

Combined wood and pellet boilers

H4 EKO-D MAX KOMBI

OPOP
partner for your heating

Combined boilers of the H4 EKO D MAX KOMBI series for wood and pellets make it possible to variably change the type of fuel according to availability and price.

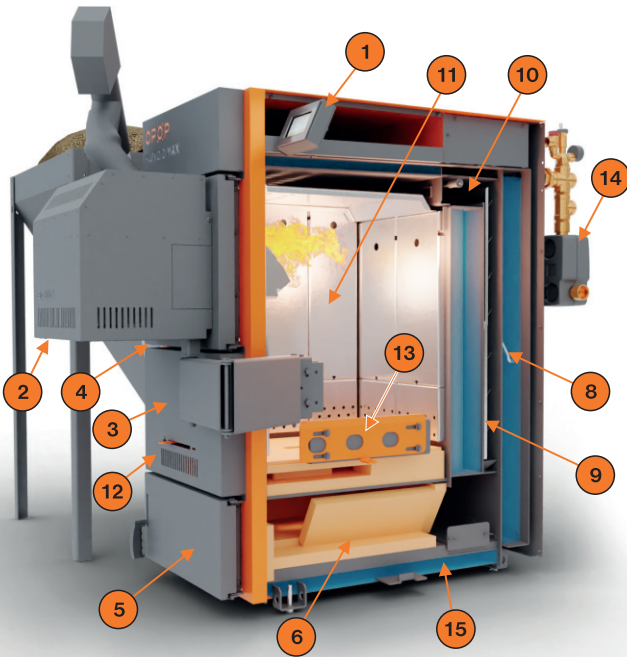
You can also change the method of application exactly according to your needs and time. In the boiler, it is possible to combine heating with wood pellets in automatic mode and burning wood in manual mode. The transition between automatic and manual loading is very quick thanks to the mobile pantograph.

Online control in the basic equipment enables remote control of the boiler and change of heating parameters.



ECO
DESIGN

5-YEAR
WARRANTY



1. Control unit with intuitive operation.
2. Burner for burning pellets in automatic mode.
3. Attaching the burner to the mobile pantograph ensures easy handling and access to the burner and transition between manual and automatic heating.
4. Large loading door from the front of the boiler.
5. Ashtray door for collecting ash.
6. Combustion chamber lined with hot concrete bricks for minimal emissions.
8. The cooling loop protects the boiler against overheating.
9. Lamellar heat exchanger of the boiler ensuring high efficiency.
10. Cleaning door for access to the boiler exchanger.
11. The loading shaft equipped with shielding plates protects the heat exchanger from the effects of fumes.
12. The secondary air flap ensures low emissions and high wood burning efficiency.
13. Primary air flaps on both sides of the boiler. They ensure adequate boiler performance.
14. Hydraulic set of optional accessories that simplifies and shortens the installation of OPOP boilers.
15. The water-cooled bottom increases the overall efficiency of the boiler.

Power: 25-50 kW

Fuel: dry wood with a moisture content of max. 20%; Wood pellets with a diameter of 6-8 mm

Easy operation

- Quick transition between automatic pellet operation and manual wood loading thanks to the elegant attachment of the burner on the mobile pantograph. In addition, it ensures easy handling and access to the burner during its complete cleaning.
- Online control in the basic equipment - internet connection in the basic equipment allows the customer to control the boiler remotely and saves costs for servicing the boiler. The service company can remotely check the parameters and settings of the boiler.
- Outdoor sensor - allows you to set the water temperature control in the boiler heating system according to the outside temperature and thus save heating costs.
- Electronic control unit - can control not only the boiler, but also all elements of the heating system. So you don't have to pay extra for superior modules controlling mixing valves, hot water heating or storage tank.

