



Individual Heating Systems

**Natural draught solid fuel boiler
KUMULATOR EKO**



Heating systems

Solar systems

Air Conditioners

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1. Description of the system

Kumulator is steel water boiler designed for combustion of wood and coal. The boilers with output of 20 kW can be used for heating of small buildings such as family houses, lodging-houses, motels, workshops, etc. The boiler's output could reach 460 kW and could be suitable for heating of buildings up to 5 000 m² of area like: shops, schools, apartment houses, etc. Boilers over 70 kW have in standard equipment fan and digital steering – those boilers are forced draft system boilers.

Recommended fuel :

- wood for heating systems (14-18 MJ/kg)
- stone coal

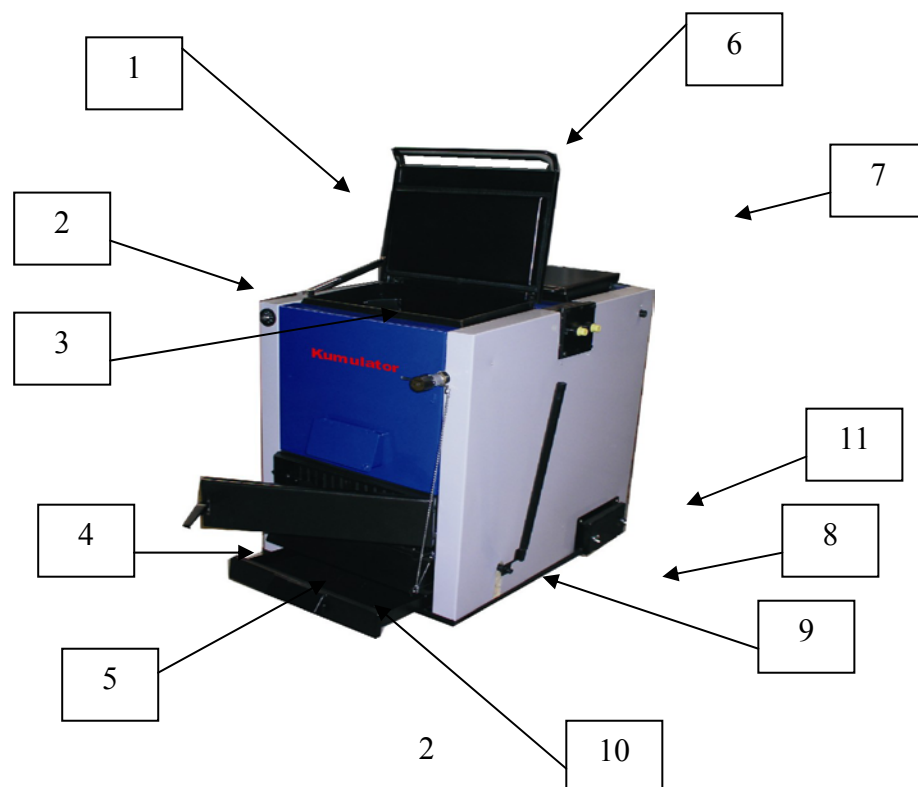
FEATURES:

- Possibility of combustion of cheapest fuel like: wood and coal
- Big loading chamber and comfortable loading doors
- 4 pass structure and ceramics archives good efficiency and working time about 6-8 hours on one loading of the wood and 14-20 hours on one portion of coal
- Mechanical plate system enables easy clean of the combustion chamber

