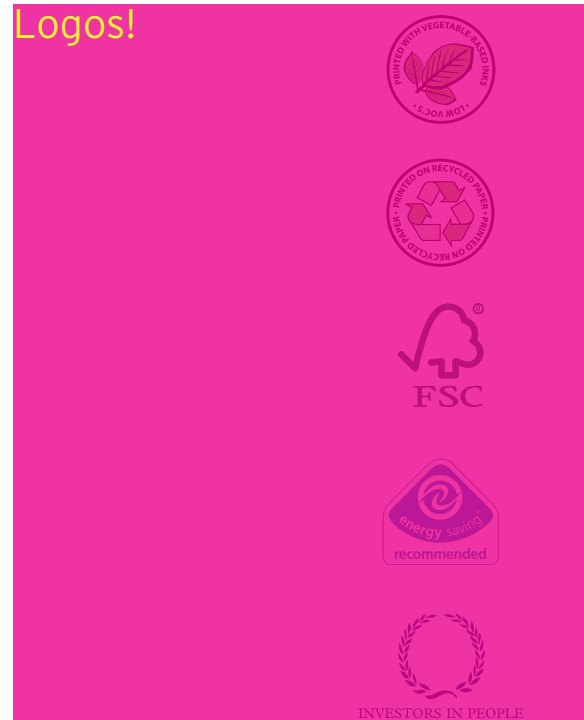


Why Vaillant?

Because with the new ecoTEC, **Vaillant Improves Performance.**



Logos!



03 2012 • ecoTEC Boiler Range Brochure

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Because  **Vaillant** thinks ahead.

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- Awarded 'Best Buy' status for entire ecoTEC range - 2011
- Voted 1st for reliability and customer satisfaction - 2010
Which? Magazine



- Heating Manufacturer of the Year - Winner 2010 & 2011
- Green Manufacturer of the Year - Winner 2010, Highly Commended 2011
Installer Live Awards (formerly CORGI Awards)



- Best Engineering Plant Energy & Environment
Best Factory Awards 2010



- Reddot design award winner
Reddot Design Awards 2010

Why Vaillant?

Because with the new ecoTEC, Vaillant Improves Performance.

For over 135 years, Vaillant has been leading the way in the development and manufacture of heating and hot water technology.

A renowned, international, family owned company, we have pioneered products that have revolutionised the heating industry. Today, our innovative solutions are still setting the standard in the heating marketplace. Whether it's award winning boilers or hot water cylinders, intuitive controls or a whole host of advanced renewable technologies designed to utilise sustainable sources of energy, our products are at the forefront of technology and deliver on the Vaillant promise to 'think ahead'.

Vaillant is not only looking forward in terms of its products. For just about as long as we've been creating appliances that transform the heating industry, we've also been focusing on developing better and more productive relationships with you - our customers. That's because we know that the partnerships we establish with our customers are key. Simply put, we know that together we are stronger.

The industry's most advanced heating solutions therefore go hand in hand with the industry's most developed and most forward thinking service solutions. At Vaillant there's an unwavering commitment to finding new and ever more imaginative ways to provide service excellence both before and for a long time after the installation of your chosen Vaillant appliance.

These combined objectives - to deliver the best products and the best service to you - are the twin driving forces that keep Vaillant out in front as one of Europe's market leading heating technology manufacturers.



Research and development

The Vaillant specialist Research and Development (R&D) resource is at the pinnacle of innovation for the heating and renewables industry. By combining traditional and renewable energy sources, our new technologies have become more efficient, more reliable and ultimately market leading.

Our dedication and foresight have paid off. Vaillant is now widely recognised as one of the world's leading manufacturers of environmentally friendly heating solutions, offering the most complete solar system available alongside other advanced innovative new products, such as the geoTHERM heat pump range.

An integral part of the development process and research and development function is product testing. Every product in development is routinely subjected to materials analysis, robustness testing, lifetime testing and acoustics analysis.

