



# Full Automatic Pellet Fired Boilers The New Generation Caria Series



**BAFA**  
Bundesamt für  
Wirtschaft und  
Ausfuhrkontrolle



**arıkan**

# A Smart Investment

## The New Generation **Caria Series**



## Minimum user intervention was our main target when designing Caria systems.

The new generation of popular Caria Series boilers are designed to offer even more comfort than before. The Caria burner (Patent: PCT/IB2012/054583) comes with an auto-ignition equipment that ignites the wood pellets under 4 minutes.\*

Compared to other wood pellet fired boilers, the cleaning requirements of Caria boilers have been significantly reduced. In principle there can be several weeks between cleaning and emptying the ash drawer thanks to its built in screw feeder which periodically carries all ashes and wastes to an external box.

\* May Change by and Climatic conditions

# Features



## Backburn Control:

Fire backburn is prevented by keeping the Burner feed way always with constant negative pressure. A high temperature limit switch increases safety.

Plastic connection pipe prevents heat conduction.



## Advanced control system:

An advanced central system connects every component to the microprocessor which regulates the system constantly in correlation with the data provided by sensors.



## Compact Burner Unit:

Easily dismountable burner unit provides service friendly maintenance as well as accessibility when needed.



## High Capacity Air Feed:

High capacity Flue gas vacuum fans, allows precise regulation of boiler capacity.



## Ash Removing System:

Combustion ash and wastes are collected automatically through an automated conveyor to an external box, making cleaning simple and easy.



## Advanced Combustion System:

An incredible net efficiency of 94% is attained by advanced combustion system. Low Power, double ignition units ensure reliable and economic operation.



## New Elegant Control Panel

Every system on boiler is controlled by user friendly control panel. All functions are intuitive and expressed by symbols for language free-software interface.



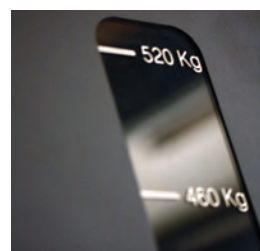
## Automated Tube Cleaning System:

Special motorized cleaning system allows periodic cleaning of smoke tubes triggered by the software in control panel. These are enabled by user settings in the control panel.



## Automated Burner Cleaning System:

Burner employs a unique and patented cleaning system which effectively cleans the burner grate even from the most stubborn cinder.



## Pellet Silo Variations:

Different variations for different boiler rooms. Detachable silos fit even the most space tight rooms.

# Efficient Than Ever

The burner comes with unique logical controls which helps to attain **94% efficiency\*\*** values. The system is also equipped with numerous safety measures that ceases operation in case of any kind of malfunction that leads to over heating of boiler.

The **combustion chamber** employs an **automatic self cleaning system** (Patent:PCT/IB2012/054583) to ensure air flow throughout the burner is never blocked thus keeping the efficiency at maximum at all times.

Switching from fossil fuels to pellets with Caria System yields economic savings of more than 50% and as well as environmental of 100%.

Caria series always work under **negative pressure** which eliminates any smoke and gas leakages.

The compact structure of Caria series systems are extremely flexible and makes it particularly suitable for any type of installation. Caria boilers can be equipped with an external sanitary hot water heat exchanger and also with buffer tanks to increase the customer convenience as well as the efficiency.

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## Benefits of Complete Pellet System

- Automatic ignition,
- Automatic tube cleaning,
- Automatic burner grate cleaning,
- Automatic ash removal,
- Automatic pellet dosage,
- 9 stage step modulation and PID control
- External fuel hopper,
- User friendly control panel,
- Unique Software for product,
- Service friendly design,
- Flexible installation options.

