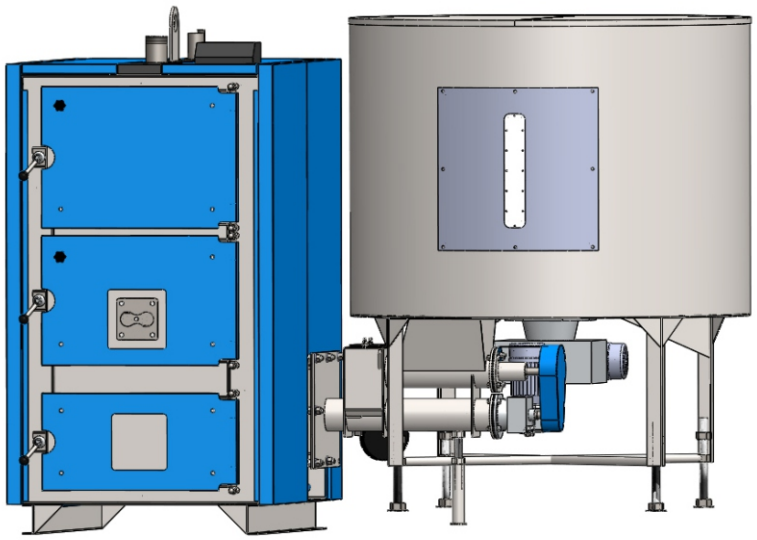
MCL-BIOMIX

multifuel boiler with mixing mechanism 81-1.046 kW



MCL-BIOMIX is an automatic biomass boiler with a mixing system for light fuel, such as woodchips, sawdust and cereals.

The boiler is equipped with BIOMIX furnace, BI-AX feeding system, a cylindrical silo with mixing mechanism and independent mixing motor.

The rotating system is composed of high resistant blades which are positioned inside the silo in order to ensure constant flow of the fuel.

The silo is designed detachable, for easy dismounting for cleaning and maintenance.

The BIOMIX system has a dedicated control panel with digital interface.

It can be used with any type of solid fuel with maximum diameter 50mm and maximum humidity 25%.

FUELS

pellet | agropellets | cereals | woodchips | sawdust

fruit shells | olive husks | wood | briquettes

Rotating mixing system

Exhaust gas sensor
Flame detection

Advanced digital controller

3 years

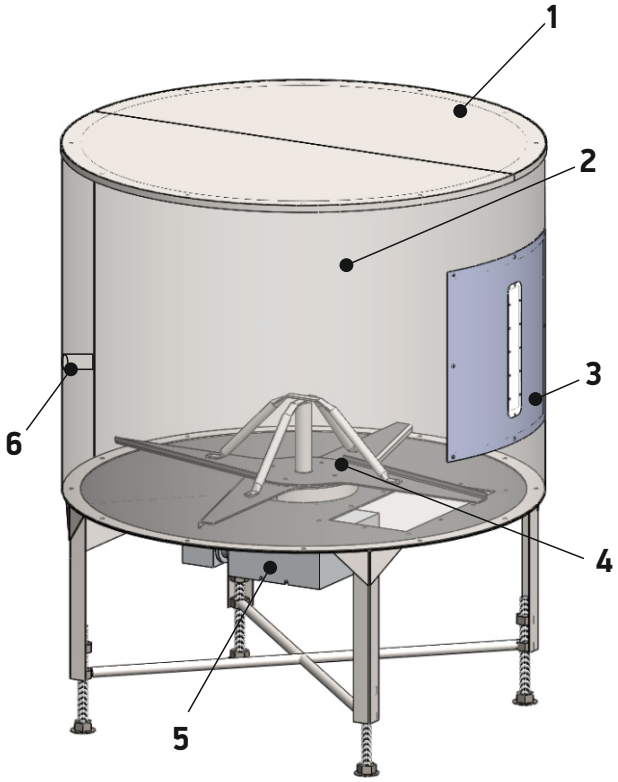
3 years warranty

Safety features and alarms

MAIN FEATURES

- Multifuel boiler: automatic function on pellet-biomass-woodchips-sawdust, manual function on wood
- Special furnace for feeding fuels up to 50mm diameter
- Cylindrical silo with mixing system
- Three points back-burn security
- High efficiency >87%
- Tubed heat exchanger
- Water-cooled grate for manual wood combustion
- Digital controller with advanced control of the boiler and the heating installation
- Control of 3 pumps, hot water boiler, buffer tank, mixing valve control
- Weather sensitive control with external temperature sensor
- Overheating alarm signal