This meticulousness and unremitting commitment to quality are evident at every stage. For instance, Vaillant insists on quality in the production process through detailed production testing. At the end of the process, our products are put through their paces again by the industry bodies to make sure they are

approved to stringent quality and safety standards, with CE certification and safety testing taking place. This also applies to every appliance and every spare part that we sell.

This step-by-step innovation process is proven. Time and time again, it has helped us to deliver products that transform the industry and, most importantly, give our customers what they want.

Continuously refining and adapting our processes in response to new technological developments, you can be confident that Vaillant people, processes and technology will remain at the forefront of the heating industry. The company who first introduced you to water heaters in the early 1900s and the combi boiler in the 1970s, is as determined and committed as ever to pushing back the technological boundaries and fulfilling customer expectation.

Service

Vaillant invests as much time, energy and effort into getting our service right as we do into creating the industry's leading heating and renewable solutions.

With Vaillant, you'll find that help is never far away. We have Vaillant operators available at the end of dedicated lines, 7 days a week, 364 days a year, able to arrange for a local Vaillant service engineer to attend on site. Moreover, our operators are qualified experts who can call upon a wide technical knowledge of Vaillant appliances and supply you with right first time advice over the phone.

Should an engineer be required, we have an increasing network of over 250 engineers covering the length and breadth of the UK. Which means you have the peace of mind from knowing that expert assistance and advice from our local fully trained Vaillant specialists is always at hand. In fact, we guarantee next day service and, in many cases, will attend on site the same day. With upwards of 1500 spare parts on every vehicle too, it's easy to see why Vaillant engineers achieve such a high first time fix rate of over 98%.

Our installer technical helpline service is available Monday to Saturday* 8.30am to 5.30pm to provide guidance and advice over the phone to help you identify any installation challenges. In addition, Vaillant offers a full design service to housing associations and councils and specialist technical support services for our renewable solutions, such as solar thermal, ground and air source heat pumps.

As ever, Vaillant is utilising intelligent, advanced technology to take service and support to a new level. One such development is our ability to remotely monitor any appliance that has been installed. This ingenious feature will inform Vaillant Service that there is a fault, read a fault code and despatch an engineer - often before the homeowner has realised there might be a problem.

*Saturdays (9.00am to 4.00pm)

Delivering pure peace of mind

Helping you to select the right product

Selecting the right product to meet your specific heating and hot water requirements is key to achieving a lifetime of comfort. Vaillant is here to help you every step of the way.

Boiler and system calculator

Simple online tools are available to help you make a start when working out which products you need for your specific requirements. Just follow simple questions to get an instant system recommendation. www.vaillant.co.uk/homeowners/products/system-finders

Find an installer

Vaillant has developed an online search facility to help you find the best local installers in your area. All have been trained by Vaillant in our Centres of Excellence to ensure that only the best tradesmen are installing our products.

www.vaillant.co.uk/homeowners/find-an-installer

Installer technical helpline

Whether working on new or old Vaillant product, we have a team of dedicated technical experts waiting to answer any specific technical queries you have during installation or servicing. Please call **0844 693 3133** to speak to our expert advisors.

Extended warranties

Extended warranties are available on all our products. If you are a specifier, please speak directly with your Vaillant sales manager who will discuss bespoke warranty solutions for you.

Vaillant installers have access to extended warranties through the Advance loyal installer programme. Please call **01908 214 884** for more information.

If you're a homeowner, use our 'find an installer' function on the Vaillant website to find Vaillant trained installers in your area who will be able to provide you with extended warranties.

www.vaillant.co.uk/homeowners/find-an-installer



Online information

All the information you will ever need on Vaillant products, past or present, is available online. The Vaillant Technical Download Service provides you with all the technical information you need to specify and install a new system.

www.vaillantdownloadservice.co.uk

Systems technology

For large complex renewables projects we can bring in the unique skills of our system technologies team. Made up of highly qualified engineers and SAP assessors, the system technologies team provide advanced technical consultancy and installation support on the more unique projects.

