

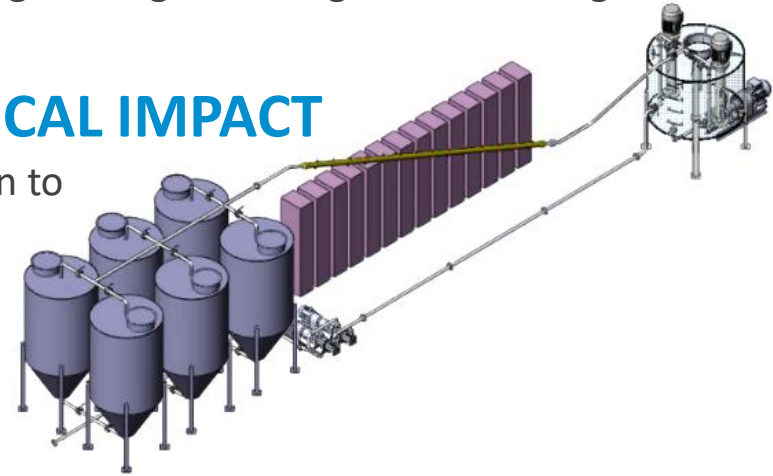
TECHNOLOGY OF COAL DIRECT LIQUEFACTION (JUTKIN-SCHWARZ PROCESS) FOR PRODUCTION OF SYNTHETIC HYDROCARBON MIXTURE

INNOVATIVE PRODUCT DESCRIPTION

The unit provides direct coal liquefaction to produce synthetic hydrocarbon mixture – equivalent of crude oil – by treatment of 2-phase coal-water mixture by pulse high-voltage discharges in cavitating reactor. Distillation of synthetic oil allows to produce light fractions.

COMPETITIVE ADVANTAGES / ECONOMICAL IMPACT

- Drastically decrease of energy consumption (in comparison to Sasol process);
- Reduction of equipment cost (by excluding of high temperature and pressure processes);
- Excluding of catalytic reactions;
- Production of commercial-grade diesel fuel.



CURRENT STATUS AND APPLICATION EXAMPLES

- Experimental-industrial plant with productivity of 15 t/day is operated on developer's site;
- A coal direct liquefaction unit for production of fuel for boilers was manufactured Customer in Nampo, DPRK in 2017;
- 2 orders for equipment for small plants in Novokuznetsk and Altay region were received.

