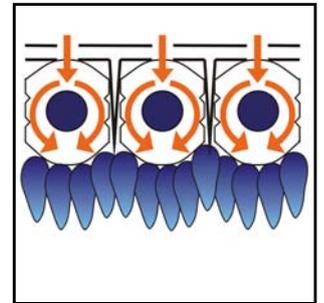


STOKVIS

ENERGY SYSTEMS



ECONOFLAME R6000

**CONDENSING ULTRA LOW NO_x
PREMIX COMMERCIAL BOILER**

ECONOFLAME R6000

The R6000 series of boilers is packed with features that are best in class and provide high output, extreme efficiency, reliability and ultra low harmful emissions.

The R6000 range includes 7 models with outputs from 142 to 539 kW.

Utilising the proven patented water cooled, down-firing, premix burner system coupled with all stainless steel heat exchanger assembly, R6000 boilers have a class leading NO_x emission of between 15 and 35 mg/kWh with 0% O₂ and can return seasonal efficiencies up to 110.4%.

Designed to pass through doors, with widths from 670 mm to 770 mm depending on model and floor space requirement is within the range 0.74 m² to 1.34 m². Each model is equipped with two return connections as standard, allowing high efficiency to be achieved when serving a mix of high and low system circuit temperatures. Another feature is the option to use the boiler in either standard flue or room sealed applications without modification.

The R6000 is suitable for use in single boiler or multiple/cascade installations. Optional extra low loss headers are available, and if being used in a retrofit application onto old systems, plate heat exchangers are available for total boiler isolation. The modulating burner system allows turndown ranging from 5:1 to 7:1 to return optimum efficiency at low system loads.



Exceptional high quality

and unequalled lifetime high efficiency through the use of corrosion resistant stainless steel as heat exchanger material - water cooling used in place of insulation - no degradable insulation materials present.

Highest system flexibility

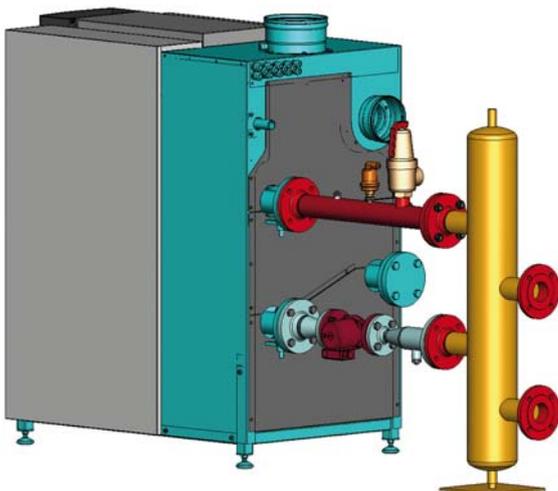
Hydraulic and safety related options available - plate heat exchangers for system separation - low velocity headers for hydraulics - pump and pressure relief valve kits.

Easy servicing

New inspection hatch fitted in heat exchanger - can be used for wash down purposes - no insulation present.

Environmental friendly

Lowest emission values, fully recyclable parts used.



Available R6000 models

The R6000 is equipped as standard with a KM628 boiler management unit. Besides controlling the burner and all safety devices connected to the boiler, this unit also takes care of the temperature control of the boiler via an integrated PID controller.

For additional control features, the boiler can be equipped with a heating zone controller (E8) or cascade manager (KKM8).

With these 3 levels of control possibilities, the R6000 can be supplied to cover the needs for a wide variety of systems. The most important features of each model are listed below.