Design service

We also provide a dedicated service for our specification customers, supplying full system designs and bill of materials. All are prepared on state of the art CAD design systems and are fully indemnified.

Complete peace of mind for the lifetime of the product

We pride ourselves on offering service excellence to our customers, especially in the toughest winter months. Vaillant has the largest network of manufacturer service engineers on the road, ensuring that if you need us, we will be there.



Next day service

Vaillant employs 250 dedicated service engineers so we can offer all our customers a next day service if required.

Outstanding first fix rate

When we get to you we can fix the problem and have a staggering 98% first fix rate. This is because our engineers are expertly trained on all of our products and carry 95% of all Vaillant spare parts on their vans.

Spares availability

We are committed to responsible spares provision and provide spares for a minimum of 15 years after product discontinuation. We have a nationwide network of genuine spares stockists and a dedicated spare parts team to help you identify the parts you require. Please call **01773 596615** for assistance.

Service packages

Offering 1*, 3* and 5* packages, Vaillant will help service and maintain your boiler for the lifetime of the product. Please call **01773 596660** for more information.

Assisted commissioning

We are committed to helping you every step of the way. So for installers venturing into the world of renewables technologies, we offer an assisted commissioning service to give you confidence during your first installs. Please call **08708 503 073** for more information.

Dedicated renewables telephone support

A dedicated team of technically trained staff are on hand waiting to answer any questions you have during installation of our renewable products. Please call **08708 503 073** for renewables support.

End user helpline

Should you have any questions once your boiler is installed, such as how to increase the pressure on the system or change the timer settings, we have a team of trained staff waiting to answer. Please call **0906 802 0251** for assistance.

A smartphone compatible web chat facility is also available on our website allowing you instant access to our knowledgeable staff.

www.vaillant.co.uk/homeowners/service

Bespoke service packages for specification customers

We understand that a quick service response is vital, so we will develop bespoke packages that are adapted specifically to your organisation, as well as telephone contact points for specification customers to ensure we are there when you need us. For more information please speak to your local Vaillant account manager.

Renewables service team

Launching in 2012 is a dedicated renewables after sales service team. Available nationwide, we are the first manufacturer to have an absolutely dedicated service support network for our renewables products operating 24/7.



'The Vaillant Experience'



Vaillant is not just providing you and your customers with the industry's leading products. We are also doing our utmost to increase your knowledge and understanding of our advanced heating and hot water solutions to add real value to your business.



Because the Vaillant Experience is better than any other

'The Vaillant Experience' demonstrates that we strive to be the best in all we do and that Vaillant has always stood for premium quality. So, when it comes to customer training, you know you're getting the best the industry can offer.

Our training courses are designed for Gas Safe Registered Installers, low carbon and renewable technology installers, local authorities, housing associations, architects, specifiers, merchants and stockists.

As the industry's leading training provider, we offer comprehensive training on the ecoTEC range of combination, system and open vent boilers.

- Topics cover:
- Condensing technology
 - Application and installation
 - Mechanical operation
 - External electrical controls
 - Electrical circuits and components
 - Practical 'hands-on' experience
 - Fault finding theory and use of diagnostic techniques
 - Practical use of multi-functional boiler display for easy diagnosis, fault finding, installation, commissioning and servicing
 - Instruction and practical use of a flue gas analyser

To book your one-day domestic boiler course visit www.vaillant.co.uk or email training@vaillant.co.uk

As well as offering domestic boiler training, we have an all-encompassing range of courses on cylinders, solar domestic hot water systems, air to air heat

pumps, commercial boilers, certification in energy efficiency, combustion analyser assessment, ground source and air to water heat pumps, domestic controls, mechanical ventilation heat recovery and MCS Quality Management.

