analogue room thermostat - VRT 30

- Straightforward, compact room thermostat

Digital room thermostat - VRT 50

Compatible with all ecoTEC combi models

- Easy to install - only requires a two-wire connection to the boiler
- Thermostat can be set to modulate the boiler depending on the actual room temperature

Programmable room thermostat - VRT 230

- Offers full time and temperature control of central heating and operates in either 24-hour or 7-day mode
- 3 independent time windows per day
- Heating advance function, holiday function, set-back temperature and 3 room temperature profiles
- Calendar function for automatic summer/winter changeover

Analogue central heating timer - timeSWITCH 130

- 24 hour analogue time control of central heating
- Plugs into the boiler fascia - no wiring required
- Easy to operate
- Over-ride switch means heating can be kept on constantly or switched off for longer periods
- Installation in conjunction with VRT 50 room thermostat for room temperature control

Digital central heating and hot water programmer - timeSWITCH 140

- Plug-in digital programmer provides 24-hour or 7-day independent time control for both central heating and "AquaComfort" hot water system with ecoTEC combination boilers
- When installed with a VR 65 control centre the programmer can be used to time control both central heating and hot water for both ecoTEC plus system and open vent boilers with hot water cylinder installation
- Cannot be installed (in conjunction) with VRT 50 room thermostat



VRC400, VRT360, VRT360f

Programmable room thermostat - VRT 360

- Independent time control for central heating and "AquaComfort" hot water system with ecoTEC combination boiler
- When installed with a VR 65 control centre the programmer can be used to time control both central heating and hot water for both ecoTEC plus system and open vent boilers with hot water cylinder installation
- 3 independent time windows per day, the programmer also has an over-ride function, holiday function, adjustable set-back temperature and 3 room temperature profiles
- Calendar function for automatic summer/winter changeover

Wireless programmable room thermostat - VRT 360f

- Thermostat with the same features as the VRT 360 programmable room thermostat
- Reduced wiring
- The receiver is designed for improved reception and is installed in the vicinity of the boiler

Digital weather compensator - VRC 400

- Weather compensator offers the functionality and features of the VRT 360 with the additional benefit of weather compensation
- An externally mounted temperature sensor monitors the outside temperature and modulates the boiler for greater fuel savings



VRC 430

Digital weather compensator - VRC 430

- Programmable weather compensator for time and temperature control of central heating, hot water programmer
- Blue, backlit, plain text display for clear, easy to read information
- Easy to use menu structure - numbered screens to aid navigation
- Dual "click and turn" knobs for selecting and changing data
- Installation assistant function to assist initial set-up
- Plugs into boiler fascia or can be wall mounted
- For ecoTEC system boilers and ecoTEC open vent boiler, use with VR 65 Control Centre for Total System Solution
- 7-day or 5/2-day or 24-hour operating modes.
- 3 independent time windows per day
- 3 programmable temperatures for each ON period per day
- Set-back temperature
- Central heating / hot water advance (Party)

Remote control unit for VRC 430 - VR 81

- Can only be used in conjunction with digital weather compensator VRC 430
- Can be used as room thermostat while the weather compensator remains in the boiler facial
- In conjunction with a VR 61 Mixer Module can be used as room thermostat for a second heating circuit

Controls compatibility	ecoTEC range					
	ecoTEC exclusive	ecoTEC plus 937	ecoTEC plus combination	ecoTEC plus system	ecoTEC plus open vent	ecoTEC pro combination
VRT 30	✓	✓	✓	✓	✓	✓
VRT 230	✓	✓	✓	✓	✓	✓
VRT 50	✓	✓	✓	x	x	✓
timeSWITCH 130	✓	✓	✓	x	x	✓
timeSWITCH 140	✓	✓	✓	✓	✓	✓
				VR65 required	VR65 required	
VRT 360	✓	✓	✓	✓	✓	✓
				VR65 required	VR65 required	
VRT 360f	✓	✓	✓	✓	✓	✓
				VR65 required	VR65 required	
VRC 400	✓	✓	✓	✓	✓	✓
				VR65 required	VR65 required	
VRC 430	✓	✓	✓	✓	✓	✓
				VR65 required	VR65 required	



uniSTOR

unvented cylinders

uniSTOR is a range of six high grade stainless steel unvented cylinders from Vaillant. Finished with a stylish casing they are available in a range of sizes from 125 litres to 310 litres. uniSTOR can be used with proprietary system boilers. However when installed with ecoTEC plus system or open vent boilers, a total heating and hot water solution is provided.

uniSTOR features a high recovery heating coil and insulation which exceeds CHES Best Practice. All seams are laser welded and the cylinder shell is backed up by a 25 year guarantee.

