GINZLER

SCRAPER EQUIPMENT & DISCHARGE SYSTEMS

FLOATING SLUDGE REMOVAL SYSTEM

Figure 1: Circular scraper with floating sludge removal system (incl. screw and baffle)

FLOATING SLUDGE REMOVAL SYSTEM

The Ginzler floating sludge removal system is our patented solution for removing floating sludge from your wastewater treatment plant. *High efficiency, minimum maintenance* and *flexibility of use* are the main features of this system. The extraction unit - combined with a screw and a baffle behind it - delivers optimal cleaning results, as has already been proven by numerous applications.

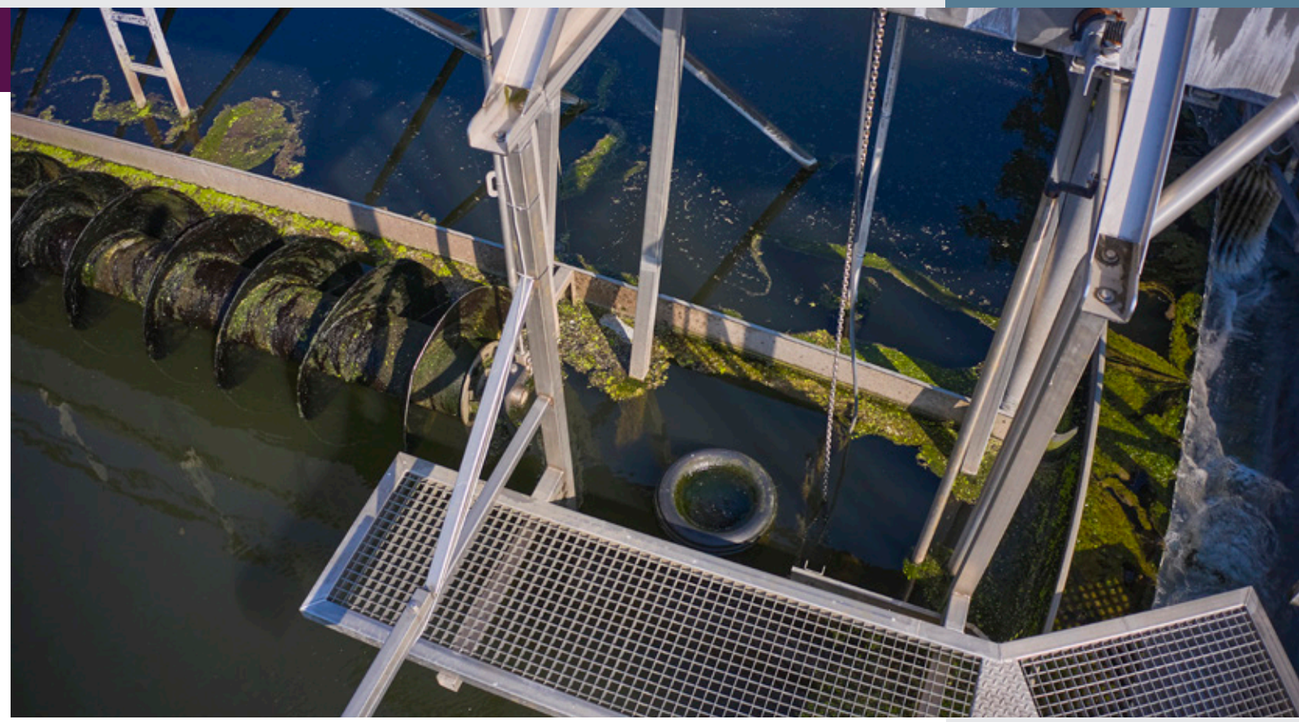
FIELD OF APPLICATIONS

The floating sludge removal system can be installed in *round* and *rectangular* tanks. Retrofitting on existing scraper bridges and use in combination with longitudinal scrapers is also possible. We manufacture special solutions or designs *according to customer requests.*

MODE OF OPERATION

The core element of our patented floating sludge removal system is the *extractor pot [1]*, which is a completely new development. The *floating unit [2]* floats on the surface of the water until the level in the inner vessel drops as the *floating-sludge pump [3]* is activated and the inner level of the floating unit drops. This drop causes the sinking of the floating unit so far that the floating sludge overflows in the floating unit and the water/sludge mixture is continuously sucked off. The functionality is guaranteed even with high amounts of sludge.