Training is provided in the main at six Vaillant Centres of Excellence. These spacious, purpose-built, state of the art facilities offer a comfortable and superbly equipped training environment, with plenty of opportunities for hands on experience and product familiarisation. These centres are also conveniently located around the country at Elland (near Leeds), Belper (near Derby), Cambridge and Bristol, with three further centres opening soon in the South East, Scotland and Ireland. So, rest assured there's a centre within easy reach.

As well as training, these centres offer the installer a unique opportunity to find out more about Vaillant's full range of services and any upcoming product developments. Giving you the skills, knowledge and understanding to help you take your business forward. It's further testament to the fact that Vaillant isn't just giving the end user the products they want - we're also committed to providing our industry partners with the tools to achieve future success.

To book training visit www.vaillant.co.uk or email training@vaillant.co.uk



ecoTEC range overview



The Vaillant ecoTEC range of boilers delivers class-leading performance and reliability.

The result of over 135 years' accumulated heating industry experience and expertise, you can rest easy knowing ecoTEC offers exceptionally high efficiency and is also highly economical in operation. While compact dimensions and excellent siting versatility mean that ecoTEC is extremely easy to install.

Not content with producing the boiler that was awarded Which? Magazine 'Best Buy' status in 2011, we've added a host of new and innovative features to both our ecoTEC plus and pro boiler ranges.

We've improved the boiler efficiencies with a new gas system, enhanced the already industry leading electronics and taken ecoTEC performance and ease of installation to a new level. We've even enhanced the appearance with a new case design and clean, modern control panel.

All from a heating company that has been awarded Heating Manufacturer of the Year at the Installer Live Awards (formerly CORGI Awards) in both 2010 and 2011.



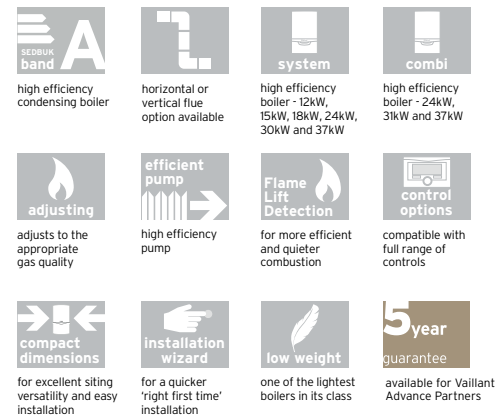
ecoTEC plus-combi and system

ecoTEC plus combination and system boilers are perfect for installations where a more advanced boiler is needed, with higher efficiencies and greater outputs. A modern gas boiler for future proof homes.



The new ecoTEC plus has a host of improved performance and installation features that mean our flagship range is even more energy efficient and easier to use. Still one of the lightest, most compact boilers in its class, the ecoTEC plus is stronger than ever thanks to advanced features that demonstrate our commitment to thinking ahead. With a new flame lift detection system for automatic burner monitoring and new high efficiency pump for reduced energy consumption, we are effectively giving you a boiler that is 'future proofed' against any changes in gas quality and ready for low energy pump legislation due to come into force in 2015. We've even improved the boiler design with a stylish new case design featuring an attractive platinum strip.

It's simpler, smarter, easier, cleaner, leaner, quieter - and just plain better.



For more information on Vaillant Advance loyal installer programme visit www.vaillant-advance.co.uk

Key performance features and benefits:

- SEDBUK efficiency of 89.4% (SAP 2009)
- Innovative new electronic gas and air modulation system, providing the following benefits:
 - accurate electronic modulation of gas and air for clean, low emission combustion
 - wide modulation range of 1:6 (16%) provides a low minimum output for use in properties with small heat loads or where multiple heating zones have been used
 - self-adjusting range rating function, which learns the maximum heating requirement of the system without the need for setting, ensuring the most efficient mode of operation
 - Assured Comfort (back-up mode) - in the unlikely event of a combustion fault, the boiler will revert to the last known operating condition to provide a degree of heat and hot water until the fault is fixed
 - self-diagnostic checks completed on first ignition to ensure correct gas type is being used. Checks made every 30 seconds ensure optimum combustion and eliminate the need to check and set CO₂ levels
- Burner is automatically monitored to ensure low combustion noise and optimised burner settings, using our innovative new Flame Lift Detection System. This feature also provides future proofing against gas quality changes
- Reduced energy consumption and low stand-by losses (less than 2W) come courtesy of the latest high efficiency automatic two stage pump
- New legislation in 2015 means all new boilers installed in UK properties will need to contain low energy pumps. All new ecoTEC boilers are future proofed and ready to accept these when required, meaning installers will not need to re-acquaint themselves with a new product

