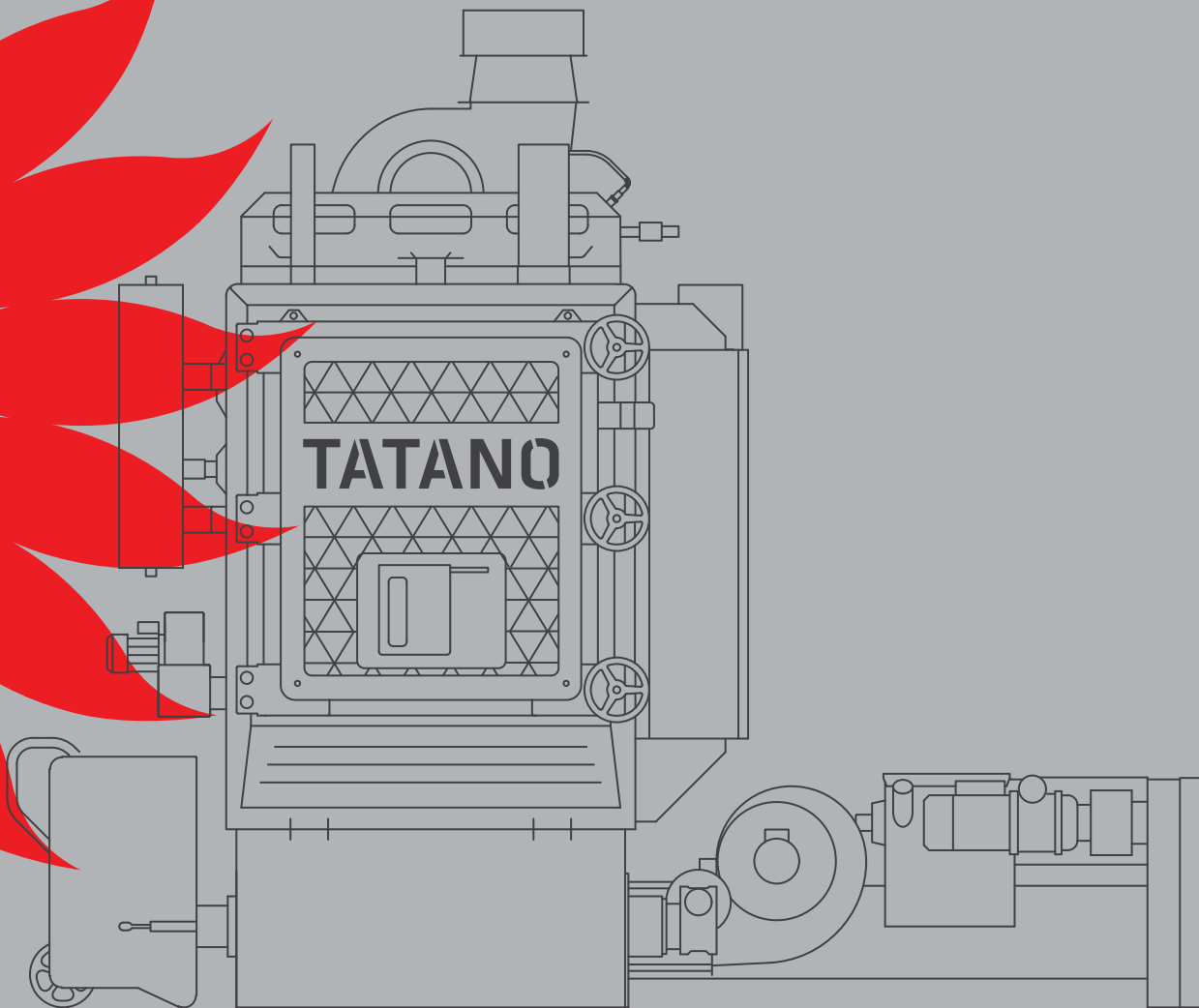


# KALORINA K 415 LE-PA



Wood Pellet boiler for heating  
commercial and industrial spaces  
powered by **Wood Pellets**





# TECHNICAL DATA KALORINA K 415 LE-PA Pellet

## KALORINA K 415 LE-PA Pellet

Carrier Fluid		Water
Power on furnace	kW	435
Nominal Power	kW	415
Reduced power	kW	86
Thermal efficiency min-max	%	98 - 95,2
Boiler class	EN 303-5:2021	5
Environmental Class	D.M 186/2017	5 Stars
Energetic class		A++

