

HUBER

TECHNOLOGY

WASTE WATER Solutions

HUBER Slam og Sand-mottak på Primærrenseanlegg



The Company Structure

HUBER SE

Egenkapital: ca.91 millioner NOK

Aksjonærer: Huber familien siden 1872

Styre:

Georg Huber (CEO)

Dr.-Ing. Oliver Rong (Vice CEO)

Rainer Köhler

Dr.-Ing. Johann Grienberger

Omsetning:

HUBER SE: ca. 1 milliard NOK

HUBER Group: ca. 1.5 milliard NOK

Ansatte:

HUBER SE: over 700 personer

HUBER Group: over 1100 personer



Rainer Köhler Georg Huber Dr.-Ing. Dr.-Ing. Johann
(Vorsitzender) Oliver Rong (stellv.Vorsitzender) Grienberger



Markedsområder

**Mekanisk
avløpsrensing**



Slambehandling



**Membran,
Filtrering, Flotasjon**



**Green Building
Varmegjenvinning**



Industri



Global Service



Rustfri produkter

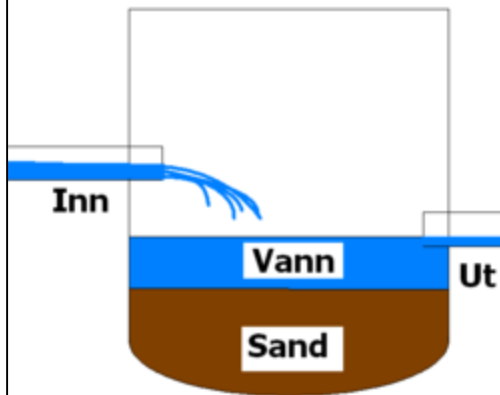


**Forskning og
utvikling**



Hva er sand og hva er slam ?

Sandfangskum



Dette er sand med høyt innhold av biologisk materiale.

Sand fra feiebil



Dette er sand med lavt innhold av biologisk materiale.

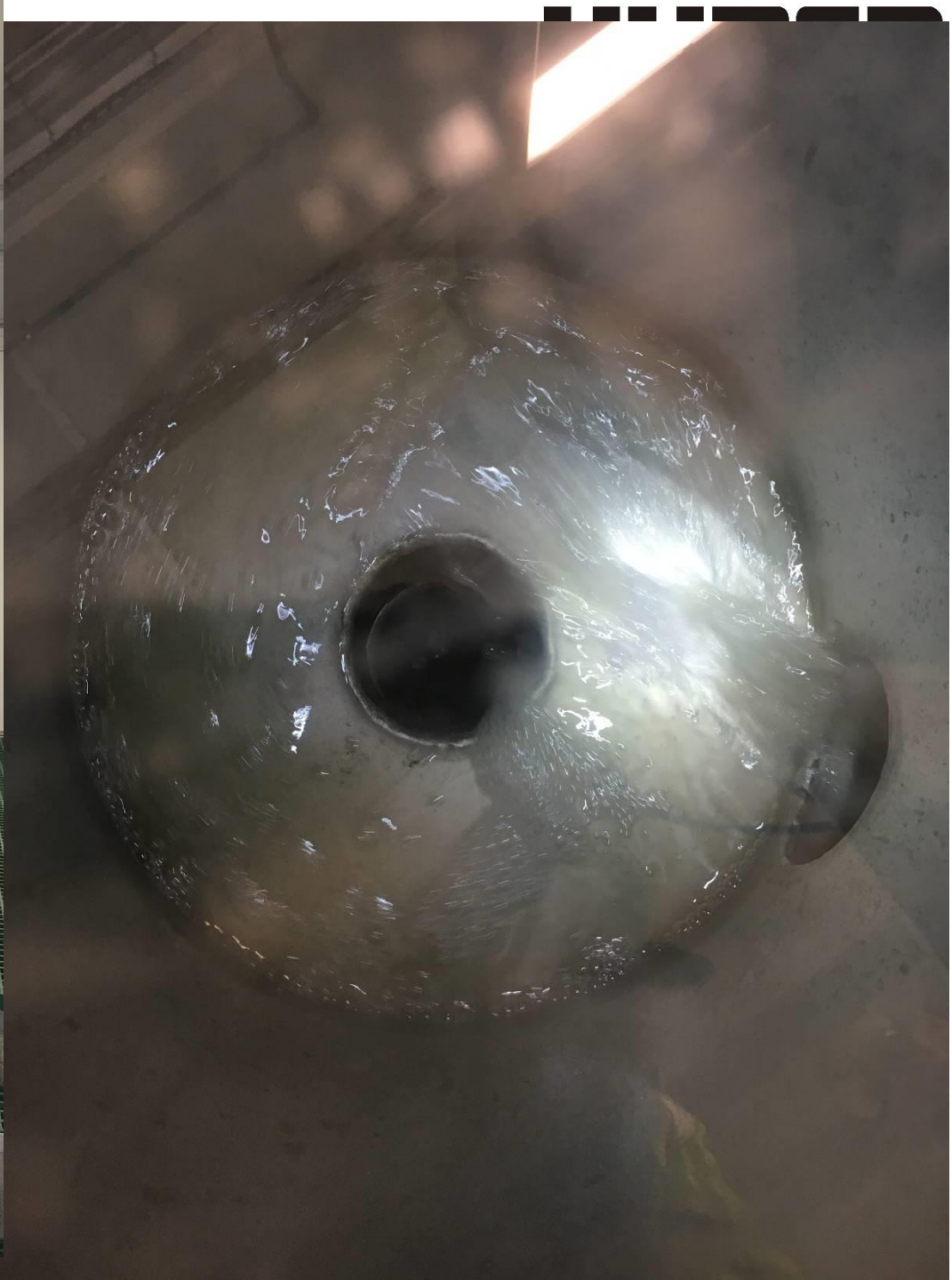
Slamsugebil (slamavskiller)

