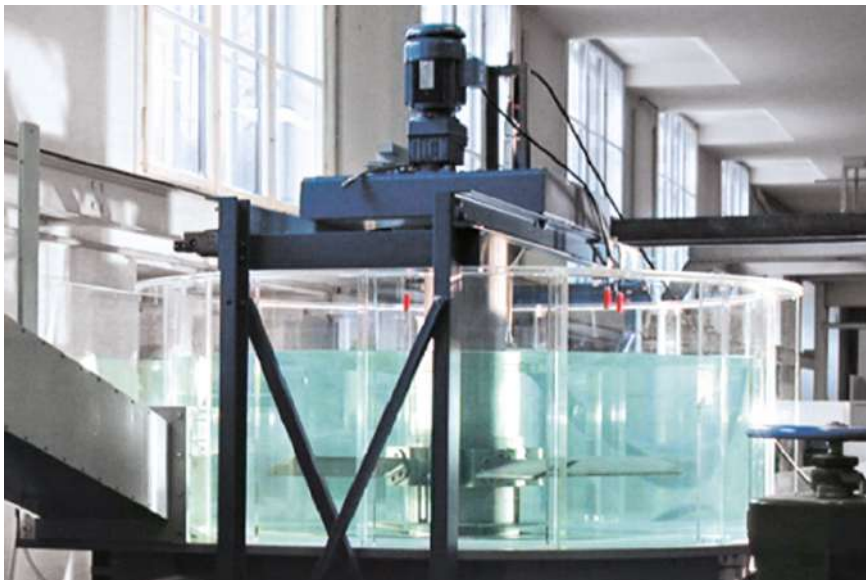




A brand of
Aqseptence Group

Noggerath® Vortex Grit Classifier GCC-V

The removal of sand and mineral solids from wastewater to prevent sedimentation in downstream processes in municipal or industrial sewage treatment plants.



With 20 years of operational experience, the Noggerath® Vortex Grit Classifiers GCC-V have established themselves as a tried and tested solution for the removal of grit and other settleable solids in wastewater treatment processes. Sedimentation is effectively prevented in pump

stations, channels and aeration tanks. Downstream equipment is consistently protected from abrasion. Furthermore, efficient grit removal optimizes the process in biological treatment. The tangential inflow area creates a spiral flow in the tank. A paddle system to improve hy-

draulic efficiency, also ensures uniformly high grit separation, even with varying inflow capacities.

After a full rotation the sewage flows into the outlet channel above the inlet channel. The paddle system is installed vertically in the tank and operates radially, creating a vertical moving spiral flow (vortex) in the center of the tank. The lighter organic matter is thereby lifted and directed back into the stream of wastewater. Heavy mineral matter settles in the center of the tank, dropping into the grit collection shaft, and is transported from there, by means of a grit pump or air-lift pump, for further processing.

The construction of the concrete tank is generally built locally by the general contractor with stainless steel internal parts being provided by Aqseptence Group.

Benefits

- Compact construction due to low space requirement
- Low investment and operating costs
- Easy installation
- High operational reliability
- Low and easy maintenance
- High grit capture rate
- Retrofit capability in existing plants

Unique features

- No controls are necessary
- Total enclosure is possible to reduce offensive odors
- Low control requirements
- Robust, durable stainless steel components

Design sizes & performance

Type	Diameter (m)	Flow rate (m ³ /h)	Circular Grit Classifier
GCC-V 20	2,0	240	$d\tau \geq 0.30 \text{ mm}$ $\eta = 95 \%$
GCC-V 25	2,5	650	$d\tau \geq 0.21 \text{ mm}$ $\eta = 85 \%$
GCC-V 30	3,0	1.050	$d\tau \geq 0.15 \text{ mm}$ $\eta = 65 \%$
GCC-V 35	3,5	1.600	$d\tau$ = sand particle diameter η = separation efficiency (capture rate)
GCC-V 42	4,2	2.400	
GCC-V 50	5,0	3.300	
GCC-V 60	6,0	7.200	
GCC-V 73	7,3	11.400	

Materials

Support frame, pipe shaft, parts in contact with medium	stainless steel AISI 304 or AISI 316 Others in request
Drive pinion	PA6G
Ball bearing slewing ring	stainless steel AISI C 1045

Product variants

- Airlift pump with a quick-acting slide valve and stand (at the end of the pipe)
- Dry-installed pump (in the pump pit with a suction head)

Options

- Local control system
- Break tank (for air release if operation with air-lift pump)
- Channel covers
- Rotary piston blower
- Fat and grease removal downstream in additional device

Fields of operation

- Sewage treatment plants, small or medium-sized
- Pumping station
- Existing water treatment plant
- Industrial wastewater treatment plant

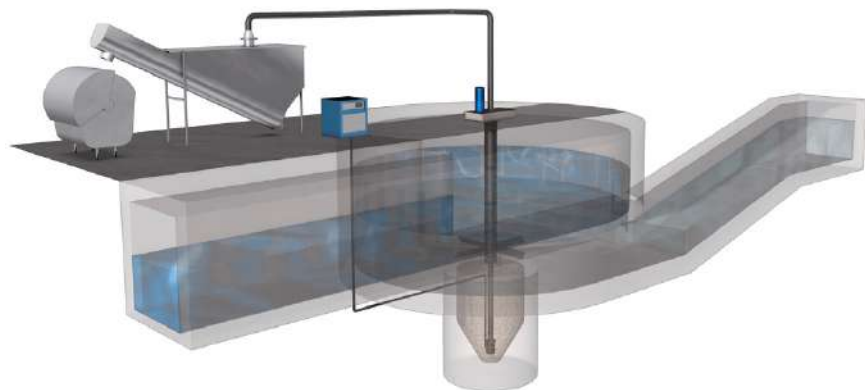


Illustration
Noggerath®
Vortex Grit
Classifier GCC-V

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