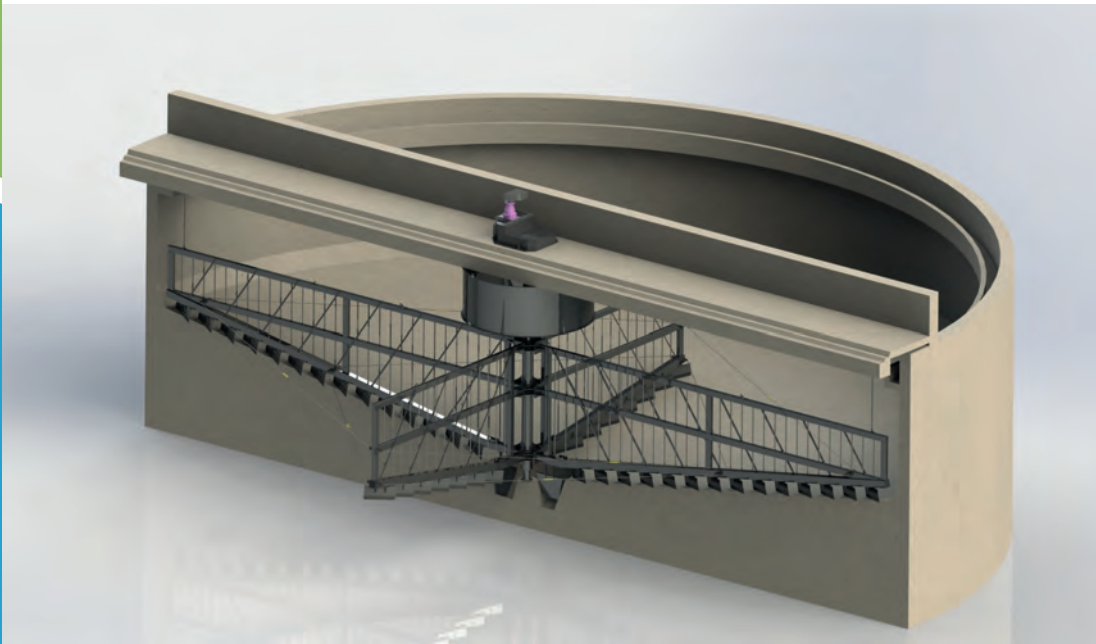