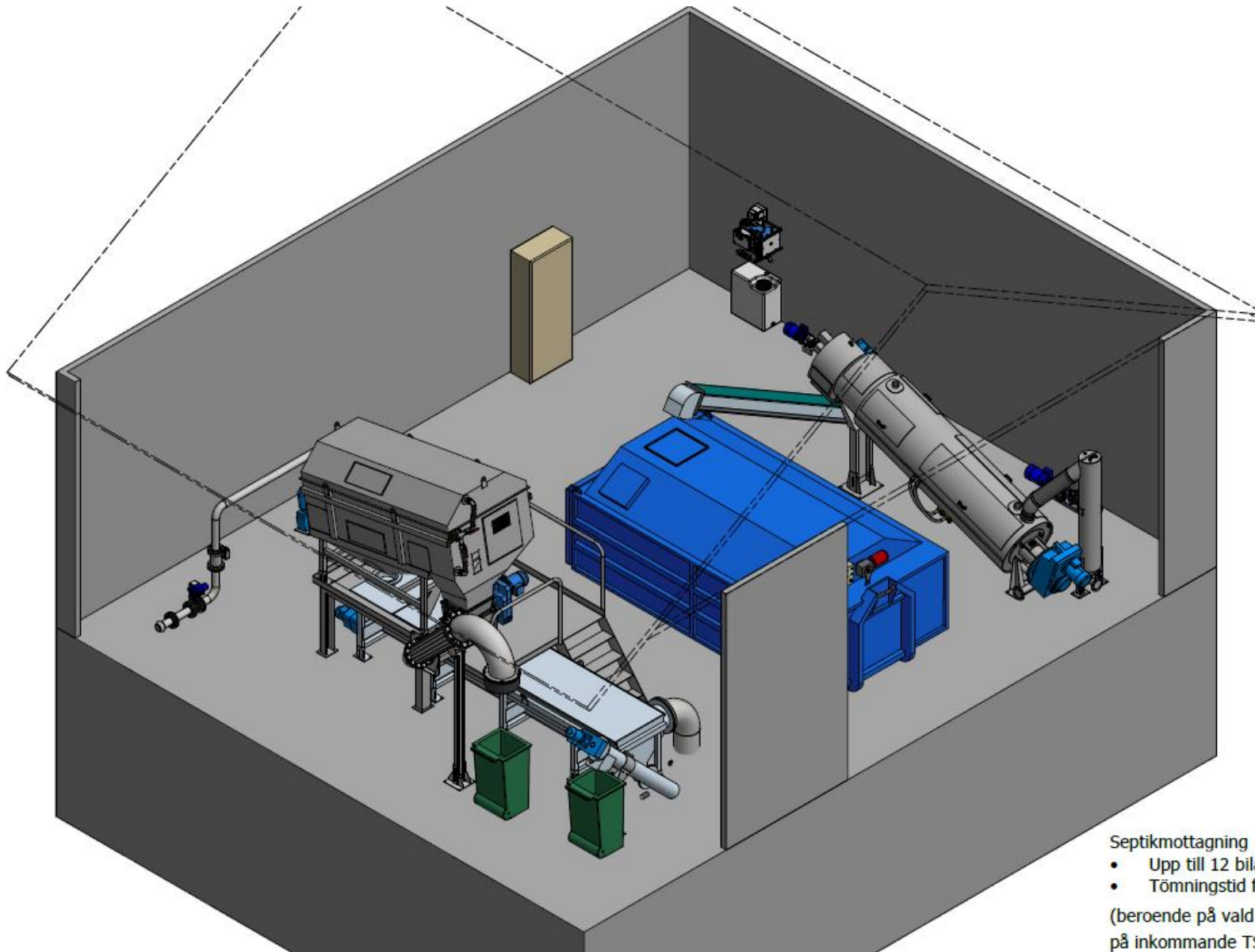


Dette er slam med høyt innhold av biologisk materiale. TS >2%

SANDMOTTAK

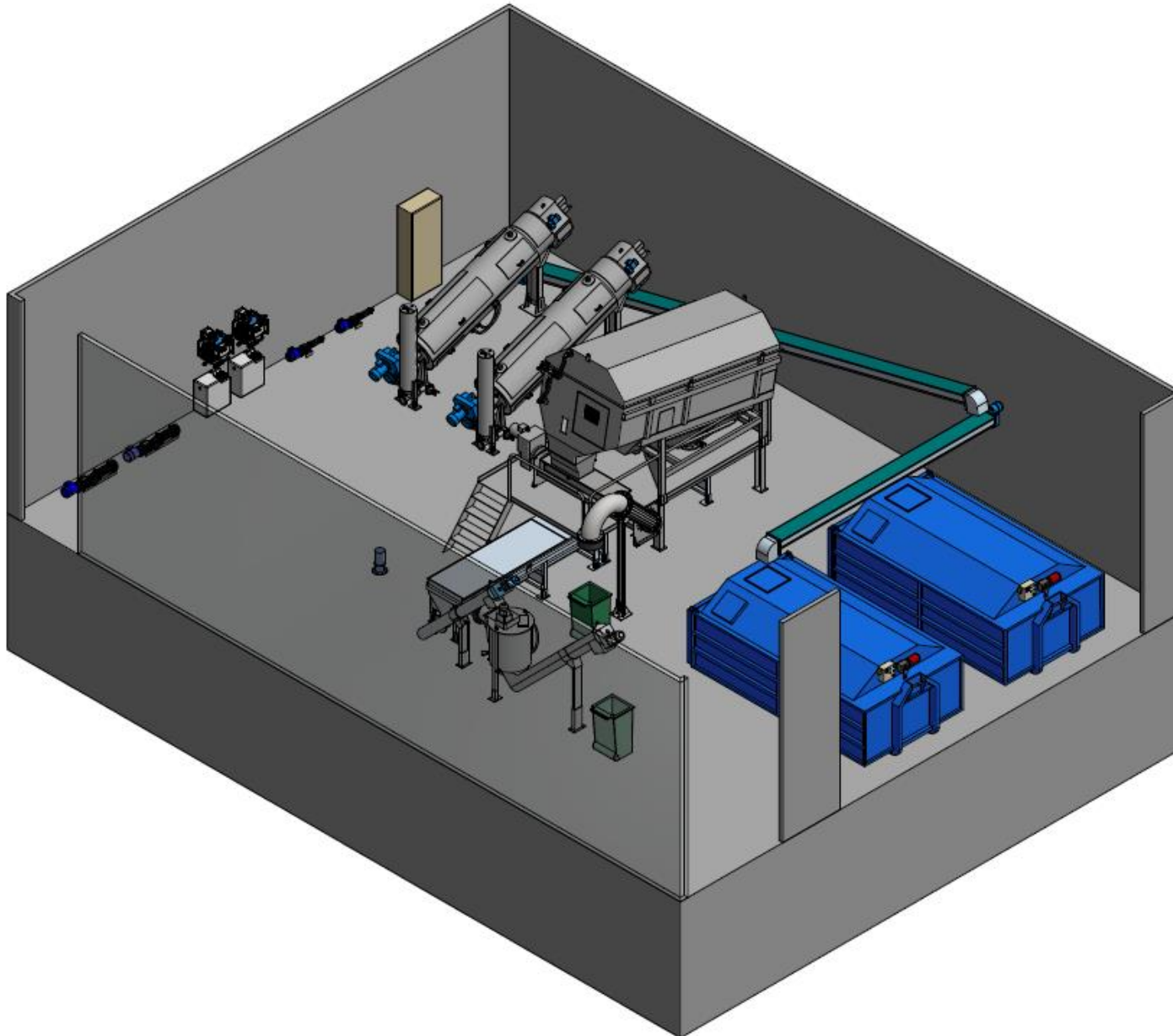
SLAMMOTTAK





Septikmottagning

- Upp till 12 bilar/dag (144m²/dygn)
 - Tömningstid för slambil 110-200 m³/h
- (beroende på vald hållplåt (Ø6,8,10mm) & på inkommande TS (2%<TS<6%)).