- uniSTOR cylinders operate using a mains water pressure supply and do not require a feed from a cold water storage tank
- all necessary cold and hot water controls and a 2-port valve for control of domestic hot water are supplied
- all uniSTOR cylinders are backed by a full 2 year guarantee as well as a 25 year guarantee on the cylinder shell

Typical applications	
Single bathroom property	uniSTOR 125
Single bathroom property with an en-suite shower room	uniSTOR 125 / 155
Two bathroom property	uniSTOR 155 / 180
Two bathroom property with an en-suite shower room	uniSTOR 180 / 210
Larger properties	uniSTOR 260 / 310

2 year
guarantee

25 year
guarantee
shell perforation

uniSTOR stainless steel unvented cylinder		125	155	180	210	260	310
External case height	mm	969	1179	1339	1499	1789	2109
External case width	mm	598	598	598	598	598	598
External case depth	mm	554	554	554	554	554	554
Weight approx. (empty)	kg	28	30	33	39	44	49

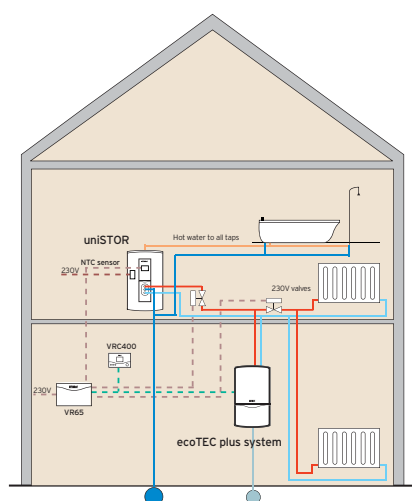
Total system solution

Total system solution

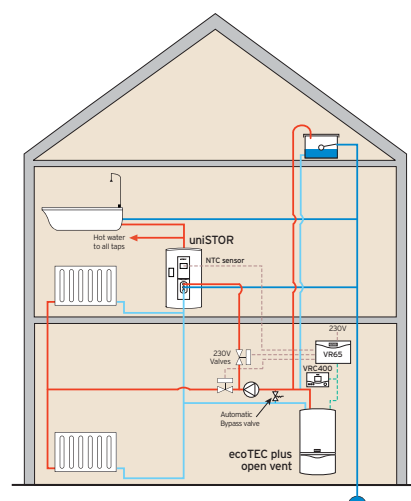


ecoTEC plus

Vaillant ecoTEC system, open vent boilers and uniSTOR unvented stainless steel cylinders can now be integrated into one complete system together with Vaillant 'ebus' controls. This total system concept brings some unique features and benefits to the installer and the home-owner.



ecoTEC plus system



ecoTEC plus open vent

Benefits

- All components supplied from one manufacturer for peace of mind and complete compatibility
- Hot water and central heating temperature can be set at the boiler or at the control
- Cylinder re-charge with 'AquaCondens' system which re-charges cylinder at the most economical temperature to maintain efficiency
- Simple wiring with two 'ebus' connection
- Easy to upgrade existing systems

Which components form the total system solution?

- ecoTEC plus system boilers or ecoTEC plus open vent boilers
- uniSTOR stainless steel cylinder (supplied with 230V DHW valve)
- 'ebus' controls e.g. VRT 360, VRC 400, VRC430
- VR 65 control centre
- uniSTOR cylinder NTC (VR 10)

Note: 230V zone valves (for CH) are widely available and must be purchased separately.

VR 65 control centre

The VR 65 control centre is the heart of the total system solution. It has been designed to allow Vaillant low voltage 'ebus' controls to be integrated within traditional 230V S-plan or Y-plan type installations to provide a total system solution.

The VR 65 control centre provides the following connection points:

- 'ebus' connection
- 1 x 3-port zone valve or 2 x 2-port zone valves
- 230V cylinder thermostat
- NTC for installation in uniSTOR only (instead of 230V cylinder stat)
- 230V connection



uniSTOR



ecoTEC plus



VR 65

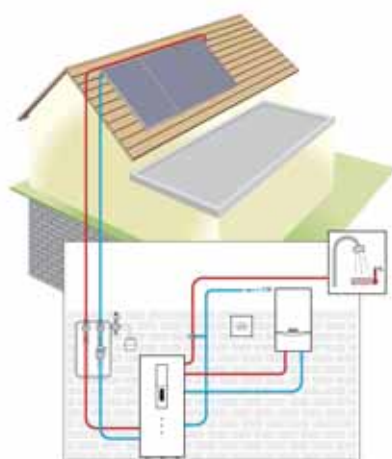
Total solar system solution

Total solar system solution

Using the sun's energy to provide hot water.



auroTHERM plus VFK 150 flat plate collector



auroTHERM flat plate collectors

The **auroTHERM plus VFK 150** flat plate collector has a special anti-reflex coated toughened 4mm thick glass. The collector consists of an ultrasonically welded copper grid with a high selective absorber coating and 60mm rear and side insulation. The whole assembly is encased in a polished aluminium frame for a neat construction. The collectors can be connected in series in horizontal or vertical orientation to suit the available roof space. An extensive range of accessories are available for pitched or flat roof, and the added option of in-roof installation means that the flat plate collector can be fitted in virtually any situation.

