Floor standing boiler
Output 60 – 200 kW

Rendamax
HEATNOLOGY

R1000

The flexible floor standing commercial boiler

R1000 – Ultimate flexibility from a fl

Flexible design, outstanding performance

The R1000 is a new approach to boiler design – one which creates the most flexible product on the market, while redefining commercial heating.

Built-in back-up

Thanks to a unique 'dual engine' design, R1000 boilers have built-in redundancy – creating a cascade system within one boiler. The two heat exchangers are capable of working independently from each other, ensuring that a system is never left without highly efficient heating.

Plug & Play

By integrating main components within the boiler, such as the pump and non return valves, installation time, costs and space required are all significantly reduced. Thanks to the new HMI (Human Manual Interface) and a wide range of accessories, quick installations and commissioning become very simple. With our backpack solution single boilers come already equipped with low loss header or plate heat exchanger.

Simple to service

All key components are accessible from the front of the boiler, making ongoing servicing and maintenance easy, while also reducing time on site.

Designed for future standards

Within the R1000 is RENDAMAX's unique three zone heat exchanger technology.

1) NOx zone: The formation of thermal NOx is reduced to a minimum by low resistance and a short dwell time, as well as rapid cooling of the combustion gases to below 1,000 °C.

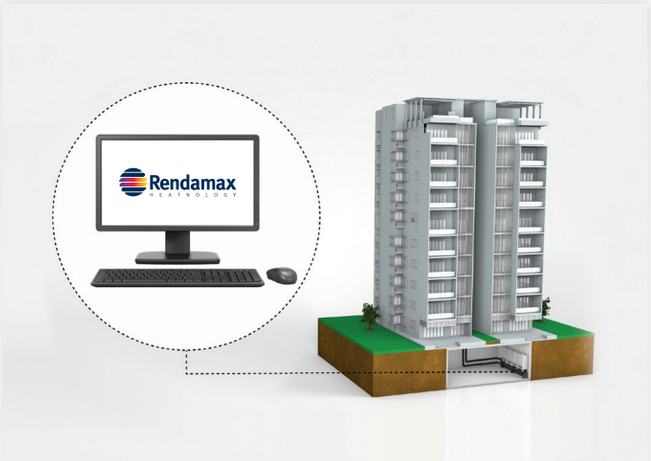
2) CO zone: By increasing resistance, the heat exchangers keep the combustion gas at over 600 °C for as long as possible to minimise the formation of carbon monoxide.

3) H_2O condensation zone: With small and densely arranged heat exchanger tubes, maximium heat transfer is achieved in this zone, ensuring optimum efficiency.

Lightweight materials

By utilising the latest lightweight materials, the R1000 can be easily commissioned, transported and manouvered on site. And thanks to its stainless steel heat exchanger. there are no compromises on durability and robustness. In addition, its low water content design and advanced combustion technology facilitate rapid heat transfer and extremely high efficiencies.

