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Dosing control SLCO

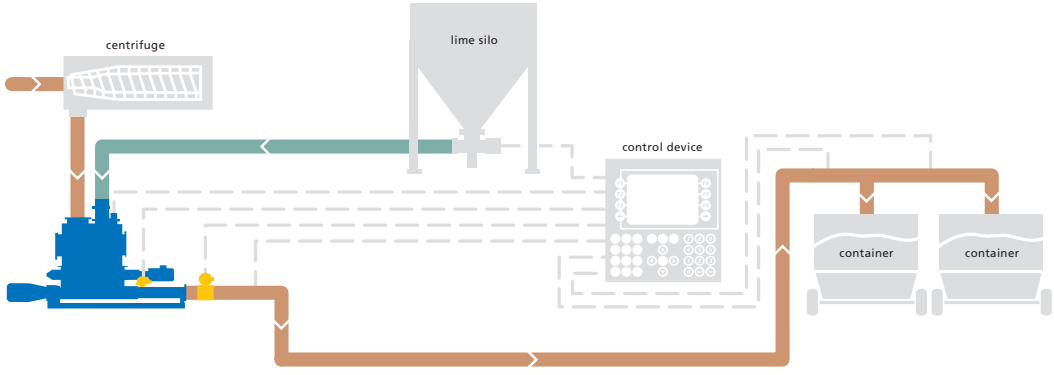
The seepex dewatered sludge treatment system

Dewatered sludges treated in **seepex** systems are more adaptable because of the consistent nature of both the dry solids content and their shear resistance. For agricultural use, dewatered sludge is normally treated with quick lime.

Mixing of lime occurs in three stages; by means of the paddle shafts of the bridge breaker, of the feed screw on the coupling rod and during the pumping process. Ultrasonic level measurements, combined with continuous speed control of the pumps by the **seepex** control system SLCO, ensure a constant sludge level in the pump hopper for optimal blending of the lime. Important process data are monitored, controlled and recorded. Process control, necessary for sterilization, is guaranteed by measuring and recording various temperatures.

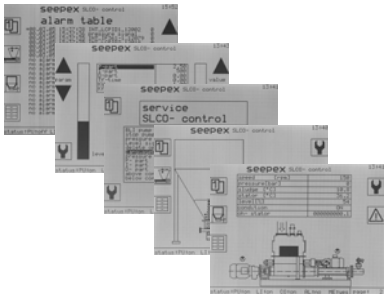
Level monitor	The level monitor switches off lime dosing or sludge feeding respectively when the sludge level in the feed hopper of the pump drops below or exceeds the set levels.
Operating and fault messages	Depending on the type of fault, either a warning is issued or the process is switched off. Faults are listed in clear text.
Dry running protection	for protecting the pumping elements rotor and stator against dry running.
Overpressure protection	with adjustable shut-off pressure.
Boundary-layer injection	The friction between the conveying liquid and the piping can be reduced by adding lubricants, which also considerably reduces the operating pressure of the pump. This results in reduced drive power and considerable cost saving.
Settable parameters	Plant and control parameters such as drive data and limit values can be set. All the entries are password-protected.
Connection to site systems	Connection to a site control system is possible through various bus systems.
Remote data transfer	permits fault diagnosis through a GSM modem controlled from the **seepex** headquarters.

Process of dewatered sludge treatment



Characteristics of the SLCO dosing control

- Simple operation through various display pages
- Different operating languages can be set
- Membrane keyboard for parameter entry and switching the control functions
- Storage of the control parameters in the user ROM that is not affected by power loss
- Simple and cost-efficient adaptation to the particular customer demands due to a modular structure
- Additionally integrated resettable operating hours meter



Control device with various display pages
permits simple and user-friendly operation

Technical data

Structure:	PLC with integrated LC-display
Supply:	24V DC
Power consumption:	max. 20W
Front:	LC-display: 5,7", 320 x 240 pixels, monochrome Multilingual display Membrane keyboard with 40 keys 16 keys with LEDs Protection class IP65 (front)
Dimensions:	220 x 205 x 111 (HxWxD)
Installation:	in the control cabinet door

Processor	
Command cycle time:	approx. 0.4µs (with 70% bit and 30% analogue processing)
Memory structure:	User RAM 700 kByte System PROM 600 kByte FlashPROM User PROM 1.4 MByte FlashPROM
Signals:	10 digital inputs with 24 V DC rated voltage 4 analogue power inputs 0 (4) - 20 mA (optionally 0 - 10 V DC possible) 2 analogue PT100 inputs for temperature measurement 8 digital outputs with 24V DC rated voltage, maximum load 400 mA 1 digital relay output 2 analogue power outputs 0 (4) - 20 mA (optionally 0 - 10V DC possible)
Expansions:	Three expansion slots for adaptation to additional customer demands
Communication:	Serial RS232 interface for connecting a programming device or a modem for service purposes. A CAN interface can be used for additional expansions.
Buffer battery:	Lithium battery 3V / 950 mAh, life cycle approx. 5 years