MIXER CONSTRUCTION

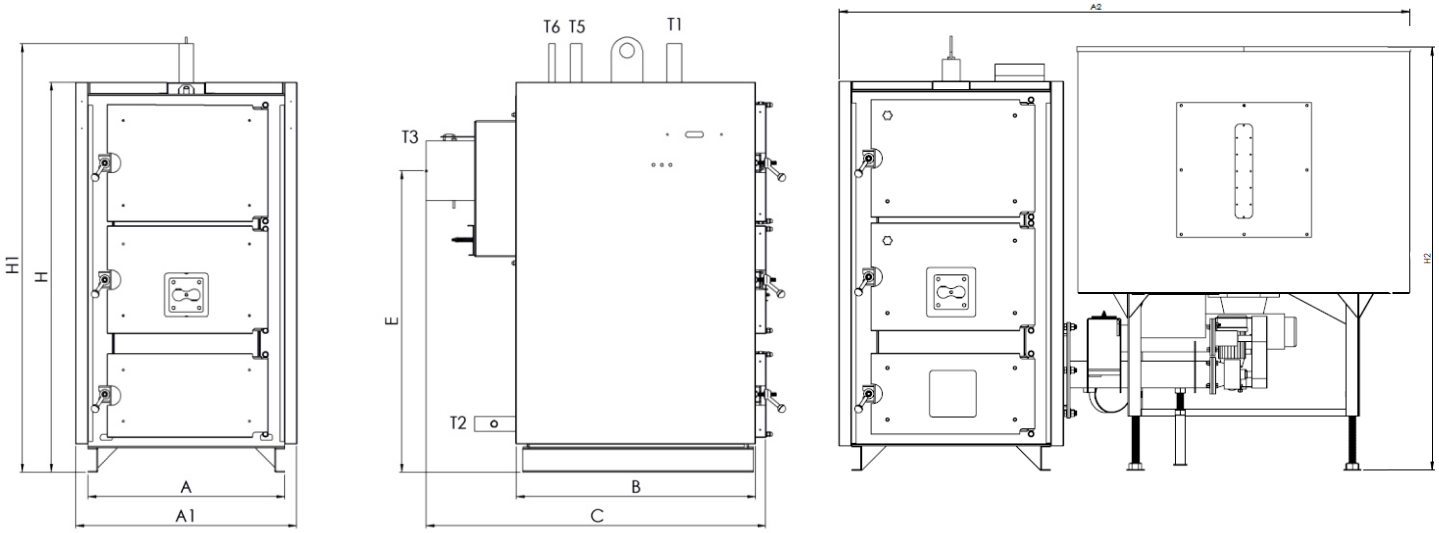


1. Easy opening lid
2. Big capacity cylindrical silo
3. Inspection window with access door
4. Rotating mixing system with blades
5. Mixing motor
6. Safety system with thermostatic valve

TECHNICAL DATA

Type	Power	Temp. max.	Pressure max.	Feeding door	Wood length	Effici-ency	Water contents	Silo volume	Electric supply	Weight
	kW	°C	bar	mm	mm	%	lit	lit	V/Hz	kg
MCL BIOMIX 70	81	90	3	590x370	680	87	230	700	400/50	900
MCL BIOMIX 80	93	90	3	590x370	800	87	260	700	400/50	1030
MCL BIOMIX 90	104	90	3	590x370	900	87	290	700	400/50	1080
MCL BIOMIX 100	116	90	3	590x370	1000	87	330	700	400/50	1150
MCL BIOMIX 120	139	90	3	590x370	1150	87	360	700	400/50	1220
MCL BIOMIX 150	174	90	3	590x370	1400	87	420	700	400/50	1370
MCL BIOMIX 180	208	90	3	590x370	1600	87	550	700	400/50	1570
MCL BIOMIX 200	232	90	3	825x510	1000	87	620	1450	400/50	1990
MCL BIOMIX 250	291	90	3	825x510	1250	87	720	1450	400/50	2210
MCL BIOMIX 300	349	90	3	825x510	1500	87	820	1450	400/50	2430
MCL BIOMIX 400	465	90	3	825x510	1750	87	920	1450	400/50	2950
MCL BIOMIX 500	581	90	3	1180x665	1250	87	1.420	2200	400/50	3800
MCL BIOMIX 600	698	90	3	1180x665	1500	87	1.860	2200	400/50	4500
MCL BIOMIX 700	814	90	3	1180x665	1750	87	2.440	2200	400/50	5500
MCL BIOMIX 800	930	90	3	1180x665	2000	87	2.650	2200	400/50	5950
MCL BIOMIX 900	1.046	90	3	1180x665	2250	87	2.890	2200	400/50	6450

DIMENSIUNIONS



T1 - Outlet
T2 - Return
T3 - Chimney
T5 - Safety kit connection
T6 - Expansion vessel