Key installation features and benefits:

- Simple new control panel, with straightforward push button controls, provide improvements via:
 - intuitive heating and hot water adjustment by 'hot keys' similar to those used on mobile phones
 - fault codes, which are supplemented by plain text descriptions
- To guide the installer through the correct set up and commissioning of the boiler on first ignition, our new 'wizard' feature saves time and ensures 'right first time' installation
- Front access to components is provided, as with previous models, but we now also have new removable side panels for additional accessibility and flexibility
- Exceptional build quality through tried and tested manufacturing methods and retained compact dimensions, as well as low lift weight, means reassured continuity with the previous ecoTEC range
- Compatible with the current range of flues and accessories, including the Variable Termination Kit (VTK) and the ecoLEVEL condensate pump, the new ecoTEC range is as versatile as ever

Compatible with Vaillant performance controls, which come in a range of options to suit a wide variety of end user requirements and living patterns.



ecoTEC plus open vent



The Vaillant ecoTEC plus open vent boiler provides a simple solution for homes looking to achieve a high efficiency standard.

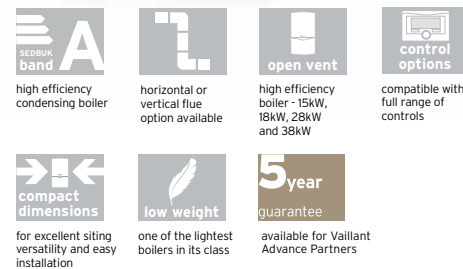
Extremely reliable and displaying all the in-built quality you've come to expect from Vaillant, ecoTEC plus is clearly one of the best open vent solutions available today. Where homes utilise a traditional open-vented system to provide their heating and hot water, the ecoTEC plus open vent boiler is the ideal way to deliver an exceptional, energy efficient performance. Available in four different output models, ecoTEC plus open vent boilers are the most compact boilers ever developed by Vaillant. This kitchen-friendly design, along with excellent siting versatility and low lift weight, ensure a quick and straightforward installation.

Key performance features and benefits:

- SEDBUK efficiency of 89.2% (SAP 2009)
- 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

Key installation features and benefits:

- Compact dimensions and convenient low lift weight for easy siting
- Easy wiring
- Push-fit flue system for greater installation flexibility
- Compatible with a wide range of existing controls



For more information on Vaillant Advance loyal installer programme visit www.vaillant-advance.co.uk

ecoTEC pro

Vaillant's ecoTEC pro boiler exemplifies everything to do with quality and innovation for the home with a smaller hot water and central heating demand. We've made ecoTEC pro even easier to control and install.

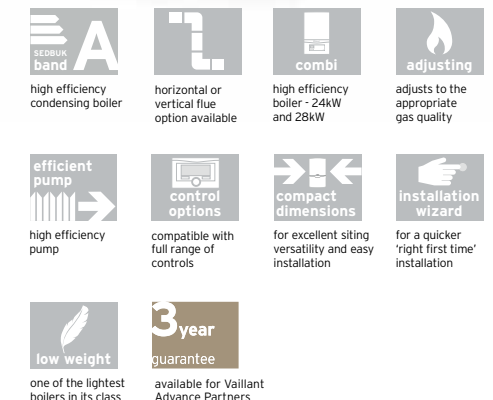
ecoTEC pro boilers are light and compact with a surprisingly powerful hot water performance. In addition we have now added a host of new features including a pneumatic gas system and high efficiency pump for greater efficiencies and a new interface with back lit control and simple display and instructions making it really easy to operate.