2. Technical data of Kumulator 27-32

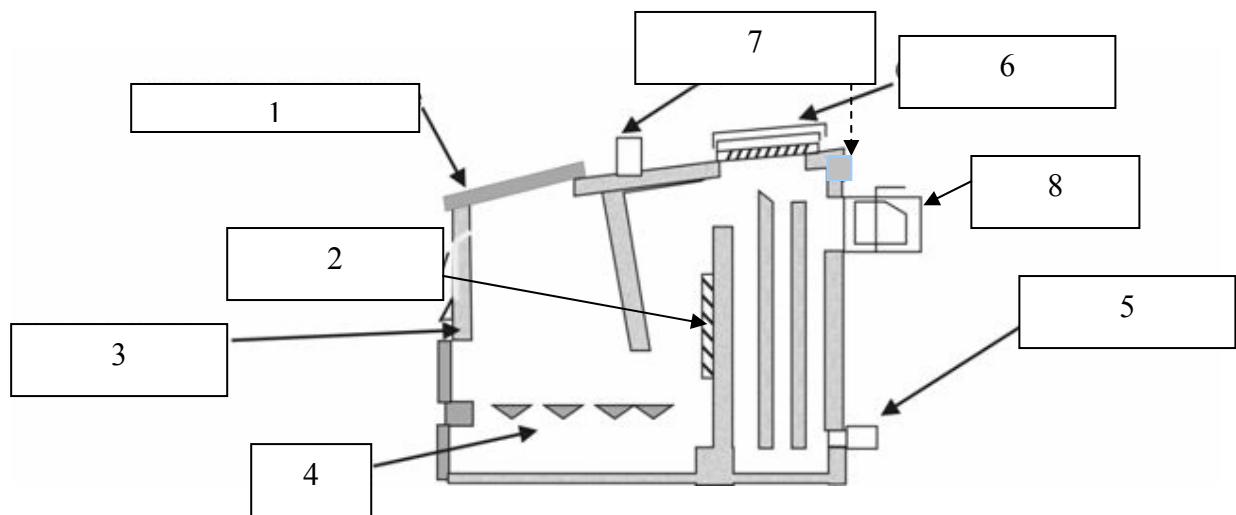
boiler contains :

- 3pass boiler made from steel (5/6 mm) with iron coast grill in combustion chamber
- Outer Jacket with insulation
- Blower (fan) for models over 70 kW
- Ash drawer
- Combustion chamber with ceramics



Features of the boiler

- | | |
|-------------------------------|-----------------------------|
| 1 – loading doors | 6 - cleaning door |
| 2 – Thermometer | 7 – flue gas outlet |
| 3 – Regulation of temperature | 8 – cleaning hole |
| 4 – combustion doors | 9 – iron coast grade(grill) |
| 5 – air inlet | 10 – ash drawer |
| | 11 – water outlet |



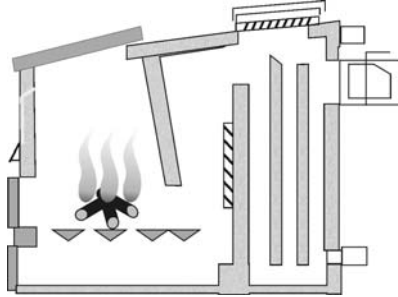
Structure

- | | |
|----------------------|---------------------|
| 1 – Loading doors | 5 - inlet |
| 2 – Ceramics | 6 – cleaning doors |
| 3 – Water coat | 7 – outlet |
| 4 – Mechanical grade | 8 – flue gas outlet |

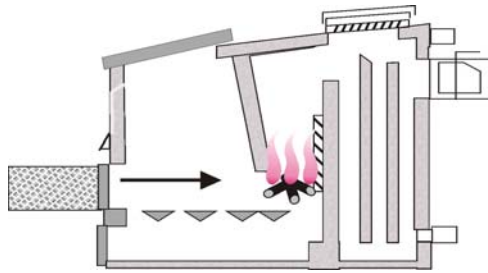
Dimensions 20- 40 kW

3. Heating manual KUMULA TOR EKO:

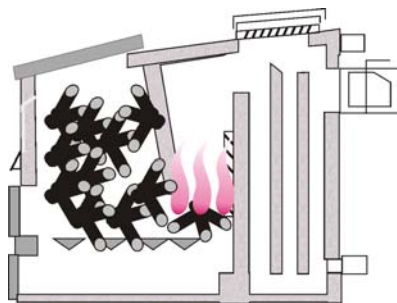
1. On the grate please put the paper and small wooden pieces. Light it



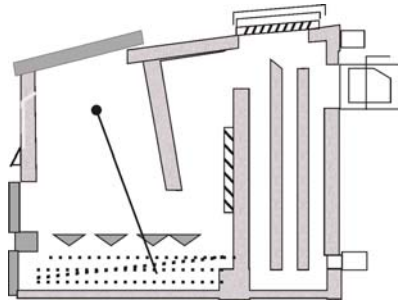
2. Fired paper put forward to the combustion chamber.



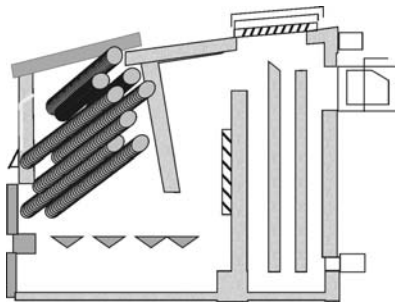
3. Now, open the loading doors and refill fuel.