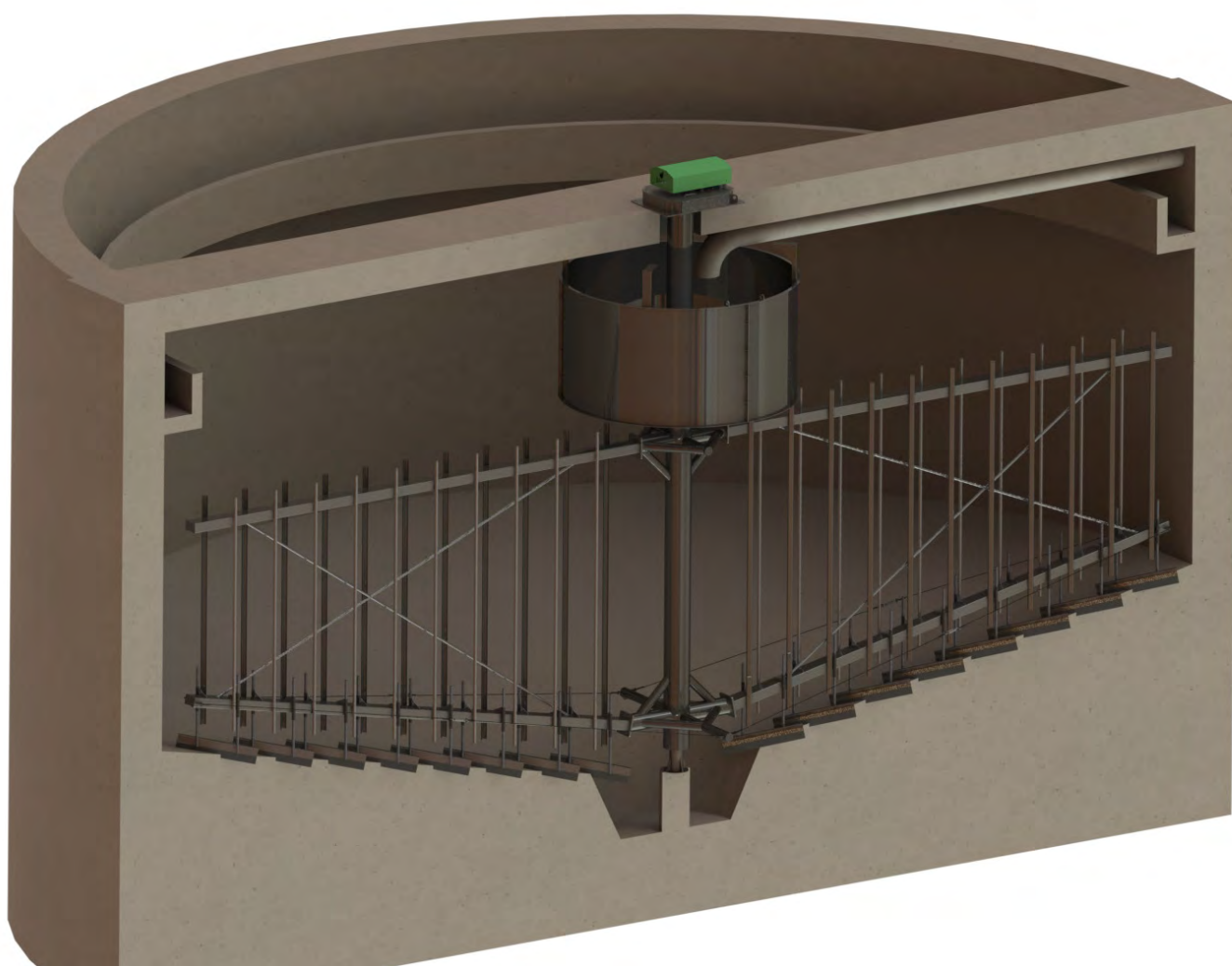