Key performance features and benefits:

- SEDBUK efficiency of 89.2% (SAP 2009)
- New pneumatic gas modulation system for improved performance
- Intelligent and precise self setting gas combustion
- New higher efficiency pump for reduced energy consumption and lower standby losses
- Attractive new case with improved aesthetics

Key installation features and benefits:

- Compact dimensions and convenient low lift weight for easy siting
- New user interface with improved larger back-lit control
- Interface also incorporates simple to follow symbol display instruction
- Removable side panels for improved accessibility
- Push-fit flue system for greater installation flexibility



For more information on Vaillant Advance loyal installer programme visit www.vaillant-advance.co.uk

ecoTEC plus 937

ecoTEC plus 937 provides all the exceptional high efficiency and hot water comfort you've come to expect from Vaillant, but has been designed with the needs of larger properties and higher hot water demands in mind.

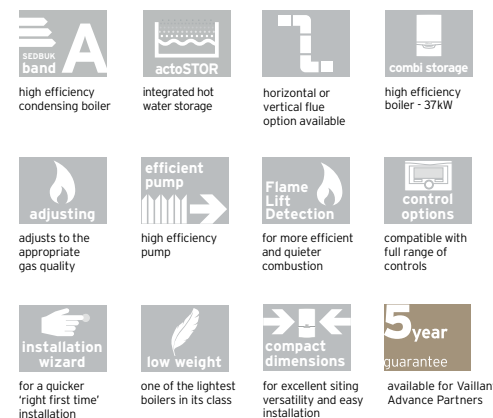
Capable of delivering a stunning 20 litres of hot water per minute, even the biggest baths are no problem for its superbly powerful and fuel efficient performance. As part of the newly developed and improved range of ecoTEC boilers, the boiler incorporates all of the new innovative features that take standards for boiler efficiency and ease of installation to a new level.

Key performance features and benefits:

- SEDBUK efficiency of 89.4% (SAP 2009)
- Electronic gas and air modulation system for ultimate performance
- Hot water power store for exceptional hot water delivery and comfort
- Incredible satisfaction of hot water demand without the need for a separate cylinder
- Flame lift detection system for more efficient and quieter combustion
- Contoured case and new control panel design for added visual appeal and ease of use

Easy installation

- Boiler and tank separate for easier handling
- Single electronic circuit board for easy commissioning and servicing
- New easy to use interface with installation wizard
- New removable side panels for even greater access
- Push-fit flue system for greater installation flexibility



For more information on Vaillant Advance loyal installer programme visit www.vaillant-advance.co.uk

ecoTEC exclusive

ecoTEC exclusive is a condensing combination boiler designed to provide space heating and domestic hot water for larger domestic properties.

This high efficiency boiler is for use with sealed heating systems and comes in two different output models. Equipped with an array of energy saving features to deliver a fuel efficient performance, the range also incorporates many ingenious features for improved ease of installation.

Key performance features and benefits:

- SEDBUK efficiency of 88.8% (SAP 2009)
- Wide modulation range for maintaining higher efficiencies at lower outputs
- Electronically controlled low energy pump for reduced consumption
- Stainless steel heat exchanger
- Compatibility with Vaillant eBUS controls for lower energy use

Key installation features and benefits:

- Designed to meet heating and hot water needs of larger properties
- Improved access for easy wiring
- Push-fit flue system for greater installation flexibility
- Filling loop for fast installation
- Clear backlit text display for easier reading of status



For more information on Vaillant Advance loyal installer programme visit www.vaillant-advance.co.uk

Flues and accessories



Flues

Along with unsurpassed levels of quality, reliability and performance, Vaillant is committed to offering you the industry's most flexible siting solutions.

The Vaillant ecoTEC range of boilers is comprised of sealed fan (RSF) assisted appliances that can be installed with horizontal and vertical flues.

