

The new ecoTEC range -
condensing technology "Made in Germany"



Wall hung gas system
and combination boilers
ecoTEC plus

Condensing technology - saving money



Scientifically spoken condensation is the transition of a substance from the condition of aggregation of a gas into that of a liquid. This process is carried out under certain pressure and temperature conditions which are named the "condensation point".

That now sounds very theoretical, but what this means for our range of condensing appliances can be summed up quite easily:

A condensing boiler uses the ambient heat of its own exhaust fumes. It transports those to its condensing coils which release the heat back into the heating circle.

The only by-product of the condensation process is water which can be easily disposed off.

With our ecoTEC appliances you can have the best of both worlds... **save on gas consumption, limit your expenditure and the pollution of the environment!**

**ecoTEC plus -
modern heating technology for everybody**

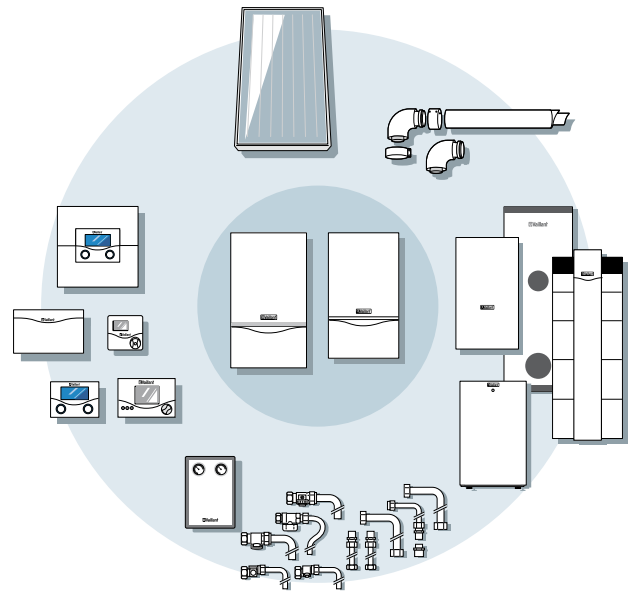
The ecoTEC with its innovative condensing technology reaches a degree of efficiency which allows it to go beyond the boundaries of conventional heating appliances.

With an efficiency degree of 107 % the ecoTEC promises an optimal use of your resources.

The "ecoTEC" further cements Vaillant's claim to be the leading supplier of intelligent systems for domestic comfort.



and the environment



Innovations create opportunities

Heating and hot water:

The ecoTEC incorporates the flexibility to create a by you determined zone of domestic comfort in your home.

The ecoTEC is a fully equipped heating appliance that has all necessary components incorporated in order to ensure full heating satisfaction.

Should the ecoTEC be further used for the purpose of providing hot water the appliance can easily be connected with one of Vaillant's extensive range of hot water storage units. Giving your ecoTEC the ability to satisfy all your hot water requirements.

Total control:

The ecoTEC can be equipped with a wide range of thermostats either internal or external or even wireless.

It will allow you to be in total control over your appliance from every room of your house.

Your gateway to solar powered heating:

The ecoTEC can be combined with Vaillant's solar products range and will allow you to enter a new dimension of resource efficient heating.

Your ecoTEC appliance will allow you to take full advantage of the energy the sun provides and ensure the satisfaction of your highest demands.

The ecoTEC plus range offers:

- The comfort of a fully equipped device that incorporates all necessary components
- Through its reworked interior it uses less space than ever before, while still presenting its award winning exterior
- The ecoTEC allows itself to be adapted to fit almost every performance demands through its variable power output from 9 - 65 kW
- It is also combinable with renewable energy products to even enlarge your energy saving benefits.

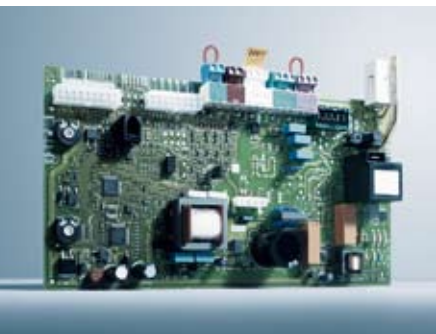
Technology - designed to satisfy your demand for



A wide range of flue options all with push-fit connection, give the ecoTEC total flexibility concerning where to place the appliance within any home.



The full modulation low NO_x burner matches the output to your heating demands. Your ecoTEC will ensure an optimum use of your resources.



The main electronic circuit board:
- Simplifies maintenance
- Allows the appliance to be easily connected to various external applications



An array of sensors ensures full satisfaction of high demands



comfort, savings and the environment



The main high performance heat exchanger allows more heat to be extracted by exploiting otherwise wasted energy. Greatly increasing the heating performance



The new redesigned interior decreases the dimensions and the lifting weight. Its modulating electric pump adapts its power output to the required demand saving on energy consumption.



ecoTEC plus at a glance:

- High quality products developed and built in Germany
- Time saving and proper installation (low weight and compact dimensions)
- Easy and proper maintenance due to well designed components and placement
- High energy efficiency
- Highest warmth and warm water comfort
- Combinable with Vaillant control technology
- Extended hot water comfort when combining with Vaillant warm water storages
- Combinable with renewable energy products

Solution for demands up to 200 kW 4 ecoTECs... four times better!



With a cascade system the range of applications for the ecoTEC plus are greatly enlarged.

Vaillant offers a complete cascade accessory portfolio including hydraulic switches, weather-driven controls for modulating functions, as well as a special evacuation flue for up to four appliances. By combining three VU 656 heating appliances an output of up to 200kW can be reached, making the ecoTEC also the perfect solution for larger housing projects.