SCHWIMMSCHLAMM-ABZUGSSYSTEM



YOUR ADVANTAGES

- **HIGH EFFECTIVENESS AT MINOR INPUT**
  Due to the *adjustable immersion depth of the floating unit in the extractor pot,* only the desired amount of water and sludge is pumped, so that an optimal mode of operation with minimal energy consumption is achieved. A particular advantage is that *no air* is sucked together with the water/sludge mixture. This has a positive effect on the service life of the pump. Furthermore, deficiencies regarding the pumping head, bubbles in the sludge pipe and maintenance-cycle are largely eliminated.

- **SERVICEABILITY**
  The floating-sludge pump and the floating unit are installed in an easy-maintenance *design that can be lifted out* without tools.

- **ACCURACY**
  The desired *mixing ratio of water and sludge* can be *adjusted* via the pump, even remotely as an option. This ensures, on the one hand, that the mixture can be pumped and, on the other hand, prevents the sludge drawn off from being an undesirably high or low concentration.

- **FLEXIBILITY IN USE**
  Full functionality is secured even for *water level fluctuations of up to ± 125 mm.* In addition, the floating substances are reliably retained by the use of a trailing immersion wall in the event of fluctuations of *up to ± 200 mm.*

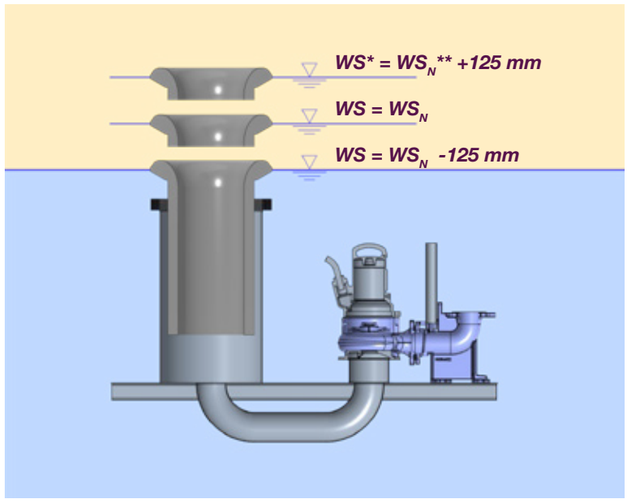


Figure 2: Graphical representation of water level fluctuations of +/- 125 mm

**WS = Water level*
***WS_N = Nominal water level*

FURTHER POSSIBILITIES OR OPTIONAL EQUIPMENT

- The cleaning result can be optimised by a *trailing baffle.* The floating sludge can be collected even better and “immersion” can be prevented.

