

## COAL-WATER FUEL

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### **Basic characteristics, essence of the development:**

The technology of preparation, storage and combustion of coal-water fuel is developed based on technologies of China and domestic developments.

### **Comparison with world analogues:**

Meet modern requirements of environmental safety of coal combustion and the EU Directive 2001.80

### **Economic attractiveness of the development for market promotion, implementation, parameters, price:**

Implementation of the technology will

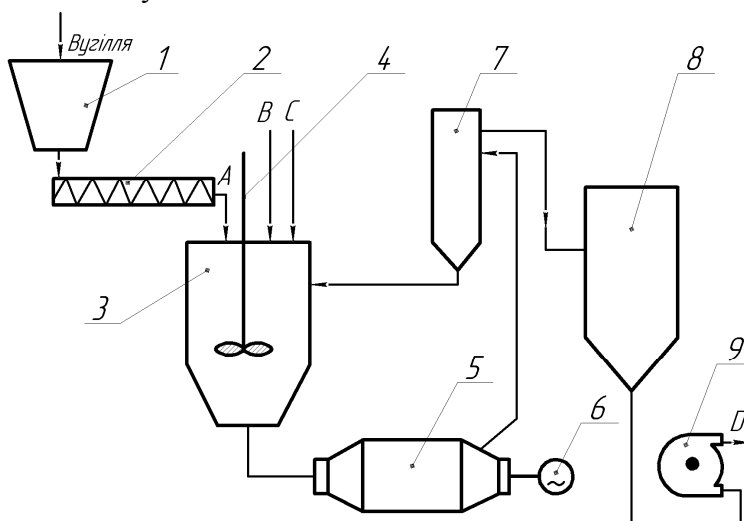
- Decrease natural gas consumption for heating and heat energy production by 25-30% in energy sector, industry, housing and utility services in Ukraine.
- Increase the efficiency coefficient of heat generation by 30-40% compared to traditional coal combustion technologies.
- Decrease cost price of heat energy to 600 UAH per 1 Gcal.
- Eliminate the danger of explosion of coal dust and coal self-ignition.
- Ensure environmentally safe transportation, unloading at the place of coal use and combustion.
- Improve the combustion process and reduce temperature in the combustion zone.
- Minimize emissions of harmful substances into the atmosphere during coal combustion.

### **Branches, ministries, departments, enterprises and organizations where the development results are going to be implemented:**

Energy sector, industry, housing and utility services (heating of houses).

The technology of preparation, storage and combustion of coal-water fuel based on technologies of China and domestic developments is well-proven.

According to our calculations, implementation of the technology of coal-water fuel combustion at large industrial facilities pays off in 2-4 years.



Process Scheme of CWF Manufacturing

- 1 – coal bunker; 2 – screw feeder; 3 – mixer; 4 – stirrer; 5 – ball tube mill; 6 – electric drive; 7 – hydrocyclone;  
8 – transfer tank; 9 – wastes pump; A – coal; B – water; C – additives; D – ready CWF.