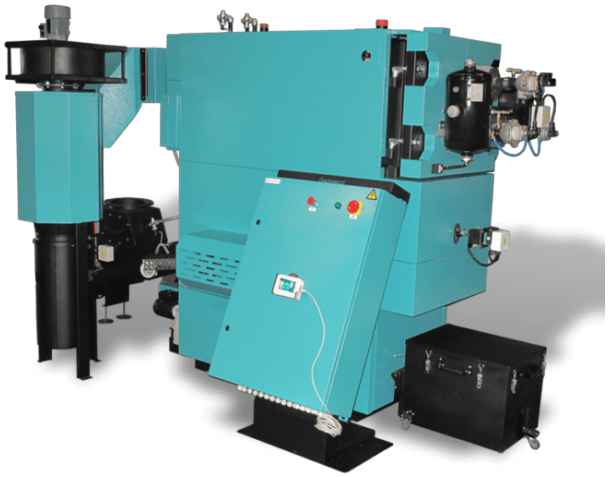
CENTROMETAL
EKO-CKS Multi Plus
170-580kW



- Steel hot water boilers EKO-CKS Multi Plus with 170 – 580 kW heat output designed to be fired by wood chips and wood pellets. They can be installed in both closed and open central heating systems in medium and large facilities.
- Automatic operation of these systems provides the user with enviable comfort and makes the system suitable for wide application. Boilers are equipped with a moving grate for fuel burning, a lambda probe, an automatic fuel feeding system, automatic ignition, thermal protection, automatic ash removal from the combustion chamber and cyclone to extricate particles from flue gasses.
- They are distinguished by a successful combination of modern technologies and quality construction materials s well as simplicity of installation and use. Proven technical solutions make these boilers safe and reliable in operation.

Boiler class 5.

- They are designed to be powered by P16A/P16B – P45A, M35 (G30-G50, W35) class wood chips and E ENplus A1 and A2 class wood pellets.
- They can be installed in both closed and open central heating systems.
- After a change in type, size or moist content of the fuel it is necessary to adjust the settings of the system. There is an option of pre-adjusting the parameters for some fuel types.
- Required power supplies: 380/400 V.

The boilers are equipped with:

- Digital boiler control with a touch screen display which controls the operations of the boiler, fuel supply transporter and has an option to control up to two additional fuel transporters and a mixer in fuel storage.
- Moving grate for fuel combustion.
- Lambda probe.
- Automatic fuel supply to burner by means of screw transporter, automatic ignition and automatic ash removal from the boiler.
- Flue gas extraction fan and cyclone for flue gas particles extrication.
- Flue gas tube turbulators, thermal protection against overheating, protection against backfire into the fuel storage (backfilling sensor, flap)

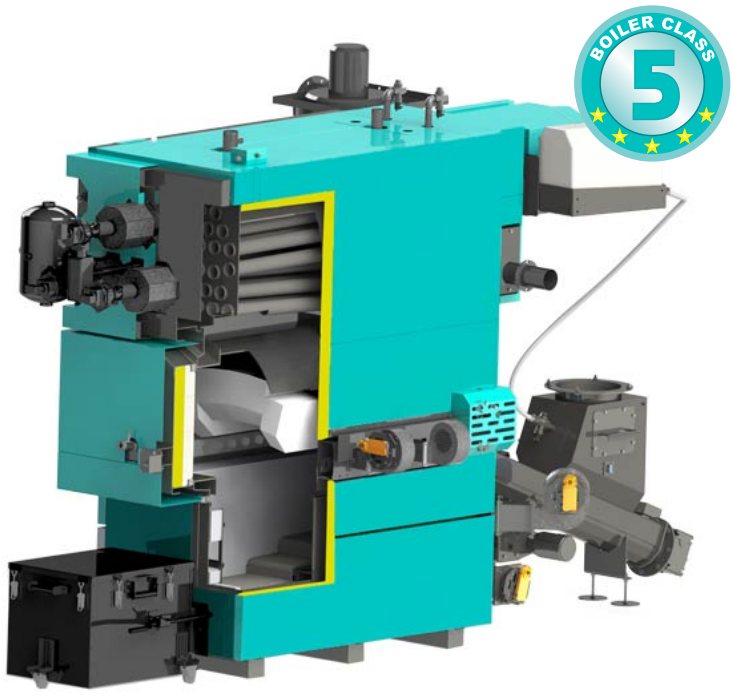
PRODUCT CHARACTERISTICS

SUITABLE FOR THE ENVIRONMENT
Serialized built-in cyclone for separating particles from flue gases.

