



## HUBER Solutions for Grit Treatment

### Treatment of:

- ▶ Grit from sewer systems and wastewater treatment plants
- ▶ Road refuse, gully waste
- ▶ Oil separator contents

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## Grit Treatment System RoSF5 with integrated wash water recycling



1 Acceptance tank for suction/pressure tanker.



4 Grit from ROTAMAT® Rotary Drum Fine Screen Ro2  
DR > 30% (> 1 mm).



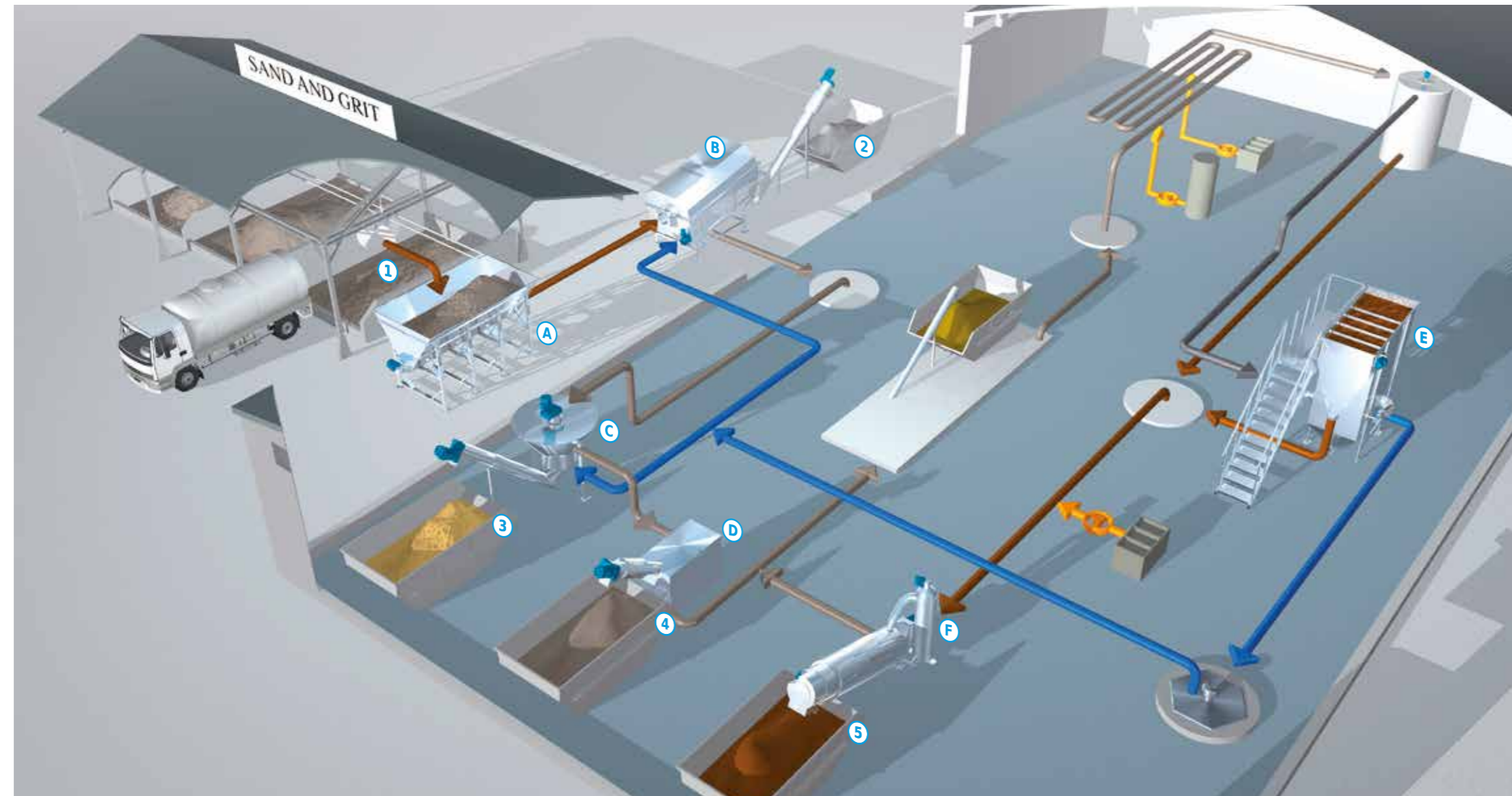
5 Flotate and sediment sludge dewatering with  
HUBER Screw Press S-PRESS, DR > 50%.



