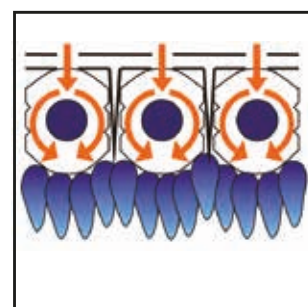


STOKVIS

ENERGY SYSTEMS

ErP 
Energy related Products



STOKVIS R600

**CONDENSING ULTRA LOW NO_x
PREMIX COMMERCIAL BOILER**

ECONOFLAME R600

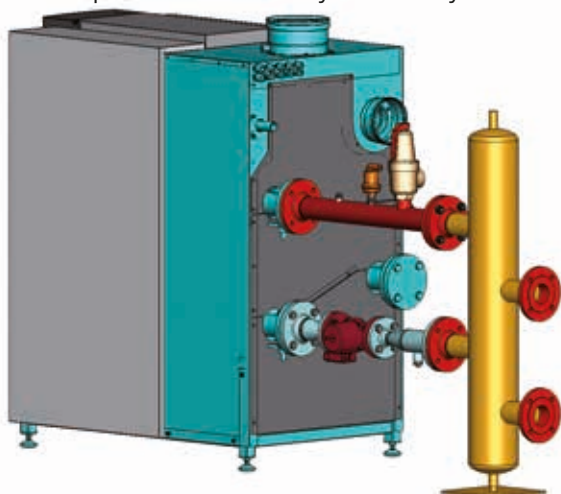
The R600 series of boilers is packed with features that are best in class and provide high output, extreme efficiency, reliability and ultra low harmful emissions.

The R600 range includes 7 models with outputs from 142 to 545 kW.

Utilising the proven patented water cooled, down-firing, premix burner system coupled with all stainless steel heat exchanger assembly, R600 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 can be equipped with an optional second return connection, 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 R600 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.

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

Premix burner - clean combustion - firing downward for removal of any contaminants.

Environmental friendly

Lowest emission values, fully recyclable parts used.

Available R600 models

The R600 is equipped as standard with a LMS 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 heating zone controllers or cascade manager to cover a wide variety of systems and applications.

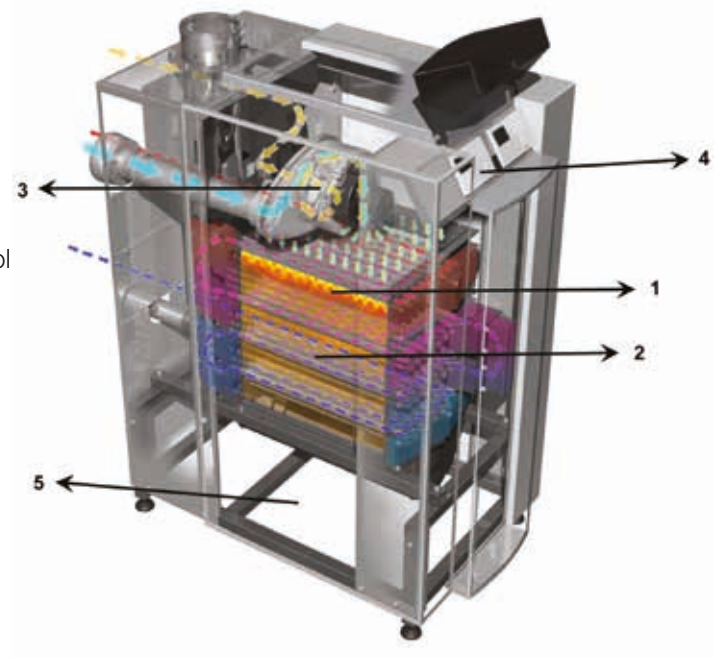
R600 Standard

- Electronic safety temperature limiter
- Electronic fluegas temperature limiter
- Primary boiler pump control
- Primary domestic hot water (DHW) pump control*
- Lockout and interlock input
- 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*
- Weather compensation*

* optional sensors required

R600 Options

- Control of up to 2 heating zones / boiler (up to a maximum of 8 zones.)
- MASTER/SLAVE cascade control - maximum 8 boilers
- Room unit for each heating zone
- Outdoor sensor / DHW sensor / low loss header sensor for cascade / Heating zone sensor.



