



Wood Gasification Boilers

The New Generation **OG Series**



BAFA
Bundesamt für
Wirtschaft und
Ausfuhrkontrolle



**BUREAU
VERITAS**



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Brilliant Design

OG Series **Wood Gasification Boilers**



The new generation OG series has been developed as a very quiet, efficient and economical system for wood log users. Large combustion chamber allows a volume of fuel to be loaded which will last up to 7 hours of heating.

Large heat absorbing surfaces, extended hot gas passages and pre-heated air intake ensures OG series boilers to be one of the most efficient products out in market.

With smart design processes, access-friendly spaces allow easy and quick cleaning when required.

Simple yet effective, OG series can be employed with an optional buffer tank to further increase its efficiency, which allows decreasing the periods of it should be refuelled.

Superior Efficiency

Emission values are well below most strict European directives.

- High efficiency > **92 %** net.
- Low emissions < **250 mg/m3 CO**
- Only **15 mg/m3** dust.

Separately controlled primary and secondary combustion air.



WHAT Makes OG Series DIFFERENT FROM THE OTHERS?



Special Canals inside the doors allows pre-heating combustion air via natural air flow.



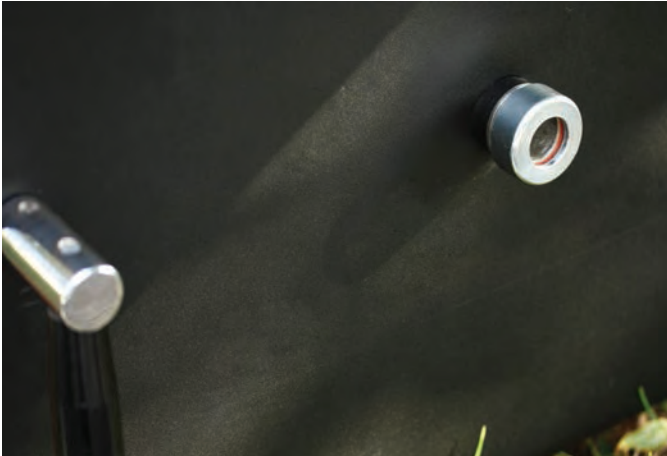
Pre-Heating canals interior view



Large loading door at waist level



Interchangable copper Emergency flush system



Observation Glass in the lower door



Robust and years of proven hinge system



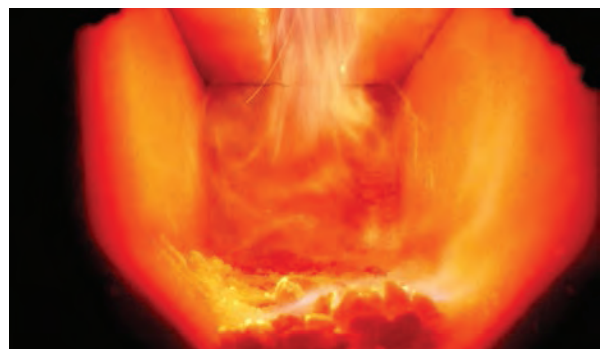
Independently adjustable Primary and secondary air inlets



Induced draft fan keeps the system in constant vacuum eliminating the possibility of a smoke leakage to the ambient.

