OIL SLUDGE TREATMENT PLANT
with decanter centrifuge of DSD series
increased efficiency and cost-effectiveness of treatment

Principle of oil sludge treatment with decanter centrifuge of DSD series consists in separation of oil sludge in solid sludge, water and oil phases.

Separation of oil phase and, accordingly, its cleaning off from water and of solid sludge (mechanical impurities) are affected in DSD series decanter centrifuge by centrifugal force.

This principle of treatment makes it possible not only to reduce costs and significantly increase ecological sustainability of disposal, but also to gain extra profit by means of reusing of separated valuable oil phase.

Scope of application:
- Oil sludge treatment;
- Cleaning of oily and waste waters;
- Oil dewatering;
- Cleaning of industrial waters from oil products.

Major advantages of the technology:
- Crude oil for further refinery or for sale: about 95% of oil is recovered from oil sludge;
- Costs reduction for transportation and disposal of oil sludge: only 10-20% of total amount of oil sludge to be disposed is remaining;
- Explosion-proof version (ATEX): use of it directly within the territory of oil refinery plant;
- Mobility and reduced energy consumption.
Oil sludge treatment plant of DSD series

Plant components:

1. Oil sludge treatment module (1): pre-treatment, heating and homogenization (mixing);

2. ATEX container with 3-phase decanter centrifuge and LED display (2);

3. Container with plant control system (3) and flocculant preparation and dosing system;

4. Storage container (pipes, flanges, tools, etc.).
Description of oil sludge treatment process:

1. Oil sludge is supplied with a special pump to an oil sludge treatment module for preparation. After filling of the oil sludge treatment module and oil sludge’s achievement of set temperature point, automation drives pumps and directs cleaned, heated and mixed-up oil sludge in three-phase decanter centrifuge of DSD series. Oil sludge treatment module is filled-up automatically. Depending on properties of oil sludge being treated it can be separated either with adding of flocculant or without it. The flocculant is made in flocculant preparation and dosing module.

2. Decanter centrifuge separates oil sludge by means of centrifugal force in three phases: solid, water and oil phase (generally, water content amounts to 1-3%).

According to the customer’s choice, extraction of residual water from oil phase and/or residual oil from water may be performed using separators of DSD series.

3. Solid material and hard wax are extracted by a screw conveyor to outside reservoir, and liquid phases (aqueous and oil phase) separated in decanter centrifuge are supplied by pumps to accumulator tanks after their cleaning up with separator (optional).
Main advantages for our customers:

- **High performance** of separation (up to 40 m$^3$ oil sludge per hour);
- **Crude oil acquisition** for further refinery or for sale: about 95% of oil may be extracted from oil sludge;
- **Reduced volume of sludge** to be disposed: solids is about 10% of the initial volume of sludge;
- **Explosion-proof version** (ATEX): application directly within the territory of oil refinery plant;
- High-quality steel, advanced wear-resistance, better protection of screw conveyor: **low maintenance** costs and prolonged service life;
- **Touch sensor display and automatic operation mode:** easy control and reduced labor costs;
- Modular containerized design: **mobility and compact design**;
- **Quality** “made in Germany”: reliability and long-life cycle.