

A brand of
Aqseptence Group

Noggerath® Grit Washer GW / GWL

More environmentally conscious disposal and significant reduction of costs by lowering the amount of organic matter in the washed grit.



Passavant-Geiger offers you the largest range of grit washing systems worldwide and the most comprehensive variety of constructional and process technological designs. As such we are able to optimally tailor a grit treatment process to meet your specific requirements.

The Noggerath® Grit Washer GW / GWL provides washed grit from sewage grit with less than 3% organic material and, therefore, a reduction in disposal costs. The reduction in mass of

up to 85% depending on the raw material means considerable savings on storage and that transport costs can be achieved. In addition, the reintroduction of the washed organic matter into the wastewater stream leads to an increase in nutrient availability. This means that the addition of external carbon might not be necessary for downstream denitrification processes and may also result in an overall improvement in gas production in any sludge digestion.

Benefits

- Robust, thick-flight spirals
- Spirals and agitator have bearings at drive end only, no submerged bearings
- No separate outlet for organic matter required
- No compressed air required
- Coarse solid handling up to 35 mm
- Less fine grid discharge and lower wash water consumption
- Less turbulence in the washing zone and, therefore, a low ascending speed

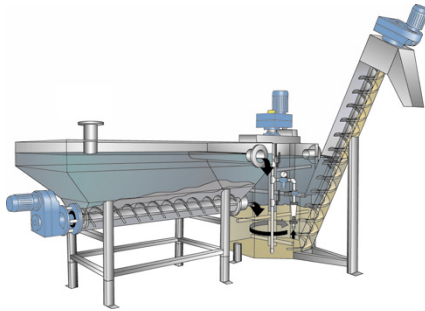
Options

- Inspection opening
- Hinged lid above the overflow weir
- Extension of the discharge pipe
- Flash tank in case of feeding
- by airlift pump
- Heating and insulation for outdoor installation
- Continuous bagging system
- Flushing of the scum blanket

Fields of operation

- In municipal wastewater treatment:
- Grit dewatering
 - Grit washing (grit trap settlements)
 - Washing of sewer grit

Function



The Grit Washer GW (dry-fed) is designed to wash out the organic matter from pre-dewatered grit trap settlings. The organics are mechanically dissolved by means of an integrated agitator or swirled up and washed out by an infeed of washing water in an up-current flow process. The washed constituents are flushed out with the rinsing water through the outlet and conducted into the wastewater treatment plant for further processing. The washed grit is discharged from the tank by means of a spiral conveyor which operates in an interval mode.

The Grit Washer GWL (wet-fed) operates additionally with an upstream installed longitudinal grit trap to cope with larger in-feed loads or to enable the washing of grit / water mixtures. As a result of the buffer volume and the resulting calming of the flow, the contaminated grit sinks directly into the grit collector spiral under its own weight. The water is conducted into the subsequent wastewater treatment process. The contaminated grit is transported to the washer by the rotating movement of the bottom spiral. The further grit washing process is equivalent to the Grit Washer GW.

Design sizes & performance

Type	GW 80*	GW 100	GW 1000	GWL 100	GWL 1000
max. flow rate	10 l/s	10 l/s	20 l/s	30 l/s**	60 l/s**
max. capacity grit separation	0.1 m ³ /h	0.1 m ³ /h	1.0 m ³ /h	0.40 m ³ /h	1.0 m ³ /h
Organic matter	≤ 3 %				
Volume reduction	Up to 85 %				
Discharge height	1,500 mm	1,285 mm	1,750 mm	1,285 mm	1,750 mm
Water surface	0.36 m ²	0.36 m ²	1.23 m ²	0.36 m ²	1.23 m ²
Water volume	0.78 m ³	0.32 m ³	1.56 m ³	0.32 m ³	1.56 m ³

* Special design for Combined Compact Unit TOP or Combi
 ** by sandtrap design in standard length

Materials

Tanks, covers, supports	stainless steel AISI 304 or AISI 316 Others on request
Spirals	special Micro Alloy Steel St 52 (carbon steel in acc. with Passavant-Geiger standard), alternatively stainless steel AISI 316
Agitator arms	HARDOX and stainless steel AISI 304 or AISI 316

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