



# HUBER

## Vortex Grit Chamber VORMAX

Grit separation through constant radial flow

- ▶ High grit separation through tangential feed introduction at bottom level
- ▶ High throughput capacity of up to 3,000 l/s (10,800 m<sup>3</sup>/h)
- ▶ Worldwide well-proven, reliable technology

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## Design and function

Grit separation from wastewater helps prevent operational problems such as grit sedimentation, increased wear and blockages.

Grit separation with the HUBER Vortex Grit Chamber VORMAX starts already in the inlet channel to the grit trap. Like in an unaerated longitudinal grit trap the grit sinks down to the channel bottom from where it is transported into the circular grit trap along with the wastewater flow. A tangential rotational movement is generated due to the curved design of the (mostly concreted customer's) concrete tank. A constantly rotating stirrer helps support the wastewater circulation within the grit chamber ensuring a constant velocity of rotation within the complete grit trap system even with greatly varying hydraulic conditions. Due to the constant radial rotation, caused by a secondary flow near to the bottom, the solids are very quickly collected within the centre of the grit chamber from where they then pass into the bottom of the grit collection tank. The grit-free wastewater then exits and flows onto the next treatment step.

Centrifugal or airlift pumps can then deliver the collected solids from the grit collection tank into a grit classifier or grit washer where the solids can then be subsequently separated and dewatered and organic particles removed.

## Benefits

- ▶ Compact, space-saving design
- ▶ High grit separation efficiency
- ▶ Low energy demand
- ▶ Throughput capacity up to 3,000 l/s (10,800 m<sup>3</sup>/h)
- ▶ Low pressure loss
- ▶ Variable inlet and outlet arrangement
- ▶ Minimum wear, reduced maintenance
- ▶ Optional subsequent grit washing



Flow diagram of a HUBER Vortex Grit Chamber VORMAX.

## Installation examples



HUBER Vortex Grit Chamber VORMAX installation with HUBER Grit Washer RoSF4.



Reliable bull gear drive for the stirrer with airlift.