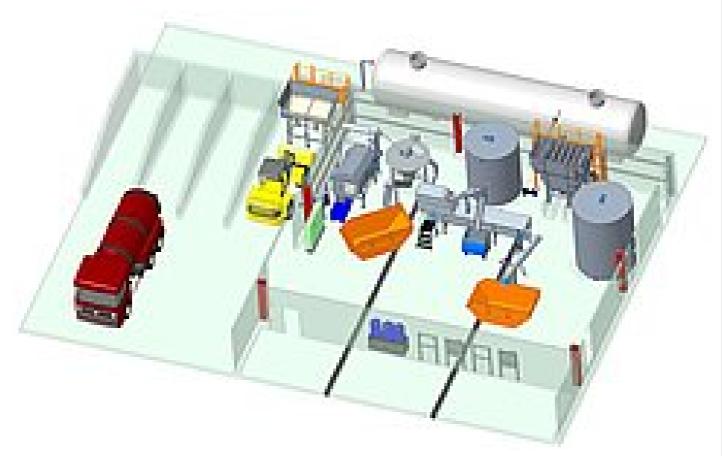


# Home 🔳 HUBER Report 🔳 Industry 🔳 HUBER Grit Treatment System RoSF5 in the waste management industry

# HUBER Grit Treatment System RoSF5 in the waste management industry

The aim of the waste management industry is the processing of sands and mineral waste into recyclable fractions. Decisive for the competitiveness of a waste management company is the economic acceptance and treatment of the input material.

Especially the low operating costs as well as the low maintenance requirements of the HUBER machine technology form the basis for the economic efficiency of the sand treatment process. Furthermore, HUBER technology ensures a consistently high quality of the recyclable fractions. This, in turn, provides the waste management company with planning reliability and an additional market advantage.



Installation drawing - project planning of grit treatment process at company Hammerer

The sewer service provider and waste management company Hammerer Kanalservice has recognised these benefits and will meet the steadily growing customer demand for grit disposal in 2020 by implementing the HUBER Grit Treatment System RoSF5. Hammerer's tanker vehicles will deliver the grit from municipal sewage treatment plants and from industrial grit traps, and also sewer grit.

The first step of the process is the delivery of the liquid phase from the tanker vehicles. For this purpose, the operator connects the vehicle via the hose directly to the Perrot connection provided for this purpose. With the HUBER system the liquid phase can be reused and recirculated as service water. Cost-intensive fresh water supply is therefore not necessary for plant operation. This is a significant advantage, because compared to municipal wastewater treatment plants, the process water in industrial companies is not available in sufficient quantities and quality and not without costs.

The solid phase is then discharged in the dewatering site. Due to the specific installation situation, the grit from the dewatering site is fed to the HUBER Grit Acceptance Tank RoSF7 by wheel loader. In general, the grit acceptance area is always planned and implemented according to customer specifications. Alternatively, the grit can also be fed into the HUBER acceptance tank, for example, directly via the tanker vehicle or by means of a crane system.

The screw conveyor integrated in the grit acceptance tank automatically doses the material into the HUBER Wash Drum RoSF9. In the wash drum, the fraction < 10 mm is washed out by homogenisation. Coarse material > 10 mm is separated by the inclined screening drum, statically dewatered and discharged into the customer-provided bin. In addition, a magnet is provided for metal separation. The coarse materials are disposed of by the operator and the metals are sold after presorting.

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In the next process step the HUBER Coanda Grit Washing Plant RoSF4 further processes the grit-organics-water mix (fraction < 10 mm). Based on the Coanda effect and the physical principle of density separation, the HUBER Grit Washer separates the mineral components from the organic matter. This mineral fraction < 10 mm is statically dewatered by the discharge screw and profitably resold as valuable material for recultivation.

The multifunctional HUBER Compact Plant ROTAMAT<sup>®</sup> Ro5 then separates the organic and fine sand components in only one process step. Both the organic and fine sand are dewatered by separate screw conveyors and can be sold immediately and profitably for recultivation and backfilling of open pits. The quality of the effluent from the HUBER Compact Plant ROTAMAT<sup>®</sup> Ro5 is sufficient for the wash water supply for the HUBER Wash Drum RoSF9.

The remaining wastewater is finally treated to clear water by the HUBER Dissolved Air Flotation Plant HDF. This clear water is reused as internal process water for the Grit Washer and the Complete Plant. In addition, Hammerer uses the clear water for refuelling their tanker trucks. A disinfection plant ensures sterility. The internal and external use of clear water reduces operating costs to a minimum, as no cost-intensive fresh water supply is necessary. In addition, there is no wastewater subject to charges. Furthermore, no additional compressed air is required for the saturation system of the HUBER Dissolved Air Flotation Plant HDF, which has another positive influence on the operating costs of the overall plant. Dissolved Air Flotation sludge is mechanically dewatered.

The project example Hammerer shows that the turnkey HUBER Grit Treatment System RoSF5 is the solution for adaptive, low-cost grit treatment that guarantees a constant high quality of the recyclable fractions. With its grit treatment system, HUBER makes an important contribution to the efficient use of resources.

## **Related Products:**

- HUBER Grit Treatment System RoSF 5
- HUBER Coanda Grit Washing Plant RoSF4
- HUBER Wash Drum RoSF9
- HUBER Horizontal grit dosing screw RoSF7 with tank followed by a wash drum

## **Related Solutions:**

HUBER Solutions for Mineral Waste Utilization



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