floor standing boiler



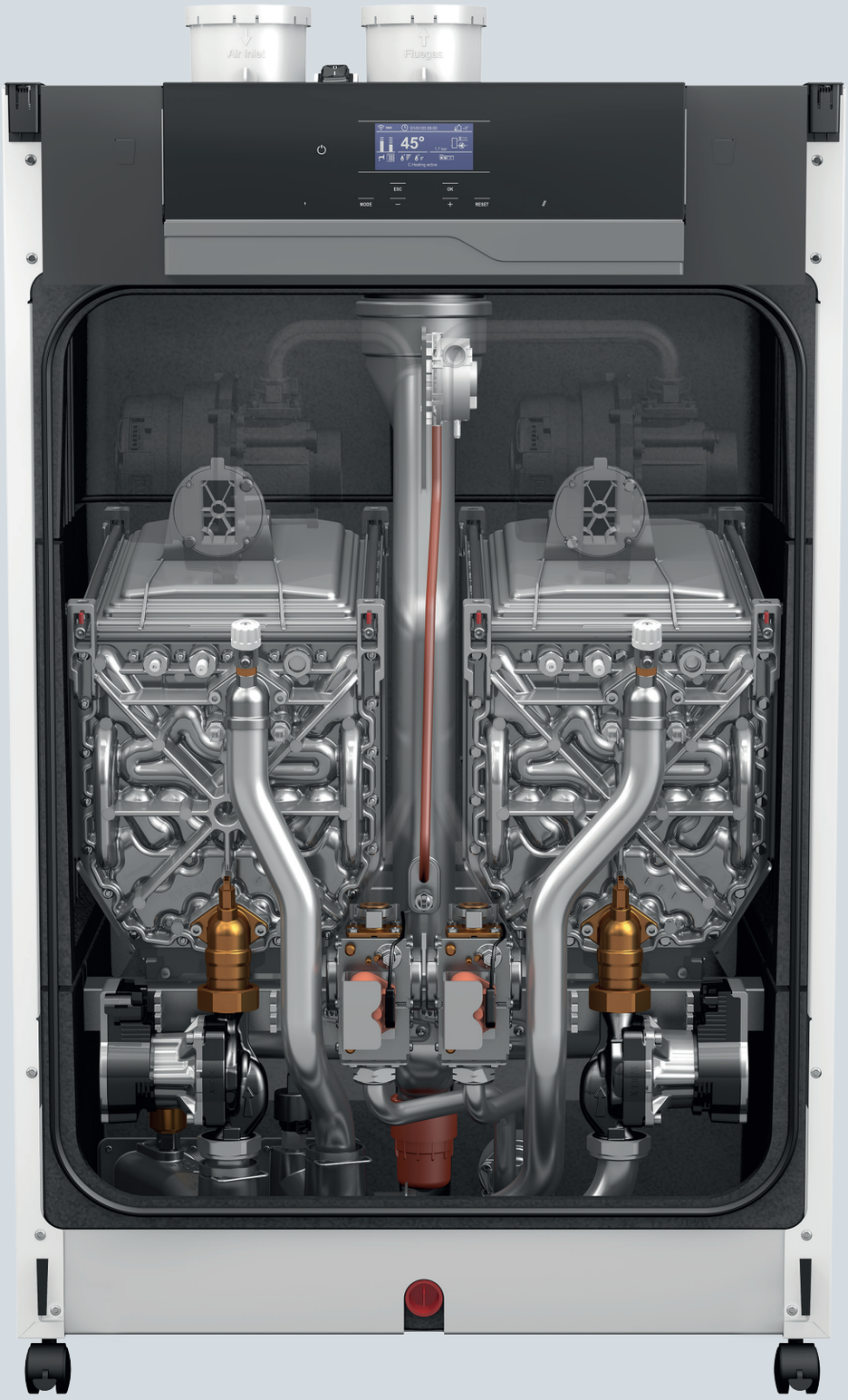
Stay connected and in control

R1000 is compatible with building management system protocols, including all common industry standards. This allows the boiler to be easily customised to a property's requirements, while still delivering optimal efficiencies.

