

ECOLOGY

INCREASE OF THE OPERATION RELIABILITY AND ECOLOGICAL SAFETY OF THERMAL POWER STATION BOILERS

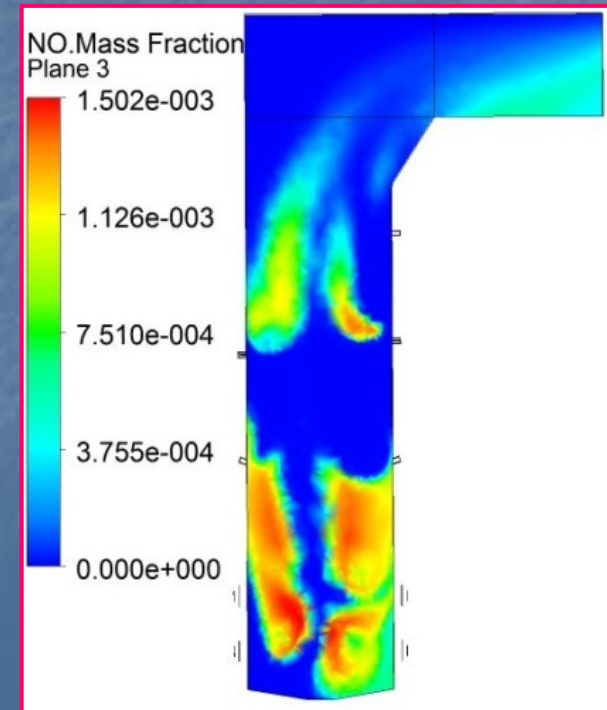
- Increase in the service life of radiation and convective surfaces of dustcoal boilers of Thermal Power Stations by means of the flow structure control in boiler space
- Development of technologies and ways of reduction in the nitric and sulphur oxides emission from Thermal Power Stations to the atmosphere

Categorized of users:

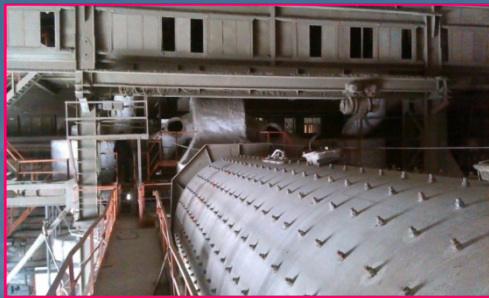
- Thermal Power Stations;
- Design Companies of boilers;
- Manufacturers of boilers.

Patent of the Ukraine №67268, 2012

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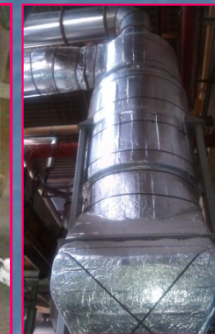
DUST-CATCHING SYSTEMS



Dust-catching systems

The centrifugal filter, cyclone-filter and cyclone dust-catcher are used in various industries:

- ❑ metallurgical, chemical, energy, woodworking, construction industry, etc.
- ❑ aspiration systems for units for pouring of friable materials;
- ❑ purification systems for drying drums, crushers, stripping tools, etc.;
- ❑ aspiration systems for foundries, cement mills, clinker coolers;
- ❑ ash-catching systems for solid fuel boilers.

