

ecoMAX

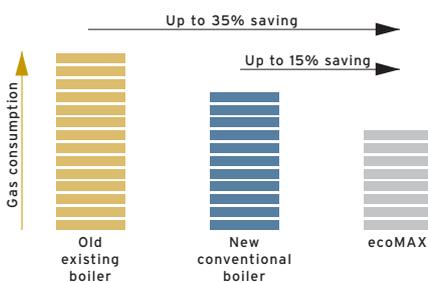


High efficiency
condensing combination
and system boiler ranges



Simply high performance

Fuel efficiency and environmental issues have become increasingly important in product development. Vaillant has responded with the range of ecoMAX high efficiency condensing gas boilers.



As the name suggests, fuel efficiency and economy are key to ecoMAX, and it delivers these combined with the quality, reliability and high performance expected from Vaillant products.

The range of ecoMAX combination and ecoMAX system boilers make use of the latest energy saving technology to deliver outstanding efficiency and low emissions.

Compact dimensions and a wide range of features allow ecoMAX to provide easier installation and servicing together with excellent siting versatility.

All this adds up to high performance and exceptional fuel efficiency. And what's more it's backed up with a full 2 year guarantee.†

ecoMAX - it couldn't be simpler.



Energy Efficiency Recommended is an Energy Saving Trust initiative backed by the government. The logo is only found on products that have been carefully selected for their energy efficiency. Buy where you see the sign and help save energy, money and the environment.

† The 2 year guarantee covers against manufacturing defects and provides for the replacement of defective parts with new parts and any related labour costs, providing that such works are carried out by a Vaillant Engineer or Vaillant appointed agent. For the guarantee to be valid an annual service must be carried out by a CORGI registered installer. The cost of this annual service is not included in the guarantee.



At home in any kitchen

The compact dimensions, styling and low lift weight make the ecoMAX simple to fit even in confined spaces.

Easier installation

Clip distance pipework, a built-in filling loop (ecoMAX combi models), simple electrical and push-fit flue connections save installation time.

Simple commissioning and servicing

The ecoMAX incorporates a comprehensive boiler display system showing status and diagnostic information for easy commissioning and subsequent service work.

High performance

High efficiency ecoMAX models (SEDBUK band 'A' rating) use fuel more economically, capturing otherwise wasted heat to give improved performance and lower running costs over conventional boilers.

ecoMAX combination boilers feature an "AquaComfort" system which provides superb hot water performance.

ecoMAX boilers are also available in LPG versions.

Quality and reliability

The inside story

For over 130 years, Vaillant has been developing and supplying products that have shaped the heating industry - setting the standards for performance, quality and reliability.



2 year
guarantee

5 year
anti-scale
guarantee

on all Vaillant
combination boilers



Vaillant is a member of the Benchmark initiative and fully supports the aims of the programme. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

On ecoMAX combination boilers the 5 year anti-scale guarantee provides solely for the replacement of the Domestic Hot Water Heat Exchanger component in the event of lime scale blockage within 5 years from the installation date. The replacement must be carried out by a Vaillant Engineer or Vaillant appointed agent, and labour costs are not included in this guarantee.

Main heat exchanger

High-performance, circular stainless steel heat exchanger allows more heat to be extracted by recapturing otherwise wasted heat



Fully modulating low NOx burner

Automatically matching heat output to demand, achieves best class emissions within European standards



Boiler display system

Provides status and diagnostic information for easy commissioning and servicing



Domestic heat exchanger

Stainless steel construction with large surface area to provide rapid hot water delivery and efficient operation



'AquaComfort' system

Incorporates a warmstart facility to provide instantaneous hot water delivery with a special flow sensor which ensures constant hot water temperatures over a wide operating range (ecoMAX combi models)



Push-fit flueing

A wide range of flue options, all with push-fit connection provides total flexibility in siting

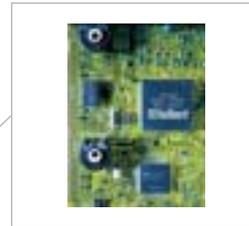


Motorised diverter valve
(ecoMAX combi models)



Single electronic circuit board

Simplifies commissioning and servicing



Built-in filling loop

For filling the central heating system (ecoMAX combi models)



Simple installation

and servicing

Every feature built into ecoMAX has been designed with ease of installation and servicing in mind.

