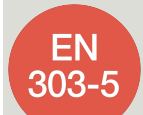




# Ventum Series

## The new Generation Wood Gasification Boilers



### Europe's Fastest Selling Wood Gasification Boiler.

The New Generation Ventum Series leaps forward in gasification technology making them the fastest selling boilers in their class across Europe. It is designed for efficiency, economy and protection of the environment. With 92% efficiency, emissions (250 mg/m<sup>3</sup> CO) below European and German regulations, adaptable to wood fuel moistures up to 33%, superior health and safety features and easy to use electronic controls, this gasification boiler is a testament of quality and perfection.



**arikazan**

# Ventum Series

## Wood Gasification Boilers FEATURES



As a stand-alone boiler or integrated with other heat systems the Ventum Gasification Boiler is fully adaptable and connectable with summer / winter season adjustment. Combined with a buffer tank, efficiency and performance is further increased as well as decreasing refuelling intervals.

- Independently adjustable primary and secondary combustion air.
- Functional and User Friendly Control Panel.
- Modulating induced draft fan.
- Vertical heat exchanger tubes with turbulators.
- Easy cleaning without removing any plate,
- Newly designed Refractory Concrete parts are:
  - Smaller and Lighter for easy servicing,
  - Modular for easy replacement,
- Bypass duct is larger than ever. A mechanical switch senses the door is open and orders the fan to work in full capacity.
- Ellipsoid form of the combustion chamber allows more fuel to be loaded.
- Boiler basement design allows both Forklift and pallet truck transport with ease.
- Long service life with robust structure.
- Interior negative pressure ensures safety.
- Interchangeable emergency heat discharge system".
- Dual purpose Anti-Tarring Plates:
  - Prevents and reduces condensation in the boiler
  - Increases efficiency by acting as a pre-heating intake air duct
- Large collection tray for ease of cleaning and ash removal.



# Why the Ventum is Europe's Fastest Selling Wood Gasification Boiler

- High > 92 % net.
- Low emissions < 250 mg/m<sup>3</sup> C<sup>0</sup>
- Only 15 mg/m<sup>3</sup> dust.



Robust and years of proven hinge system



\*Large loading door at waist level



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



Cleaning made easier by a simple swing of an external lever



Electronic Management with Smart Control panel is able to check flue gas temperature and regulate the fan for optimal heat production output.



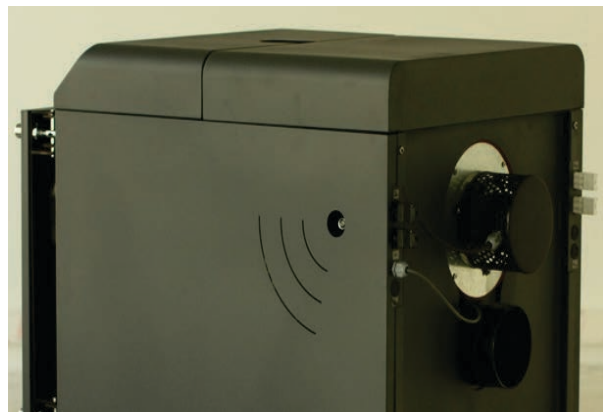
Observation Glass to Monitor Gasification Process



Interchangeable Overheat Discharge Assembly



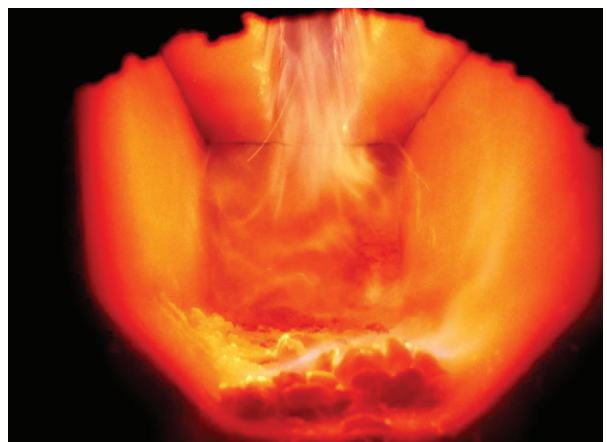
Independently adjustable Primary and secondary air inlets




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




Bypass system automatically engages and prevents smoke bursts when the door is open meeting highest Health and Safety Standards in force.





Faster and longer gasification



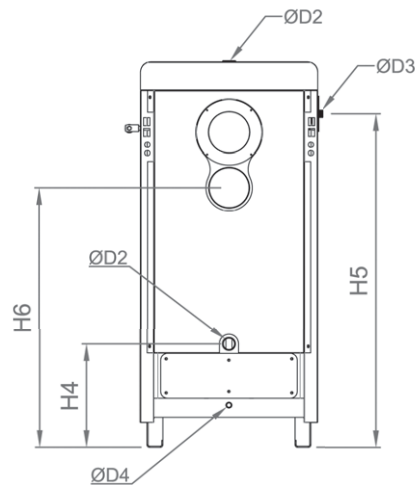
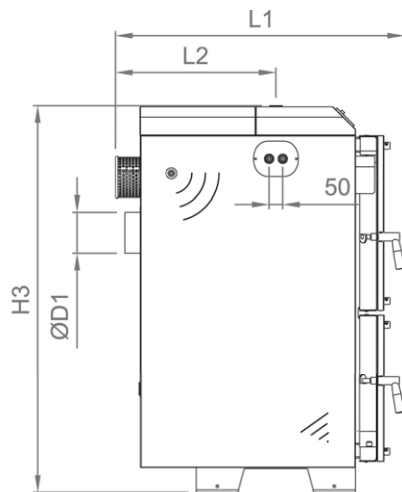
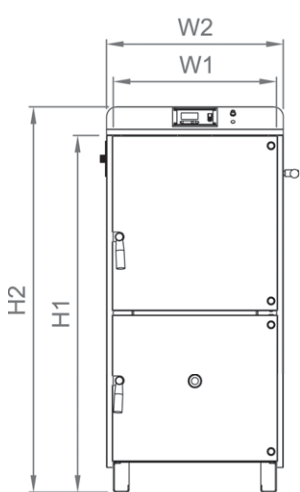
ARIKAZAN A.S.      Ventum Series