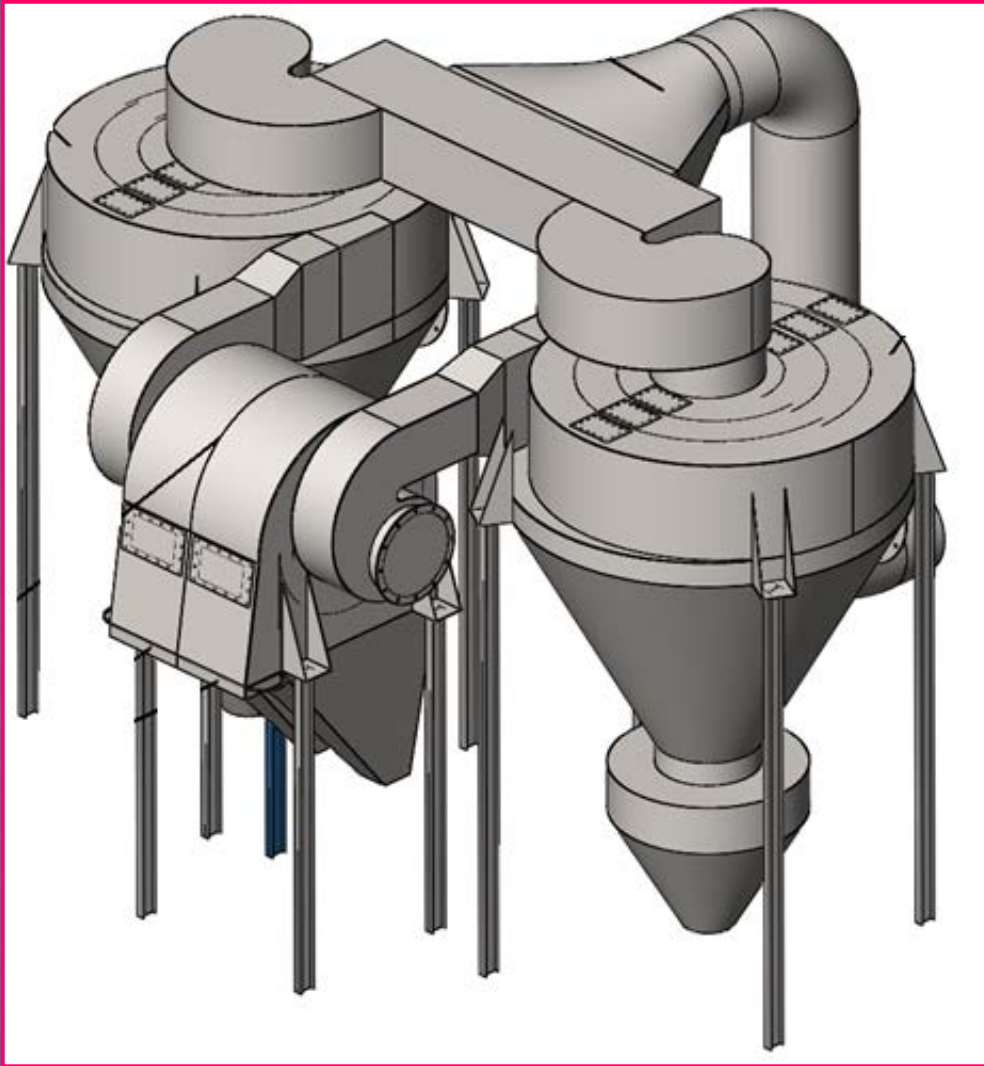


Developed method of modernization of standard cyclones of various types (CN, CIOT, LIOT, RISI, SKCN and others), based on the principle of cyclone dust-catcher construction (new design), allows to upgrade the standard cyclone without significant capital investments, with reduction of dust particles emissions from the cyclone by 2 - 4 times without increase in energy consumption for cleaning, and to extend the lifetime of the cyclone by 1.2 ... 1.4 times.

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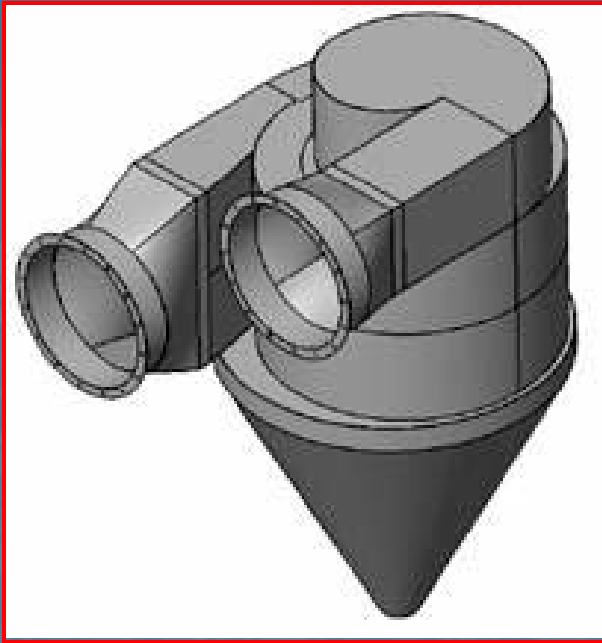
DEVICE FOR FLUE GASES CLEANING FROM SULFUR DIOXIDE AND ASH



Device for flue gases cleaning from sulfur dioxide and ash

The device is used for district heating and industrial boilers of 3.15 - 30 MW capacity, and allows flue gases cleaning from sulfur dioxide up to 50% and from ash up to 95%.

CENTRIFUGAL FILTER

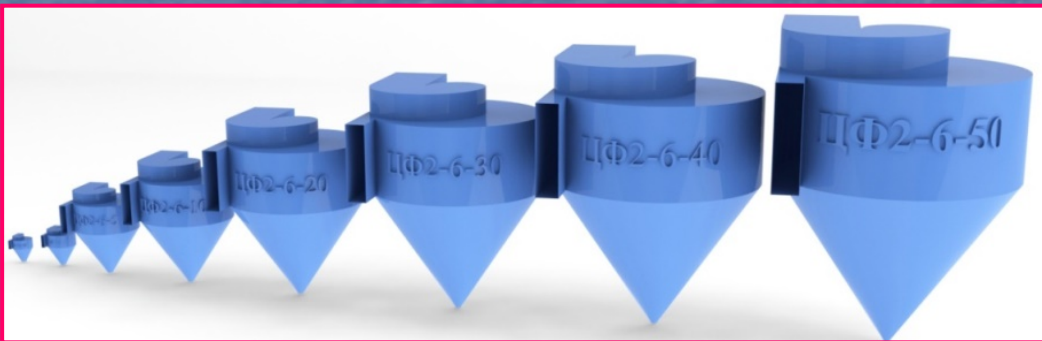


Centrifugal filter

The centrifugal filter is intended for purification of gas flows from ash and dust. The dust catching efficiency of centrifugal filter is 92 - 98%.