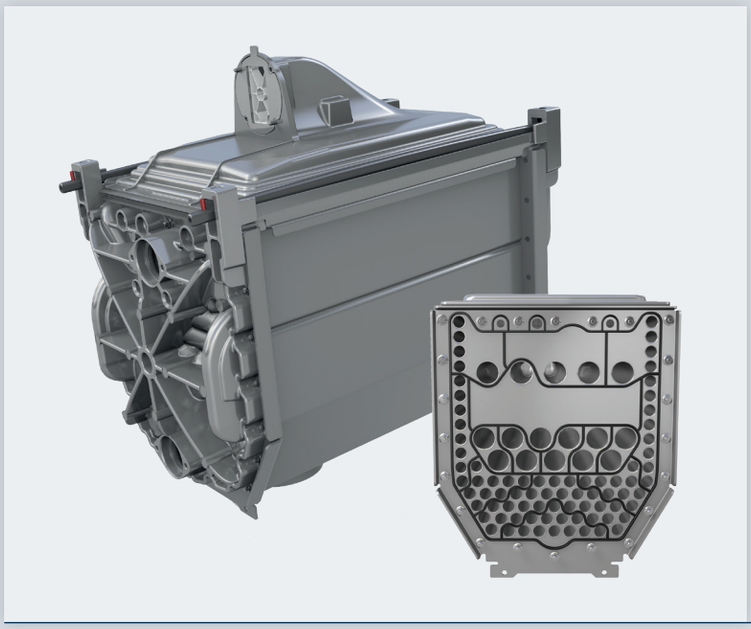
R1000 – Designed for the future

Ultimate flexibility

The R1000 combines the highest quality manufacturing with excellent design to deliver a wealth of class leading features.



Key features



Efficient heat transfer
With specially designed hydraulic chambers, water turbulence within the boiler is optimised to ensure maximum heat transfer, while maintaining the lowest possible pressure drop.

Robust and durable stainless-steel heat exchanger
By combining the highest quality materials with an improved heat exchanger design, which is based on 30 years of experience with the OSS heat exchanger, the R1000 delivers excellent efficiencies for the lifetime of the boiler, as well as incredibly low maintenance schedules. Specially designed smooth tubes ensure direct heat transfer, plus a down-firing arrangement avoids contamination of the heat exchanger.

High modulation range
A wide modulation range of up to 1:10 allows the R1000 to adapt to system requirements and maximise boiler efficiency.

Low heat loss and noise emissions
A completely expanded poly propylene insulated body encases the boiler to keep heat loss to an absolute minimum for improved boiler efficiency. Plus, the high quality casing minimises noise emissions to industry leading standards.

Easy handling
After extensive research into materials, the R1000 is incredibly lightweight while maintaining maximum robustness with its stainless steel heat exchanger. Our transit ramps also make transportation and on site handling easier than ever before.

Simple positioning
Integral cargo wheels, which are height adjustable and can be locked into position, allow the R1000 to be easily manoeuvered into position.

Cascade portfolio

Extensive accessories with plug & play functionality

The R1000 is incredibly flexible and is available in either in-line or back-to-back configurations for up to eight boilers, delivering heat outputs up to 1,6 MW. The systems include all the components necessary to complete the primary heating circuit, with the cascade system specifically designed for quick, simple and effective installation.

In-line cascades

Max. Boilers in cascade	Max. Output
6 In-line	**1** MW

Max. Dimensions		
Width mm	Height mm	Depth mm
4230	1800	1140

Max. Boilers in cascade	Max. Output
8 In-line DUO	**1,6** MW

Max. Dimensions		
Width mm	Height mm	Depth mm
7480	1800	1880

Back-to-back cascades

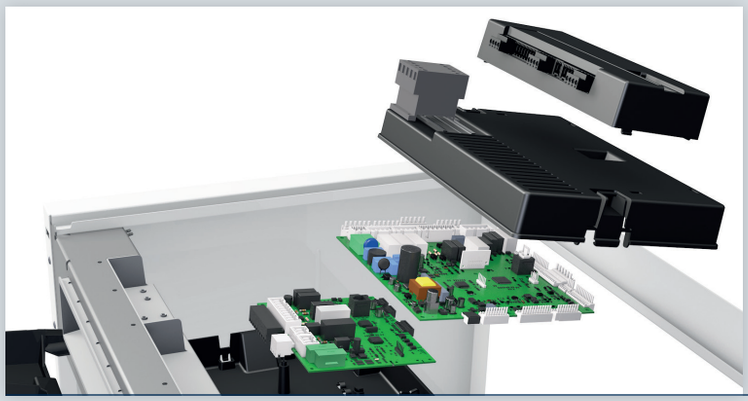
Max. Boilers in cascade	Max. Output
4+4 B2B	**1** MW