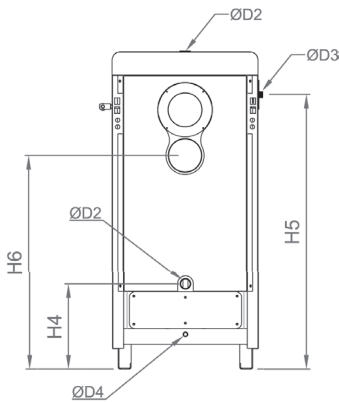
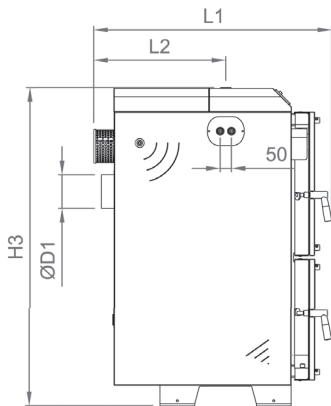
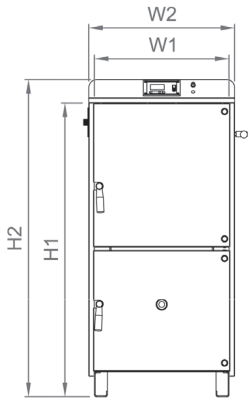


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# Technical Specifications



TECHNICAL SPECIFICATION OF VENTUM TYPE WOOD GASIFICATION BOILERS		Unit	BOILER TYPE						
			VG20	VG30	VG40	VG60	VG80	VG100	
CAPACITY	Nominal Heat Output	kW	20	30	40	60	80	100	
		kcal/h	17.200	25.800	34.400	51.600	68.800	86.000	
	Direct Efficiency	%	90,1	90,4	91,2	91,7	91,5	91,3	
OPERATING CONDITIONS	Boiler Class	-	CLASS 5 acc. To EN 303-5						
	Safety Limit Temperature	°C	97						
	Setting Range of Operating Temperature	°C	85 - 55						
	Min. Water Return Temperature	°C	55						
	Operating Pressure	bar	3						
	Boiler Test Pressure	bar	4,5						
	Electrical Connection	-	230 Vac , 50 Hz						
	Recommended Fuel Types			Ø80x500 mm		Ø80x700 mm		Ø80x1000 mm 2xØ80x500mm	
				Hard Wood, 15% < Humidity < 30% *					
	Minimum Required Stack Draught	Pa	10						
	Boiler Gas Side Resistance	Pa	125	110	140	230	240	250	
	Boiler Water Side Pressure Drop	DT = 20 °C mbar	11,0	3,2	5,5	23,0	25,0	28,0	
	Fuel Filling Volume	lt	89	113	137	200	385		
		kg	30	40	50	70	135		
	Approximately Combustion Period	h	5						
Required Accumulation Tank Volume	lt	1000	1500	2000	3000	4500	5500		
Airborne Noise Level	dB	< 60 dB							
MAIN DIMENSIONS	Boiler Width, W1	mm	600			650			
	Total Width with Cover Plates, W2	mm	650			700			
	Boiler Length, L1	mm	1060		1360		1635	1805	
	Boiler Height, H1	mm	1060	1210	1310	1360	1610		
	Total Height, H2	mm	1165	1315	1415	1465	1715		
	Stack Diameter, ØD1 (inner-outer)	mm	125-130		146-150		176-180		
	Height of Stack Connection, H6	mm	715	865	955	1005	1225		
	Water Content	lt	90	104	114	168	285	345	
	Approx. Empty Weight	kg	385	425	450	600	860	960	
	Hot Water Outlet Connection	Diameter, ØD2	inch	1 1/2"			2"		
		Position, H3	mm	1137	1287	1387	1437	1766	
		Position, L2	mm	590		890		1147	1317
	Water Inlet Connection	Diameter, ØD2	inch	1 1/2"			2"		
		Position, H4	mm	380			435		
	Safety Cooling Heat Exchanger 15 °C, 2 bar cold water	Diameter, ØD3	inch	3/4"					
Position, H5		mm	975	1125	1225	1275	1525		
Filling & Drain Connection	Diameter, ØD4	mm	1/2"						
EMISSION RATES	Flue Gas Temperature	°C	145-165						
	Average Mass Flow Rate of Solid Pollutants (dust)	g/h	1,8	2,3	2,9	4,6	9	10	
	CO	mg/m³	< 700						
POWER CONSUMPTIONS	Average Electricity Consumption	in stand-by	3						
		in full load, 100%	57	64	70	79	85	90	