The collector has the benefit of a 10 year warranty. The auroTHERM VFK 145 flat plate collector has the same high build quality as the auroTHERM plus VFK 150 but with a more basic specification. It has a toughened 4mm thick solar glass cover and 60mm rear and side insulation. The same range of roof fixing accessories can be used.

The sun's energy heats solar fluid in the solar collector, which is then pumped by the solar pump unit to a coil designed to heat water in a dedicated stainless steel storage cylinder, **auroSTOR**. A second coil in the cylinder is connected to a conventional heating source, such as a gas boiler, to provide additional heating when there is insufficient solar energy available. The boiler is also required to provide central heating. Managed by the solar control **auroMATIC 560/2** the system is able to automatically switch between solar and the auxiliary heat source to ensure there is always hot water on demand.

Features and benefits

- Easy to install, flexible siting
- Uses indirect solar radiation, not just sunlight - for optimum efficiency
- Vaillant's solar DHW system can provide around 50-60% of annual domestic hot water requirements - helps reduce fuel bills and ensure hot water comfort
- Built-in intelligence - automatic switching from solar to conventional power when needed for consistent performance and hot water delivery
- Reduces CO₂ emissions - positive benefit to the environment
- Durable and stylish - adds value to your property
- Compatible for use with a new Vaillant boiler or an existing appliance - upgrade your whole system or use it with your existing boiler



auroTHERM exclusive VTK 570/2



auroSTOR



auroMATIC 560

Customer support services



Working in partnership

The after sales service and support behind every Vaillant product is part of the quality package that has helped us build a unique reputation within the industry. It is an approach that is reflected in our support for our Total Solar System Solution. We are committed to working in partnership with our installers, offering the very best industry support and training to develop the solar heating market.

Vaillant support team

Our dedicated team is on-hand to offer technical support. We are here to help with product familiarisation and to tackle any other issues that arise in relation to our solar DHW heating products.

High quality training

Please contact our training team to register your interest in attending a Vaillant solar training course.

Contact details

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Mon - Fri 6.00am - 8.00pm

Sat - Sun 9.00am - 12.00pm

Website www.vaillant.co.uk

Setting the standard for customer training

As the industry's leading training provider, Vaillant offer comprehensive training courses which can add value to your business.

Every year we train thousands of professionals. We are continually developing and improving our training programmes and facilities to provide a service that matches your requirements.

Every one of Vaillant's training courses is based on practical and detailed hands-on experience, backed up by expert tuition.

The aim of each Vaillant Training Course is to help improve your skills, which in turn can help you to improve your profit. That's why so many choose Vaillant as their training provider.

Who are Vaillant training courses designed for?

- Gas Safe Registered Installers (UK & Isle of Man)
- CORGI Registered Installers (Northern Ireland)
- IPHE Registered Installers
- SNIPEF Registered Installers
- Local Authorities and Housing Associations
- Service Organisations
- Architects and Specifiers
- Merchants and Spare Part Stockists
- Solar DHW installers
- Commercial boiler heating installers

Current training courses

ecoTEC High efficiency domestic boiler range

A one-day course covering our latest range of condensing boilers, including installation, operation, servicing and repair.

Commercial boiler range

A one-day course covering commercial installation, operation, servicing and repair.

BPEC Unvented DHWSS Course

A one-day BPEC certified course covering unvented domestic hot water storage systems for Certificate of Competence, as defined by the Building Regulations G3.

Solar Product Course

A one-day course for heating professionals wanting to get a basic understanding of solar domestic heating systems.

Defined scope - solar

BPEC Solar DHW course

A two-day course for heating professionals looking to gain solar heating BPEC certification.

Air to air Appreciation course

A one-day course designed for installers who wish to expand their knowledge of air to air heat pumps.

Domestic Controls training

A one-day course designed to give you the best knowledge and expertise with our range of controls and accessories.

Certificate in Energy Efficiency for Domestic Heating

A one-day course to help you promote the benefits of high efficiency boilers to your customers.

BPEC Combustion Performance Assessment (CPA1) course

Other courses:

Tailor-made service engineer courses

The Vaillant training department creates custom made programmes to suit your company's individual training needs.

