

# DUO



## Innovative, dual-fuel automatic boiler for wood and wood pellets

DUO is an automatic boiler, unique on the market, that allows you to supply both logs of lump wood and wood pellets. Wood loaded manually into the combustion chamber is ignited automatically by the pellet burner. The wood is burnt using the gasification process, and once it is burnt and there is a further demand for heat in the boiler, the pellet burning process is automatically started. The heart of the boiler is the RTJ pellet burner, which has a unique system for adjusting optimal combustion parameters based on fuel level and vacuum sensors and a lambda probe.

The boiler is designed to work with a central heating buffer cylinder.



wood  
50 cm  
long



wood pellet  
A1, A2, B



automatic wood  
and pellet ignition



effective  
gasification  
process



new RTJ  
burner






heat-resistant  
ceramics



to work with  
a buffer

## Technical data

 available heating power range for wood	kW	17	21	29	37
 available heating power range for pellets	kW	17	21	31	40
 approximate heating area *	m <sup>2</sup>	70-170	90-210	120-310	160-400

thermal efficiency reaching up to:

< 90%

nominal power kW	thermal efficiency for wood %	thermal efficiency for pellets %	energetic efficiency class	water capacity dm <sup>3</sup>	tank capacity dm <sup>3</sup>	wood chamber capacity dm <sup>3</sup>	feeding chamber dimensions			flue gas outtake diameter mm	boiler weight kg
							h	width	depth		
17	89,2	89	A+	92	160	108	620	250	590	150	673
21	89,4	89	A+	92	160	108	620	250	590	150	673
29 / 31	89,9	89,2	A+	110	160	156	620	350	590	150	794
37 / 40	90,5	89,3	A+	110	160	156	620	350	590	150	794

## Controller

ST-911

**Control:** igniter control, burner cleaning control, operation of the fuel feeder and fan with a buffer control, four central heating and domestic hot water pumps and two valve pumps control, two mixing valves control, weather valve control, weekly control of the plan for boiler and cylinder operation.

**Functions:** 6 modes of fuel selection, automatic regulation of the combustion process, the controller works only with two-state regulators.



touchpad



automatic regulation of the combustion process



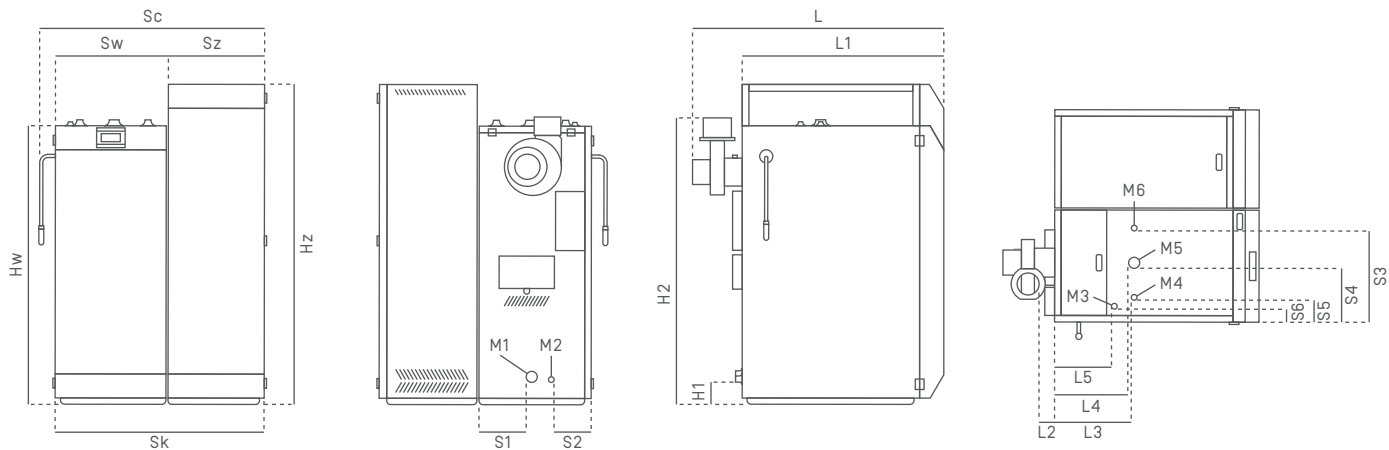
lambda probe and exhaust gas sensor



remote control option\*\*

\* The given areas of the heated facility are only approximate

\*\* On condition that an additional ST-505 or WiFi RS module is connected



power	Sc	Sk	Sw	Sz	S1	S2	S3	S4	S5	S6	Hw	Hz	H1	H2	L	L1	L2	L3	L4	L5
kW	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
17	1070	975	480	495	202	144	373	230	118	70	1420	1640	126	1470	1290	1030	55	400	380	290
21	1070	975	480	495	202	144	373	230	118	70	1420	1640	126	1470	1290	1030	55	400	380	290
29/31	1170	1070	570	495	250	190	469	278	118	70	1420	1640	126	1470	1290	1030	55	400	380	290
37/40	1170	1070	570	495	250	190	469	278	118	70	1420	1640	126	1470	1290	1030	55	400	380	290

muff	M1	M2	M3	M4	M5	M6
diameter	6/4"	1/2"	1/2"	3/4"	6/4"	3/4"
intended use	boiler inlet	drain valve	safety valve	cooling coil	boiler outlet	cooling coil

Reference cross-section