ECOLOGICAL ENERGY SOURCE
Designed for wood chips and wooden pellets.

AUTOMATION
The automatic operation of these systems provides the user with enviable comfort and makes these systems suitable for wide application.

ACCESSORIES
Various accessories for specific applications: CM2K, CMNET (cascade manager), CAL, CM-GSM (alarm alert and boiler ignition / boiler via SMS) etc.



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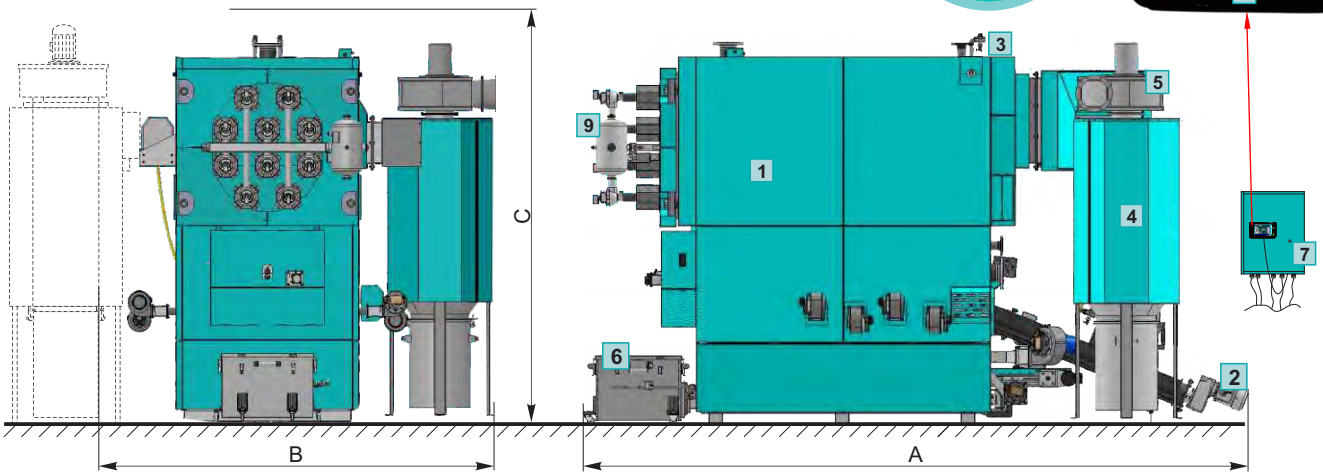
BASIC DIMENSIONS

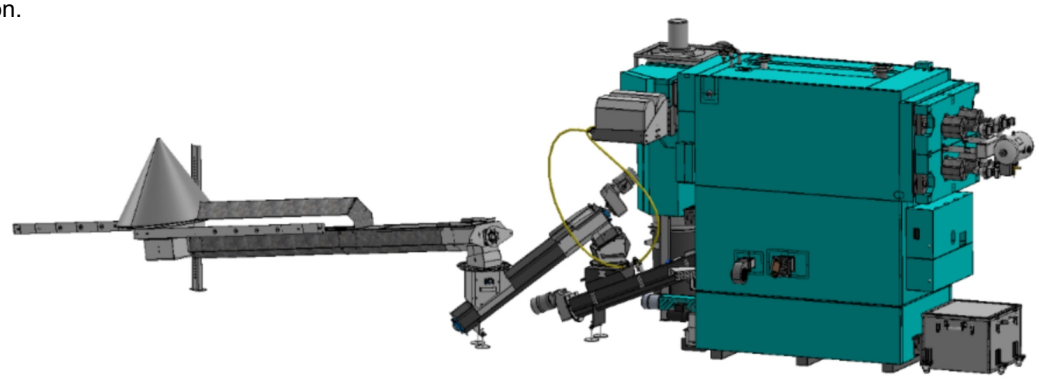
1. Body of the boiler with burner with moving grate and thermal insulation
2. Supply screw transporter of fuel to boiler with a port for connecting supply transporter 2, protection against backfire and overfilling sensor
3. Ports for thermal protection of the boiler
4. Cyclone with ash box (can be installed on left or right side)
5. Cyclone fan
6. Automatic ash extraction system with ash boxes (screw conveyor)
7. Electric box with digital boiler controller
8. Control unit
9. System for automatic cleaning of flue gas pipes (pneumatic) (additional equipment)



EKO-CKS Multi Plus		170	250	340	450	580
Nominal heat output	**kW**	170	250	340	450	580
Heat output range	**kW**	51-170	75-250	102-340	135-450	174-580
Inlet/Outlet	**R/DN**	2”	80	80	100	100
Max. working temperature	**°C**	95	95	95	95	95
Max. working pressure	**bar**	4	4	4	4	4
Total depth A	**mm**	3885	3885	4235	4720	4720
Total width B	**mm**	2010	2170	2260	2555	2655
Total height C	**mm**	2270	2520	2520	2595	2775