## CENTER DRIVEN SCRAPERS – THICKENERS



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# CENTER DRIVEN SCRAPERS – THICKENERS

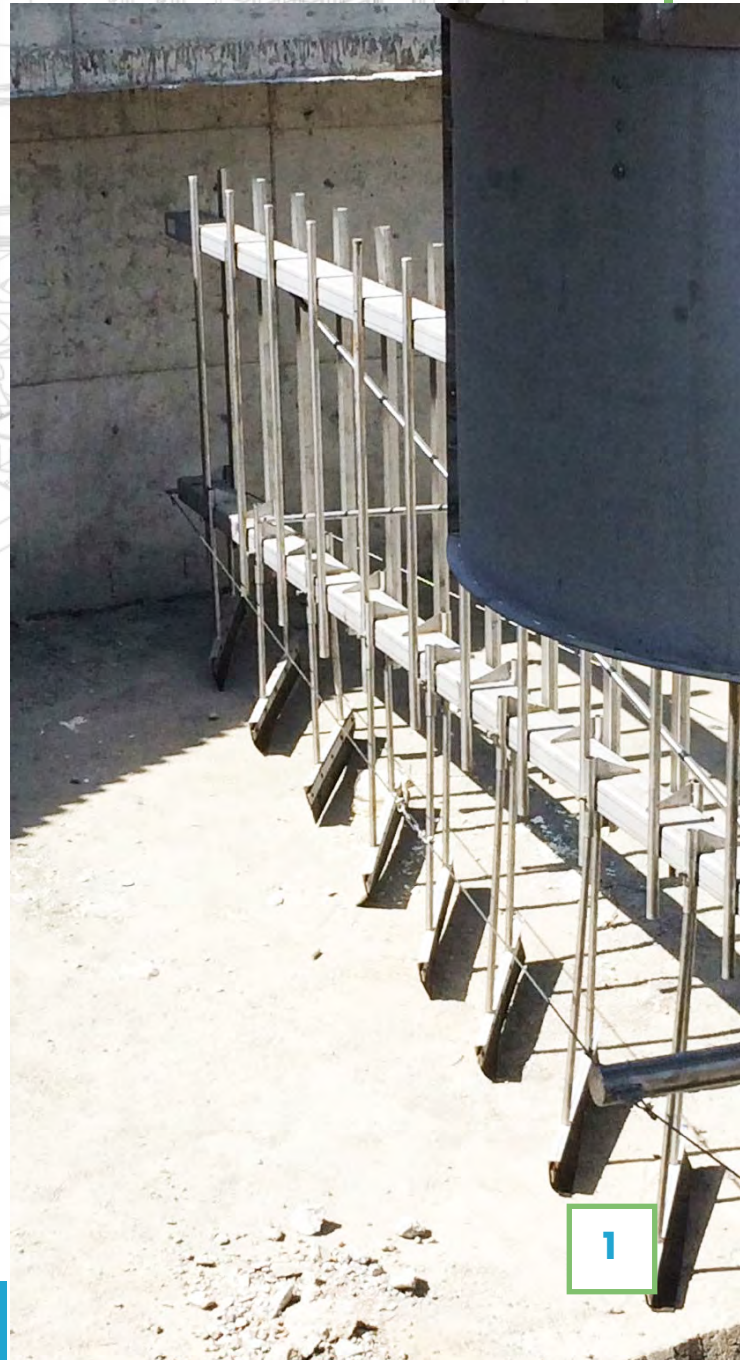
## ***General Description and Intended Use***

Thickening Scrapers are used in the sludge thickening pools in the chemical and biological wastewater treatment plants. The sludge thickening and dewatering units are used to remove the sludge accumulated in time in chemical and biological wastewater treatment plants. The sludge is initially taken to the sludge thickening pools in the sludge dewatering units. The solid material content of the sludge is increased from 1% up to 3-5%. In the sludge thickening units, the blades scraping the bottom of the pool are used to transmit the sludge to the pump. Interim mixer pallets are used to remove the air and water bubbles in the sludge from the sludge.

## ***Working Principle Of Equipment***

Center driven thickening scrapers are mounted to the steel or reinforced concrete bridge at the center of the pools. The thickening scraper is driven by the center of the pool and mixes the pool at low speed. It mixes the sludge at low speeds and increases the viscosity of the sludge stage. The sludge of which viscosity is increased settles at the bottom. The scrapers can be used to push the sludge settled at the bottom of the pool to the conical part at the center of the pool. In some applications, the chemicals may be added to support this process.

The sludge settles at the bottom of the thickening pool under streamline flow conditions. The sludge collected at the center is taken to the pump containers according to the design and removed from the system. The wastewater at the clear stage leaves the system through pool weir.