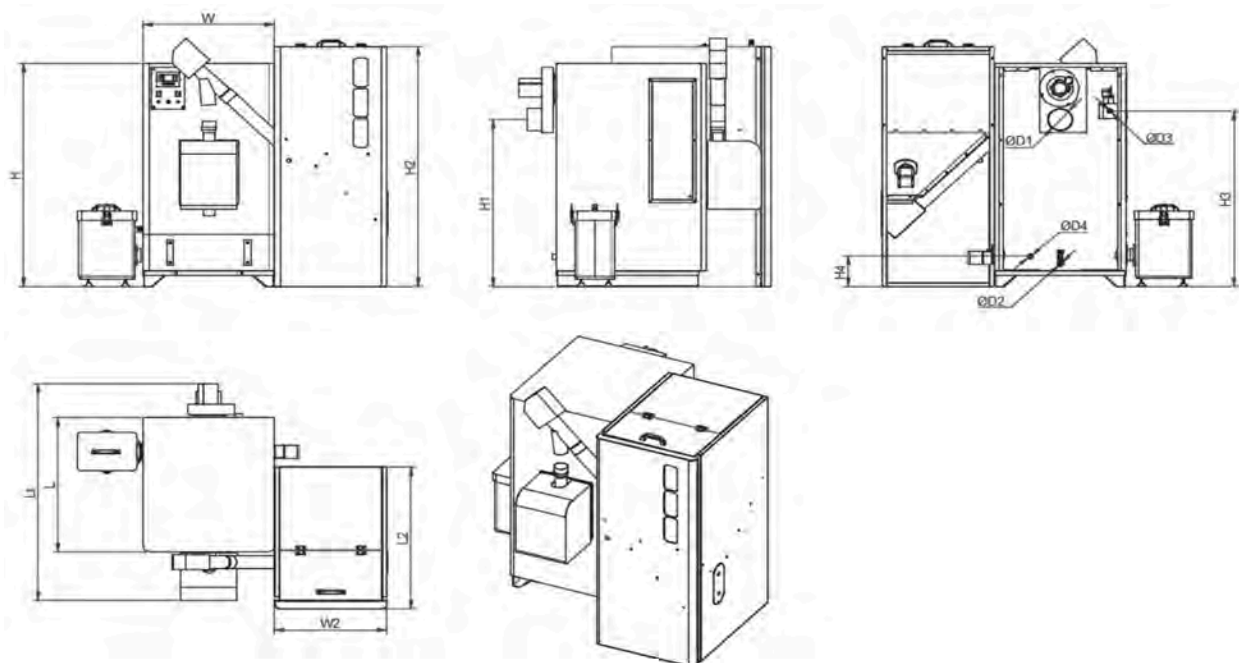


100 kw caria system

\*\* Tested and Certified according to EN303-5

# Technical Specifications

	TECHNICAL SPECIFICATION OF CARIA BOILERS	Unit	BOILER TYPE						
			CP-23	CP-40	CP-60	CP-80	CP-100	CP-150	
CAPACITY	Nominal-Minimum Heat Output	kW	23 - 6,9	40 - 12	60 - 18	80 - 24	100 - 30	150 - 45	
		kcal/h	19.780 - 5.934	34.400 - 10.320	51.600 - 15.480	68.800 - 20.640	86.000 - 25.800	129.000 - 38.700	
	Direct Efficiency in Full Load	%	93,2	93,4	92,8	93,7	92,2	91,0	
	Boiler Class	-	CLASS 5 acc. To EN 303-5						
	Safety Limit Temperature	°C	95						
	Setting Range for Operating Temperature	°C	80 - 65						
	Min. Water Return Temperature	°C	55						
	Operating & Test Pressure	bar	3 - 4,5						
	Electrical Connection	-	230 Vac , 50 Hz						
	Average Electricity Consumption	W	100	120	140	180	210	320	
	Recommended Fuel Types	-	Ø6 mm high quality pellet, EN Din PLUS A1, A2						
MAIN DIMENSIONS	Cabin Width, W	mm	700	750		750		750	
	Height, H	mm	1333	1433	1633	1435	1710		
	Cabin Depth, L	mm	800	825		1600		1295	
	Total Boiler Depth ± 2, Lt	mm	1295	1330	1330	2125		1935	
	Stack Size, (Outer, ØD1 -Inner Diameter)	mm	130-125	150-146		180-176		200-196	
	Height of Stack Connection, H1	mm	996	1093	1293	1100		1210	
	Water Content	lt	91	116	140	290		250	
	Empty Weight	kg	315	404	444	850	870	625	
	Filling & Drain Connections	ØD2	inch	½"		½"		½"	
	Hot Water Outlet Connections	ØD3	inch	1", Male	1 ½", Male		2", Male		2", Male
		H3	mm	1053	1156	1356	1305		1750
	Water Inlet Connections	ØD4	inch	1", Male	1 ¼", Male		2", Male		2", Male
		H4	mm	183	193		1170		215
Fuel Container Type	-		PS300	PS500	PS800				
SILO	Net Volume	lt	325	507	800				
		kg	200	330	520				
	Silo Dimensions	W2 x L2 x H2	mm	600x850x1433	850x850x1433	950x950x1633			





FUEL STORAGE CONTAINER		UNIT	RECOMMENDED BOILER TYPE							
			CP-12	CP-23	CP-40	CP-60	CP-80	CP-100		
SILO TYPE	PS300	W <sub>2</sub> Silo Width	mm							
		L <sub>2</sub> Silo Length	mm	850						
		H <sub>2</sub> Silo Height	mm	1433						
		W <sub>3</sub> Total Width with Boiler	mm	1655						
		Lt Total Length with Boiler	mm	1343						
		Net Volume	lt	325						
	PS500	W <sub>2</sub> Silo Width	mm	850						
		L <sub>2</sub> Silo Length	mm	850						
		H <sub>2</sub> Silo Height	mm	1433						
		W <sub>3</sub> Total Width with Boiler	mm	1928		1962				
		Lt Total Length with Boiler	mm	1312		1318				
		Net Volume	lt	507						
	PS800	W <sub>2</sub> Silo Width	mm	950						
		L <sub>2</sub> Silo Length	mm	950						
		H <sub>2</sub> Silo Height	mm	1633						
		W <sub>3</sub> Total Width with Boiler	mm	2038		2063				
		Lt Total Length with Boiler	lt	1383		1394				
		Net Volume		800						

