

# ROBINWOOD



PYROMAX



## Technical Documentation PYROMAX

22kW / 32kW / 40kW / 49kW



*The following document has been translated  
from the original German language*

**Technical Data**

**PYROMAX** 22kW / 32kW / 40kW / 49kW



- Compact design.
- Suitable for use in both commercial and domestic settings.
- PYROMAX - The ultimate choice for unbeatable quality-price ratio in the market!



**Technology**



**Certificates**

EN 303-5  
Ecodesign



## Visual Elegance: The PYROMAX Photo Gallery



## Welcome to PYROMAX: Your Power and Flames Expert



### Excellence and Low Emissions Experience

Thanks to our high-temperature combustion chamber, we offer you an exceptional heating experience characterized by high performance and reduced emissions. You can enjoy eco-friendly and efficient combustion, contributing to environmental preservation.

### Generous Loading Space

Our Pyromax offers ample loading space, allowing you to burn logs up to half a meter long. This means longer refilling intervals and greater convenience for you.

### Automatic and Programmable Ignition

Fire ignition has never been easier. Our Pyromax features an automatic ignition system programmable through an integrated timer or a temperature sensor. This makes starting the fire a breeze, allowing you to relax while your Pyromax takes care of everything.

### Intelligent Combustion Control

Our advanced combustion control ensures unparalleled combustion quality. Numerous hydraulic functions, such as temperature difference control and tank management, ensure efficient and optimized performance.

### Precise Primary Air Control

With our convenient manual regulator, you have precise control over the primary air. It's in your hands to ensure optimal combustion.

### Protection and Efficiency

Our attachable flame arrestors not only protect the inside of the boiler but also ensure logs flow correctly, eliminating concerns about possible interruptions.

### Safety During Refilling

The aspiration of pyrolysis gases during log reloading prevents the release of harmful fumes, ensuring maximum comfort and safety.

### Precise Draught Control

Our variable-speed draught fan offers precise draught control, allowing you to create the ideal combustion environment to maximize efficiency.

### Maximum Efficiency with Turbulator Technology

Our innovative turbulator technology further increases efficiency, allowing you to get the most out of your fire.

### High-Quality Thermal Insulation

Our Pyromax features high-quality thermal insulation that minimizes heat loss, ensuring optimal utilization of produced heat and efficient heating.

### Easy and Quick to Clean

Cleaning our Pyromax is a simple and fast operation, allowing you to fully focus on the fire experience. We offer convenient cleaning options to make maintenance a breeze.

Discover the perfect synergy between **performance, comfort, and efficiency: PYROMAX.**  
Your dependable companion for an unparalleled fire experience



The high-temperature combustion chamber ensures exceptional performance and minimal emissions.



Thanks to air preheating, Pyromax provides high-efficiency, eco-friendly combustion.



The generous loading space comes with attachable aprons.



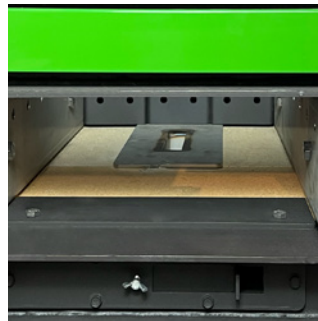
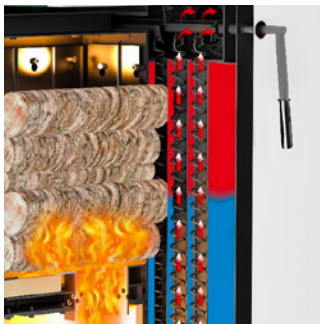
Our advanced combustion controller ensures exceptional combustion quality through precise monitoring and control of combustion processes. It optimally regulates air intake and minimizes harmful emissions. Additionally, the controller comes with a standard power plug and an integrated fuse for easy installation and enhanced safety. Pump connection is pre-installed, simplifying integration into the heating system.



The spacious loading space of the Pyromax allows for the combustion of half-meter logs, ensuring longer refilling intervals. You can prepare the fire by filling the combustion chamber and loading the ignition basket with pellets. The combustion can be initiated and controlled through a timer or the buffer temperature.



Thanks to the convenient manual control lever of the Pyromax, you have complete and precise control over the primary air intake. Pyrolysis gas suction technology prevents any smoke leakage during log reloading. The variable-speed fan ensures precise draught control, allowing you to create the ideal combustion environment. This way, you can enjoy exceptional comfort and total safety without compromises.