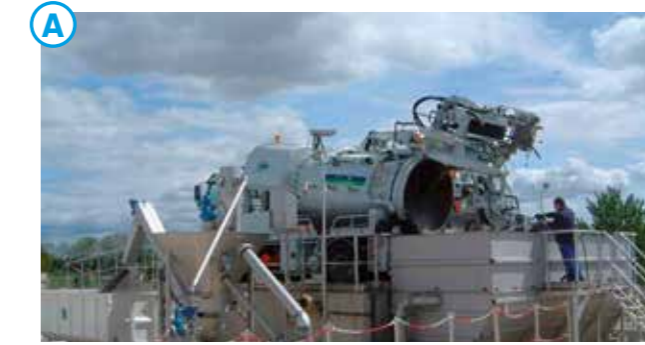
2 Separation of washed out coarse material > 10 mm with  
HUBER Wash Drum RoSF9.



3 Grit from HUBER Coanda Grit Washer RoSF4  
DR > 90%, loss on ignition < 3%.



## Process description



### Grit acceptance and feed:

The suction/pressure trucks discharge the raw material into a tank or directly into the intermediate storage tank of the HUBER system from where the integrated screw conveyor transports the material on a continuous basis into the wash drum.



### Coarse material washing and separation:

Within the HUBER Wash Drum RoSF9 the inlet material is homogenised by adding wash water with solids < 10 mm washed out. Coarse material > 10 mm is statically dewatered and can be additionally separated into a mineral and organic fraction as an option.



### Grit classifying and washing:

The mixture of grit, organics and water (particles < 10 mm) is removed from a pump sump situated below the Wash Drum and fed into the HUBER Coanda Grit Washing Plant RoSF4. The HUBER Coanda Grit Washing Plant RoSF4 which is the main part of the grit treatment system is where the mineral material is separated from the organic particles by means of the Coanda effect and other physical principles. The mineral particles (grit and gravel < 10 mm grain size) with a loss on ignition < 3% are statically dewatered within a screw conveyor and can then be reused or landfilled.



### Treatment of circulating water:

The total effluent from the HUBER Coanda Grit Washing Plant RoSF4 and optional coarse material washer is then fed into the ROTAMAT® Rotary Drum Fine Screen where all organic particles > 1 mm are screened out and dewatered (DR > 30%). The screened wastewater quality is of sufficient quality to be used as part of the flow for service water for the HUBER Wash Drum RoSF9, but requires additional treatment if to be used as service water for other components.

## Wash water recycling

In order to obtain clean wastewater that can be returned into the process, precipitants and coagulant agents are added and mixed in by a flocculator. The fine mineral material settles within the subsequent sedimentation tank and is pumped to an intermediate sludge storage tank.

The clear water flows into the HUBER Dissolved Air Flotation Plant HDF where any still present fine material is removed and the clarified wastewater is then discharged into a service water storage tank. The flotage and sediment from the flotation plant are also pumped into the intermediate sludge storage tank which feeds screw press.



## Sludge dewatering

To reduce the sludge volume and weight the separated sludge from the storage tank is dewatered in the HUBER Screw Press S-PRESS that achieves dry substance contents in excess of 50%.



HUER Grit Treatment Plant RoSF5 Malezieux, France.

## System variants:

- ▶ Separation of the pure gravel particles by means of subsequent screening/classifying
- ▶ Without wash water recycling system – provided by the customer
- ▶ Optional coarse material washing
- ▶ Optional fine grit separation

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Please do not hesitate to contact us and we will be delighted to show you one of our reference installations worldwide.

## We offer you an economical solution with our process:

- ▶ Reduction of the organic content in the sand fraction
  - ▶ Recycling according to LAGA possible
  - ▶ Landfilling according to landfill class 1 possible
  - ▶ Reduction of disposal volumes and costs
  - ▶ Reduction of odour and vermin nuisance
- ▶ Reduction of the mineral content through coarse material separation and grit washing
  - ▶ Low wear and tear on downstream machines
  - ▶ More effective utilisation of the organic fraction after the grit washer

## Please do not hesitate to contact us and we will find solutions!



Eerola company (Finland).



Grit acceptance area at Bolliger company (Switzerland).



Notter company (Switzerland).



Cridec company (Switzerland).

### HUBER SE

Industriepark Erasbach A1 | 92334 Berching  
Phone: +49 8462201-0 | info@huber.de  
[www.huber.de](http://www.huber.de)

HUBER Grit Treatment Systems RoSF

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