The boiler control unit also enables:

- Control of 2 mixing valves.
- Connection of 2 room thermostats to control 2 independent heating circuits.
- Connection of 5 pumps - DHW pump, CH pump, valve 1 pump, valve 2 pump, separately configurable pump.
- Time management of boiler output temperature - programmable weekly mode of operation.
- Heating the storage tank using 2 temperature sensors.
- Online control of all functions of the boiler and heating circuits using the OPOP internet interface.
- Mobile application for phones with iOS and Android operating systems enabling remote management of the boiler.
- Update the firmware of the control unit using the USB interface to get new functions.
- Works with solar panels and other heat sources.

In the case of pellet heating in automatic mode:

- Automatic ignition and extinguishing - the boilers are capable of igniting the pellets in the burner by themselves and thereby starting the operation of the boiler, they can also let the pellets in the burner extinguish themselves.
- Heats up to several days without the need to load according to the size of the tank.

In the case of wood heating:

- The boiler has a large hopper and is intended for burning logs with a length of up to 53 cm. This will reduce the time needed to prepare the wood.
- The hopper can hold a large amount of wood per load. The volume of the loading chamber is from 137 to 201 l depending on the power. This reduces the frequency of loading.
- Electronic detection of fuel in the hopper on the display of the control unit, a message about running out of fuel is displayed in the upper right corner. The customer thus knows without any problem when he can open the boiler and add fuel. In addition, when connecting the boiler to the Internet, you can see the display of the fuel burn on your mobile phone.

- The boiler is able to maintain a steady-burning layer, in this case the customer has a choice. Either it can quickly heat the water in the storage tank with maximum boiler output and perfect combustion with high efficiency and maximum fuel utilization. Which will bring him, for example, one day without the need for heating. The second option is to try to keep the hot layer in the boiler for as long as possible so that the boiler does not go out.

Economical and ecological operation

- The boiler has a high efficiency of up to 93.1%, which means efficient use of fuel energy and lower fuel consumption.
- Low fuel consumption together with low electricity consumption reduce overall heating costs.
- It satisfies the 5th emission class and meets the conditions of ecodesign.
- Modulated fan speed - the fan modulates its speed from 50% to a maximum of 100% when burning wood and in the range of 30% to 100% when burning pellets. The performance is thus adjusted according to the current and required water temperature in the system.

Proven construction

- The unique flat hot-concrete bottom of the combustion chamber makes it possible to create a large hot layer, which ensures high-quality fuel burning for long hours and without vaulting.
- Reduction of tarring in the loading chamber - part of the primary combustion air is brought to the upper part of the loading chamber in order to prevent vapor condensation in the hopper and thus reduce tarring.
- Both the boiler and the burner are easy to maintain and clean thanks to simple access to the burner and exchanger.
- The boiler includes a cooling loop that protects the boiler against overheating.

Long service life

- Electronic elements with a long service life are used in the boiler.
- 5-year warranty on the heat exchanger when the boiler is installed by a trained installation company in accordance with the operating instructions.
- Protection of the combustion chamber - the loading chamber of the boiler is equipped with shielding plates that protect the heat exchanger from the effects of fumes created in the loading chamber.