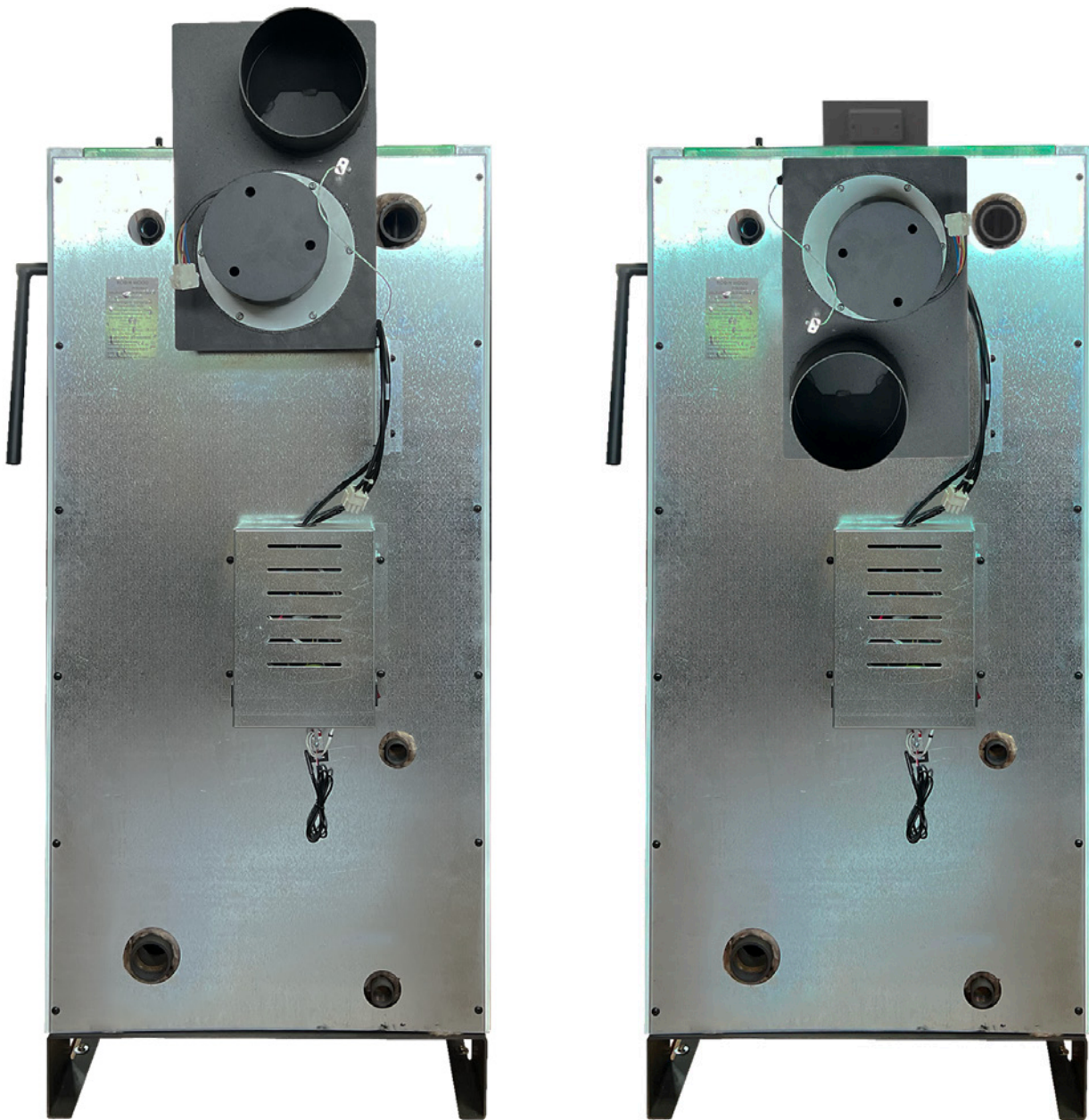


Thanks to the innovative turbulator technology, you achieve clean and efficient combustion with maximum efficiency. This technology also simplifies the cleaning of Pyromax's heat exchangers. Turbulators also help reduce soot buildup and deposits in the heat exchanger tubes, making appliance cleaning and maintenance easier. Make the most of your fire, enjoying eco-friendly heating, and benefit from easy-to-use heat exchanger cleaning.