R6000 Standard

- Electronic safety temperature limiter
- Electronic fluegas temperature limiter
- Primary boiler pump control
- Primary domestic hot water (DHW) pump control
- Lockout and interlock input
- OK/Alarm contact
- Boiler enable contact
- 0-10V input for external temperature or capacity control
- 0-10V capacity feedback signal
- Boiler temperature control via PID controller
- DHW temperature control

R6000 E8

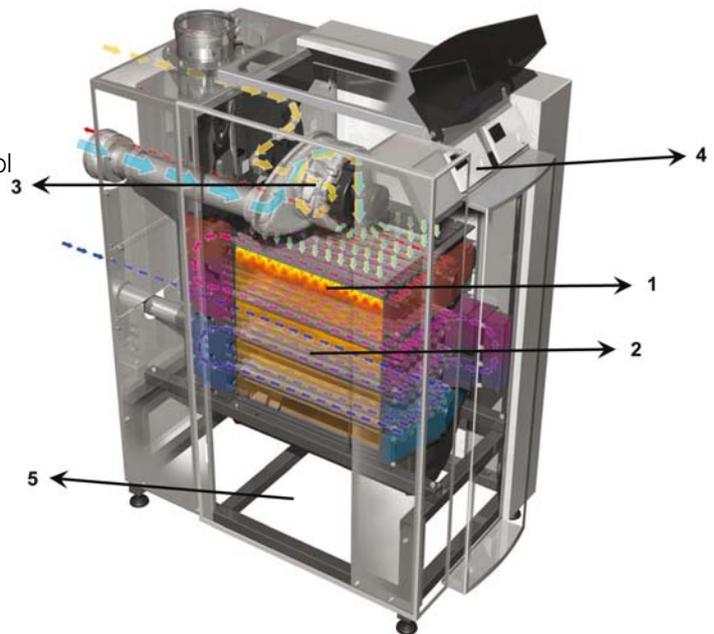
This model has the same features as the Standard R6000 plus:

- Weather compensated control of 2 heating zones with startup optimisation
- Time program for heating and DHW
- Heating zone function programmable
- DHW recirculation pump control via time program
- Anti-legionella function
- Expandable to maximum 15 zones (with 8 controllers)

R6000 KKM8

This model has the same features as the Standard R6000 plus:

- Weather compensated control of 2 heating zones with startup optimisation
- Time program for heating and DHW
- Heating zone function programmable
- DHW recirculation pump control via time program
- Anti-legionella function
- Expandable to maximum 15 zones (with 8 controllers)
- Cascade control of maximum 8 modulating boilers
- On/off control of a (9th) non-modulating boiler
- 0-10V input for external temperature control for the whole system



1: Water Cooled Premix Burner

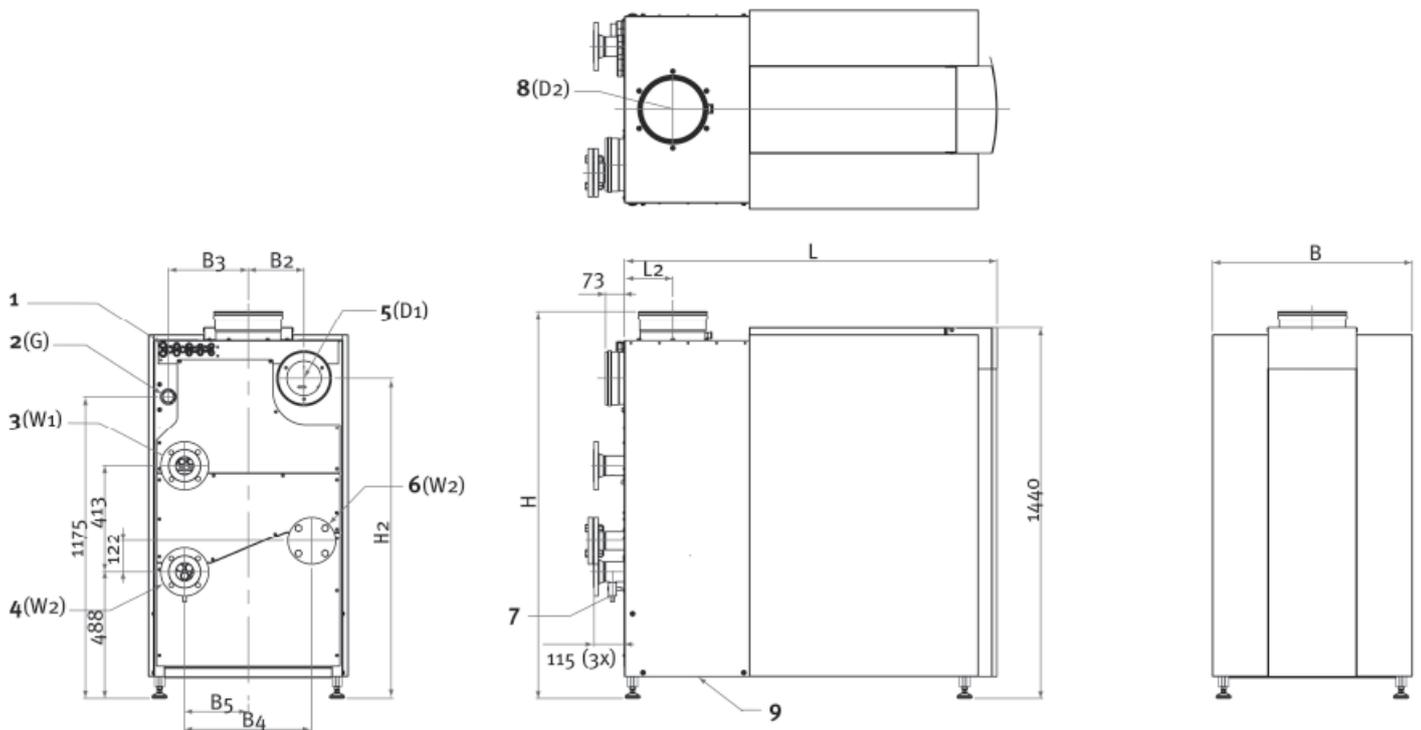
2: Water Cooled Triple Pass Heat Exchanger