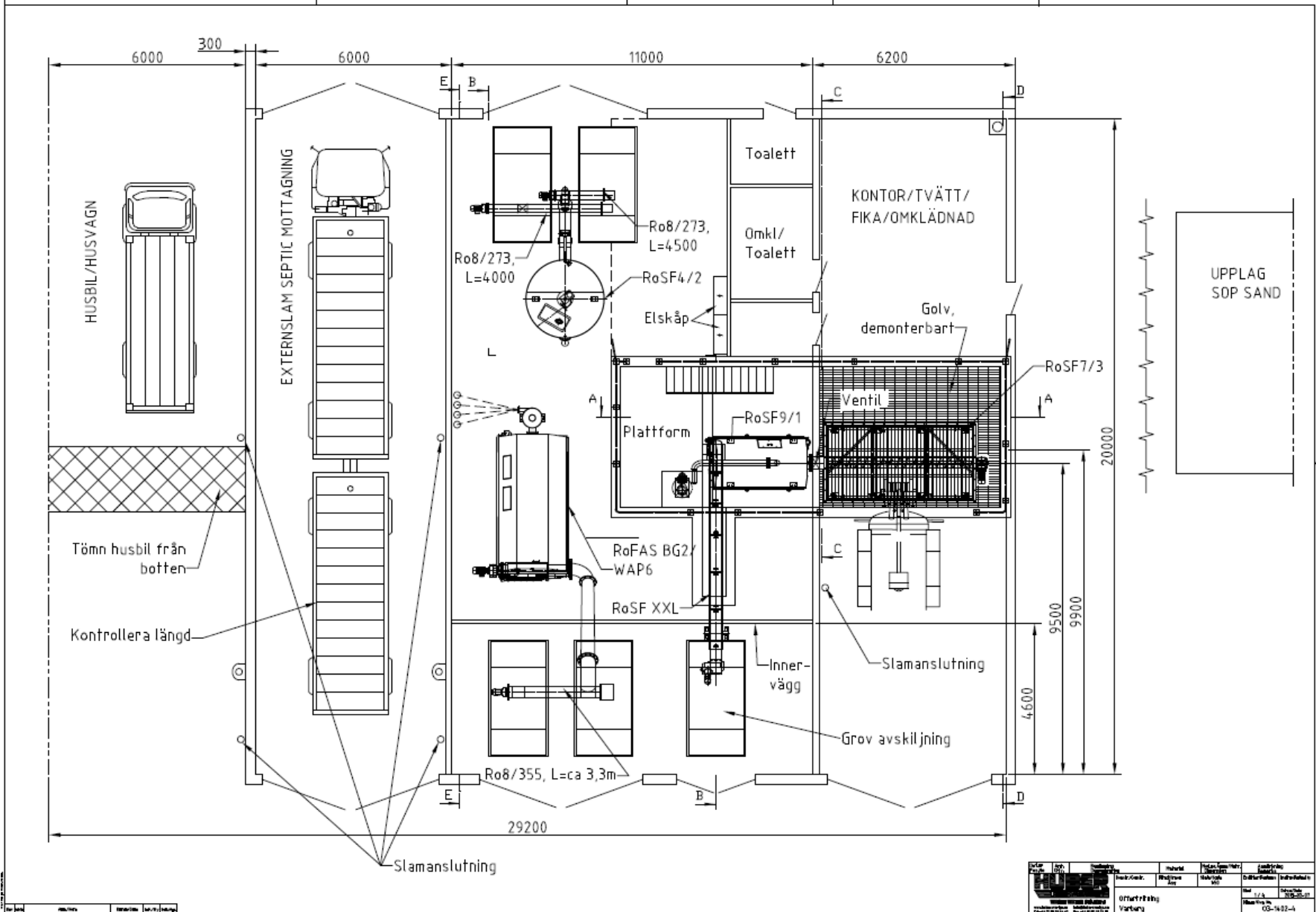
Östersund, Gøviken WWTP



Lillevik WWTP, Vestfold Fylke

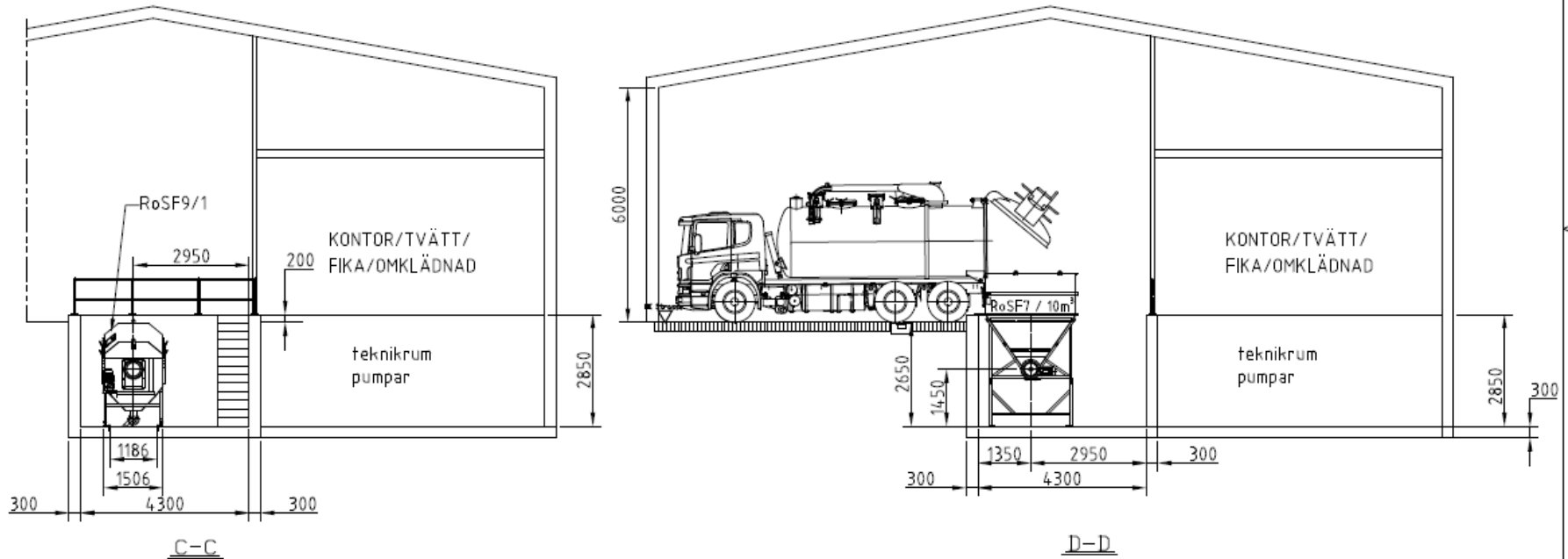


HUBER Sand og Slammottak



Proj. Nr.	Rev.	Utgivningsdatum	Proj. Namn	Proj. Grupp	Proj. Ledare	Proj. Utvärderare	Proj. Godkännare
			Omfattning: Värld		Rev. 1.0 2019-05-27 03-1602-4		

SAND MOTTAGNING



Proj. Nr.	Rev.	Skapad	Reviderad	Reviderad	Reviderad	Reviderad	Reviderad
Skapad av: Ornatt/Fabij Reviderad av: Ornatt/Fabij Godkänd av: Ornatt/Fabij			Datum: 2014-02-11 Version: 01		Projekt: 03-1402-A		

HUBER Coanda Grit Washer RoSF4

- Dewatering, washing and classification in one machine
- 95% separation efficiency for grain size bigger than 0.2 mm
- Loss on ignition below 3%
- More than 2,000 reference installations worldwide
- Up to 25 l/s hydraulic throughput
- Up to 3 t/h solids throughput