The ecoTEC cascade solution at a glance:

- Components for evacuation systems in cascades of up to four appliances of the same type (VU 656 in cascade of three, only).
- The installation can be independent of room air
- Robust synthetic material tubes
- Easy to adjust to the installation length

Technical specifications ecoTEC plus

System boilers ecoTEC plus for heating	unit	ecoTEC plus VU 246/3-5	ecoTEC plus VU 306/3-5	ecoTEC plus VU 376/3-5	ecoTEC VU 466-7	ecoTEC VU 656-7
Nominal heat output range at 80/60 °C	kW	9,4-26,0	10,8-32,4	12,9-40,1	12,3-44,1	13,7-63,7
Nominal heat output range at 60/40 °C	kW	9,3-25,5	10,6-31,8	12,7-39,3	12,5-45,0	14,1-65,7
Nominal heat output range at 50/30 °C	kW	9,0-24,7	10,3-30,0	12,3-38,1	12,9-46,4	14,6-67,6
Nominal heat output range at 40/30 °C	kW	8,7-24,0	10,0-30,0	12,0-37,0	13,3-47,7	15,0-69,6
Max heat input	kW	24,5	30,6	37,8	45	65
Min. heat input	kW	8,9	10,2	12,2	12,5	14,0
Standardized utilization ratio at 40/30 °C	%	109	109	109	108	109
Nominal efficiency at 40/30°C	%	106	106	106	106	107
Emissions Nox at 80/60	mg/kWh	60	60	60	42	50
Exhaust temperature min./max.	°C	40/75	40/85	40/70	38/73	35/75
Heating						
Max. flow temperature	°C	85	85	85	90	85
Adjustable flow temperature	°C	30-85			40-85	
Admissible overall pressure	bar	3				
Circulating water volume ΔT = 20K	l/h	1032	1290	1591	1935	2795
Condensation water volume	l/h	2,2	3	3,8	4,5	6,5
Residual pump head	mbar	250	250	150	190	210
Capacity of expansion vessel	l	10	10	10	-	-
Storage load						
Adjustable flow temperature	°C	15-70				
General data						
Gas connection	thread	R 3/4			R 3/4	
Cold & warm water connection	thread	R 1/2			R 1	
Exhaust connection	mm	60/100 (concentric)			80/125 (concentric)	
NOx category		5				
Electrical connections	V/Hz	230/50				
Protection degree		IP X4D				
Weight	kg	37	37	38	45	72
Dimensions (HxWxD)	mm	720x440x335	720x440x369	720x440x403	800x480x450	800x480x472

All versions combinable in cascade of four appliances, apart from VU 656: 3 appliances max.

Warm water storages for combination with system boilers	unit	VIH CK 70	VIH R 120/5	VIH R 150/5	VIH R 200/5
Installation type		wall	floor	floor	floor
Height	mm	800	752	970	1240
Width x depth	mm	440 x 380	-	-	-
Diameter	mm	-	560	600	600
Weight net	kg	55	68	79	97
Weight in operation status	kg	120	183	229	297
Electrical connection					
Nominal voltage	m ³ /h	-	1,6	1,6	1,6
Pressure loss	mbar	-	50	50	65
Protection class		-	IP 24		
Hydraulic connection					
Cold/warm water	thread	3/4"	3/4"		
Primary flow and return	thread	3/4"	1"		
Circulation	thread	-	3/4"		
Performance data storage water heater					
Capacity	l	63	115	150	200
Max. water supply pressure	bar	10	10	10	10
Max. warm water temperature	°C	75	85	85	85
Hot water output power	l/10 min	130	145	195	250
Continuous power performance 85/65°C	kW	30	25	26	34
Continuous power performance 85/65°C	l/h	740	615	660	750
Stand-by energy losses	kWh/24h	0,95	1,3	1,4	1,6
Tank lining		enamelled steel, magnesium safety anode			

Connection accessory and safety groups are also part of our range - ask your dealer for them!

Technical specifications ecoTEC plus

Combination boilers ecoTEC plus for heating and warm water	unit	ecoTEC plus VUW 236/3-5	ecoTEC plus VUW 296/3-5	ecoTEC plus VUW 346/3-5
Nominal heat output range at 40/30 °C	kW	7,2-20,6	9,8-26,0	10,8-32,4
Nominal heat output range at 50/30 °C	kW	7,1-20,2	9,6-25,5	10,6-31,8
Nominal heat output range at 60/40 °C	kW	6,9-19,6	9,3-24,7	10,3-30,9
Nominal heat output range at 80/60 °C	kW	6,7-19,0	9,0-24,0	10,0-30,0
Warm water output	kW	23	29	34
Max. heat load while heating	kW	19,4	24,5	30,6
Min heat load	kW	6,8	9,2	10,2
Heating				
Max. flow temperature	°C	85		
Flow temperature range	°C	30-85		
Allowed total overpressure	bar	3		
Water quantity in circulation (at $\Delta T = 20$ K)	l/min	817	1032	1290
Warm water				
Min. water quantity	l/min	1,5		
Water quantity ($\Delta T = 30$ K)	l/min	11	13,9	16,2
Allowed total overpressure	bar	10		
Required supply pressure	bar	0,35		
Warm water outlet temperature range	°C	35-65		
General data				
Gas connection (diameter)	mm	15		
Heating connection	thread	R 3/4		
Cold & warm water connection at the appliance	thread	R 3/4		
Exhaust connection	mm	60/100 (concentric) optional 80/125 (concentric)		
Nominal degree of efficiency at 40/30 °C	%	109		
NOx category		5		
Electric connections	V/Hz	230/50		
Protection degree		IP X4D		
Weight	kg	35	38	42
Dimensions (HxWxD)	mm	720x440x335		720x440x369

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