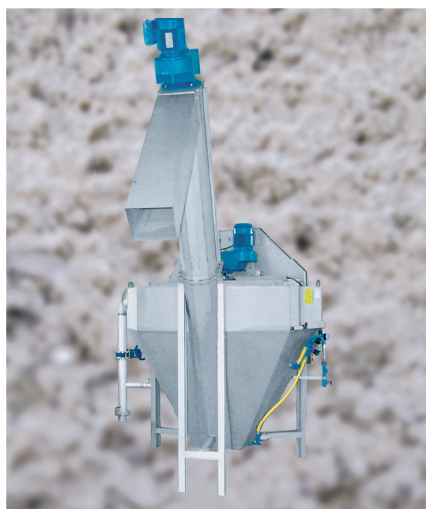




## Noggerath® Grit Washer GWC

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



Aqseptence Group 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 GWC provides washed 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.

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### Benefits

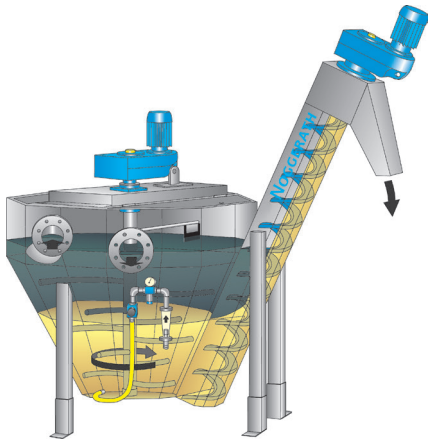
- Robust, thick-flight spirals
- Spirals and agitator have bearings at drive end only, no submerged bearings
- No separate outlet for organic matter required
- No compressed air required
- Coarse solid handling up to 35 mm dia
- Less fine grit discharge and lower wash water consumption
- Less turbulence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

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### Options

- Inspection opening
- Hinged lid above the overflow weir of the sandtrap
- 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

## Function



The grit / liquid mixture is fed tangentially into the circular grit chamber and flows into the outlet of the washing tank via an overflow weir. In the course of this circular movement, the grit sinks to the bottom of the washing tank by gravity. The circulating movement of the agitator mounted in the washing tank causes a separation of the grit into light and heavy components. The agitator fingers mounted in the lower area of the washing tank cause the grit particles to rub against each

other and remove sticky organic residues through abrasion. The organic residues are washed out in an up-current flow process.

The washed grit accumulates at the bottom of the washing tank and thus creates an increase in the torque to be applied by the agitator motor. Grit is removed by the discharge conveyor when a certain density of grit has been reached – this level is set as resisting torque on the motor load monitor and the removal is carried out at pre-determined intervals.

## Design sizes & performance

Type	GWC 300	GWC 750	GWC 900
<b>max. flow rate</b>	8 l/s	12 l/s	16 l/s
<b>max. capacity grit separation</b>	0.30 m <sup>3</sup> /h	0.75 m <sup>3</sup> /h	0.90 m <sup>3</sup> /h
<b>Organic matter</b>	≤ 3 %	≤ 3 %	≤ 3 %
<b>Volume reduction</b>	up to 85 %	up to 85 %	up to 85 %
<b>Discharge height</b>	1,570 mm	1,570 mm	2,000 mm
<b>Water surface</b>	1.60 m <sup>2</sup>	2.10 m <sup>2</sup>	2.80 m <sup>2</sup>
<b>Water volume</b>	1.10 m <sup>3</sup>	1.45 m <sup>3</sup>	2.38 m <sup>3</sup>

## Materials

<b>Tanks, covers, supports</b>	stainless steel AISI 304 or AISI 316 Others on request
<b>Spirals</b>	special Micro Alloy Steel St 52 (carbon steel in acc. with AS Group standard), alternatively stainless steel AISI 304 or AISI 316
<b>Agitator arms</b>	HARDOX and stainless steel AISI 304 or AISI 316

## Fields of operation

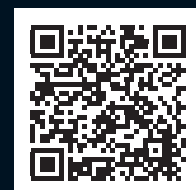
Municipal and industrial wastewater treatment plants:

- Grit washing (grit trap settlings)
- Grit dewatering
- Washing of sewer grit

### Aqseptence Group GmbH Water Treatment Systems

Ziegeleiweg 2  
31675 Bueckeberg · Germany  
Phone +49 5722 882 0  
Fax +49 5722 882 282  
noggerath@aqseptence.com

[www.aqseptence.com](http://www.aqseptence.com)



Version 1.1

The technical data stated in this brochure are indicative only and have to be determined for each individual case. Reserve technical changes.