## CONSTRUCTION DATA <sup>(1)</sup>

Dimensions	Width (W)	mm	3.660
	Depth (D)		4.235
	Height (H)		2.790
Dimensions of the opening door for cleaning	O	mm	1.080
Dimensions of the inspection viewer	Width (W)	mm	60
	Height (H)		200
Min lenght for the auger extyraction	A	mm	2.650
Combustion chamber volume		m <sup>3</sup>	1,40
Fuel feeding			Extraction system through auger
Weight		kg	5.000
Chimney diameter	C	Ø mm	300
Boiler body			Steel 60/10
Combustion chamber			Four wet walls with refractory lining
Brazier			Feeding from the bottom in inox steel and cast iron elements
Boiler body isolation			In high density material, infill panels made in anti-corrosion epoxy powder coated steel

## HYDRAULIC DATA

Max working pressure		bar	3
Hot water content		liters	1.580
Flange connection DIN 2986-UNI228-ST 37	Delivery	Ø mm	DN 80 V
	Return		DN 80 V
	Expansion tank		DN 80 V
Attacco dissipatore di potenza residua	Inlet	Ø mm	DN 14
	Outlet		DN 14
	Expansion tank		Open/Closed
Heat loss water side 20 K		mBar	13,8



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### FUNCTIONING FEATURES

Draught pressure		Pa	12 ± 20%
Smoke temperature		°C	99 ± 30%
Max working Temperature	Water	°C	90
Combustion smokes evacuation			Forced exhaust draught
Power modulation			Automatic for water and smokes
Fuel flow adjustment			Electronic modulating
Combustion air flow adjustment			Electronic modulating
Chimney flue ash discharge			Manual, through ash tray on board
Heat exchanger Cleaning system			Automatic Solenoid valves, Air injection sleeves, Multi nozzles, General three-way valve, Pressure reducer, Safety flexible, Electronic control system, Compressor excluded
Combustion chamber ash discharge			Automatic through motorized auger
Ash tray volume		liters	2 X 87

### FUEL <sup>(2)</sup>

Class to be used			PELLET: EN 17225-2 (Class A1-A2)
Fuel consumption with nominal power		Kg/h	92,28
Reduced consumption with nominal power		Kg/h	19,37
Smokes flow at nominal power		g/s	191,6
Emissions CO (13% di O <sub>2</sub> )		mg/Nm <sup>3</sup>	12
Dusts emissions (13% di O <sub>2</sub> )		mg/Nm <sup>3</sup>	4,2
Rewarding Coefficient of dusts			1,5

### SMOKE TREATMENT SYSTEM

Type of technology			Multi-cyclonic with Felling dry
Type of dust separation			Centrifugal
Foldable pollutants			Dust combustion
Structure and self-supporting case			Painted sheet steel of suitable thickness
Disposition of cyclones			Vertical units arranged in parallel
Functioning description			Consists of an inner chamber with a series of little ccyclones extolling the ashes depositing them into a trayer on the machine. An electric fan positioned between the cyclone and the chimney ensures the constant negative pressure in the boiler. Thanks to the centrifugal force the dust particles are separated from the gas stream which has been imposed on the rotary flow. The technology is used for the removal of powders of larger particle diameter.



## TECHNICAL DATA

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### ELECTRICAL DATA <sup>(3)</sup>

Control panel		Steel cabinet with sealing gaskets composed of components for manual and automatic system for the programming and control, such as: contactors, cycle programmers, timers, control switches, operating lights, USB connectivity, visual and/Or acoustic signals.
Adjustment and control unit		Electronic type for the control and the management of the combustion through flue gas temperature and boiler temperature probes, detection sensor, safety timers, stopping due to ignition failure and various alarms. It's composed of motherboard, controller, menus with online help that allows the electronic management system with the operation status and alarm signaling.
Ignition		Electronical through ignitor
Electrical power	W	8,550
Medium Nominal electrical power	kW	1,70
Nominal voltage	V	400 + N
Nominal frequency	Hz	50
Nominal current	A	21,88
Absorbed Average nominal current	A	3,07

### ARRANGEMENT

Room Thermostat		Output connection
Remote assistance		Through RS 232 connection

### OPTIONAL

Hopper position		Dx / Sx / Rear side
Suction fan position		Dx / Sx / Rear side
Remote assistance		Software for the managing and control through Wi-Fi or internet module

