

## FLOATING SUCTION DREDGER

ATEX ZONE 1 CERTIFIED!

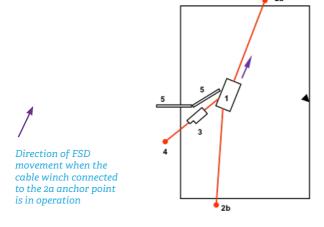


**PUMPABLE WASTE** 

REMOVAL FROM INDUSTRIAL LAGOONS AND PONDS

DELIVERY TO A WASTE TREATMENT / DISPOSAL FACILITY

## OIL SLUDGE DREDGING SCHEME



- 1 Floating suction dredger (FSD)
- 2 FSD anchor points
- 3 Floating maintenance platform (FMP)
- 4 FMP anchor point
- 5 Floating buoys with cables and pipelines



#### **FIELD OF USE**

Floating suction dredger FSD-20-Z1 is used for removal sludge, mud, sediment and similar pumpable waste from industrial ponds and waste lagoons.

The floating dredger disintegrates, homogenizes and delivers sludge to the bank of a pond for subsequent treatment.

The floating suction dredger is certified for operation in Zone 1 according to the European ATEX directives (corresponding to Class 1 Division 1 /gases/ according to the North American Classification). The equipment can be safely operated at areas where an explosive mixture of gases / vapors is likely to occur in normal operation. Therefore the floating dredger is suitable for extracting waste releasing flammable gases and vapors - such as drilling mud, sludge from wastewater treatment facilities and tank cleaning operations, used adsorption clay, contaminated soil and similar waste streams generated by oil and gas industry, petrochemical plants, chemical industry etc.

Pipelines and cables connecting the floating dredger with a bank of a pond are flexibly and safely laid on floating buoys (not submerged into sludge).



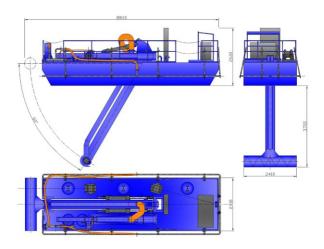
## **EQUIPMENT DESCRIPTION**

The suction dredger is installed on two trapezoidal steel floats designed for safe operation under wide range of sitespecific conditions.

The dredger is equipped with a tipping jib moved vertically. The cutting head installed at the end of the tipping jib is designed as a horizontal mixer/scraper. It disintegrates, homogenizes and delivers sediment to a suction inlet connected with a progressive cavity pump via a steel suction pipe.

Extracted sludge is delivered to a bank of a pond / lagoon through flexible pipeline installed on floating buoys. To ensure both flexible movement of the dredger across the pond/lagoon and stability during operation, the dredger is fixed to the opposite banks of a pond by two pulling cables. Two cable winches are driven by an electrically-powered hydraulic motor. The hydraulic motor is also used for elevating the tipping jib and driving the shaft of the mixer/scraper.

The sludge dredger can be safely approached via a floating maintenance platform connecting the dredger with a bank of a pond/lagoon.



#### **TECHNICAL PARAMETERS**

• Capacity: min. 20 m³ sludge per hour

• Dimensions:

• Length: 8,1 m

• Width: 2.4 m

• Height: 2,1 m

• Total weight: 9 100 kg

• Extraction depth: max. 4 m

• Electric input power: 32 kW

• Ex-proof design: ATEX Zone 1

#### Client support services

- Laboratory testing (chemical analyses of sludge / waste, treatability tests)
- Pilot-scale pumping test
- Designing
- Site assembly and start-up operation of a floating suction dredger
- Staff training
- Maintenance



# Services and equipment for a better environment

#### **SERVICES**

- # Site investigation & monitoring
- # Drilling
- # Soil & groundwater remediation
- # Waste treatment & disposal
- # Environmental emergency response
- # Technological cleaning
- # Demolition & decommissioning
- # Environmental laboratory
- # Air emission monitoring
- # Research & development
- # Pilot scale testing
- # Environmental consulting

### **EQUIPMENT**

- # Thermal desorption plants
- # Stabilization / solidification plants
- # Soil washing plants
- # Oil sludge extraction & processing equipment
- # Bioremediation plants
- # Soil vapor extraction plants
- # Pelletizers
- # Homogenizers
- # Air scrubbers
- # Biofilters
- # Catalytic oxidizers
- # Groundwater and wastewater treatment plants
- # Constructed wetlands



#### Made in **EU**

DEKONTA, a.s.

Volutova 2523, 158 00 Praha 5 Czech Republic Phone: + 420 235 522 252-3 Fax: + 420 235 522 254 info@dekonta.com

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