Boilers with manual stoking

OPOP NATURO 16

OPOP
partner for your heating

The OPOP NATURO 16 wood gasification boiler, thanks to its well-thought-out design, allows wood to be burned without the use of electricity. It meets the parameters of the 5th emission class and eco-design.

The boiler can be operated in both a forced circulation and gravity system. The OPOP NATURO 16 boiler can easily be placed in smaller boiler rooms. The large stoking shaft on the front of the boiler can hold up to 66 liters of fuel.

The boiler has a cleverly designed stoking and ash door, which can be placed on the boiler so that it opens to the left or right, and the grate mechanism is also designed in the same way.

A+ | ECO DESIGN | 5-YEAR GUARANTEE

Producer: OPOP s.r.o., Zašovská 750, 757 01, Valašské Meziříčí, tel.: +420 571 675 589, e-mail: sales@opop.cz
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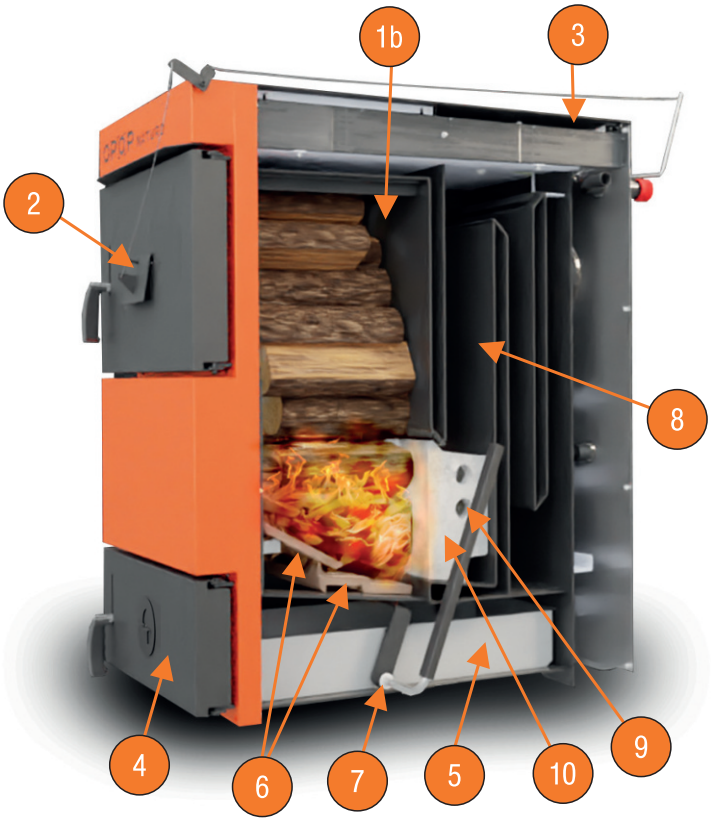

1.a The large loading shaft holds up to 66 liters of fuel per load. Wood can be added lengthwise.

1.b The large loading shaft holds up to 66 liters of fuel per load. Wood can be added crosswise.

2. Loading door with a flap for air regulation using a draft regulator controls the output of the boiler. Their variability of opening to the right or left.

3. Cleaning door for easy cleaning of the exchanger.

4. Ashtray door with variability of opening to the right or left. They include an additional flap for even combustion of the hot layer.

5. A voluminous ashtray consisting of two parts for overall space saving and easy ash removal.

6. Inclined and sliding grate made of high-quality cast iron.

7. The grate mechanism allows the burnt ash to fall into the ashtray. Variability of the lever location on the right or left.

8. Compact boiler exchanger ensuring high efficiency.

9. Double inlet of preheated secondary air reduces overall emissions.

10. Refractory concrete nozzle ensures combustion quality with minimal emissions.

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Power: 16 kW
Fuel: wood / H_2O max 20%

Easy to use and operate

- The gasification effect is achieved without the use of electronically controlled elements and a fan.
- Possibility of operation in gravity systems without the need for connection to the electrical network.
- The voluminous hopper can hold up to 66 liters of fuel.
- The loading door is located at the front of the boiler.
- Fuel can be placed in the hopper longitudinally or transversely
- The divided ash pan consists of two parts. It saves overall space and ensures easy removal of ash.
- Variability of opening the stoking and ash pan doors from the right or left.
- Variability of placing the grate lever from the right or left.
- An additional flap on the ash pan door serves to evenly burn the hot layer.
- The output is easily regulated using the primary and secondary air flaps.
- The draft regulator ensures automatic output regulation.
- Easy maintenance and cleaning of the boiler.
- Undemanding to chimney draft.

Economical operation

- Efficiency of almost 90% ensures effective use of fuel energy.
- Low fuel consumption minimizes operating costs.
- It falls into the 5th emission class and meets the conditions of ecodesign.

Long service life

- The boiler sheet thickness of 5 mm guarantees a long service life of the boiler.
- High-quality cast iron grates for perfect fuel combustion.
- Above-standard 5-year warranty on weld tightness when installed by a trained installation company in accordance with the instructions.
- Long-term proven reliability of products.

Proven design, years of experience

- The small size of the boiler ensures that it fits into very small spaces without the need for structural modifications. The boiler width is 515 mm, depth 1080 mm and total height is just over 1000 mm.
- Large hopper compared to the total size of the boiler, which has a volume of 66 liters of fuel.
- Integrated cooling loop for safe operation without the risk of overheating.
- Connection compatibility with U26 boilers.