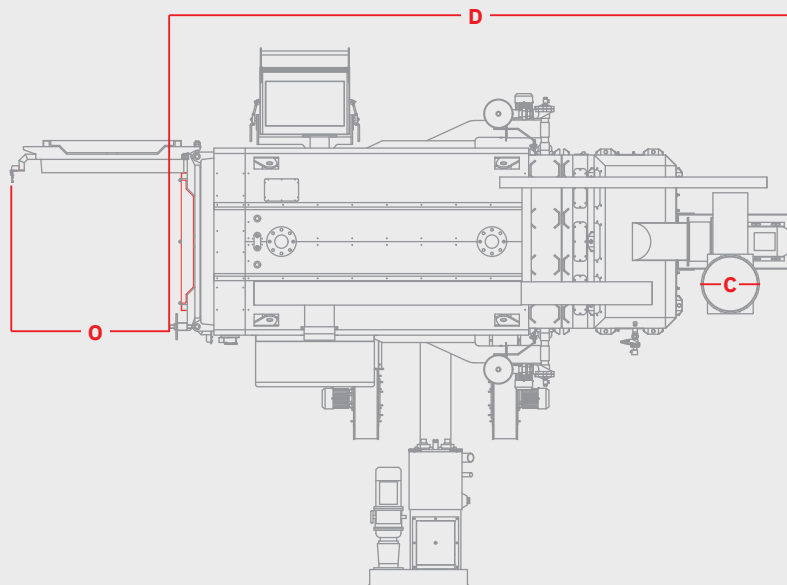
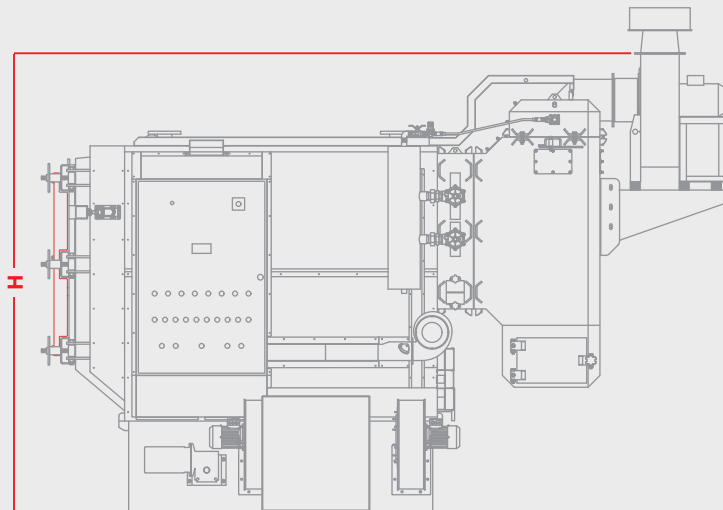
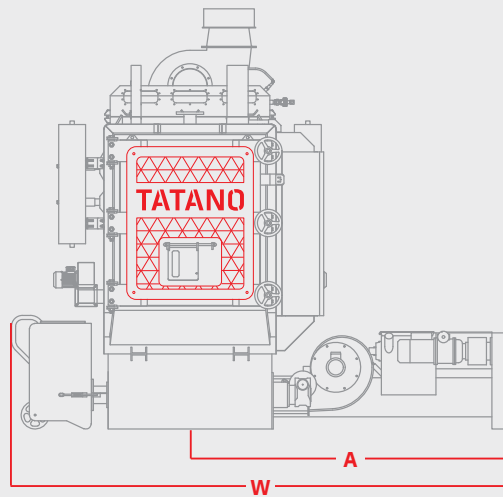
### SECURITY SYSTEM

Alarm and control		Antifreeze programming
		Through lambda probe
Boiler Control and lock		Through smoke and boiler probes
		Manual resetting thermostat
		Boiler stop for open door and cockpit
		End fuel sensor
Functioning error alarms		Through visual and acoustic alarms
		Inspection viewer of the combustion chamber
		Differential Pressure switch
		Pressure switch
		Emergency Button
Remote control and monitoring		Safety and shutdown timer for ignition fail and various alarms
		through Wi-Fi module
Antifire system		Flow control group with thermostatic valve and temperature sensor
Smokes evacuation in emergency		Through exhaust fan in emergency function



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- (1) The Dimensions may vary depending on the hopper position (right or left), on the control panel position or according to the optional accessories or for constructive choices.
- (2) All the data concerning the consumption and the environmental emissions may vary according to the characteristics of the fuel used, on the operating condition and by the presence of systems for the treatment of fumes.
- (3) The data may vary according to the electrical components installed (motors, fans, etc.). The actual data will be reported in the plate affixed to the boiler.

The company reserves to modify dimensions and characteristics without notice, accepts no responsibility for transcription or printing errors.



**TATANO s.n.c.**

*Biomass boilers  
Solar systems*

Zona ind.le/Scalo ferroviario  
92022 Cammarata (Ag)

**T** +39 0922 901376

Via F. Cassoli, 29  
29122 Piacenza

**T** +39 0523 609788

E-mail: [tatano@tatano.it](mailto:tatano@tatano.it)  
[www.tatano.it](http://www.tatano.it)