

TECHNICAL DATA

EKO-CKS P UNIT	140	180	230	280	320	430	499	560	
Boiler body	EKO-CKS P 150	EKO-CKS P 200	EKO-CKS P 250	EKO-CKS P 300	EKO-CKS P 380	EKO-CKS P 500	EKO-CKS P 550	EKO-CKS P 600	
Gr Pellet set	200	200	300	300	350	600	600	600	
Burner	CPPL-200 inv	CPPL-200 inv	CPPL-300 inv	CPPL-300 inv	CPPL-350 inv	CPPL-600 inv	CPPL-600 inv	CPPL-600 inv	
Nominal heat output (kW)	140	180	230	280	320	430	499	560	
Heat output range (kW)	42-140	54-180	69-230	84-280	96-320	129-430	149-499	168-560	
Boiler class	5	5	5	5	5	5	5	5	
Required chimney underpressure *1 (mbar)	0,25	0,25	0,25	0,25	0,25	0,25	-	-	
Required chimney underpressure *2 (mbar)	0	0	0	0	0	0	0	0	
Water amount in boiler (l)	380	520	790	963	1155	1700	1770	2040	
Exhaust gas temperature at nominal heat output (°C)	120	120	120	120	120	120	120	100	
Exhaust gas temperature at minimal heat output (°C)	70	75	75	80	80	75	75	70	
Exhaust mass flow at nominal heat output (kg/s)	0,107	0,138	0,176	0,215	0,245	0,330	0,382	0,429	
Exhaust mass flow at minimal heat output (kg/s)	0,046	0,059	0,075	0,091	0,104	0,140	0,163	0,183	
Minimum operating time at rated power (h)	6,0								
Advised cleaning intervals for boiler (h)	48	48	48	48	48	48	48	48	
Boiler resistance on water side at nominal output (mbar)	4	5	8	12	17	18	24	29	
Fuel type	Wood pellets (C1 by EN 303-5:2012, A1 by ISO 17225-2:2014)								
Maximum heat input (kW)	161,7	200,6	249,3	297,9	343,1	467,4	545,4	614,3	
Fuel moisture content (%)	max. 12								
Fuel size	φ 6 x max. 50								
Firebox volume (l)	268	390	658	805	964	1535	2011	2245	
Combustion chamber dimensions (mm)	480x865x690	468x1265x690	683x1265x790	648x1615x790	648x1615x945	715x1860x1192	715x2360x1192	816x2360x1192	
Combustion chamber volume (l)	426	661	1035	1119	1509	1746	2011	2295	
Combustion chamber type	Overpressure								
Required minimum accumulation next to boiler	by EN 303-5:2012 point 4.4.6.								
Nominal electrical power input (W)	1440	1440	1440	1440	1440	1990	3090	3090	
Max. additional electrical power (W)	800	800	800	800	800	800	800	800	
Supply voltage *3 (V~)	230 / 400								
Frequency (Hz)	50								
Current type	~								
Dimensions (for import into boiler room)	Lenght(A) / with burner (A) (mm)	1775 / 2490	2175 / 2890	2140 / 2860	2485 / 3210	2485 / 3205	2890 / 3750	3390 / 4250	3390 / 4240
	Width (B) (mm)	815	815	915	915	1065	1315	1315	1315
	Height (C) (mm)	1875	1875	2300	2300	2370	2550	2550	2890
Boiler body mass (kg)	962	1211	1741	2073	2343	2920	3186	3420	
Total mass - (boiler with casing and accessories) *4 (kg)	1190	1435	1870	2220	2500	3710	4825	5760	
Max. operating overpressure (bar)	3,0								
Test pressure (bar)	6,0								
Max. operating temperature (°C)	90								
Min. temperature of outlet line (°C)	60								
Flue gas tube - external diameter *5 (mm)	250	300	300	300	300	300	-	-	
Flue gas tube - external diameter *6 (mm)	Ø182	Ø182	Ø182	Ø182	Ø202	Ø202	Ø202	Ø202	
Boiler connections	Flow and return line (R)/(DN) (male thread)	2"	2"	80	80	80	100	100	100
	Charge / discharge (female thread) (R)	1"	1"	1"	1"	1"	5/4"	6/4"	6/4"
	Safety line (R)/(DN)	6/4"	6/4"	40	40	40	40	50	50
Total boiler dimensions with burner	Total lenght(E) / lenght with cyclone (E) (mm)	2590 / 3300	2960 / 3670	2960 / 3690	3280 / 4015	3280 / 4105	3790 / 4650	4420 / 5280	4360 / 5220
	Total width (D) (mm)	3105	3210	3210	3210	3350	3600	4300	4300
	Total height (F) / height with cyclone (F) (mm)	1875 / 2215	1875 / 2210	2290 / 2585	23030 / 2585	2370 / 2720	2555 / 2885	2550 / 2870	2890 / 3255
Flue g. connect. height (G) / height with cyclone (G) (mm)	1555 / 1885	1570 / 1885	1905 / 2255	1905 / 2260	1980 / 2350	2170 / 2520	2500	2890	