For more information on any Vaillant training course please contact our Training Department on:

Telephone: 01634 292370

Fax: 01634 292354

Email: training@vaillant.co.uk

www.vaillant.co.uk/installers/training



Technical specification

		ecoTEC exclusive combi		ecoTEC plus storage combi	ecoTEC plus combi		
		832	838	937	824	831	837
Flue Type		RSF	RSF	RSF	RSF	RSF	RSF
Maximum DHW heat output	kW	31.4	37.2	37.0	23.0	31.0	37.0
	(Btu/h)	107,200	127,000	126,000	78,500	105,800	126,000
DHW flow rate @ 35°C		12.9	15.2	15.2*	9.4	12.7	15.2
Mains water pressure required for max. flow rate	bar	0.5	0.5	1.3	0.5	0.75	0.75
CH heat output range (80°C flow/60°C return)	kW	10.2 - 27.0	11.2 - 30.0	12.0 - 28.0	6.7 - 19.0	8.7 - 24.0	12.0 - 28.0
	(Btu/h)	34,800 - 92,124	38,200 - 102,400	40,900 - 95,500	22,800 - 64,800	29,700 - 81,800	40,900 - 95,500
Heating flow / return	mm	22	22	22	22	22	22
Cold water inlet	mm	15	15	15	15	15	15
DHW outlet	mm	15	15	15	15	15	15
Gas inlet	mm	15	15	22	15	15	22
Pressure relief valve discharge pipework	mm	15	15	15	15	15	15
Condensate drain (internal diameter min.)	mm	19	19	19	19	19	19
Electrical connection	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50
External case height	mm	800	800	720	720	720	720
External case width	mm	480	480	440	440	440	440
External case depth	mm	450	450	597	335	335	403
Top clearance (100mm flue/125mm flue)	mm	165/246	165/246	165/275	165/275	165/275	165/275
Side clearance	mm	5	5	5	5	5	5
Bottom clearance	mm	145	145	180	180	180	180
Weight approx.	kg	44	46	55	36	38.3	42.6
LPG model available		Conversion kit	Conversion kit	Conversion kit	Conversion kit	Yes	Conversion kit
SEDBUK	Band	A	A	A	A	A	A
NoX level	mg/kWhr-	34.71	53.07	44.13	32.84	39.63	44.13
NoX Class		5	5	5	5	5	5

*Water stored at up to 65°C. Flow rates of approx 20l/min when blended.

ecoTEC plus system						ecoTEC plus open vent				ecoTEC pro combi	
612	615	618	624	630	637	415	418	428	438	24	28
RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF
-	-	-	-	-	-	-	-	-	-	23.0	28.0
-	-	-	-	-	-	-	-	-	-	78,500	95,500
-	-	-	-	-	-	-	-	-	-	9.4	11.5
-	-	-	-	-	-	-	-	-	-	0.5	0.5
4.9 - 12.0	4.9 - 15.0	6.7 - 18.0	8.7 - 24.0	10.0 - 30.0	12.0 - 37.0	5.0 - 15.3	5.0 - 18.3	5.3 - 28.2	6.3 - 38.0	6.7 - 19.0	9.0 - 24.0
16,700 - 41,000	16,700 - 51,100	22,800 - 61,400	29,700 - 81,800	34,100 - 102,400	40,900 - 126,000	17,100 - 52,200	17,100 - 62,200	18,100 - 96,200	21,500 - 129,600	22,800 - 64,800	30,700 - 81,800
22	22	22	22	22	22	22	22	22	22	22	22
-	-	-	-	-	-	-	-	-	-	15	15
-	-	-	-	-	-	-	-	-	-	15	15
15	15	15	15	15	22	15	15	15	15	15	15
15	15	15	15	15	15	-	-	-	-	15	15
19	19	19	19	19	19	19	19	19	19	19	19
230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
720	720	720	720	720	720	600	600	600	600	720	720
440	440	440	440	440	440	375	375	375	375	440	440
335	335	335	335	369	403	340	340	340	340	335	335
165/275	165/275	165/275	165/275	165/275	165/275	200/275	200/275	200/275	200/275	165/275	165/275
5	5	5	5	5	5	20	20	20	20	5	5
180	180	180	180	180	180	200	200	200	200	180	180
34.8	34.8	34.8	36.3	37.8	40.2	31	31	33	33	35	37.5
Conversion kit	Conversion kit	Yes	Conversion kit	Yes	Conversion kit	*	*	*	Yes	Conversion kit	Conversion kit
A	A	A	A	A	A	A	A	A	A	A	A
30.14	32.17	32.84	39.63	33.65	44.13	37.4	40.6	27.3	13.4	32.84	39.63
5	5	5	5	5	5	5	5	5	5	5	5

Expansion vessel capacity (L) 10 (combination and system boilers only)

Note capacity of expansion vessel is dependent on heating system water content. Refer to installation instructions.

*Conversion instructions supplied with boiler.

Vaillant Ltd.

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