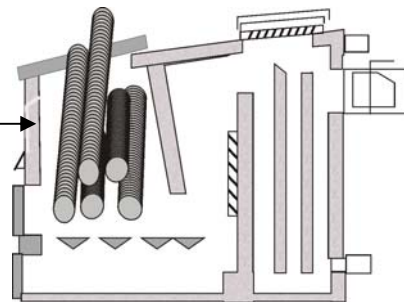
4. When fuel is finished, please use mechanical grate to remove ash from grill to ash drawer.



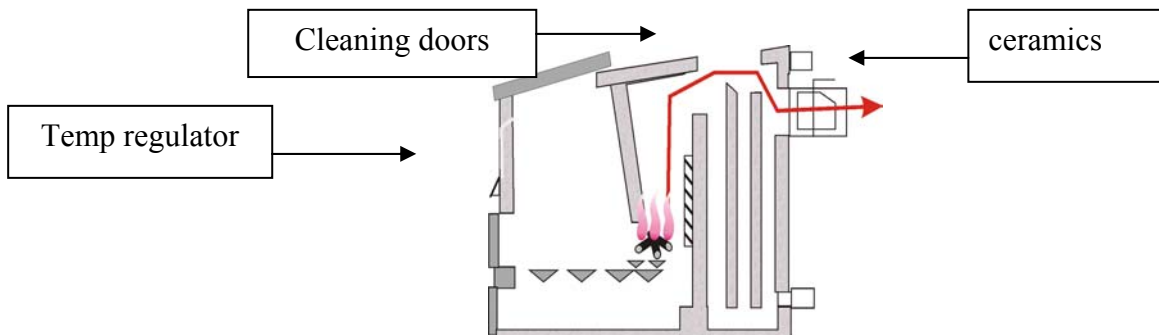
5. Before reloading of new fuel, please remove ash from the drawer.



Following position of the fuel is forbidden

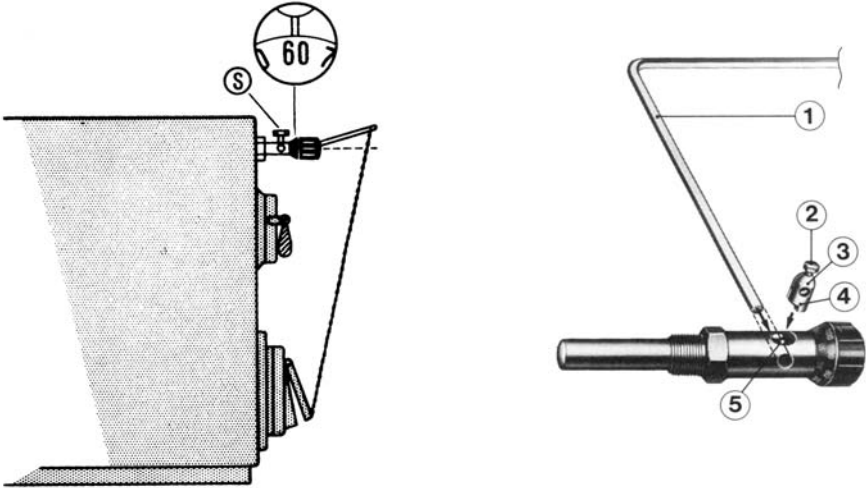


6. To clean the heat exchanger remove cleaning doors from upper casing.



Manual steering

When we would like to use solid fuel, You have to use manual steering and remove burner.



Recommended connection of the boiler to heating system.

According to EN 303-5 norm, we have to versions of the boiler:

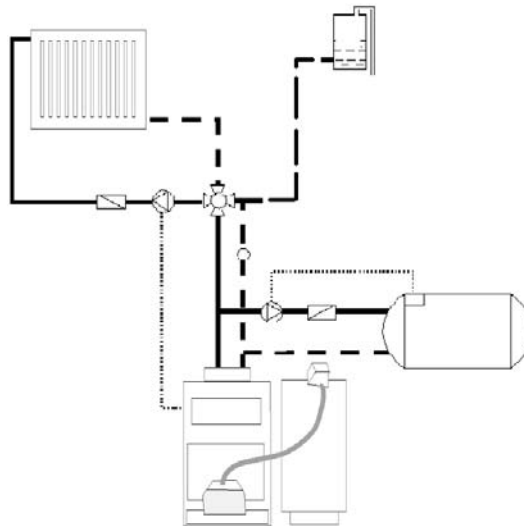
- 1) with built in water exchanger (spiral) to protect system against pressure and water overheating (for closed installation system)**
- 2) without water exchanger , in this version You can install boiler in opened installation systems**

To get 3 years guarantee ,heating system should be equipped in 4 way mixing valve (hand operated), which should be set to keep return water temperature over 55°C. The mixer can be ordered as the boiler's accessory.