Type	A1	A2	B	H	H1	H2	E	C	T3	T1-T2	T5	T6
	mm										inch	
MCL BIOMIX 70	920	2330	850	1585	1740	1650	1245	1295	245	2	1 ¼	¾
MCL BIOMIX 80	920	2330	970	1585	1740	1650	1245	1415	245	2	1 ¼	¾
MCL BIOMIX 90	920	2330	1070	1585	1740	1650	1245	1515	245	2	1 ¼	¾
MCL BIOMIX 100	920	2330	1170	1585	1740	1650	1245	1615	295	2 ½	1 ¼	¾
MCL BIOMIX 120	920	2330	1320	1585	1740	1650	1245	1765	295	2 ½	1 ½	¾
MCL BIOMIX 150	920	2330	1570	1585	1740	1650	1245	2015	295	2 ½	1 ½	¾
MCL BIOMIX 180	920	2330	1820	1585	1740	1650	1245	2265	295	2 ½	1 ½	¾
MCL BIOMIX 200	1107	2525	1320	1970	2150	1700	1510	1840	345	DN 80	2	2x¾
MCL BIOMIX 250	1107	2525	1570	1970	2150	1700	1510	2090	345	DN 80	2	2x¾
MCL BIOMIX 300	1107	2525	1820	1970	2150	1700	1510	2340	395	DN 100	2	2x¾
MCL BIOMIX 400	1107	2525	2070	1970	2150	1700	1510	2590	395	DN 100	2	2x¾
MCL BIOMIX 500	1575	2990	1590	2465	2570	1700	1870	2225	445	DN 100	2 ½	2x¾
MCL BIOMIX 600	1575	2990	1840	2465	2570	1700	1870	2475	445	DN 125	2 ½	2x¾
MCL BIOMIX 700	1575	2990	2090	2465	2570	1700	1870	2725	495	DN 125	2 ½	2x¾
MCL BIOMIX 800	1575	2990	2340	2465	2570	1700	1870	2975	495	DN 150	3	2x¾
MCL BIOMIX 900	1575	2990	2590	2465	2570	1700	1870	3225	495	DN 150	3	2x¾

ECOBIO-R / MCL-BIO-R

automatic ignition system for biomass boilers

Biomass boilers ECOBIO and MCL-BIO can be equipped with automatic ignition system which consists of an electrical resistance, exhaust gas sensor and a corresponding digital controller.

The fuel ignition is achieved by hot air delivered from the resistance installed in the furnace. The whole ignition process is controlled by the ECOMAX 800P controller by means of an exhaust gas temperature sensor, which is installed on the chimney.

During the ignition, the controller manages the fuel feeding and the fan speed until a flame is developed. When the exhaust gas temperature reaches the preset level, the boiler automatically moves from ignition mode to operation mode.

Boiler type Controller	ECOBIO ECOMAX 250R	ECOBIO-R ECOMAX 800P	MCL-BIO ECOMAX 800R	MCL-BIO-R ECOMAX 800P
Feeding motor	✓	✓	✓	✓
Fan	✓	✓	✓	✓
Exhaust fan	-	✓	✓	✓
Heating pump	✓	✓	✓	✓
HUW pump	✓	✓	✓	✓
Ignition resistance	-	✓	-	✓
Exhaust gas sensor	-	✓	-	✓
Weather sensor	-	✓	✓	✓
Mixing valve	-	-	✓	-
Fuel level	-	✓	✓	✓
Room thermostat	✓	✓	✓	✓
MODULE-B				
Mixing valve I	-	✓	✓	✓
Mixing valve II	-	✓	✓	✓
Circulation pumps	-	✓	✓	✓
Buffer	-	✓	✓	✓
MODULE-C				
Mixing valve III	-	✓	✓	✓
Mixing valve IV	-	✓	✓	✓
Pompe de circulație	-	✓	✓	✓
ECOLAMBDA				
Lamda sensor	-	✓	✓	✓
REMOTE CONTROL				
ECOSTER 200	✓	✓	✓	✓
ECOSTER TOUCH	-	✓	✓	✓

OPTIONAL ACCESSORIES

Automatic ignition

As an optional, MCL-BIO can be equipped with an automatic ignition system. The ignition is performed by an electrical resistance installed in the BIOFIRE furnace. The system is controlled by an electronic control panel with an exhaust gas sensor.

Safety heat exchanger

All models can be equipped with a safety heat exchanger for additional protection against overheating. The exchanger is made of copper pipe and is incorporated in the boiler body, surrounding the upper part of the fire chamber.

Extension MODULE-B

It is an extension module of the basic controller which enables the control of two additional mixing zones.

Modul ECOLAMBDA

For maximum efficiency of the combustion, the boiler can be equipped with a lambda module. The sensor is installed at the chimney of the boiler and regulates automatically the oxygen supply in order to achieve perfect combustion parameters.

ECOSTER 200

This device enables distant access to all the parameters of the boiler. The ECOSTER 200 is also equipped with room thermostat with a function of setting a temperature schedule. It is also possible to connect two more temperature sensors for greater functionality.

ECONET

It is an advanced communication module which facilitates remote control of operation of the boiler via PC computer with Internet access. User is given possibility to control all the parameters: temperature adjustments, pumps and mixers operation and monitoring of current regulator operation states. Clear visualization of the boiler operation history, presented in a form of charts is another crucial benefit for the user.

ECOSTER TOUCH

It is an integrated remote control over the heating installation. Gives access to all parameters to the user. Touch screen with color interface.

***Compatible only with series ECOMAX 800 or superior.**

Safety kit

It is intended for mounting on the safety connection of the boiler. It includes safety valve(s) (according to boiler capacity), one air-relief valve and one thermomanometer.

Adaptor for cereals combustion

It ensures optimum conditions for combustion of cereals.