Wood chip feeding systems from a storage – room (enclosed space)

These systems are designed for wood chip and pellet transfer (max. moisture content up to 35 %) from a storage room to the firing equipment EKO-CKS Multi, EKO-CKS Multi Plus. They are equipped with a rotating plate with springs for wood chip mixing (Ø 1,2 - 5m) connected to a screw transporter (2,5-8m) which is driven by an electric motor with gearbox. The system is operated by the digital control of the boiler in its standard configuration.



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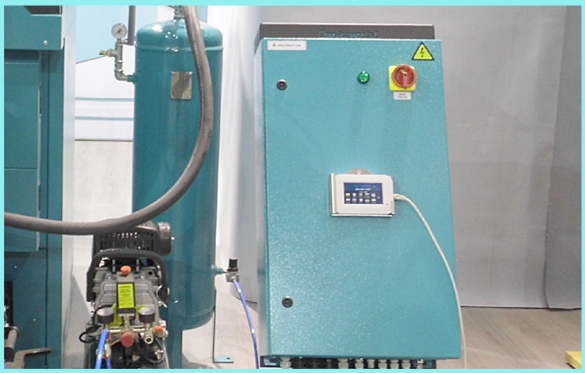
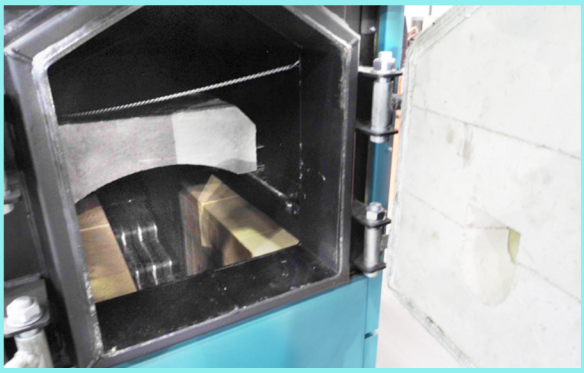
DELIVERY AND ADDITIONAL EQUIPMENT

Basic delivery	Additional equipment
• Body of the boiler with burner and retort • Supply fuel screw transporter into the boiler with a connection for an external supply fuel transporter, return flame protection and backfilling sensor • Steel casing with thermal insulation • Cyclone with an ash box • Cyclone fan • Automatic ash removal system with ash box (screw conveyor) • Electrical distribution panel with digital boiler controller • Control unit	• System for automatic cleaning of the flue gas pipes (pneumatic) • CM2K (module for steering 2 heating circuits using outdoor temperature, max. 4 x CM2K), CMNET (cascade manager), CAL (light and sound alarm), CM-GSM (alarm message and boiler start/stop by SMS). • Wifi module • Connecting screw transporter between the tank transporter and boiler transporter



Electrical panel disconnected from the boiler to facilitate the organization of space in the boiler room.

Compressed air tank for automatic cleaning. Automatic cleaning of the heat exchanger through the compactor to reduce end-user cleaning.



Combustion chamber covered with refractory material and equipped with a moving grate that allows the perfect combustion.

Ash drawer.