Max. Dimensions		
Width mm	Height mm	Depth mm
2880	1800	1880

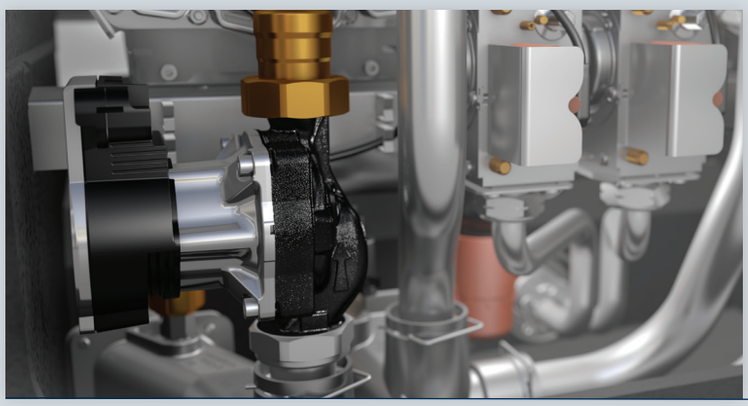
Max. Boilers in cascade	Max. Output
4+4 B2B DUO	**1,6** MW

Max. Dimensions		
Width mm	Height mm	Depth mm
4690	1800	1880

High quality components

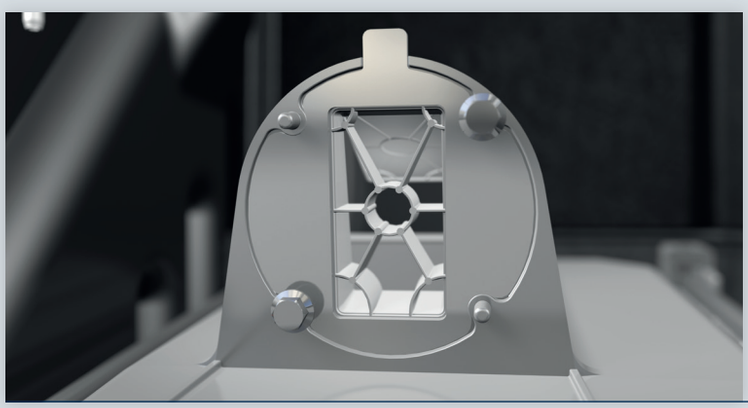


Smart interface with integrated cascade manager
The new control panel is positioned at the top of the boiler to guarantee maximum durability of electronic components, while also provide easy access to all boiler parameters. With a built-in cascade controller, the R1000 also allows quick and simple system optimisation, routine rotation of the lead boiler, intuitive programming and full diagnostic capabilities. The cascade manager can support up to six mixed heating zones, thanks to two, three-zone clip-ins.



Smart and efficient built-in pump
Furthermore, the R1000 is able to communicate with the pump and receive feedback on its operation status. This built-in modulating pump is constantly monitoring the minimum flow rate through the boiler and is able to recognise sudden blockages, preventing damage, guaranteeing optimal working conditions and improving boiler efficiency.

Backpack solution
Single boilers can be delivered with a backpack solution, which has a low loss header or plate heat exchanger already integrated. With this approach, installation time and costs are reduced even further, making single units ready to plug & play.