Technical parameters		OPOP NATURO 16
Nominal thermal output	[kW]	16
Operating draft – minimum	Pa	16
Weight	kg	241
Efficiency	[%]	88,6
Boiler class according to EN 303-5+A1		5
Water volume	[l]	67
Flue pipe diameter	[mm]	159
Log length	[mm]	25 – 31
Fuel consumption	[kg/hod]	4,4
Measured burning time at nominal output	[hod]	3
Heating water temperature range	[°C]	65 - 80
Fuel shaft volume	[l]	66,5
Filling hole dimensions	[mm]	270 x 315
Heating surface	[m^2]	2,5
Flue gas temperature at nominal output	[°C]	180
Maximum heating water overpressure	[MPa]	0,2
Heating water test overpressure	[MPa]	0,3
Flue gas mass flow at nominal output	[kg/s]	0,011
Burning time at nominal output	[h]	>3
Hydraulic loss at ΔT= 20/10 K	[mbar]	1,36 – 5,1

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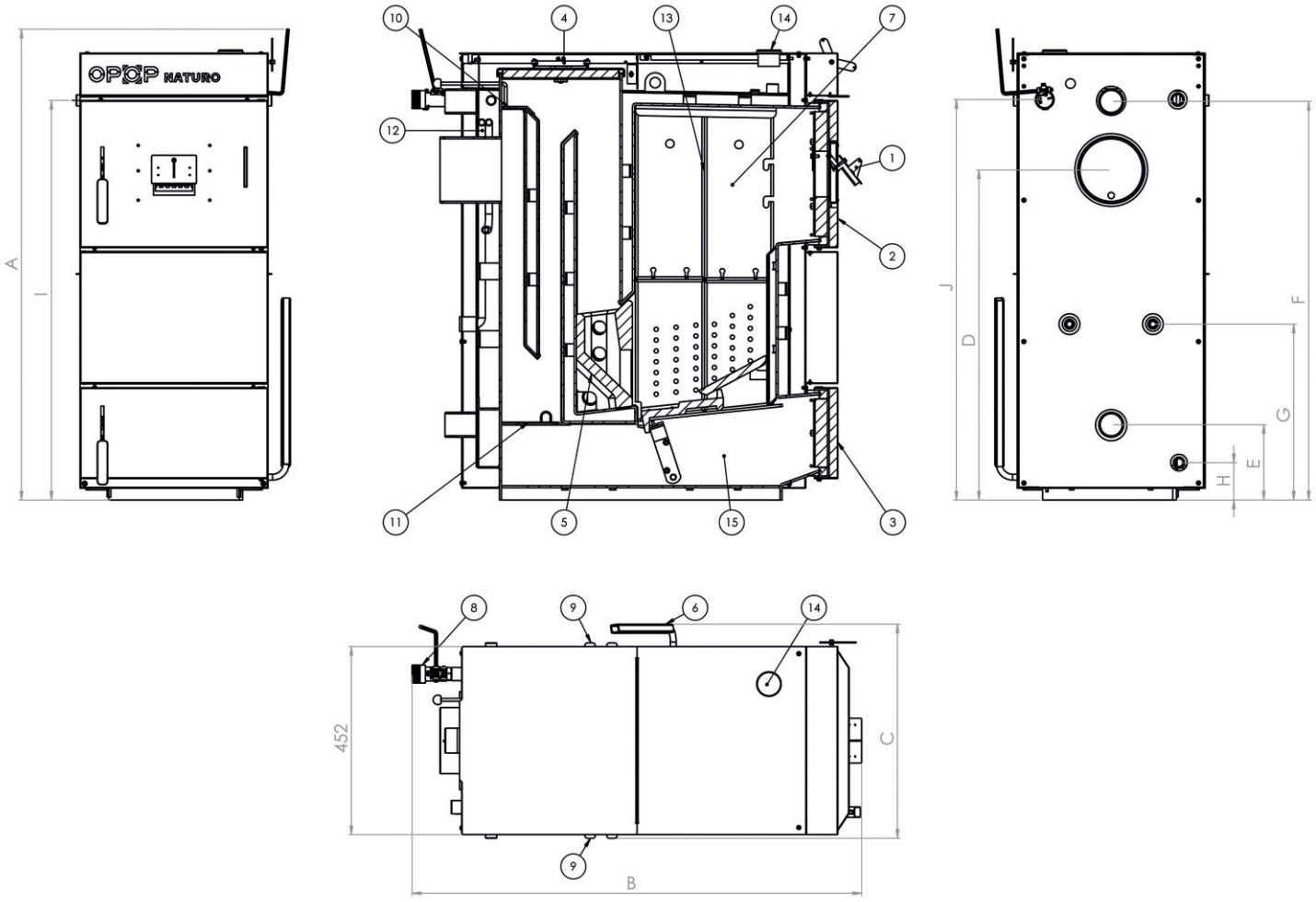

Position	Name of part
1.	Primary air damper
2.	Fire door
3.	Ash door
4.	Cleaning door
5.	OPOP NATURO nozzle

Position	Name of part
6.	Grating lever
7.	Spacer plates
8.	Primary damper regulator
9.	Secondary air dampers
10.	Fire damper

Position	Name of part
11.	Cleaning shutter
12.	Cooling loop
13.	Loading chamber
14.	Thermometer
15.	Divided ashtray

		OPOP NATURO 16
Outlet/inlet pipe (external thread)		G2"
Cooling loop connection (internal thread)		G3/4"
Boiler drain and fill connection		G1/2"
A - total boiler height	(mm)	1132
B - total boiler depth	(mm)	1080
C - boiler width	(mm)	515
D - flue pipe location	(mm)	793
E - inlet water pipe location	(mm)	181
F - outlet pipe location	(mm)	959
G - cooling loop location	(mm)	423
H - drain valve location	(mm)	90
I - cooling loop safety valve sensor location	(mm)	961
J - primary damper regulator position	(mm)	963
Boiler body wall thickness (water/flame)		5

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