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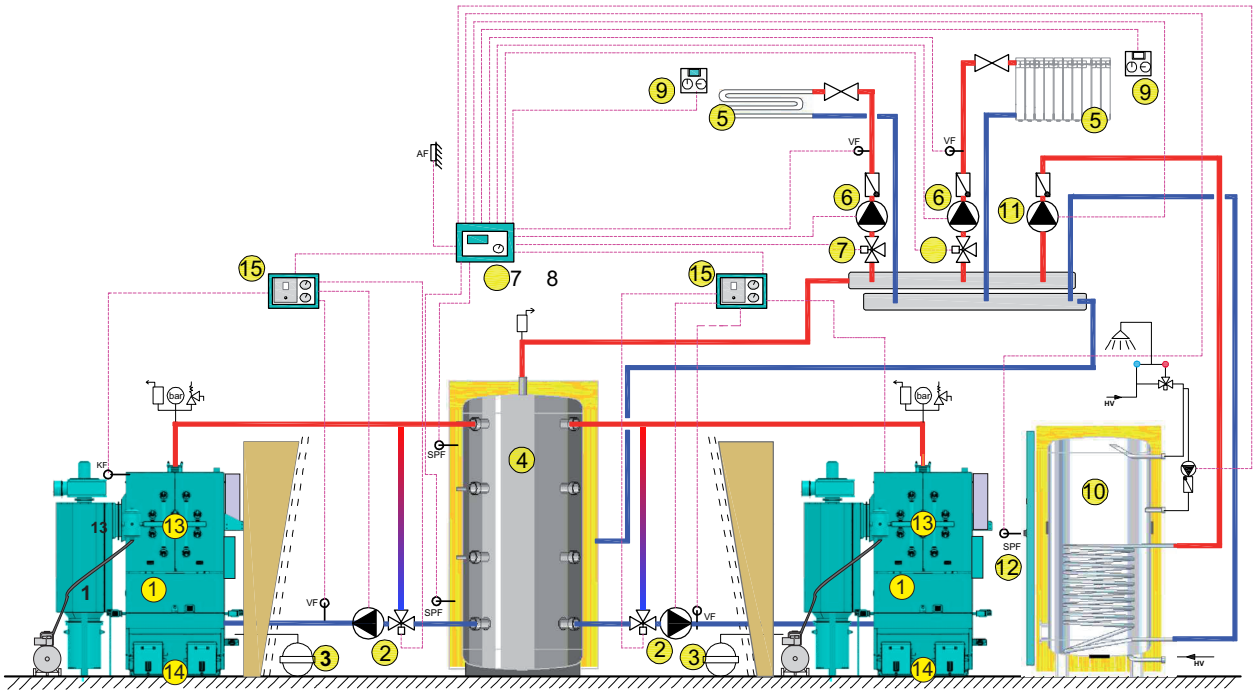
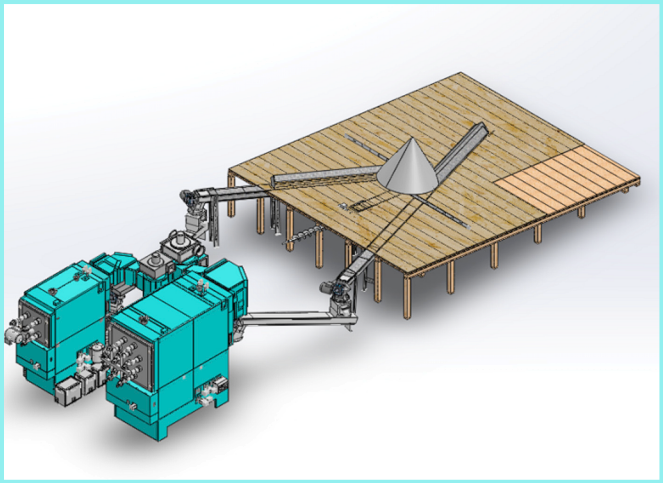
STANDART HYDRAULIC SCHEMA

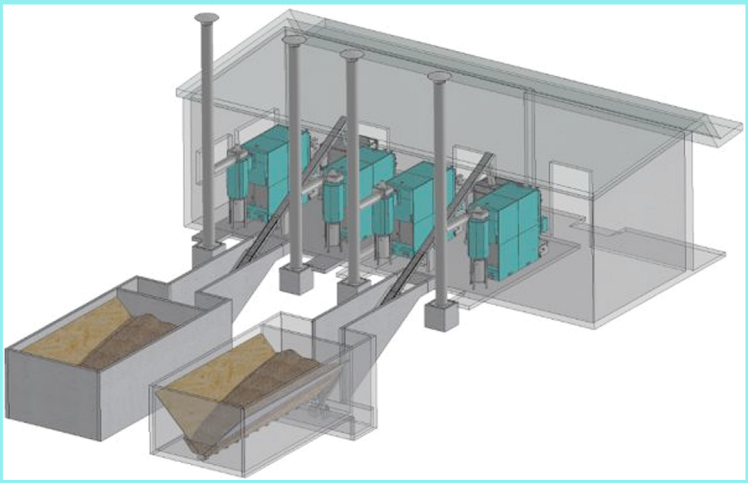
Cascade connection of 2xEKO-CKS Multi



1. Multi fuel boiler EKO-CKS Multi (160-580kW)
2. 3-way mixing valve with motor + pump
3. Expansion vessel
4. Accumulation tank CAS (min 15 l/kW)
5. Heating circuit
6. Circulation pump
7. 3-way mixing valve with actuator
8. Cascade manager
9. Corrector
10. Sanitary water heater
11. DHW pump
12. DHW sensor
13. Automatic pneumatic boiler heat exchanger cleaning
14. Automatic ash removing system
15. Boiler regulation

Different combination and control system flexibility allows to use they in medium and large facilities





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