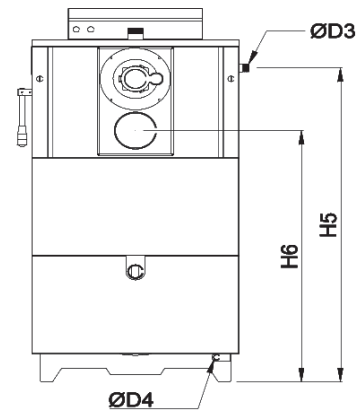
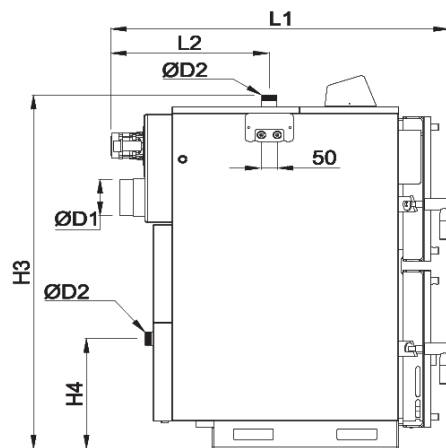
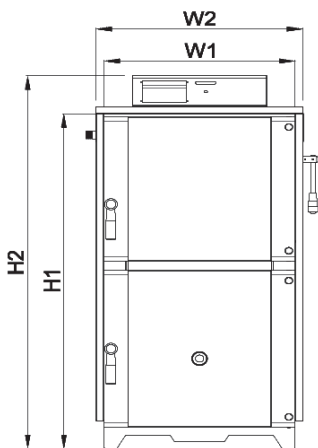
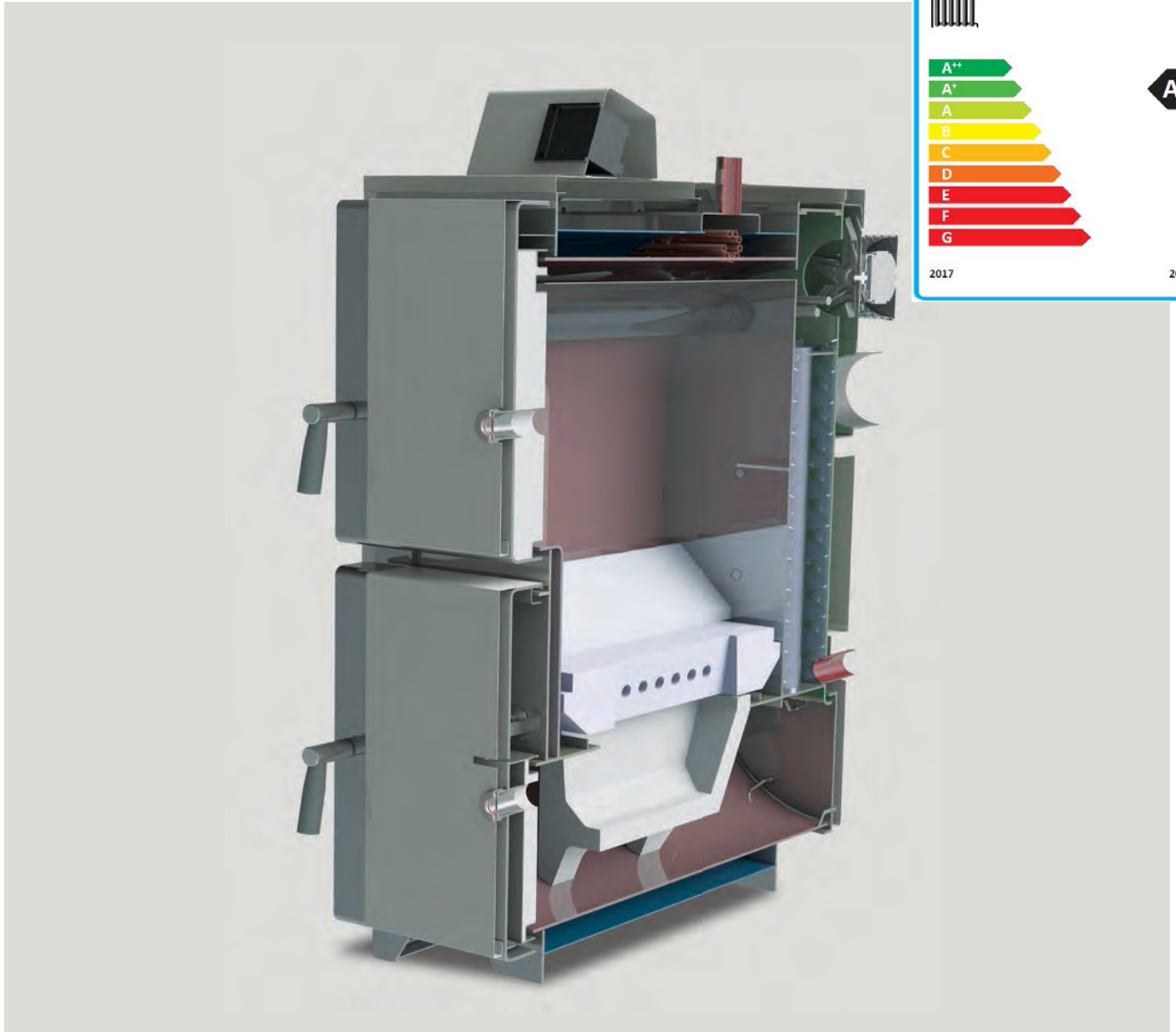
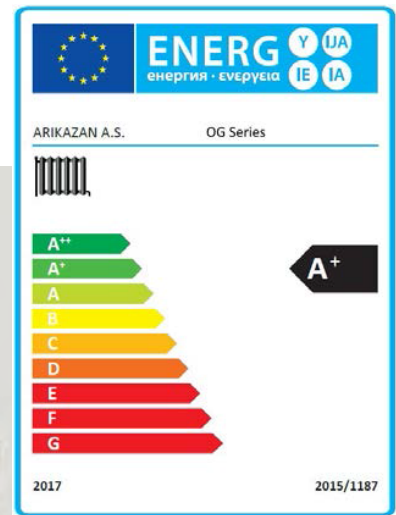


