

BOILERS TYPES

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BOILERS – technical equipment for production of steam and hot water.

In fact they are classified as follows:

- STEAM BOILERS;
- WATER HEATING BOILERS.

Boilers are clasified according purpose:

- power;
- industrial;
- water heating;
- utilizers.

ENERGETIC STEAM BOILERS are assigned for production of superheated steam at given parameters, intended for rotation of steam turbines.

INDUSTRIAL BOILERS are assigned to produce steam for turbines and technology.

Water heating boilers assigned for production of hot water, who's pressure is greater than atmospheric.

Boilers *recovery* assigned for production of superheated steam by burning secondary energy resources (for ex., combustion products worked off turbine gases).

Boilers are divided, by the type of fuel burned, in to:

- gaseous;
- liquid fuel;
- solid fuel;
- combined.

Boilers are classified according the type of *furnace*:

- three dimensional burning (for burning gas, liquid fuel).
- stratified burning (for burning solid fuel).
- „boiling“ layer.

Three dimensional boilers are divided into:

- *water pipes* (water heating, households, district heating).
- *fire / heat tube boilers* (combined, steam – dry saturated and superheated steam).

Water, heated by **water-tube boilers**, flows inside pipes and in space around the pipes – high temperature combustion products.

In fire tube boilers – combustion products circulates inside pipes, and water – around pipes.

Water heating boilers are classified:

- according their *thermal output* (kw or mw);
- *temperature and pressure* of heated water;
- *according metal* from which is produced: cast iron and steel.

- *Cast iron* boilers are designed for heating of sperate buildings and for small temperature performance by heating water (1,2 ... 1,6 mw) to 115°c.
- *Steel* boiles are manufactured for high performance – from 4,75 ... 210 mw.



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