3: Patented Whirlwind Gas/Air Mixing System

4: KM628 Boiler Management Unit

5: Space for Condensate Neutralization Unit

Dimensions R6000



Type		R6142	R6190	R6237	R6285	R6380	R6475	R6539
L	mm	1105	1260	1470	1220	1435	1585	1735
L2	mm	127.5	127.5	137.5	137.5	187.5	187.5	187.5
H	mm	1480	1480	1500	1500	1500	1500	1500
H2	mm	1120	1130	1130	1150	1245	1245	1245
B	mm	670	670	670	770	770	770	770
B2	mm	225	235	235	235	215	215	215
B3	mm	260	260	260	310	310	310	310
B4	mm	260	260	260	490	490	490	490
B5	mm	130	130	130	245	245	245	245
H1	mm	1125	1400	1400	1155	1155		
D1	mm (dia)	130	150	150	150	200	200	200
D2	mm (dia)	150	150	200	200	250	250	250
W1	R"/DN	R2"	R2"	R2"	DN65 PN16			
W2	R"/DN	R2"	R2"	R2"	DN65 PN16			
G	R	R¾"	R1"	R1"	R1"	R1½"		

Pump kit add on dimensions :-

R6142-R6237 + 666mm.

R6285-R6539 +706mm.

Safety valve kit add on dimensions :-

R6142-R6237 + 666mm.

R6285-R6539 +706mm.

These measurements include a 90degree bend which can be used if required.

As a result of manufacturing tolerances, there may be small variations in the dimensions. (Changes may be introduced without notice)

