

ROTAMAT® Sludge Acceptance Plants



Efficient treatment of septic sludges by means of

- ROTAMAT® Fine Screen with integrated screenings press: Ro 3
- Complete Plant with integrated grit trap: Ro 3.3
- ROTAMAT® Wash Drum: RoFAS

➤ 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 ROTAMAT® 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

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

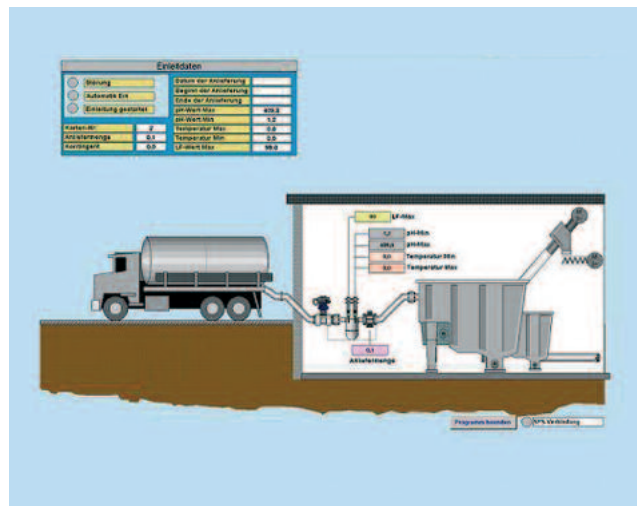


There are three options of septic sludge disposal on sewage treatment plants:

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

➤➤ ROTAMAT® Sludge Acceptance Plant Ro 3

The ROTAMAT® Sludge Acceptance Plant Ro 3 is used for mechanical treatment of septic sludge. A ROTAMAT® Fine Screen Ro 1 or ROTAMAT® Micro Strainer Ro 9 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 ROTAMAT® Rotary Drum Fine Screen Ro 2.

➤➤ ROTAMAT® Sludge Acceptance Plant with ROTAMAT® Fine Screen: Ro 3.1

The robust and efficient Ro 3.1 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 ROTAMAT® Sludge Acceptance Plant Ro 3.1 is the reliable ROTAMAT® Fine Screen Ro 1. 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 ROTAMAT® Fine Screen Ro 1 brochure.)



ROTAMAT® Sludge Acceptance Plant Ro 3.1 with ROTAMAT® Fine Screen, 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.

➤➤ ROTAMAT® Sludge Acceptance Plant with ROTAMAT® Micro Strainer: Ro 3.2

In this Ro 3 version the screenings are separated by the ROTAMAT® Micro Strainer 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 ROTAMAT® Sludge Acceptance Plant Ro 3.2 is an efficient and low-cost alternative to our Ro 3.1. It can be used for low flow and load applications.

➤ ROTAMAT® Sludge Acceptance Plant Compact Version with Grit Trap and Grit Classifier: Ro 3.3

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



ROTAMAT® Sludge Acceptance Plant 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 ROTAMAT® Sludge Acceptance Plant Ro 3.3

➤ ROTAMAT® Sludge Acceptance Plant with ROTAMAT® Wash Drum: 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 WAP.

- High solids throughput
- Optional simultaneous emptying of several vehicles
- Minimum wear
- Two-dimensional screening



ROTAMAT® Sludge Acceptance Plant RoFAS



50 l screenings per rotation