

## REMOBY SYSTEM

### Mobile Sludge Dewatering and Handling System

#### SYSTEM DESCRIPTION

**REMOBY** is the latest technology in mobile sludge dewatering: the most compact system available on the market that features the whole process and the highest flexibility. **R.E.M.** sets a milestone in the mobile dewatering industry with the most independent, powerful and performing system available in a 20 ft or left skid. Available in different sizes between 2 and 100 m<sup>3</sup>/h, the system features all the processes required to have a top quality dewatered sludge. The remotely controlled system allows to have a constant on-line monitoring of the performances and consumption (power and polymer) and the consequent optimization of the dewatering process with remote assistance.



The system integrates the best of the latest technologies:

- GPRS/UMTS remote-controlled system.
- GPS tracking.
- Ethernet network between all functions and controls of the unit. SCADA control ready.
- Solar-powered for powered off diagnostic (optional).
- Photovoltaic enclosure for 8 kW installed peak power (optional).
- 24Vdc power supply for truck power supply to the hydraulic power pack (optional).

The system integrates the latest generation of equipment in every detail:

- High-speed decanter.
- Combined polymer preparation unit for powder and emulsion.
- Sludge screening to prevent decanter clogging.
- Off-spec sludge slide gate.
- Multi-link conveying system with 3 controlled axes for accurate discharge pattern.
- Lifting-rotating-tilting conveyor for maximum flexibility of the sludge discharge.
- Ultrasonic sludge level meter.
- Multiple discharge point conveyor.
- Liquid collecting tank with discharge pump.
- Self-loading/unloading hydraulic system with level control for uneven surfaces.
- Fully enclosed construction.
- 20' Container standard anchors.
- Possibility for flexible covering or containerized enclosure (optional).



#### FULLY INTEGRATED SLUDGE CONDITIONING

**REMOBY** features 2 compact and extremely performing units for the sludge conditioning:

- **Screw Screen (optional):** when necessary, the sludge screen allows to efficiently remove all contaminants occasionally present in the sludge with dimension greater than 6 mm. These particles could clog the rotor nozzles forcing unexpected maintenance shut downs and production losses.
- **Polymer Preparation Station STPL:** the combined powder/emulsion system that features both feeding systems. The polymer unit allows to have different concentration of the powder and the emulsion but also a mix of both can be used for increased performance and operating cost reduction. The completely automatic and controlled system allows to monitor accurately the concentration of the polymer and its consumption.

**ACCURATE AND FLEXIBLE SLUDGE HANDLING**

**REMOBY** features the most sophisticated sludge handling system:

- **VGA:** is the off-spec slide gate designed for operation under the decanter. The gate allows to shut the flow of sludge and discharge back into the feed line until its dryness reaches the required value. No more spillage or wet sludge into the dumpster.
- **Articulated STC conveyors:** the conveyor set-up system, including an optional double rotating connection, accurately controlled in the positioning and lifting, hydraulically, allows to discharge virtually anywhere next to the **REMOBY**, up to 3 m high and 4,7 m off the side.
- **Ultrasonic level sensor** controls the sludge pile level.
- **Possibility of multiple discharge point**, thanks to the **CONTOUR** slide gate (OPTIONAL).

**CONTROL SYSTEM**

The control system allows to integrate all the **GPRS/UMTS** remote controls and supervision for real-time supervision and full control. The remote control allows to monitor the production and automatic billing. **GPS** tracking allows to keep track of the unit during relocation and lease. It can be used as anti-theft system. The Ethernet integrated switch allows to have a continuous monitoring of the system and integration to the plant supervision **SCADA** system for long-term operation.

**SELF-LOADING/UNLOADING SYSTEM (OPTIONAL)**

**REMOBY** features the totally self-loading/unloading system suitable for track trailers and tractors:

- The hydraulic power pack fitted with 4 main hydraulic cylinders allows to self-load and unload **REMOBY** on tractors and trailers up to 1,6 m high.
- The 4 independent cylinders assisted by an integrated level control allow to control the leveling of the system for handling on uneven surfaces.

**ECO-FRIENDLY (OPTIONAL)**

**REMOBY** features several eco-friendly options:

- The solar power kit allows to power up the control for tracking, diagnostic and supervision without a standard power supply (optional).
- The photovoltaic enclosure is the latest one in power saving: the skirting and the roof of the rigid enclosure are fitted with photovoltaic panels to generate as much as 8 kW peak power. The power can be used to reduce power consumption of the whole system as well as to allow the system to be loaded and unloaded from trailers without need for power supply.

**n.b.:** the manufacturer may modify some dimensions or sizes without prior information