## The main features

- ① High-temperature combustion chamber for exceptional performance and minimal emissions.
- ② Generous loading space for wood logs up to half a meter (50 cm) long.
- ③ Reliable ignition with a high-quality ceramic ignition element and pellets.
- ④ Programmed automatic ignition via the integrated timer or temperature sensor.
- ⑤ Intelligent combustion control for excellent combustion and numerous hydraulic functions such as temperature difference adjustment and buffer loading.
- ⑥ Convenient manual control knob for precise adjustment of primary air.
- ⑦ Attachable aprons for protecting the interior of the boiler and ensuring safe wood log placement
- ⑧ The aspiration of pyrolysis gases prevents smoke from escaping during wood log reloading.
- ⑨ Variable-speed draught fan for precise draught control.
- ⑩ Innovative turbulator technology for optimized efficiency enhancement.
- ⑪ High-quality thermal insulation to minimize radiant heat losses.
- ⑫ Easy and convenient cleaning options.





Thanks to the high-efficiency fan, the system becomes extremely user-friendly and ensures continuous supervision and control of the combustion process. Furthermore, the fan allows for a 180° rotation, enabling versatile adaptability to various needs and space conditions.



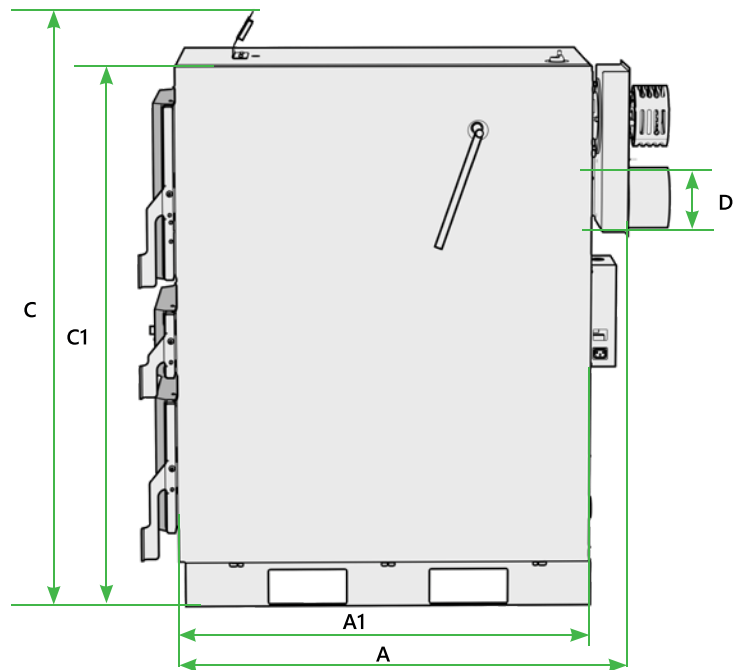
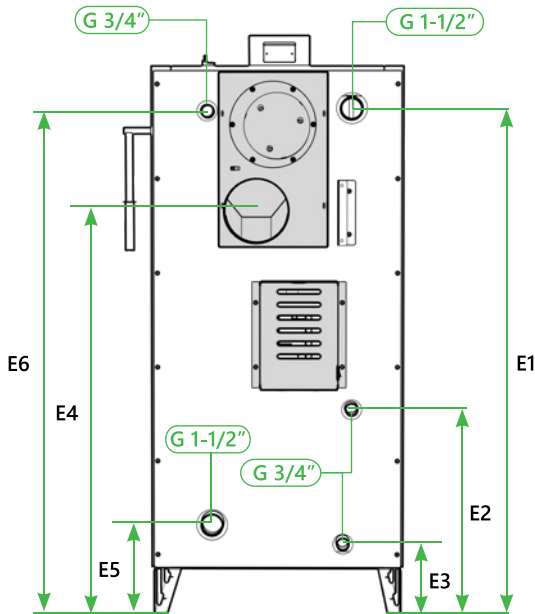
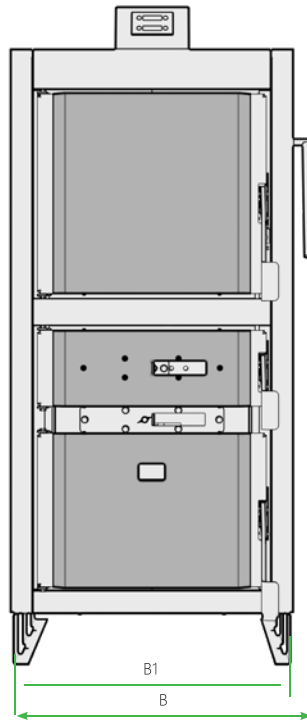
Intelligent system management enables automatic performance adjustment that flexibly adapts to the plant's needs. This ensures optimal resource utilization and ensures efficient energy production. The system intelligently responds to changes and adjusts performance accordingly to ensure effective operation.



