Steel hot water boiler with two combustion chambers

Steel hot water boilers CentroPlus and CentroPlus-B (nominal heat output of 25 and 35 kW) have two separate combustion chambers inside the common water chamber. while the CentroPlus-B is additionally equipped by an stainless steel domestic hot water heater submerged inside the boiler's water chamber. The left combustion chamber is used for solid and liquid fuel firing. The right combustion chamber is used for pellets and liquid fuel firing. The possibility of combined firing and the automatic start-up of the oil and pellets burner, in the moment when the solid firing does not meet needs any more, make this boiler extremely interesting. Other special feature, which makes CentroPlus-B even more interesting, is the submerged stainless steel domestic hot water heater, which provides a constant temperature level of domestic water without additional investments. Successful application of modern technologies and high quality building materials as well as doublechecked technical solutions, make these boilers safe, reliable and easy to assemble. The boilers are produced in compliance with the European norm EN 304 and EN 303-5.



Characteristics of CentroPlus boilers:

- Hot water boiler for central heating systems is produced for all kinds of fuel (solid and liquid, solid and pellets, liquid and pellets) and has a nominal heat output of 25 and 35 kW.
- Possibility of interchangeable use of combustion chambers.
- Only one flue exhaust connection.
- Possibility of connecting thermal safety unit onto prepared openings.
- The body of the boiler is delivered separately from the casing with thermal insulation, oil burner and pellet set. This enables uncomplicated transport and reduces the damaging risk to the minimum.
- Special distinction is its extraordinary thermal and acoustic insulation.
- The boiler is tested and certified according to the European norm EN 303-5 and EN 304 at the Faculty of Engineering in Zagreb. Production in compliance with ISO 9001/2000 norm.

Characteristics of CentroPlus-B boilers:

 Among all above mention characteristics, the CentroPlus-B boiler has a built-in stainless steel water heater, which does not require a separate circulation pump. This would be necessary if the water heater would be separated from the boiler.

Additional equipment:

Solid fuel / liquid fuel combustion chamber:

- Accordingly dimensioned combustion chamber, 3passes flue gas flow and additional ribbed surface for temperature exchange assure a high efficiency operating rate of the boiler, which makes it very "economical".
- It is ecologically acceptable, which has been proved by very demanding certificate of the Austrian County Styria (FanIG).
- The big combustion chamber door enables firing with big peaces of wood, as well as its easy cleaning and maintenance.

Liquid fuel / pellet combustion chamber:

- Accordingly dimensioned combustion chamber assures a high efficiency operating rate of the boiler, which makes it very "economical".
- The big quantity of water inside the boiler reduces the number of firings, prolongs its life and saves energy.
- The boiler door is prepared for connection of the pellet/oil burner.





Body of the boiler with two ashtrays (1): Boiler casing, thermal insulation, draught regulator, cleaning set (stand with cleaning brush, poker, shovel) (2)

For the closed central heating systems, a safety airvent group (2,5 bar) and expansion vessel are obligatory. For CentroPlus-B safety valve (6 bar), expansion vessel, check valve for domestic hot water are obligatory. **It is also recommended** (for CentroPlus-B) a pressure regulator, 3-passes thermal valve for domestic hot water.

CentroPlus /-B 25-35 kW

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		CentroPlus		CentroPlus-B	
		25	35	25	35
Nominal heat range	(kW)	25	35	25	35
Boiler water content	(I)				
Water heater content	(I)	-	-	100	100
Domestic hot water flow (45°C)	(I/min.)	-	-	9	9
Boiler mass	(kg)	448			
Boiler flue gas exhaust diameter*/height	(mm)	150/955	160/955	150/955	160/955
Burner opening	(n.m)	105	105	105	105
Chimney draught	(Pa)	20	22	20	22
Boiler water inlet/outlet connection	(R)	5/4"	5/4"	5/4"	5/4"
Safety line	(R)	3/4"	3/4"	3/4"	3/4"
Filing/draining connection	(R)	1/2"	1/2"	1/2"	1/2"
Cold/hot domestic water connection	(R)	-	-	3/4"	3/4"
Connection for recirculation	(R)	-	-	3/4"	3/4"
Max. operating temperature	(°C)	90	90	90	90
Max. operating pressure	(bar)	2,5	2,5	2,5	2,5
Dimensions of the body AxBxC	(mm)	775x820x1260	775x890x1260	775x820x1540	775x890x1540
Total dimensions of the body DxExF	(mm)	950x915x1260	950x1015x1260	950x915x1540	950x1015x1540
Total depth with burner	(mm)	1270	1270	1270	1270
rotal depth with burner	(mm)	1270	1270	1270	1270

* - chimney inner diameter has to be determined according to the boiler rated thermal output, height of the chimney and almost always it has to be bigger then the diameter of the flue gas exhaust.



CentroPlus / -B solid fuel and pellets firing boiler:

Steel hot water boiler **CentroPlus** and **CentroPlus-B** can be fired with pellets and with solid fuel. For this kind of firing there should be connected Cm Pelet-set for CentroPlus. Besides only pellets and only solid fuel firing there is a combination of solid fuel firing with automatic start-up of the burner in the moment, when the solid fuel feeding does not meet temperature needs any more. This "mini-plant" is steered by a digital regulation combined with the draught regulator, if the boiler is charged by the solid fuel. The pellet tank is an integral part of the plant and it is filled up from its upper side, according to the need. In case of pellet firing, there is a possibility to save fuel up to 40%, compared with the oil feeding system. Additionally, an oil burner can be connected to the boiler as well as the boiler regulation for CentroPlus, i.e. in the pellet/oil or oil/solid fuel version.

CentroPlus/-B for solid and liquid firing:

Steel hot water boilers **CentroPlus** and **CentroPlus-B** can be charged by solid and liquid fuel. For this kind of firing, there should be connected an oil burner and the boiler regulation CentroPlus-oil. Besides only liquid fuel or only solid fuel firing, there is a combination of solid fuel firing with automatic start-up of the oil burner in the moment, when the solid fuel feeding does not meet temperature needs any more. This "miniplant" is steered by a digital regulation combined with the draught regulator, if the boiler is charged by the solid fuel. Additionally, to the boiler there can be connected a Cm Pelet-set for CentroPlus i.e. in the pellet/oil or pellet/solid fuel version.





CentroPlus/-B for solid and pellets firing:

Steel hot water boilers **CentroPlus** and **CentroPlus-B** can be charged by pellets and by liquid fuel. For this kind of firing, there should be connected Cm Pelet-set for CentroPlus together with the boiler regulation for pellet/oil burner. Besides only pellets firing or only liquid fuel firing, there is a combination of pellets firing and automatic start-up of the oil burner in the moment, when, for example the pellets are burned out. This "mini-plant" is steered by the integrated digital boiler regulation, which steers both burners. The pellet tank is an integral part of the plant and it is filled up from the upper side, according to the need. If the oil burner is removed, there is a possibility of solid fuel/pellets firing combination. Through connecting the oil burner, there is a possibility of solid/liquid firing combination.







- digital pellet regulation
- pellet tank with feeder screw
- **3** Digital pellet regulation