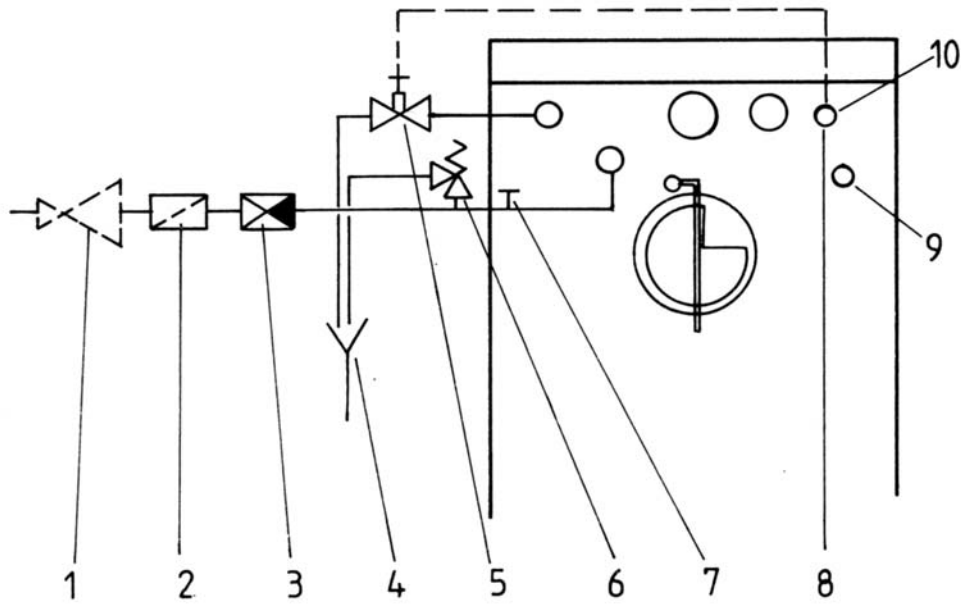


1) OPEN INSTALLATION SYSTEM

When You want to install boiler in open installation system, please use following schema:



2) CLOSED INSTALLATION SYSTEM



If You wish to install the boiler in closed installation system, You have to install water supply and return to water exchanger built in the boiler. There are 2 pipes form side of the boiler for connection . It is very important , that You will use special valve to realase water supply when temperature will grow up above 100 C

Important ! Please use all parts of installation from picture of above for protection of high pressure . Installation should be made be authorized installer.

Guarantee Card

FUTURA

Installation Report

Retailer

Company: _____

Name: _____

Address: _____

Zip Code: _____ City: _____

Contact Person: _____

Telephone: _____ Mobil phone: _____

Fax: _____ E-mail: _____

Type / Effect: _____

Production Number: _____

Year of Production: _____

1.10.2004



**EG- Konformitätserklärung gemaB
Niederspannungsrichtlinie 73/23/EWG
EMV Richtlinie 89/336/EWG**

Wir erklären ,daB die Festbrennstoffkesseln:

Fabrikat: Cichewicz-kotly c.o.

**Hersteller: Cichewicz- kotly c.o. sp z o.o.
Ilino 20 B 09-100 Plonsk**

**Typen: KUMULATOR
Fabrikatsnummern: ab 2400**

1. Übereinstimmen mit den Bestimmungen der Niederspannungsgeräteverordnung 1995 – NspGV 1995, BGBl Nr 19/95 und damit mit der durch sie umgesetzten Niederspannungsrichtlinie 73/23/EWG einschließlich der Änderung durch die Richtlinie 93/68/EWG
2. Angewandte Normen und Richtlinien sind:

98/37/EEG
89/336/EEG
73/23/EEG
EN 55014-1, 1993 /A1, 1997
EN 55014-1
EN 55014-2 C1 1998
EN 61000-3-2
EN 61000-4-2, -3-4-5-6-11, Level2
EN 50165
EN 50165 C1
EN 60335-1
EN 303-5