Two different sizes of flue system are available: the standard 100mm diameter concentric flue system and a larger 125mm diameter concentric system to accommodate longer flue lengths if required.

As ever, improved ease of installation is front of mind, with the flues featuring simple push-fit connections for quick and problem free fitting.

Variable Termination Kit

Vaillant never lets up in its quest to find new and improved ways of meeting the multiple needs of installers, specifiers and service engineers.

Our Variable Termination Kit (VTK) is a perfect example of how we're always looking to push back the technological boundaries.

This advanced high efficiency accessory has been designed to address the specific problem of gas plume from boilers, which can be a major nuisance and place restrictions on the location of a flue terminal.

Put simply, the VTK enables the flue outlet to be sited away from the boiler, thereby resolving the visual and siting issues frequently associated with plumbing. And avoiding all the time, hassle and inconvenience of boiler relocation.

With its unique push-fit connections, the VTK is quick and easy to install and is available with black or white pipework to match the existing exterior pipework, fascias and windows.

ecoLEVEL

Vaillant is taking boiler siting flexibility to a new level - an ecoLEVEL, to be precise.

This innovative condensate pump removes condensate from high efficiency boilers, enabling the appliance to be installed remotely from the waste drain system. And avoiding the potentially costly and time consuming exercise of having to relocate the boiler elsewhere.

With its neat and tidy appearance, plus an exceptionally low operating noise, ecoLEVEL can be installed quietly and unobtrusively alongside the boiler into almost all areas of the home - even below ground level where a boiler has been installed into a cellar.

ecoLEVEL comes complete with wall fixings and pipes, plus connectors to enable a simple and straightforward connection to ecoTEC high efficiency boilers.



Complete control range



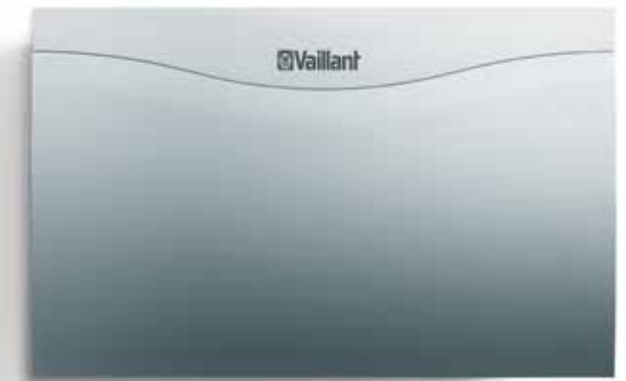
VRC 470 - programmable room thermostat with weather compensation



timeSWITCH 150 - analogue timer



timeSWITCH 160 - digital timer



VR 66 - control centre

Vaillant performance controls come in a range of options to suit a wide variety of end user requirements and living patterns.

Thermostats

A range of models is available, from basic analogue room thermostats through to more sophisticated wireless digital programmable room thermostats that remotely control the boiler and provide 7-day or 24-hour independent time and temperature management of the central heating.

Time clocks

These are straightforward mechanical timers for combination boilers, providing 24-hour analogue time control of central heating without requiring additional wiring. The time clock incorporates easy to use tappets and simply plugs into the boiler fascia.

Weather compensators

A range of innovative weather compensators that permanently monitor the outside temperature and adjust boiler output to maintain the ideal desired room temperature indoors. The delivery of precisely the right amount of heat minimises wastage and reduces energy costs.

Control centres

By linking all Vaillant controls together, it's possible to create a state of the art integrated domestic heating system. At the heart of this total system solution is the VR 66 control centre, designed to smoothly communicate to all parts of the system, providing complete integration.

