

OPERATION AND MAINTENANCE DOCUMENTATION

FOR THE
BOILER OF
„PID” TYPE



1. Fuels

Basic fuel for the PID boiler:

- hard coal of cube type I/II, nut type I/II, pea type I/II, had I/II

Alternative fuel:

- wood, coal briquettes, and wood pellets

Use of alternative fuels changes thermal efficiency of the boiler. Constant use of excessively wet fuels leads to increased wearing of the boiler, and corrosion of the furnace plates and of the external plates located under the flue, since the emission of the combustion products, such as water, nitric oxide, sulfur oxide, causes corrosion of steel elements of the boiler. It is forbidden to use wet, unseasoned wood. Any failures and technical problems resulting from the fact that the user do not follow the recommendations included in this documentation, cause the loss of warranty.

2. Technical data

Technical data of PID boilers												
BOILER TYPE	Unit of measure	PID 10	PID 15	PID 20	PID 25	PID 30	PID 35	PID 40	PID 50	PID 60		
Nominal Power	kW	10	15	20	25	30	35	40	50	60		
Output power range	kW	4-10	5-15	6-20	8-25	9-30	14-35	18-40	26-50	25-60		
Heating surface	m ²	1.1	1.6	2.1	2.6	3.2	3.7	4.3	5.3	6.4		
Heated room surface	m ²	100	130	180	230	280	330	380	460	550		
Max. operating pressure	MPa	0.15										
Required flue gas draft	Pa	20	24	26	26	26	28	28	30	30		
Furnace dimensions width/depth/height	mm	250/325/300	300/375/320	300/475/377	350/525/380	400/525/426	500/525/426	500/625/426	500/728/426	500/800/426		
Dimensions of the door used to load fuel	mm	250x168	300x188	300x188	350x208	400x208	500x208	500x208	500x248	500x248		
Single fuel load	l	~28	~40	~54	~63	~95	~125	~150	~167	~185		
Water temperature [min./max.]	°C	55/90										
Boiler weight	kg	230	270	300	350	420	470	510	600	680		
Boiler water capacity	l	42	50	58	76	95	120	145	180	225		
Min. chimney height	m	6	7	8	8	9	9	10	11	11		
Boiler efficiency	%	~83										
Flue dimensions	ø	180					200					
Supply and return diameter	in	6/4"					2"					
Electric power supply	V/Hz	230/50										
Power consumption by controller	W	4										
Power consumption by fan	W	34			38			2x38				

Tab. 1 Technical specification of PID boilers

Parameters specified above are approximate values and may slightly change due to technological modifications.