*1 - boiler without CCP cyclone and CVX fan

*2 - boiler with CCP cyclone and CVX fan.

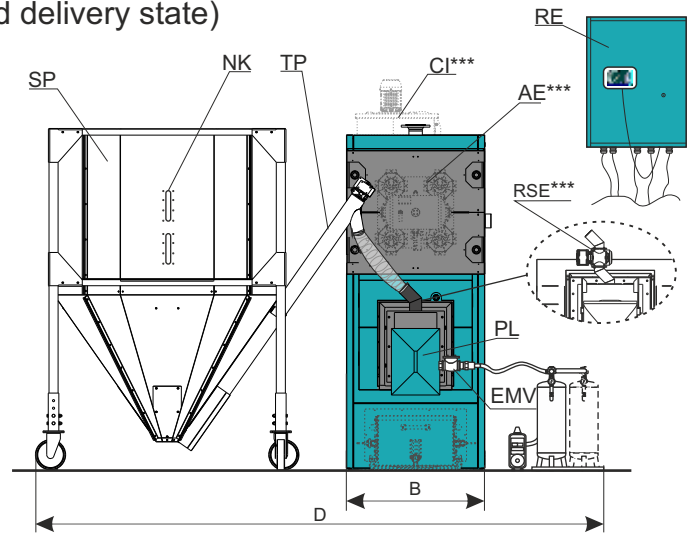
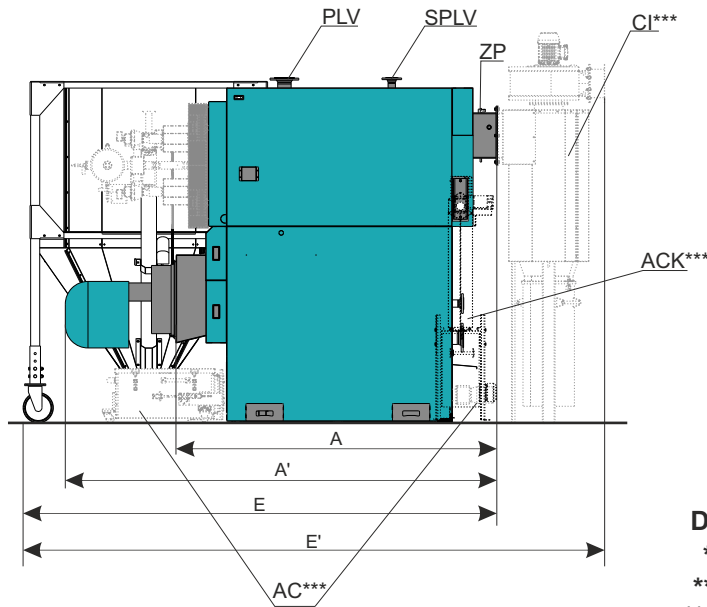
*3 - for boilers with cyclone and CVX fan supply voltage is 400 V.

*4 - mass without cyclone and CVX fan for boilers EKO-CKS P UNIT 140-430 and with cyclone and CVX fan for boilers EKO-CKS P UNIT 499-560.