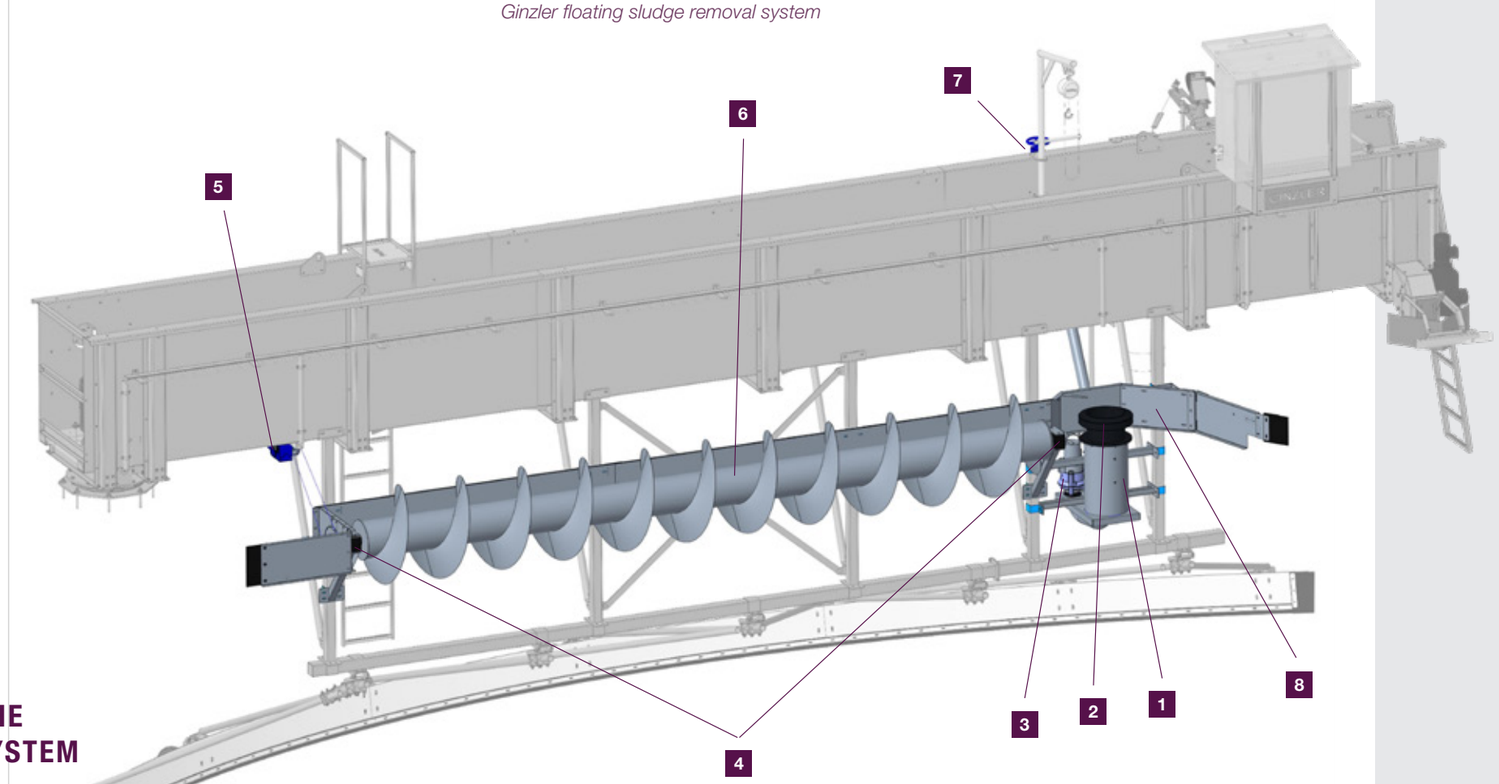
- The use of a *positive displacement pump* ensures the delivery of a constant amount of sludge, even in the event of longer lines or changing hydraulic conditions in the pressure line (e.g. “pipe clogging growth”). This solution enables sludge to be transferred to the next treatment stage without the use of an intermediate buffer.

- With increasing the flow capacity rate, the line can also be equipped with a *pipe flushing system.* This prevents the sludge pipe from “overgrowing” or significantly reduces the quantity of pipe cleaning cycles required.

- By using a *floating sludge detection system,* the sludge extraction can be operated on demand and the extraction cycles can be reduced to the exact needs.

SCHWIMMSCHLAMM-ABZUGSSYSTEM

Figure 3: Essential components of the Ginzler floating sludge removal system



ESSENTIAL COMPONENTS OF THE FLOATING SLUDGE REMOVAL SYSTEM

1 ***Extractor pot***

2 ***Floating unit*** *(inside the extractor pot): floating removal device which automatically follows the water level during operation*

3 ***Floating sludge pump***

4 ***Bearing unit with synthetic plain bearings***

5 ***Drive unit***
equipped with a maintenance-free gear motor, drive chain and tensioner made of synthetic materialf

6 ***Stainless steel sludge screw conveyor***
with central pipe DN300 and screw blades sloping towards the conveying direction, outer diameter 800 mm

7 ***Throttle valve***

8 ***Trailing baffle***

FURTHER REMOVAL SYSTEMS UPON REQUEST

- Shield with funnel
- Paddle scraping device with pumping box
- Skimming channel with pumping box
- Cross scraper with pumping box

AUSTRIA

GINZLER GMBH
Clemens-Holzmeister-Straße 3, A-3300 Amstetten Tel.: +43 7472 / 627 47-0 E-Mail: office@ginzler.com

WWW.GINZLER.COM