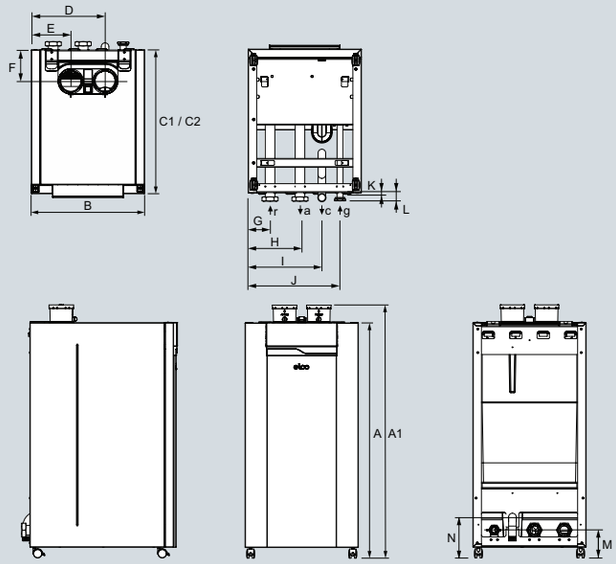
Integrated non-return valve
Built-in as standard, a non-return valve allows easy connection of the flue system, without loss of residual fan pressure.

Technical data

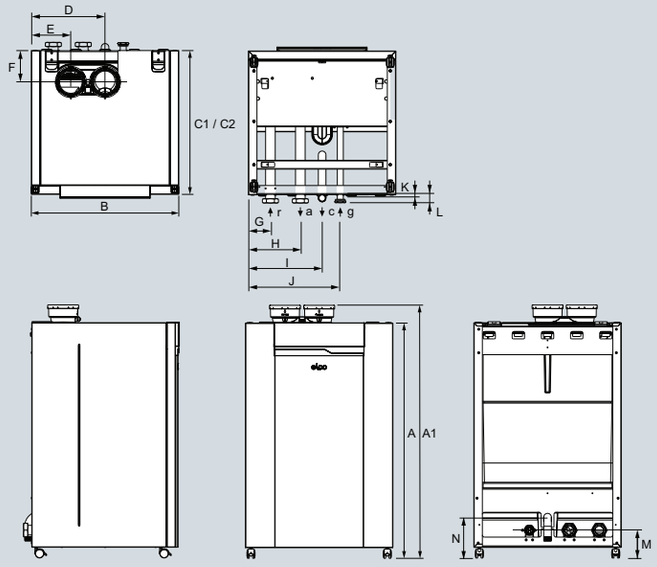
R1000		R1060	R1070	R1100	R1120	R1140	R1170	R1200
Nominal heat output at 80/60°C	kW	56,9	65,4	90,2	110,8	130,5	155,5	180,3
Minimum heat output at 80/60°C	kW	14,7	14,6	18,1	14,7	14,6	14,6	18,1
Nominal heat output at 50/30°C	kW	62,5	71,9	98,8	121,9	142,1	170,4	196,9
Minimum heat output at 50/30°C	kW	16,1	16,1	19,8	16,1	15,9	16,0	19,7
Nominal heat input Hi full load	kW	57,9	66,7	92,3	112,8	133,2	158,8	184,5
Minimum heat input Hi min. load	kW	14,88	14,88	18,45	14,88	14,88	14,88	18,45
Efficiency at 80/60°C Hi full load	%	98,2	98	97,7	98,2	98	97,9	97,7
Efficiency at 50/30°C Hi min. load	%	108,3	108,15	107,3	108,5	107,1	107,6	107
Efficiency at 40/30°C Hi min. load	%	108,5	108,35	107,6	108,7	107,3	107,9	107,3
Annual efficiency (NNG 40/30°C)	%	110,8	110,6	111,4	111	110,7	111,5	111,7
NOx class	-	6	6	6	6	6	6	6
NOx level (EN 15502) GCV	mg/kWh	21,7	22,4	22,7	22,7	23,7	22,6	23,6
Flue gas temperature at 80/60°C full load	°C	61,63	60,91	71,19	62	61	72,26	71
Max. permissible flue resistance	Pa	161	156	243	143	200	215	265
Water pressure max./min.	bar	6,0 / 0,7	6,0 / 0,7	6,0 / 0,7	6,0 / 0,7	6,0 / 0,7	6,0 / 0,7	6,0 / 0,7
Maximum temperature setpoint	°C	90	90	90	90	90	90	90
Maximum available head for system (ΔT 20K)	kPa	29,6	14,8	-	26,2	6,5	8,0	-
Maximum available head for system (ΔT 25K)	kPa	49,5	37,3	16,7	47,5	32,1	34,4	15,7
Water flow at ΔT=20K	m^3/h	2,4	2,8	3,9	4,8	5,6	6,7	7,8
Nominal water flow at ΔT=25K	m^3/h	2,0	2,3	3,1	3,8	4,5	5,4	6,2
Electrical connection	V	230	230	230	230	230	230	230
Power consumption speed controlled pump max.	W	75	75	87	150	150	174	174
Power consumption boiler max ErP (including pump)	W	126	137	120	314	418	464	450
Water content	l	9,3	9,3	13,9	16,8	16,8	21,3	25,8
Sound pressure level	dB(A)	50,5	54	49,3	56,3	59,3	56	52,4
Sound power level	dB(A)	61,5	65	60,3	67,3	70,3	67	63,4
Dimensions - Height x Width	mm	1100x530			1100x690			
Dimensions - Depth	mm	595		675	595		675	
Weight (empty)	kg	73	73	80	127	127	132	140
Energy efficiency class	-	A	A	-	-	-	-	-

