

## **EKO-CKS P UNIT**



**EKO-CKS P UNIT** hot water central heating boiler is designed for burning wood pellets. It consists of EKO-CKS P boiler body in welded steel design and equipment for combustion of wood pellets: Cm Pelet-set 200-600 kW. It is necessary to upgrade the EKO-CKS P UNIT boiler with a pellet tank (e.g. CentroPelet box), and EKO-CKS P UNIT 560 boiler's standard delivery includes cyclone and fan. Standard version is equipped with a pellet burner prearranged for automatic air-cleaning of the grate while the boiler can be additionally equipped automatic ash removal set and aircleaning of flue passages in the boiler. Digital control manages the operations of the burner (boiler), pellet transporter and additional equipment and all mentioned parts compose a functional unit.

## **CHARACTERISTICS OF EKO CKS P UNIT BOILER:**

- Class 5 boilers.
- Steel hot water boilers with a pellet burner with nominal heat output: 140, 180, 230, 280, 320, 430, 499, 560 kW.
- Boiler must be connected to accumulation tank (min. 10 l/kW) or hydraulic separator.
- Multifunctional digital control with colour touch screen display.
- Additional equipment: air-cleaning of flue passages, ash removal, cyclone with fan, CM2K, CAL, CM-GSM, system for monitoring the boiler operation via PC, tablet or mobile phone.
- They are meant to be installed in open or closed heating systems.
- It is possible to order a boiler with a lambda probe, EKO-CKS P-L Unit.
- The boiler is manufactured in accordance with the standards EN 303-5:2012 as well as ISO 9001:2015 and ISO 14001:2015.





Pellet tank CentroPelet



Pellet burner



Motor with a gearbox of the pellet feeder

| EKO-CKS P UNIT           |        | 140               | 180               | 230               | 280               | 320               | 430               | 499   | 560   |
|--------------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|-------|
| Depth (A)                | (mm)   | 2620              | 3020              | 3020              | 3330              | 3330              | 4225              | -     | -     |
| Height(B)                | (mm)   | <sup>1</sup> 2105 | <sup>1</sup> 2105 | <sup>2</sup> 2105 | <sup>2</sup> 2300 | <sup>2</sup> 2400 | <sup>2</sup> 2565 | -     | -     |
| Width (C)                | (mm)   | 3300              | 3300              | 3300              | 3345              | 3420              | 3900              | 3600  | 4775  |
| Depth (D)                | (mm)   | <sup>3</sup> 3265 | <sup>3</sup> 3650 | ³3650             | ³3985             | <sup>3</sup> 4160 | ³4690             | 5200  | 5200  |
| Visina (E)               | (mm)   | <sup>3</sup> 2210 | <sup>3</sup> 2210 | <sup>3</sup> 2210 | <sup>3</sup> 2580 | <sup>3</sup> 2725 | ³2895             | 2870  | 3230  |
| Connections inlet/outlet | (R)/DN | 2"                | 2"                | DN80              | DN80              | DN80              | DN100             | DN100 | DN100 |

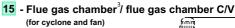
# **EKO-CKS P UNIT 140-560 kW**

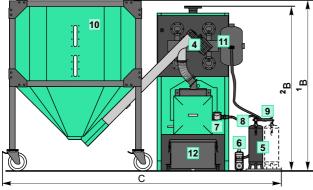


#### **BASIC DIMENSIONS**

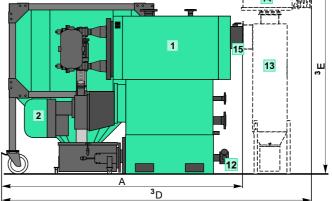
- 1 Boiler EKO-CKS P 140-560
- 2 Burner CPPL 200-600
- 3 Electrical distribution box
- 3a Control unit
- 4 Pellet transporter CPPT 200-600
- 5 Expansion vessel
- 6 Compressor
- 7 Electromagnetic valve
- 8 Air feeding tube
- 9 Air feeding tube 1
- <sup>4</sup>10 Pellet tank

- 11 Automatic boiler cleaning (additional equipment)
- 12 Automatic ash removal (additional equipment)
- 13 Cyclone CCP
- 14 Fan