The system stands out for its high compatibility, as the integrated control can manage both combustion and hydraulic loading of the accumulator tank through temperature sensors. This versatile feature provides the customer with maximum flexibility in system adaptation and usage. It enables efficient combustion control and monitoring, as well as precise adjustment of the accumulator tank loading based on temperature measurements. This ensures optimized operation and effective resource utilization.



Technical Data



	A (mm)	A1 (mm)	B (mm)	B1 (mm)	C (mm)	C1 (mm)	D (mm)	E1 (mm)	E2 (mm)	E3 (mm)	E4 (mm)	E5 (mm)	E6 (mm)
22	1135	1016	663	590	1387	1280	Ø 149	1180	480	165	943	210	1174
32	1185	1066	663	590	1387	1280	Ø 149	1180	480	165	943	210	1174
40	1255	1136	663	590	1387	1280	Ø 149	1180	480	165	943	210	1174
50	1255	1136	663	590	1537	1430	Ø 149	1330	630	165	1093	210	1324

## Technical data

<b>ROBIN WOOD PYROMAX</b>		<b>22</b>	<b>32</b>	<b>40</b>	<b>49</b>
Nominal thermal power	kW	22	32	40	49
Range of thermal power	kW	11-22	16-32	20-40	25-49
Boiler class EN 303-5:2021		5			
Minimum draft required in the chimney at nominal power	Pa	14	18	18	21
Minimum draft required in the chimney at reduced power	Pa	10	12	12	10
Quantity of water in the boiler	Liter	120	130	140	150
Exhaust gas temperature at nominal thermal power	°C	165	160	150	150
Exhaust gas temperature at minimum heating power	°C	100	100	100	95
Minimum operating time at nominal power (nominal power-Q)	hours	3	3	3	3
Minimum supply temperature (return temperature)	°C	60			
Maximum water temperature	°C	90			
Type of fuel		Natural split firewood, with a residual moisture content <20%, compliant with standard 14964-5.			
Fuel moisture content	%	max 20 %			
Length of firewood	mm	500	500	500	500
Combustion chamber volume	Liter	103	103	103	136
Type of combustion chamber		sealed chamber			
Minimum required buffer tank volume		according to EN 303-5:2021			
Supply voltage	V	230			
Frequency	Hz	50			
Weight	kg	424	449	479	526
Maximum operating pressure	bar	3			
Outer diameter of the combustion gas pipe	mm	149			
Heating appliance operation	kW	with draft fan			
Boiler energy efficiency class		A+			
Energy efficiency index (EEI)		111	111	113	112
Annual efficiency for space heating $\eta_{fs}$	%	80	80	80	80
Efficiency at nominal thermal power	%	92	92	93	92
Efficiency at reduced power	%	95	95	95	95
CO <sub>2</sub> emissions at nominal thermal power	%	13,71	13,71	14,44	14,61
CO <sub>2</sub> emissions at reduced power	%	14	14,39	10,83	14,54
CO emissions at nominal thermal power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	94,95	110,71	101,96	297,90
CO emissions at reduced power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	106,63	378,61	128,65	118,29

## Technical data

NOx at nominal thermal power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	136,24	131,91	139,75	135,83
NOx at reduced power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	126,89	79,60	136,28	109,93
OGC (Organic Gaseous Compounds) at nominal thermal power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	8,31	1,67	2,23	7,25
OGC (Organic Gaseous Compounds) at reduced power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	7,64	5,57	5,41	2,65
Particulate matter at nominal thermal power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	7,39	7,24	3,94	8,02
Particulate matter at reduced power (13% / O <sub>2</sub> )	mg/Nm <sup>3</sup>	9,37	4,76	6,41	12,25
Mass flow rate of exhaust gases at nominal thermal power	g/s	26,04	35,77	15,57	63,49
Mass flow rate of exhaust gases at reduced power	g/s	13,37	35,21	8,23	27,79
Velocity of exhaust gases at nominal thermal power	m/s	1,79	1,62	2,54	1,84
Velocity of exhaust gases at minimum power	m/s	1,88	1,71	1,94	1,88



# ROBIN WOOD

We are constantly  
improving and optimizing  
our products

With a built-in WLAN module and a mobile app, you can access the boiler at any time from your smartphone and customize it according to your needs.



Manage your biomass  
heating system  
anywhere, anytime



ENJOY YOUR SMART FIBRE



## **ENJOY YOUR SMART FIRE**

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