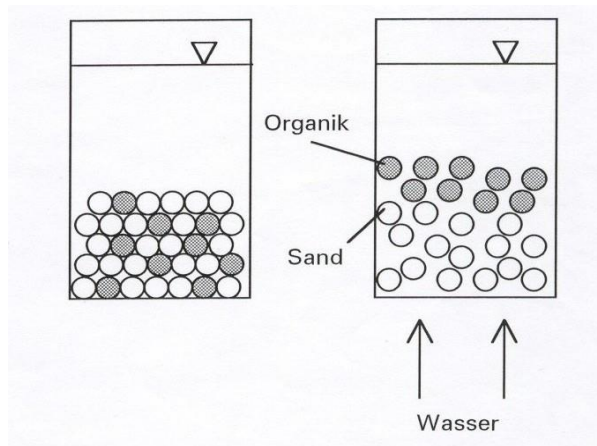
HUBER Coanda Grit Washer RoSF4 – clean and excellent



HUBER grit washing plant compared to competitive products

Washout of the sediments in the bottom part of the tank

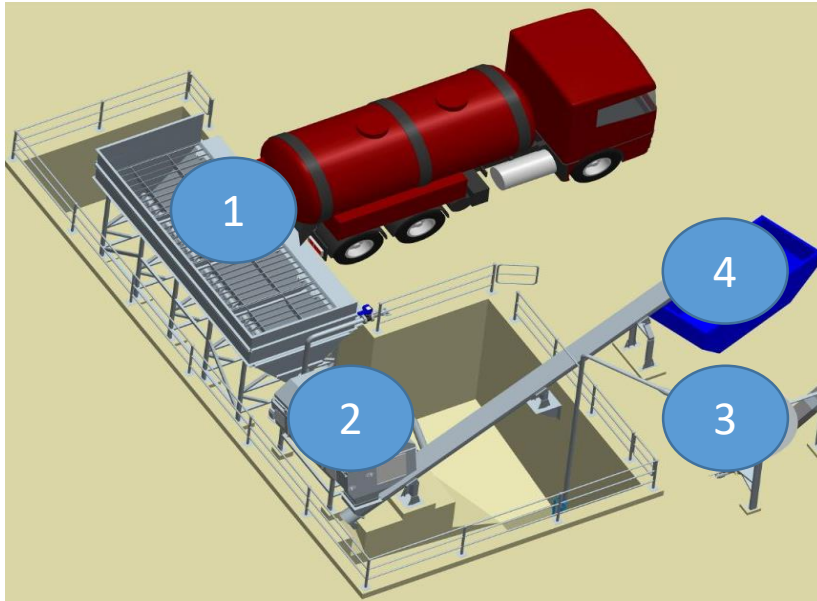
➤ Due to the introduction of wash water in combination with a stirrer the grit in the lower part of the Coanda Grit Washer is fluidised within the flow enabling the lighter organic particles to be separated from the dense grit particles.