ECONOFLAME BOILERS R6000

FULLY MODULATING CONDENSING RANGE



TECHNICAL DATA

		R6000							
Type		R6142	R6190	R6237	R6285	R6380	R6475	R6539	
Nominal heat output at 80-60°C max/min	kW	142.1/23.3	190.1/39.5	237.2/39.5	285.2/39.5	380.2/76.6	475.3/76.6	539.0/76.6	
Nominal heat output at 75-60°C max/min	kW	142.1/23.5	190.3/39.5	237.4/39.5	285.5/39.5	380.6/76.6	475.8/76.6	539.6/76.6	
Nominal heat output at 40-30°C max/min	kW	150.7/26.7	201.6/45.2	251.4/45.1	302.3/45.2	403.1/87.7	503.9/87.7	571.5/87.7	
Nominal heat input Hi max/min	kW	145.0/24.5	194.0/41.5	242.0/41.5	291.0/41.5	388.0/80.5	485.0/80.5	550.0/80.5	
Efficiency at 80/60°C	%	98.0							
Efficiency at 40/30°C	%	103.9							
Annual Efficiency (NNG 75/60°C)	%	106.8							
Annual Efficiency (NNG 40/30°C)	%	110.4							
Standby losses (T _{WATER} = 70°C)	%	0.21	0.18	0.17	0.16	0.15	0.14	0.13	
Max. condensate flow	l/h	11	15	19	22	30	37	42	
Gas Consumption H-gas max/min (10.9 kWh/m ³)	m ³ /h	13.3/2.3	17.8/3.8	22.2/3.8	26.7/3.8	35.6/7.4	44.5/7.4	50.5/7.4	
Gas Consumption L-gas max/min (8.34 kWh/m ³)	m ³ /h	17.4/2.9	23.2/5.0	29.0/5.0	34.9/5.0	46.5/9.7	58.2/9.7	66.0/9.7	
Gas Consumption LPG-gas max/min (12.8 kWh/kg)	kg/h	11.3/1.9	15.2/3.2	18.9/3.2	22.7/3.2	30.3/6.3	37.9/6.3	43.0/6.3	
Gas Pressure natural gas H max/min	mbar	20/17							
Gas Pressure natural gas L max/min	mbar	25/20							
Gas Pressure liquid gas LPG max/min	mbar	50/30							
Maximum gas pressure	mbar	100							
Fluegas temperature at 80/60°C max/min	°C	78/61							
Fluegas temperature at 40/30°C max/min	°C	56/30							
Fluegas quality max/min	m ³ /h	238/40	318/69	397/69	477/69	636/134	795/134	901/134	
CO ₂ level natural gas H/L max/min	%	10.2/9.4							
CO ₂ level LPG max/min	%	11.9/10.0							
NO _x level max/min	mg/kWh	35/15							
CO level max/min	mg/kWh	14/8							
Max. permissible flue resistance max/min	Pa	160/10	160/10	200/10	200/10	200/10	250/10	250/10	
Water volume	l	27	31	35	61	68	75	82	
Water pressure max/min	bar	8/1							
Maximum water temperature (High limit thermostat)	°C	100							
Maximum Temperature setpoint	°C	90							
Nominal water flow at dT=20k	m ³ /h	6.1	8.1	10.2	12.2	16.3	20.4	23.1	
Hydraulic resistance at nominal water flow	kPa	10	18	28	15	27	42	55	
Electrical connection	V	230/400							
Frequency	Hz	50							
Mains connection fuse	A	10							
IP class	-	IP20							
Power consumption boiler max/min (excl. pump)	W	158/43	200/35	230/35	260/35	470/61	650/61	770/61	
Power consumption 3-speed pump (optional)	W	170/90	190/120	380/210	380/210	530/300	720/380	1150/600	
Power consumption speed controlled pump (optional)	W	180/10	180/10	435/25	435/25	450/25	800/35	800/35	
Power consumption bypass pump (optional)	W	55/35	85/65	170/90	170/90	190/120	460/225	470/280	
Weight (empty)	kg	295	345	400	465	535	590	650	
Noise level at 1 meter distance	dB (A)	59							
Ionisation current minimum	µA	6							
pH value condensate	-	3.2							
CE certification code	-	CE-0063BS3840							
Water connections	-	R2"	R2"	R2"	DN65 PN16	DN65 PN16	DN65 PN16	DN65 PN16	
Gas connection	-	R3/4"	R1"	R1"	R1"	R1.1/2"	R1.1/2"	R1.1/2"	
Flue gas connection	mm	150	150	200	200	250	250	250	
Air intake connection (for room sealed use)	mm	130	150	150	150	200	200	200	
Condensate connection	mm	22	22	22	22	22	22	22	

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