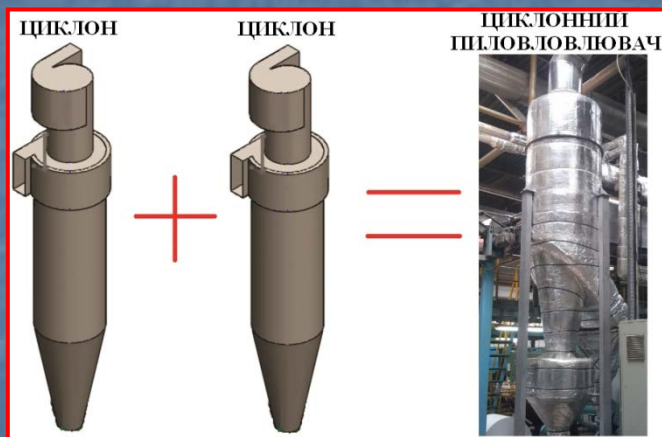
The main advantages of centrifugal filter are:

- compliance with standards for emissions of particulate matter to the atmosphere;
- absence of replaceable filter elements;
- simplicity of design and reliability.



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CYCLONE DUST-CATCHER



Cyclone dust-catcher

The function of cyclone dust-catcher is purification of dusty air (gas) from particulate matters of dust and from liquid aerosols in aspiration systems and wet gas cleaning systems as a drip pan. The dust catching efficiency of cyclone dust-catcher is 90 - 95%.

The main advantages of cyclone dust-catcher are:

- ejection of dust from a cyclone dust-catcher is 2-4 times less than from a standard cyclone;
- two-stage purification of gas flow;
- increasing the lifetime of cyclone dust-catcher due to achieved reduction of abrasion wear and tear as a result of removing of large particles to a separate bin-bag.

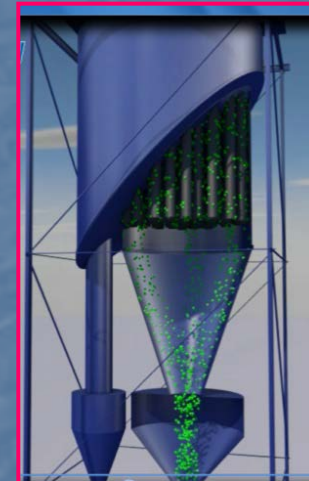
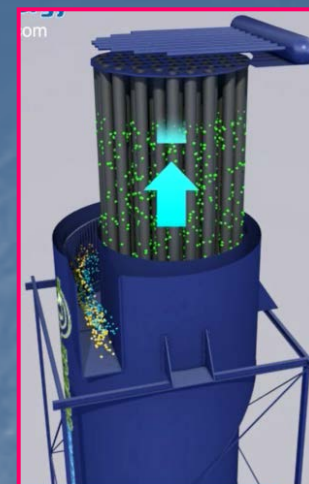
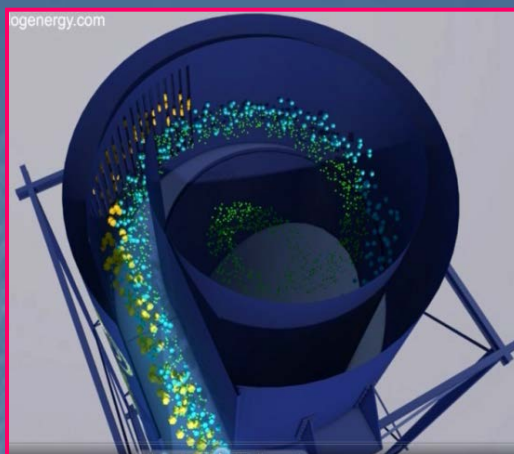
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CYCLONE-FILTER



Cyclone-filter

Cyclone-filter is a highly efficient dust-catcher that combines benefits of cyclone and bag filter. Functioning of cyclone-filter is based on three-stage purification: centrifugal in a separation channel; centrifugal in a cylindrical chamber; filtration through bag filters. The dust catching efficiency of cyclone-filter is 99.9%.



The main advantages of cyclone-filter are:

- ❑ high cleaning efficiency that meet European standards;
- ❑ three-stage purification of gas flow is realized in one device;
- ❑ energy saving due to reducing the dust load on the bag filters by pre-treatment in a separation channel of device.

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