Technické parametry		H425 EKO-D MAX KOMBI	H435 EKO-D MAX KOMBI	H442 EKO-D MAX KOMBI	H450 EKO-D MAX KOMBI
		H425 EKO-D MAX	H435 EKO-D MAX	H442 EKO-D MAX	H455 EKO-D MAX
Boiler type					
Burner type	[kW]	30	40	40	60
Nominal heat output WOOD	[kW]	25	35	42	55
Nominal heat output of PELLETS	[kW]	25	35	42	50
Pellets performance range	[kW]	7,3 - 25,7	10,5 - 35	12,6 - 42	14,6 - 50,6
Exchanger surface	[m ²]	4,6	4,6	4,6	5,2
Efficiency WOOD	[%]	90,5	89,5	89,1	90
Efficiency PELLETS	[%]	92,8	92,4	92	91,9
Required operating draft WOOD	[mbar]	0,12	0,19	0,17	0,18
Required operational draft PELLETS	[mbar]	0,10	0,10	0,10	0,10
Weight	[kg]	513	510	510	570
Ecodesign		ano	ano	ano	ano
Class according to EN 303-5 (WOOD/PELLETS)		5/5	5/5	5/5	5/5
Volume of water	[litry]	165	165	165	181
Flue diameter	[mm]	130	130	130	130
Fuel consumption WOOD	[kg/hod]	6,03	8,9	10,8	12,5
Fuel consumption PELLETS (min.power/nominal power)	[kg/hod]	1,69 - 5,73	2,43 - 7,8	2,89 - 9,46	3,35 - 11,39
Heating water temperature range	[°C]	65 - 80	65 - 80	65 - 80	65 - 80
Fuel tank volume	[l]	137	170	170	201
Dimensions of the filling hole (h x w)	[cm]	40x34	40 x 45	40 x 45	40 x 45
Max. length of logs	[cm]	53	53	53	53
Burning time for WOOD nominal output	[hod]	> 4	> 4	> 4	> 4
Flue gas temperature WOOD nominal output	[°C]	109,6	133	153	140
Flue gas temperature min. power/nominal power PELLETS	[°C]	58 / 87	62 / 95	66 / 104	71 / 112
Maximum pressure of heating water	[MPa]	0,2	0,2	0,2	0,2
Test pressure of heating water	[MPa]	0,4	0,4	0,4	0,4
Electrical covering	IP	20	20	20	20
Electrical input nominal WOOD	[W]	29	44	42	42
Electrical input maximum WOOD	[W]	52	52	52	52
Electrical input min. /nominal output PELLETS	[W]	57 / 40	44 / 78	47 / 100	50 / 120
Electrical input maximum PELLETS	[W]	529	535	555	565
Power consumption in standby mode	[W]	5	5	5	5
Connection voltage	[A/V/Hz]	2 x 230V 50 Hz			
Boiler hydraulic loss at ΔT-20 K	[mbar]	5,556	5,556	7,989	7,761
Boiler hydraulic loss at ΔT 10 K	[mbar]	22,18	22,18	31,21	28,64
Noise emission WOOD	dB	65,4 ± 3,2 dB			
Noise emissions PELLETS	dB				

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		H425 EKO-D MAX KOMBI	H435 EKO-D MAX KOMBI	H442 EKO-D MAX KOMBI	H450 EKO-D MAX KOMBI
Socket outlet/inlet (external thread)		G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"
Cooling loop connection (internal thread)		G 1/2"	G 1/2"	G 1/2"	G 1/2"
Connection for draining and filling (internal thread)		G 1/2"	G 1/2"	G 1/2"	G 1/2"
A-total height of the boiler	(mm)	1373	1373	1373	1513
B – total depth of the boiler	(mm)	1575	1575	1575	1613
C-boiler width	(mm)	684	684	684	684
D-flue location	(mm)	638	638	638	638
E- location of inlet water nozzle	(mm)	116	116	116	116
F- location of outlet water nozzle	(mm)	1199	1199	1199	1199
G-total width of the boiler incl. burner	(mm)	1050	1050	1050	1050
H – location of cooling loop	(mm)	643	643	643	783
J - drain valve location	(mm)	111	111	111	111
K-total boiler depth incl. hydraulic set	(mm)	1613	1613	x	x
L-water inlet storage tank (in the case of connecting a hydraulic set)	(mm)	643	643	x	x
M-outlet water storage tank (in the case of connecting a hydraulic set)	(mm)	1114	1114	x	x
N-width of the display holder	(mm)	168	168	168	168
O-height including external feeder	(mm)	1877	1877	1877	1877
P-total width of the boiler including accessories	(mm)	2095	2095	2095	2095
Q-height of the hopper	(mm)	1311	1311	1311	1311
R-width of the hopper	(mm)	807	807	807	807
S - hopper depth	(mm)	807	807	807	807
T - depth of the burner cover	(mm)	483	483	483	483
Boiler body wall thickness (water/flame)	(mm)	5	5	5	5
Boiler body wall thickness (water)	(mm)	3	3	3	3