By-Pass system automatically engages and prevents smoke bursts when the door is open.



Reverse flame in combustion chamber

OG Series Wood Gasification Boilers



Technical Specifications

	TECHNICAL SPECIFICATION OF WOOD GASIFICATION BOILERS	UNIT	BOILER TYPE				
			OG20	OG30	OG40	OG60	
CAPACITY	Nominal Heat Output	kW	20	30	40	60	
		kcal/h	17.200	25.800	34.400	51.600	
	Net Efficiency	%	>92%				
OPERATING CONDITIONS	Safety Limit Temperature	°C	97				
	Max. Operating Temperature	°C	85				
	Min. Water Return Temperature	°C	55				
	Operating Pressure	bar	3				
	Boiler Test Pressure	bar	4.5				
	Boiler Design Temperature	°C	150				
	Electrical Connection	-	230 V _{ac} , 50 Hz				
	Recommended Fuel Types	-	Ø80 x 500mm		Ø80 x 700mm		
			Hard Wood, 15% < Humidity < 25%				
	Minimum Required Stack Draught	Pa	10				
	Boiler Gas Side Resistance	Pa	125	110	140	230	
	Boiler Water Side Pressure Drop	mbar	ΔT = 10 °C	39	22	44	92
			ΔT = 20 °C	11	6	11	23
	CO Emission Rate, (13 % O ₂ ref)	mg/m ³	< 250				
	Fuel Filling Volume	lt	80	120	160	235	
kg		28	42	56	84		
Required Accumulation Tank Volume	lt	1000	1500	2000	3000		

	MAIN DIMENSIONS	UNIT	BOILER TYPE			
			OG20	OG30	OG40	OG60
DIMENSIONS	W ₁ - Width	mm	550	600		
	W ₂ - Total width with cover plates	mm	600	650		
	L ₁ - Length	mm	1050		1375	
	H ₁ - Height	mm	1075	1200		1450
	H ₂ - Total Height	mm	1230	1355		1605
	Stack Diameter ØD1 (inner-outer)	mm	125 - 130		146 - 150	
	H ₆ - Height of Stack Connection	mm	755	880	870	1095
	Water Content	lt	75	90	115	165
	Approx. Empty Weight	kg	345	410	485	600
CONNECTIONS	Hot Water Outlet Connection	Diameter, ØD2	1 ½"			
		Position, H ₃	1140	1265		1515
		Position, L ₂	472.5		597.5	606.5
	Water Inlet Connection	Diameter, ØD2	1 ½"			
		Position, H ₄	380	395		
	Safety Cooling Heat Exchanger	Diameter, ØD ₃	¾"			
Position, H ₅		992	1124		1374	
Filling & Drain Connection	Diameter, ØD ₄	½"				



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