Well connected

All system isolating valves are built into the boiler and are provided with compression fittings. Heating and gas connections are provided with pre-formed copper pipework allowing connection at pipe clip



distance from the wall; and purpose provided channels at the rear of the boiler allow pipework to be run to above for top connections.

An automatic system bypass is also incorporated in the boiler, so there is no need to install and adjust a separate bypass. Straightforward plug and socket electrical connections have also been designed to make installation simpler.



A built-in filling loop for the central heating system saves the additional cost and labour of installing a remote fill point (ecoMAX combi models).

And well protected

To protect the boiler in freezing conditions a built-in 2 stage frost thermostat automatically operates the pump and if needed the burner, providing frost protection and minimising gas consumption.

Simple to operate and commission

All boilers are factory set and checked, and require no adjustment allowing easier and faster commissioning.

All ecoMAX models feature a boiler display system which shows status and diagnostic information for easy commissioning and subsequent service work.

Normal mode

Displays boiler flow temperature



Status mode

For a quick functional check during commissioning



Fault mode

Highlights system problems at a glance (eg. F.28: no gas supply)



Diagnostic mode

Displays key component operating information



A drop down control box also provides easy access to all components, facilitating service work.



Optional controls and accessories

For use with ecoMAX combination boilers.



Programmable digital room thermostat - VRT 230

This room thermostat offers full digital time and temperature control of central heating and operates in either 24 hour or 7 day mode, with 3 independent time windows per day. Built-in functions include night setback and holiday programmes with a manual override facility.



Wireless programmable digital room thermostat

The perfect solution for installations where running cable between boiler and thermostat is not practical. The VRT 340f is supplied with a plug-in receiver unit and communicated with the room thermostat via a radio link. Includes a second channel to control the 'AquaComfort' system.



Weather compensator

The VRC 410s automatically matches boiler output to the external temperature for greater fuel savings. An externally mounted temperature monitor ensures optimum operation to demand. A second channel to control the 'AquaComfort' system is included.



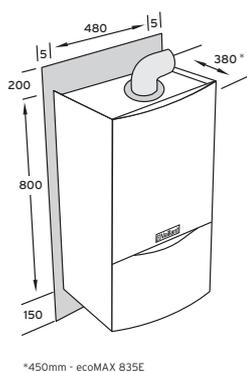
Central heating timers

Two optional plug-in timers - 24 hour analogue and 7 day digital. These are simply plugged in to the boiler control panel and provide easy to use control of central heating. The 7-day version includes a second channel to control the 'AquaComfort' system.



At home anywhere

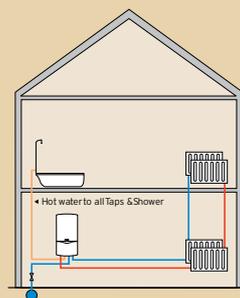
When it comes to boiler siting the ecoMAX has been designed to allow maximum flexibility, which means you can fit it virtually anywhere.



Compact dimensions, minimal side clearances and no requirement for air vents mean that the boiler is ideal for installation in cupboards or compartments.

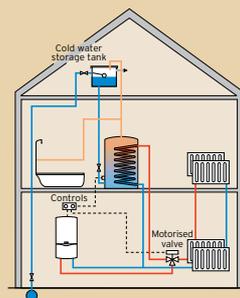
ecoMAX combi models also operate on low mains water pressure, achieving full flow rate at only 0.5 bar and so are the perfect solution for areas with low water supply pressures.