3. Construction of the boiler

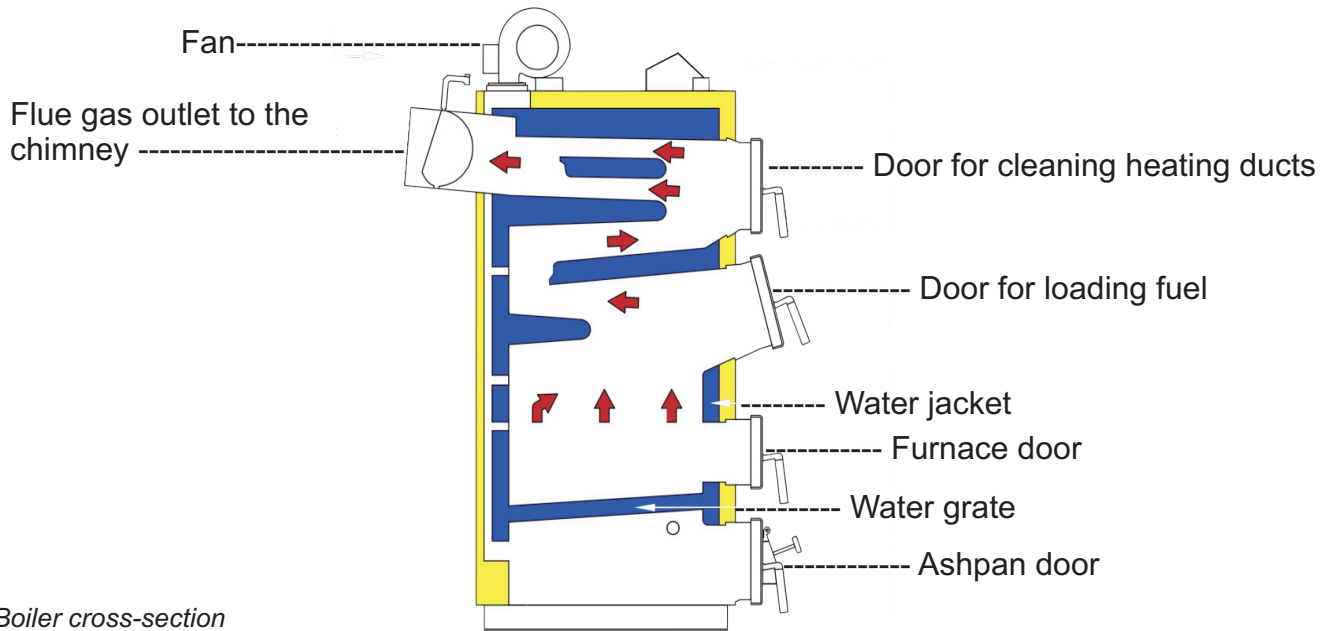


Fig. 1 Boiler cross-section

4. Installation guidelines

The boiler is supplied as assembled. Prior to the boiler alignment and connection to the central heating system and the chimney flue, it shall be checked whether all sub-assemblies are operational, and whether the boiler has full equipment for operation and cleaning (see tab.2.).

	Specification	Amount
1	Liquid thermometer	1
2	Ash scraper	1
3	Technical and maintenance documentation	1
4	Warranty Card	1

Tab. 2 List of additional equipment

Installation of the boiler must be carried out by an authorized person, who is familiar with the boiler operating instructions. An user obligation is to ensure that the boiler installation is carried out in accordance with applicable regulations.

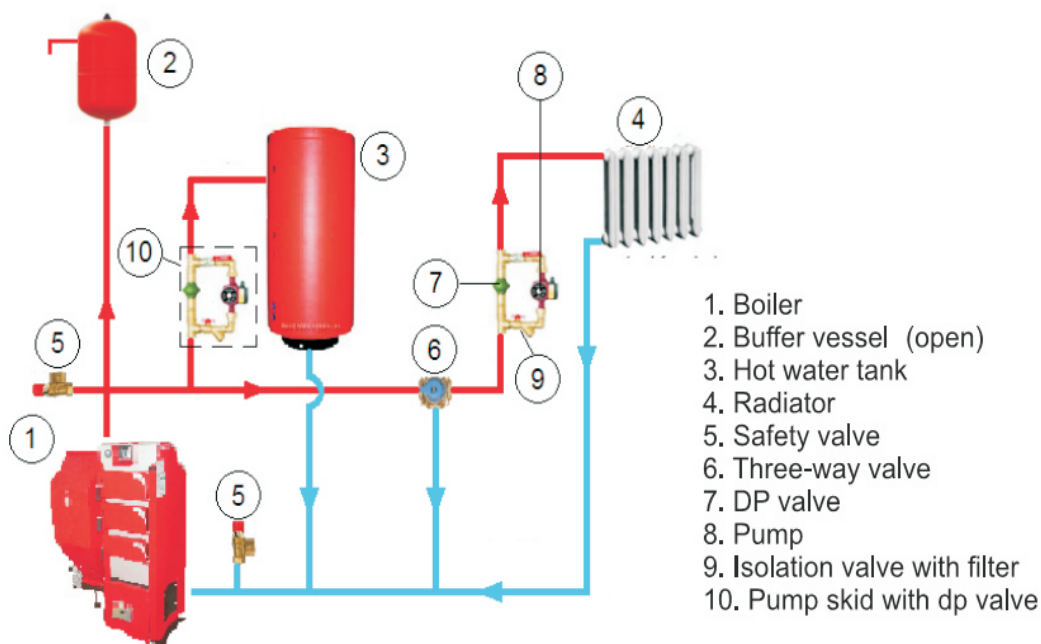


Fig. 2 Boiler connection diagram

4.5. Filling the boiler up with water

The boiler may be filled up with water from water supply system (through the boiler's drain cock) by means of a flexible hose, which should be disconnected from the boiler after filling the installation up

NOTE!

The installation must meet all norms and regulations concerning the security of water heating devices working in open systems, of the country in which it is being used.

Major terms for the installations covered by PN-91/B-02413 norm:

- it is forbidden to retrieve water from heating installation for other purposes; the operating pressure cannot be higher than the maximum pressure allowed for all the devices and elements of the installation
- securing of the open water heating system should include basic safety devices as well as supplementary accessories
- the internal diameter of the overflow pipe should be larger than the internal diameter of the expansion and safety pipes
- the internal diameter of the safety pipe should be minimum 25mm
- the internal diameter of the overflow pipe should be minimum 25mm
- the internal diameter of the vent pipe and signaling pipe should be minimum 17mm