### EKO-CKS P UNIT (140-560 kW)

|                       |                                                                                                                                                                        | Basic delivery                                                                                           | Obligatory       | Additional        |                                                                                                                             |                                                                                                                                                                                                                                    |  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                       | Cm Pelet-set                                                                                                                                                           |                                                                                                          | Boiler           | Output range (kW) | additional<br>equipment                                                                                                     | equipment                                                                                                                                                                                                                          |  |
| EKO-CKS P<br>UNIT 140 | Cm Pelet-set 200: - pellet burner CPPL-200 inv (with automatic cleaning)                                                                                               | - boiler control - pellet screw conveyor                                                                 | EKO-CKS P<br>150 | 42 - 140          |                                                                                                                             | - automatic pneumatic cleaning system of<br>heat exchanger flue pipes - automatic ash removal system from<br>burner (by coil) - automatic ash removal system from flue<br>gas chamber (by coil) - cyclone CCP 150/200, fan CVX 180 |  |
| EKO-CKS P<br>UNIT 180 | - expansion vessel 50 lit.<br>- compressor                                                                                                                             | CPPT-200 - electromagnetic valve - air feeding tube                                                      | EKO-CKS P<br>200 | 54 - 180          |                                                                                                                             |                                                                                                                                                                                                                                    |  |
| EKO-CKS P<br>UNIT 230 | Cm Pelet-set 300: - pellet burner CPPL-300 inv (with automatic cleaning)                                                                                               | - boiler control<br>- pellet screw conveyor                                                              | EKO-CKS P<br>250 | 69 - 230          |                                                                                                                             | <ul> <li>automatic pneumatic cleaning system of<br/>heat exchanger flue pipes</li> <li>automatic ash removal system from<br/>burner (by coil)</li> </ul>                                                                           |  |
| EKO-CKS P<br>UNIT 280 | KO-CKS P - expansion vessel 50 lit.                                                                                                                                    | CDDT 300/350                                                                                             | EKO-CKS P<br>300 | 84 - 280          |                                                                                                                             | - automatic ash removal system from flue<br>gas chamber (by coil)<br>- cyclone CCP 250/300, fan CVX 180                                                                                                                            |  |
| EKO-CKS P<br>UNIT 320 | Cm Pelet-set 350: - pellet burner CPPL-350 inv (with automatic cleaning) - expansion vessel 50 lit air compressor                                                      | - boiler control - pellet screw conveyor CPPT-300/350 - electromagnetic valve - air feeding tube         | EKO-CKS P<br>380 | 96 - 320          | <ul> <li>pellet tank</li> <li>boiler outlet protection<br/>with a motor operated</li> <li>3-way mixing valve and</li> </ul> | - automatic pneumatic cleaning system of<br>heat exchanger flue pipes - automatic ash removal system from<br>burner (by coil) - automatic ash removal system from flue<br>gas chamber (by coil) - cyclone CCP 380, fan CVX 200     |  |
| EKO-CKS P<br>UNIT 430 | Cm Pelet-set 600: - pelet burner CPPL-600 inv (with automatic cleaning) - 2 pcs of expan. vessel 23 lit air compressor - boiler control                                | - pellet screw conveyor<br>CPPT-600 - 2 pcs of electromag. valve - air feeding tube - air feeding tube 1 | EKO-CKS P<br>500 | 129 - 430         | boiler pump  - accumulation tank (min 10 l/kW) or hydraulic crossover                                                       | - automatic pneumatic cleaning system of<br>heat exchanger flue pipes - automatic ash removal system from<br>burner (by coil) - automatic ash removal system from flue<br>gas chamber (by coil) - cyclone CCP 500, fan CVX 200     |  |
| EKO-CKS P<br>UNIT 499 | Cm Pelet-set 600: - pellet burner CPPL-600 inv (with automatic cleaning) - 2 pcs of expan. vessel 23 lit air compressor - boiler control - pellet screw conveyor CPPT- | - cyclone, fan CVX200                                                                                    | EKO-CKS P<br>550 | 149 - 499         |                                                                                                                             | - automatic pneumatic cleaning system of<br>heat exchanger flue pipes - automatic ash removal system from<br>burner (by coil) - automatic ash removal system from flue<br>gas chamber (by coil)                                    |  |
| EKO-CKS P<br>UNIT 560 | Cm Pelet-set 600: - pelet plamenik CPPL-600 inv (sa automatskim čišćenjem) - 2 posude pod tlakom 23 lit kompresor - kotlovska regulacija - pelet transporter CPPT-600  | - 2 elektromag. ventila<br>- air feeding tube<br>- air feeding tube 1<br>- cyclone, fan CVX200           | EKO-CKS P<br>600 | 168 - 560         |                                                                                                                             |                                                                                                                                                                                                                                    |  |

Other additional equipment (all outputs):

- safety elements set of min/max pressure, cascade manager CMNET, communication module CM-GSM, alarm module CAL, CM2K-B module for steering 2 heating circuits using outdoor temperature (max. 4x CM2K), supply transporters from other storages, pellet silos

<sup>&</sup>lt;sup>1</sup>EKO-CKS P Unit 140/180

<sup>&</sup>lt;sup>2</sup>EKO-CKS P Unit 230-430

 $<sup>^{3}\,\</sup>mbox{EKO-CKS}$  P Unit 140-430 - with cyclone and fan (additional equipment) EKO-CKS P Unit 499-560 - with cyclone and fan (standard delivery)

 $<sup>^4</sup>$  EKO-CKS P Unit 140-320 - expansion vessel 50 lit. - 1 kom, electromagnetic valve - 1 kom, air supply pipe - 1 kom EKO-CKS P Unit 430-560 - expansion vessel 23 lit. - 2 kom, electromagnetic valve - 2 kom, air supply pipe - 2 kom