Technical drawings

Single engine



Double engine



R1000		R1060	R1070	R1100	R1120	R1140	R1170	R1200
Dimensions								
Boiler height (A)	mm	1100	1100	1100	1100	1100	1100	1100
Boiler height with flue connection (A1)	mm	1185	1185	1185	1185	1185	1185	1185
Boiler width (B)	mm	530	530	530	690	690	690	690
Boiler depth (C1/C2)	mm	595	595	675	595	595	675	675
Flue gas nozzle parallel (D)	mm	345	345	345	345	345	345	345
Air intake parallel (E)	mm	185	185	185	185	185	185	185
Flue gas nozzle (F)	mm	150	150	150	150	150	150	150
Boiler return connection (G)	mm	103	103	103	103	103	103	103
Boiler flow connection (H)	mm	243	243	243	243	243	243	243
Condensate connection (I)	mm	345	345	345	345	345	345	345
Gas connection (J)	mm	430	430	430	430	430	430	430
Condensate connection (K)	mm	15	15	15	15	15	15	15
Boiler return-flow-gas (L)	mm	35	35	35	35	35	35	35
Boiler return-flow-gas (M)	mm	130	130	130	130	130	130	130
Condensate connection (N)	mm	190	190	190	190	190	190	190
Condensate connection (c)	mm	35	35	35	35	35	35	35
Parallel connection	mm	2x100	2x100	2x100	2x100	2x100	2x130	2x130
Boiler Flow (a) / Return (r) connection	-	2"	2"	2"	2"	2"	2"	2"
Gas connection (g)	-	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"

Rendamax – quality comes first

Rendamax is a leading manufacturer of high quality central heating and hot water equipment. Represented by dedicated companies/distributors worldwide, all products in the company's range offer substantial benefits, including superb efficiencies, ultra-low energy consumption and the lowest environmental impact.

By creating long-term relationships and remaining at the forefront of boiler technology, Rendamax is committed to adding value for its customers, employees and shareholders alike.

Discover the full range of gas condensing commercial boilers

R40 EVO

- Wall mounted
- 6 models (60 - 140 kW)
- Cascade up to 1,1 MW
- Pre-mix modulating
- Highly efficient (up to 110 %)

R600 EVO

- Floor standing
- 7 models (150 - 570 kW)
- Pre-mix modulating
- Highly efficient (up to 110 %)
- Stainless steel heat exchangers

R3456 EVO

- Floor standing
- 29 models (650 - 2.000 kW)
- Highly efficient (up to 109,7 %)
- Stainless steel heat exchangers

More information

www.rendamax.com

Rendamax HEATNOLOGY

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