Fluidisation principle

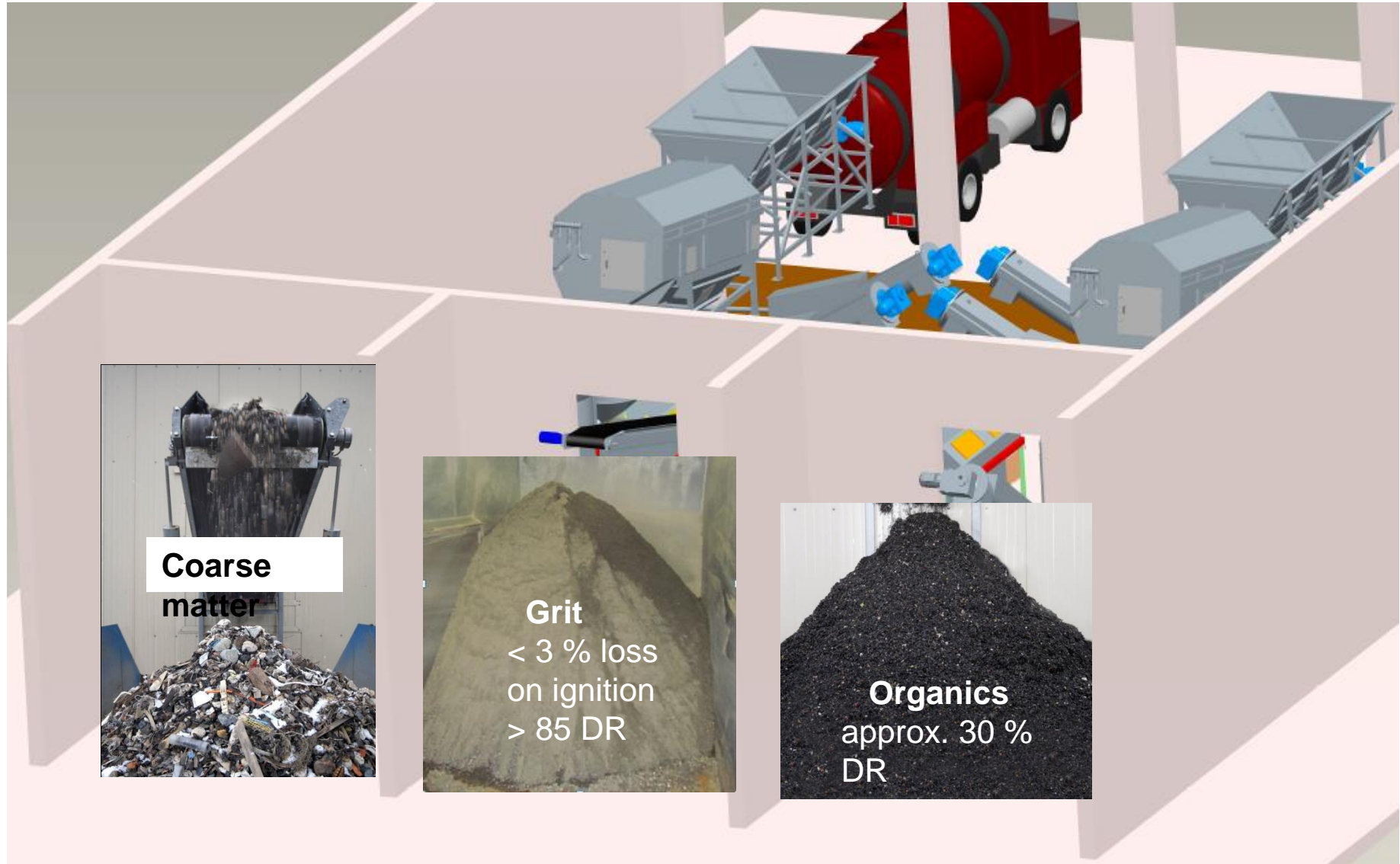


Stirrer and perforated plate bottom to fluidise the sediments



1. The system is fed via tanker vehicles which unload the material into the grit acceptance tank RoSF7.
2. The next process step is the separation of coarse material in a RoSF9 Wash Drum.
3. The very fine particles are passed into a RoSF4 Grit Washer along with the wash water.
4. The coarse material is discharged into a container or optionally into a coarse material conveying screw type RoFXXL.
5. Optional return of water in further treatment steps.

The different fractions produced by the RoSF5 grit treatment system



Grit acceptance tank RoSF7

- Discharge of raw material into the grit acceptance tank RoSF7
- Tank volume up to 20 m³ (bigger capacities on request)
- Dosed introduction of raw material into a closed wash drum by means of a screw conveyor
- Optional dewatering units to save tank volume
- Already several installations of two-line systems in operation



Grit acceptance tank on different WWTPs

Wash Drum RoSF9

- Coarse material separation size up to 20 mm
- High yield due to coarse material washing
- Fully automatic perforated plate cleaning
- Spray nozzle system suitable for the use with service water or wastewater
- Freely adjustable drum rotation velocity