The ecoMAX range has a boiler for every application



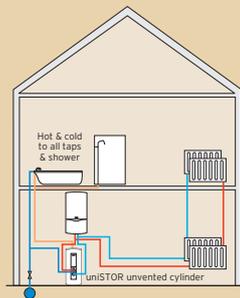
ecoMAX combination boiler

ecoMAX condensing combination boilers require no hot water cylinder or cold water storage tank.



ecoMAX system boiler with vented cylinder

ecoMAX condensing system boilers have all major system components (pump, expansion vessel, bypass valve, automatic air vent) built-in.



ecoMAX system boiler with uniSTOR unvented cylinder

ecoMAX condensing system boilers with uniSTOR unvented cylinder provide a harmonised boiler and cylinder system.

Flues and flue accessories

Maximum flue lengths*	824E	828E	835E	613E	618E	622E	635E
Horizontal condensing flue system 100mm diameter ¹	8	8	8	4	7	8	4
Vertical condensing flue system 100mm diameter ¹	12	12	12	7	9	10	7
Horizontal condensing flue system 125mm diameter ²	13	25	30	21	25	30	21
Vertical condensing flue system 125mm diameter ²	14	27	31	22	26	29	22

*Measured to the end of the horizontal /vertical terminal

1. This is the standard system for ecoMAX boilers. The maximum length must be decreased by 1 metre for each additional 87° elbow or pair of 45° bends.

2. This is an optional flue system for ecoMAX boilers where longer flue lengths are required. The maximum length must be decreased by 2.5 metres for each additional 87° elbow and 2 metres for each pair of 45° bends. Optional boiler flue outlet adaptor (accessory 303907) will be required.

High efficiency flue accessories	Standard 100mm Ø	Optional 125mm Ø
	Accy. Number.	Accy. Number.
Horizontal air/flue duct with elbow and terminal (754mm)	303933	N/A
Horizontal air/flue duct with elbow and terminal (1000mm)	N/A	303209
Boiler flue outlet adaptor (Ø100mm to Ø125mm)	N/A	303926
Horizontal telescopic air/flue duct	303936	N/A
Vertical air/flue duct and terminal	303900	303200
Flat roof penetration collar	009056	009056
Pitched roof adjustable roof tile	009076	009076
Flexible pitched roof seal	303980	303980
87° elbow	303910	303210
Two 45° bends	303911	303211
Air/flue duct extension (470mm)	303902	303202
Air /flue duct extension (970mm)	303903	303203
Air /flue duct extension (1970mm)	303905	303205
Telescopic air/flue duct extension (440-690mm)	303906	N/A
Telescopic offset	303919	N/A
Sliding sleeve	303915	303215
Flue support clips (box of 5)	303821	303616
Adjustable flue support clips (box of 3)	303935	N/A
Black terminal kit for horizontal air/flue duct	303934	N/A

High efficiency flue accessories



Horizontal air/flue duct with elbow and terminal



Horizontal telescopic air/flue duct



Variable Termination Kit (VTK)



Black terminal kit for horizontal air/flue duct

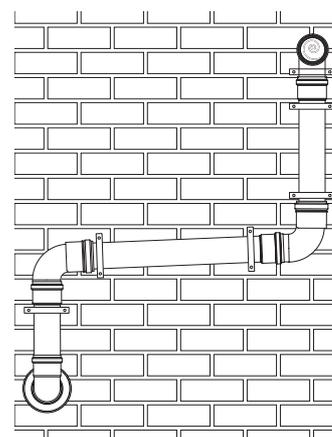


Flexible pitched roof seal

Variable Termination Kit (VTK) and components

For use with Ø100mm flue only (303933 and 303936)

Description	Accy. Number
Variable Termination Kit - black	303942
VTK extension pipe 1m - black	303943
VTK 87 degree elbow - black	303944
VTK 45 degree bends (2 pcs) - black	303945
Variable Termination Kit - white	303946
VTK extension pipe 1m - white	303947
VTK 87 degree elbow - white	303949
VTK 45 degree bends (2 pcs) - white	303948



ecoMAX boilers are room sealed fan assisted (RSF) appliances and can be installed with horizontal and vertical flues.

ecoMAX boilers utilise the standard 100mm diameter condensing flue system. An optional larger 125mm diameter condensing flue system is

available, where longer flue lengths can be achieved if required (optional boiler flue outlet adaptor accessory number 303907 will be required).