1: Water Cooled Premix Burner

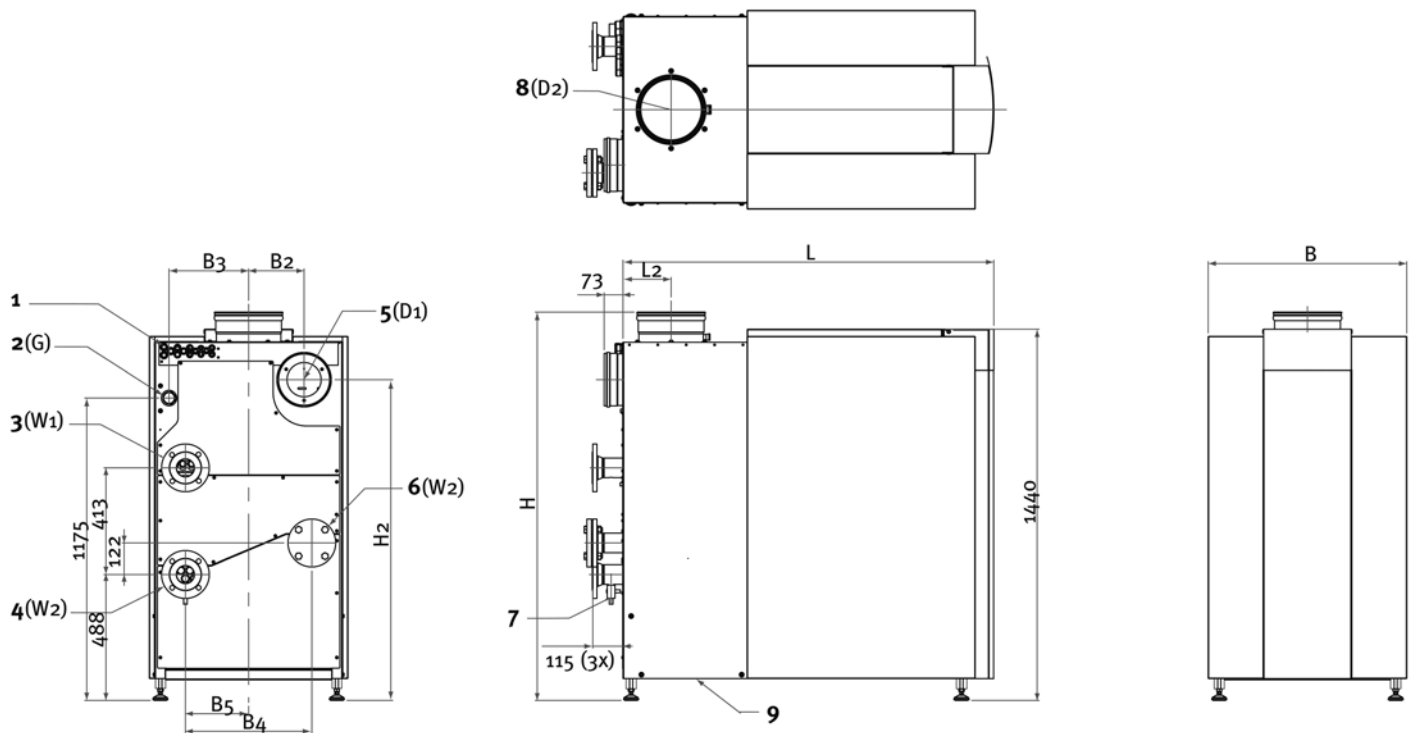
2: Water Cooled Triple Pass Heat Exchanger

3: Patented Whirlwind Gas/Air Mixing System

4: LMS Boiler Management Unit

5: Space for Condensate Neutralization Unit

Dimensions R600



Type		R601	R602	R603	R604	R605	R606	R607
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
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 :-

R601 - R603 + 600mm.

R604 - R607 + 700mm.

Safety valve kit add on dimensions :-

R601 - R603 + 600mm.

R604 - R607 + 700mm.

These kits include a 90 degree 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 R600

FULLY MODULATING CONDENSING RANGE



TECHNICAL DATA

	R600							
Type		R601	R602	R603	R604	R605	R606	R607
Nominal heat output at 80-60°C max/min**	kW	142.1/23.9	190.1/40.6	237.2/40.6	285.2/40.6	384.5/79.6	480.6/79.6	545.1/79.6
Nominal heat output at 75-60°C max/min**	kW	142.2/23.9	190.3/40.6	237.4/40.6	285.5/40.6	384.9/79.7	481.1/79.7	545.6/79.7
Nominal heat output at 40-30°C max/min**	kW	149.2/26.4	201.6/45.6	251.4/45.6	302.3/45.6	403.1/88.4	503.9/88.4	571.5/88.4
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	98.0	98.0	98.0	99.1	99.1	99.1
Efficiency at 40/30°C	%	102.9	103.9	103.9	103.9	103.9	103.9	103.9
Annual Efficiency (NNG 75/60°C)	%	106.8						
Annual Efficiency (NNG 40/30°C)	%	110.4						
Heat loss (Pstby)	W	442	442	442	442	474	474	474
Max. condensate flow	l/h	24.8	35.5	44.3	53.2	71	88.7	100.7
Gas Consumption G20 max/min (10.9 kWh/m³)	m³/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 G25 max/min (8.34 kWh/m³)	m³/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 G31 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 G20	mbar	20						
Gas Pressure G25	mbar	25						
Gas Pressure G31	mbar	30/50						
Maximum gas pressure	mbar	50						
Max. temperature flue gas	°C	100						
Flue gas temperature at 80/60°C max/min	°C	78/61						
Flue gas temperature at 40/30°C max/min	°C	56/30						
Flue gas quality max/min	m³/h	238/40	318/69	397/69	477/69	636/134	795/134	901/134
CO ₂ level G20/G25 max/min	%	10.2/9.4						
CO ₂ level G31 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						
Max. water temperature (High limit thermostat)	°C	100						
Maximum temperature setpoint	°C	90						
Nominal water flow at dT=20k	m³/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	16						
IP class	-	IP20						
Power consumption boiler max/min (excl. pump)	W	243/37	281/32	289/34	289/34	697/47	697/47	697/47
Power consumption speed controlled pump (opt.)	W	190/9	190/9	310/12	310/12	470/25	590/25	800/38
Weight (empty)	kg	295	345	400	465	535	590	650
Sound Power Level LWA ***	dB	72	75	76	76	77	77	77
Ionisation current average	µA	14						
pH value condensate	-	3.2						
CE certification code	-	CE-0063BS3840						
Water connections	-	R2"	R2"	R2"	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	40	40	40	40	40	40	40

** min load on gasses G20, G25, G31. For type R602-607 on gasses G25 (LL) the main value is 15% higher.

*** non room sealed.

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