*5 - flue gas tube - external diameter - for boilers without cyclone and CVX fan

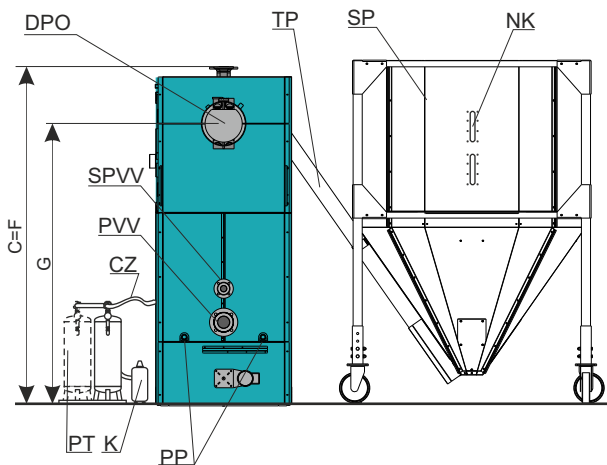
*6 - flue gas tube - external diameter - for boilers with installed cyclone and CVX fan - diameter on CVX fan output

Pellet tank on the left side of the boiler (standard delivery state)

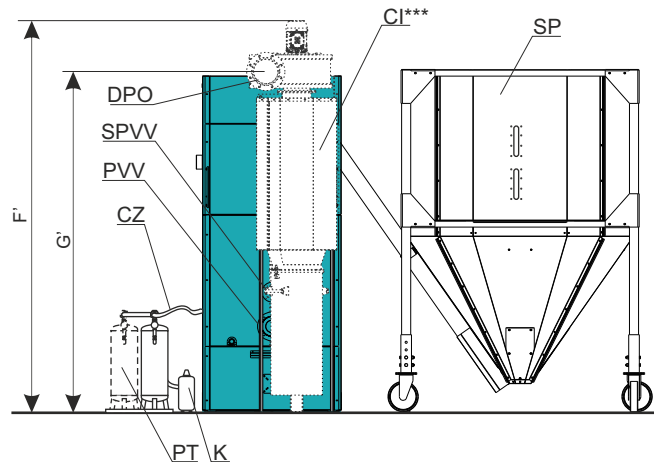


Delivery state only by order:

- * Installation of pellet tank on the right side of the boiler
- ** Installation two boilers on the one pellet tank
- *** Additional equipment



Version without cyclone
Boilers: EKO-CKS P UNIT 140-430



Version with cyclone
Boilers: EKO-CKS P UNIT 499-560;
Additional equipment for boilers
EKO-CKS P UNIT 140-430

*The following should be done: install lower boiler door that opens from right to left, el.-magnetic valve to the burner left side, position the pressure vessel compressor on the left tank side

**The following should be done: position a pellet tank with possibility of installation of two feeders between boilers (available angles between pellet feeders are 90° and 180°)

LEGEND:

TP - Feeder screw
 OCD - Opening for cleaning a flue gas box
 T - Thermometer
 REG - Boiler control unit
 PT - Pressed air accumulation tank 50 l.
 (on CPPL-600 inv - 2 x 50 l)
 K - Air compressor
 PL - Pellet burner CPPL
 EMV - Magnetic valve (for CPPL-600 inv,
 2 pcs.)

PLV - Boiler flow line
 SPLV - safety flow line
 DPO - Flue gas tube connection
 ZP - Underpressure regulator lid
 SPVV - safety return line
 PVV - Boiler return line
 PP - Charge / Discharge
 SP - Pellet tank
 NK - Fuel level indicator
 CZ - Supply pipe
 RE - Junction box with boiler control unit

*** ADDITIONAL EQUIPMENT

AC - Automatic ash removal system
 out of the boiler combustion chamber
 AE - Automatic cleaning system of the
 heat exchanger's flue gas tubes
 (passages) by air (pneumatic)

RSE - Rotary dosing valve RSE
 (return flame protection)
 ACK - automatic removal of ash from
 the flue chamber by a spiral

CI - Cyclone with with fan
 (standard delivery for
 EKO-CKS P UNIT 499 and
 EKO-CKS P UNIT 560)