Controls compatibility

	Control type	ecoTEC exclusive	ecoTEC plus 937	ecoTEC plus combination	ecoTEC plus system	ecoTEC plus open vent	ecoTEC pro combination
VRT 30*	Analogue room thermostat	✓	✓	✓	✓	✓	✓
VRT 50**	Digital room thermostat	✓	✓	✓	X	X	✓
timeSWITCH 150	Mechanical time clock	✓	✓	✓	X	X	✓
timeSWITCH 160	Digital programmer	✓	✓	✓	✓ VR 66 required	✓ VR 66 required	✓
VRT 350	Programmable room thermostat	✓	✓	✓	✓ VR 66 required	✓ VR 66 required	✓
VRT 392f	Wireless programmable room thermostat	✓	✓	✓	✓ VR 66 required	✓ VR 66 required	✓
VRC 470	Weather compensator	✓	✓	✓	✓ VR 66 or VR 61/2 required	✓ VR 66 or VR 61/2 required	✓
VRC 470f	Wireless weather compensator	✓	✓	✓	✓ VR 66 or VR 61/2 required	✓ VR 66 or VR 61/2 required	✓

Controls features

	Analogue	Digital	Controls time	Controls temperature	Room compensation	Weather compensator	Wired	Wireless
VRT 30	✓			✓			✓	
VRT 50		✓		✓			✓	
timeSWITCH 150	✓		✓				✓ Must be fascia mounted	
timeSWITCH 160		✓	✓				✓ Must be fascia mounted	
VRT 350		✓	✓	✓	✓		✓	
VRT 392f		✓	✓	✓	✓			✓ Receiver must be wired to the boiler
VRC 470		✓	✓	✓	✓	✓	✓	
VRC 470f		✓	✓	✓	✓	✓		✓

* timeSWITCH 150 or timeSWITCH 160 required

** timeSWITCH 150 required; cannot be combined with timeSWITCH 160

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	6.4 - 28.0	3.8 - 19.0	5.2 - 24.0	6.4 - 28.0
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/case removal	mm	5	5	5/50	5/50	5/50	5/50
Bottom clearance	mm	145	145	180	180	180	180
Weight approx.	kg	44	46	55	35	38	41
LPG model available		-	-	-	-	Yes	-
SEDBUK	Band	A	A	A	A	A	A
NoX level	mg/kWh	34.71	53.07	27.41	27.68	32.31	27.41
NoX Class		5	5	5	5	5	5

ecoTEC plus system						ecoTEC plus open vent				ecoTEC pro combi		
612	615	618	624	630	637	415	418	428	438	24	28	28 LPG
RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF	RSF
-	-	-	-	-	-	-	-	-	-	23.0	28.0	28.0
-	-	-	-	-	-	-	-	-	-	78,500	95,500	95,536
-	-	-	-	-	-	-	-	-	-	9.4	11.5	11.5
-	-	-	-	-	-	-	-	-	-	0.5	0.5	0.5
3.0 - 12.0	3.0 - 15.0	3.8 - 18.0	5.2 - 24.0	5.8 - 30.0	6.4 - 37.0	5.0 - 15.3	5.0 - 18.3	5.3 - 28.2	6.3 - 38.0	5.2 - 18.5	6.2 - 24.0	6.2 - 24.0
22	22	22	22	22	22	22	22	22	22	22	22	22
-	-	-	-	-	-	-	-	-	-	15	15	15
-	-	-	-	-	-	-	-	-	-	15	15	15
15	15	15	15	15	22	15	15	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	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	230/50
720	720	720	720	720	720	600	600	600	600	720	720	720
440	440	440	440	440	440	375	375	375	375	440	440	440
335	335	335	335	369	403	340	340	340	340	335	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	165/275
5/50	5/50	5/50	5/50	5/50	5/50	20	20	20	20	5/50	5/50	5/50
180	180	180	180	180	180	200	200	200	200	180	180	180
35	35	35	37	38	40	31	31	33	33	34	37	37
-	-	Yes	-	Yes	-	*	*	*	Yes	-	-	Yes
A	A	A	A	A	A	A	A	A	A	A	A	A
19.71	22.9	25.9	32.31	30.18	35.95	37.4	40.6	27.3	13.4	27.27	33.4	-
5	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.