Wash Drum on WWTP Oldenburg



Separated coarse material



View into a Wash Drum

Examples of reference installations



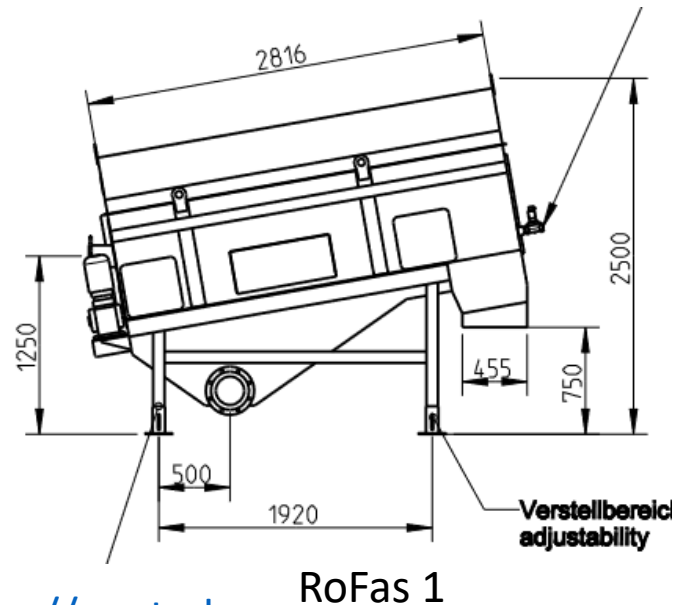
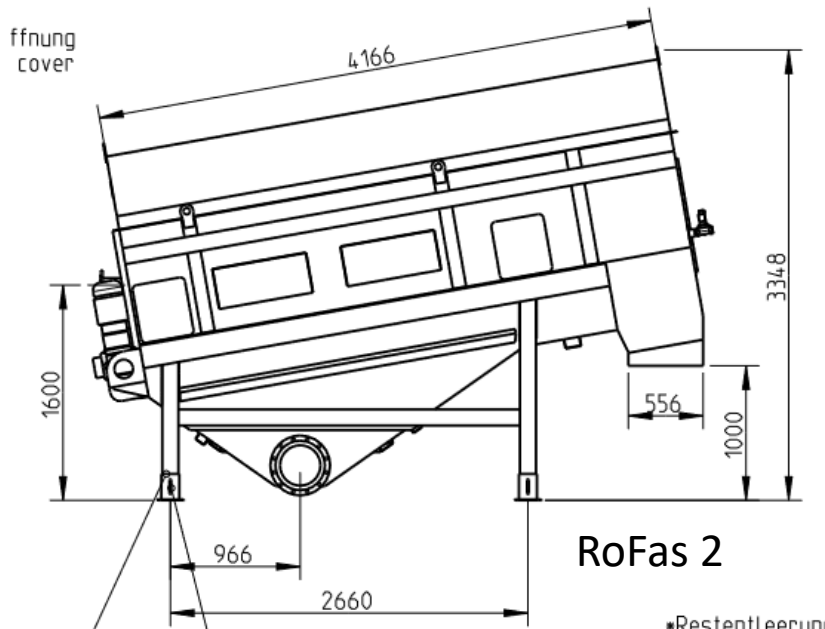
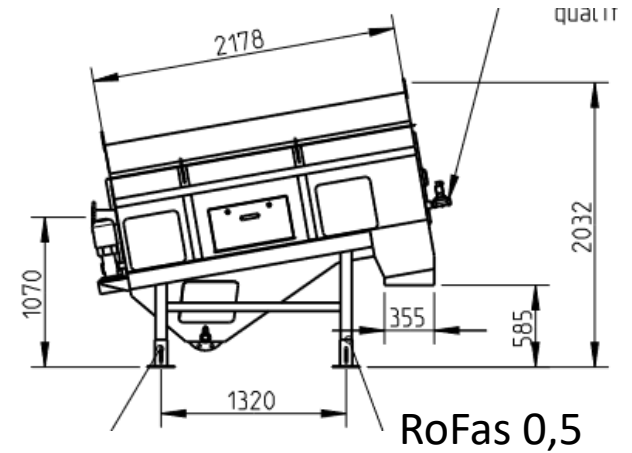
Examples of reference installations



HUBER Slammottak

RoFAS Throughput*				
size	Kind of wastewater ****	6 mm	10 mm	Recommended washpress
0.5	Wastewater [m ³ /h]**	125 - 150	150 - 200	WAP 4***
	Septic sludge 3 % [m ³ /h]	60 - 85	80 - 100	
	Septic sludge 6 % [m ³ /h]	50 - 60	60 - 70	
1	Wastewater [m ³ /h]**	225 - 275	250 - 300	WAP 4***
	Septic sludge 3 % [m ³ /h]	150 - 170	150 - 200	
	Septic sludge 6 % [m ³ /h]	100 - 125	100 - 150	
2	Wastewater [m ³ /h]**	300 - 350	375 - 475	WAP 6***
	Septic sludge 3 % [m ³ /h]	220 - 250	250 - 300	
	Septic sludge 6 % [m ³ /h]	180 - 200	200 - 250	

- * Viscosity close to water. Throughputs may differ with higher viscosity
- ** Raw wastewater with a DS of 500 mg/l
- *** With untreated wastewater a smaller WAP size may be sufficient enough
- **** With untreated wastewater the size of the inlet should be increased at max. flow



<https://youtu.be/cks6HXMKGIA>

Takk for meg!

