

HUBER Sludge Acceptance Solutions



Efficient system solutions and technologies for the treatment of septic sludges

- for any type of septic sludge
- reliable separation of all disturbing material
- dependable and reliable in operation

►► The challenge – Our solution

HUBER provides complete systems and processes for septic sludge treatment. Our equipment, as proven during many years of experience, is especially suited for septic sludge treatment. Hundreds of HUBER plants for septic sludge treatment have been installed worldwide.

Septic sludge is typically delivered in tanker vehicles. Depending on the size of the WWTP, it may be pumped into a balancing tank from where it is continuously fed to the plant. Direct feeding without prior balancing is possible at larger plants. In any case, removal of coarse material, such as hygienic products, plastic material, etc., from the septic sludge is necessary. There are several requirements for good septic sludge treatment:

- High capacity to minimise waiting time of tanker vehicles
- High separation efficiency to achieve excellent separation of non-degradable material
- Automation to minimise operator attendance
- Complete encasement to eliminate odour annoyance
- Reliable operation without impairment by grit and gravel
- Integrated screenings washing and compaction to produce screenings suitable for landfill and to reduce their weight and disposal costs



HUBER Sludge Acceptance Plant ROTAMAT® Ro3.1 with HUBER Fine Screen ROTAMAT® Ro1

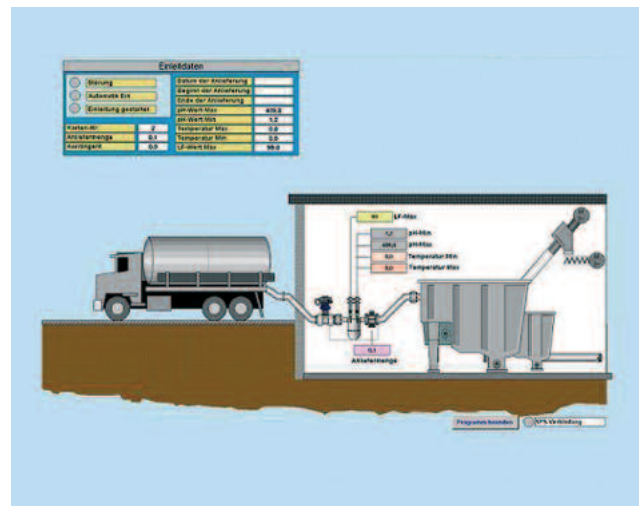
To meet these requirements HUBER developed special machines and plants that have proven their efficiency and reliability in hundreds of installations.

There are three options of septic sludge disposal on sewage treatment plants:

1. Introduction into the wastewater flow
2. Introduction into the sludge flow
3. Introduction partly into the wastewater, partly into the sludge flow

►► Identification and metering system

Due to the steadily increasing requirements on personnel and equipment and modernisation of technologies and software, systems with automatic software are more and more applied. The automatic software facilitates the process of metering, data storage including invoicing. This complete system is able to take into account different specific requirements (depending on the medium quality), such as feed line length, flow metering, sampling, thus facilitating various handling tasks within a single process. Plants can operate autarkically and can independently be started and operated by the customer. The system is designed for data recording and storage (independent of the plant version).



Visualisation within the process control system

►► HUBER Sludge Acceptance Plant ROTAMAT® Ro3

The HUBER Sludge Acceptance Plant ROTAMAT® Ro3 is used for mechanical treatment of septic sludge. A HUBER Fine Screen ROTAMAT® Ro1 or HUBER Micro Strainer ROTAMAT® Ro9 is installed in a tank. The septic sludge is fed into the tank and, as it flows through the Fine Screen or Micro Strainer, all coarse material is retained. A screw conveyor with integrated screenings press removes the screenings from the tank, reduces their volume and weight and drops them into a container or bagging device. The entire treatment takes place in a fully enclosed system; odour nuisance is thus prevented.

The screenings are additionally washed which makes them suitable for landfill. The filtrate is blended into the wastewater for further treatment in the WWTP.

If an outstanding separation efficiency is required, every version of Sludge Acceptance Plant can be alternatively equipped with the well-proven HUBER Rotary Drum Fine Screen ROTAMAT® Ro2.

►► HUBER Sludge Acceptance Plant ROTAMAT® Ro3.1 with ROTAMAT® Fine Screen

The robust and efficient Ro3.1 version has become the most popular system of its kind. Its superior design and engineering guarantee most dependable operation – day after day, year after year.

The main component of the HUBER Sludge Acceptance Plant ROTAMAT® Ro3.1 is the reliable HUBER Fine Screen ROTAMAT® Ro1. It excels with its high capacity, good separation efficiency and low head loss. Another exceptional feature is its integrated screenings press with all its benefits.

The ROTAMAT® Fine Screen is extremely sturdy, able to deal with rocks and grit, and entirely made of stainless steel. It is fully self-cleansing as its rake tines fully engage the basket bars. (Please find more detailed information in our separate HUBER Fine Screen ROTAMAT® Ro1 brochure.)



HUBER Sludge Acceptance Plant ROTAMAT® Ro3.1 with HUBER Fine Screen ROTAMAT® Ro1, heated and insulated unit



Floating and suspended material is retained in the screen basket. The tines mesh into the basket bars and ensure a complete automatic cleaning.

►► HUBER Sludge Acceptance Plant ROTAMAT® Ro3.2 with ROTAMAT® Micro Strainer

In this Ro3 version the screenings are separated by the HUBER Micro Strainer ROTAMAT® Ro9. The screen basket is cleaned by the stainless steel screw. Additional cleaning is achieved by wear-resistant brushes fitted to the screw flights. As the screenings are conveyed upwards within

the closed rising pipe they are compacted in the integrated screenings press prior to being discharged. The HUBER Sludge Acceptance Plant ROTAMAT® Ro3.2 is an efficient and low-cost alternative to our Ro3.1. It can be used for low flow and load applications.

➤➤ HUBER Sludge Acceptance Plant ROTAMAT® Ro3.3 with Grit Trap and Grit Classifier

This type of plant is used for complete separation of screenings and grit. It consists of:

- Fine screen with integrated screenings press
- Un-aerated grit trap with grit classifier



HUBER Sludge Acceptance Plant ROTAMAT® Ro3.3 with un-aerated grit trap and integrated grit classifying screw

Due to integration of all components in a single tank it is a very compact plant and odour annoyance is prevented. Complete treatment of the septic sludge is performed within a single unit.



Well-proven mechanical pre-treatment components combined within the HUBER Sludge Acceptance Plant ROTAMAT® Ro3.3

➤➤ HUBER Sludge Acceptance Plant RoFAS

A rotating high-performance screening drum ensures reliable, clog-free solids transport through forced guided material transport within the drum. The plant therefore can be used for extreme applications. Solids washing and dewatering by means of a subsequent screenings wash press, type HUBER Wash Press WAP®.

- High solids throughput even with problematic material (tresses, wet wipes, etc.)
- Short tanker vehicle emptying times
- Optional simultaneous emptying of several vehicles
- Defined separation size due to two-dimensional screening



HUBER Sludge Acceptance Plant RoFAS with metering system for pH and conductivity measurement



HUBER Sludge Acceptance Plant RoFAS combined with a HUBER Grit Trap ROTAMAT® Ro6

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Subject to technical modification
0,15 / 5 – 6.2018 – 4.2008

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