All flues feature simple push-fit connections and a smart white finish.

uniSTOR

unvented cylinders



uniSTOR is a new range of six 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 Vaillant boilers such as ecoMAX system 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 shell is backed up by a 25 year warranty.

- 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

Technical specification

uniSTOR stainless steel unvented cylinder		125	155	180	210	260	310
External case height	mm	938	1148	1308	1468	1758	2078
External case width	mm	602	602	602	602	602	602
External case depth	mm	554	554	554	554	554	554
Weight approx.	kg	28	30	33	39	44	49



Customer support services



The after sales service and support behind every Vaillant boiler is part of the quality package that has helped Vaillant to build a unique reputation within the industry.

- engineers on call 364 days a year, 7 days a week
- next working day call out policy
- feedback to installer for installer booked in-warranty calls
- end user courtesy telephone call post engineer visit

Extended opening hours :
Mon - Fri 8am - 8pm
Sat - Sun 9am - 4pm

For more details just call Vaillant Service on **0870 6060 777**.

Vaillant offers an extensive range of training courses at five fully equipped training centres strategically located across the country. There are courses covering our entire product range and as well as tailor-made and specialist equipment training, we offer a course specially designed to improve sales skills. We are also an approved provider of ACS assessment and the Certificate in Energy Efficiency for Domestic Heating.

For full details of our current courses please contact our Training Department.

Contact details

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Technical Specification

	Condensing Combination Boilers ecoMAX			Condensing System Boilers ecoMAX			
	824E	828E	835E	613E	618E	622E	635E
Flue type	RSF	RSF	RSF	RSF	RSF	RSF	RSF
Maximum DHW heat output kW (Btu/h)	23.0 (78,500)	28.0 (95,500)	35.0 (119,400)	-	-	-	-
DHW flow rate @ 35°C temperature rise l/min	9.4	11.5	14.3	-	-	-	-
Mains water pressure required for max. flow rate bar	0.5	0.5	0.5	-	-	-	-
CH heat output range kW (80°C flow/60°C return) (Btu/h)	11.0-18.4 (37,500- 62,800)	13.4-22.4 (45,700- 76,400)	10.5-27.0 (35,800- 92,200)	4.6-13.5 (15,700- 46,000)	11.0-18.4 (37,500- 62,800)	13.4-22.4 (45,700- 76,400)	10.5-34.9 (35,800- 119,000)
CH heat output range kW (50°C flow/30°C return) (Btu/h)	11.6-19.4 (39,600- 66,200)	14.1-23.6 (48,100- 80,500)	11.0-28.4 (37,500- 96,900)	4.8-14.2 (16,400- 48,500)	11.6-19.4 (39,600- 66,200)	14.1-23.6 (48,100- 80,500)	11-36.7 (37,500- 125,200)
Maximum CH heat input (net) kW	18.8	22.9	27.0	13.8	18.8	22.9	34.9
Connections							
Heating flow/return mm	22 ¹⁾	22 ¹⁾	22 ¹⁾	22 ¹⁾	22 ¹⁾	22 ¹⁾	22 ¹⁾
Cold water inlet mm	15 ²⁾	15 ²⁾	15 ²⁾	-	-	-	-
DHW outlet mm	15 ²⁾	15 ²⁾	15 ²⁾	-	-	-	-
Gas inlet mm	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾
Pressure relief valve discharge pipework mm	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾	15 ¹⁾
Condensate drain (internal diameter min.) mm	19	19	19	19	19	19	19
Electrical connection V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Dimensions							
External case height (excl. flue) mm	800	800	800	800	800	800	800
External case width mm	480	480	480	480	480	480	480
External case depth mm	380	380	450	380	380	380	450
External case depth at sides mm	360	360	430	360	360	360	430
Weight approx. kg	45	47	48	45	45	47	41
LPG model available	-	●	-	-	-	●	-
SEDBUK Band	A	A	A	A	A	A	A
%	91.1	91.1	91.1	91.2	91.2	91.2	91.2

¹⁾ Copper tail pipe clip distance from wall ²⁾ Compression fitting

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