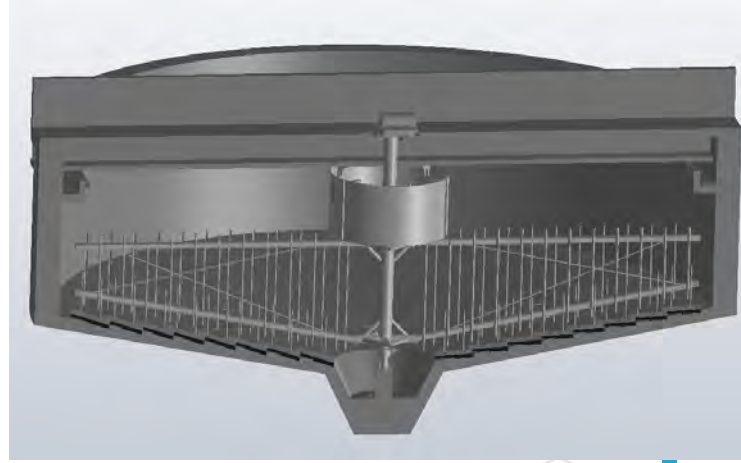
## ADVANTAGES

- High Performance Bottom Scraping,
- High Performance Sludge Dewatering,
- Low Operation and Maintenance Costs,
- Possibility to Control and Follow the System Operation Over SCADA,
- Low Energy Consumption,
- Easy Transportation and Mounting,
- Long Operation Life,
- Economical and Resistant Design,
- Accessory Diversity,
- Resistant Heavy-Duty Design,
- Suitable for Outdoor Operation.

## Material Details

- Bridge: They can be manufactured as reinforced concrete, S235JR (St52) + Hot Dipping Galvanized Coating, S235JR + Epoxy Paint, DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Deflector: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Underwater Material: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Weir: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).

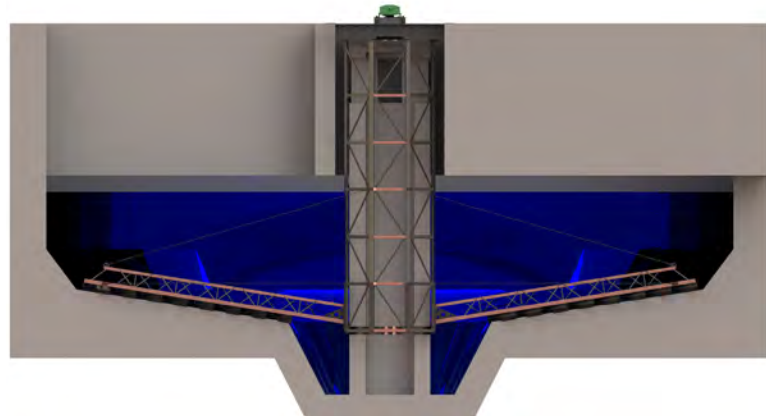
"Different materials can be preferred in accordance with the request of the customer."

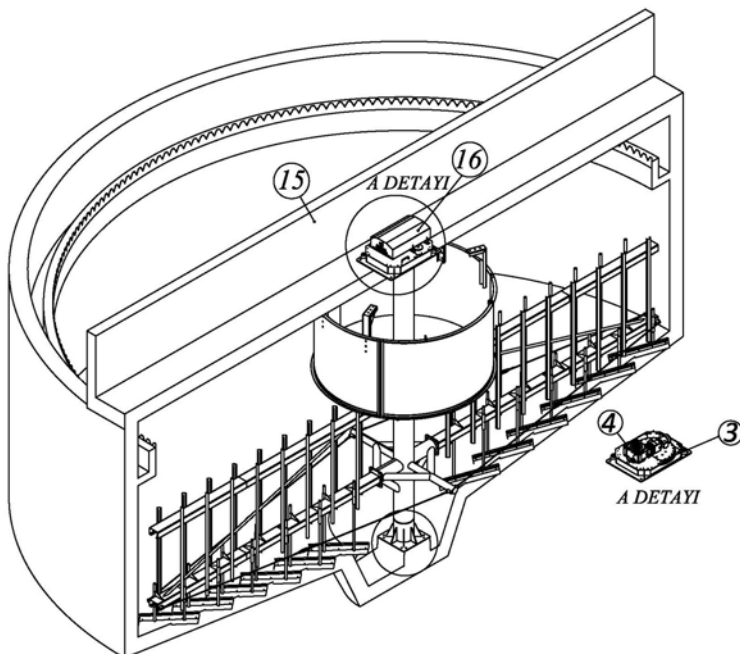
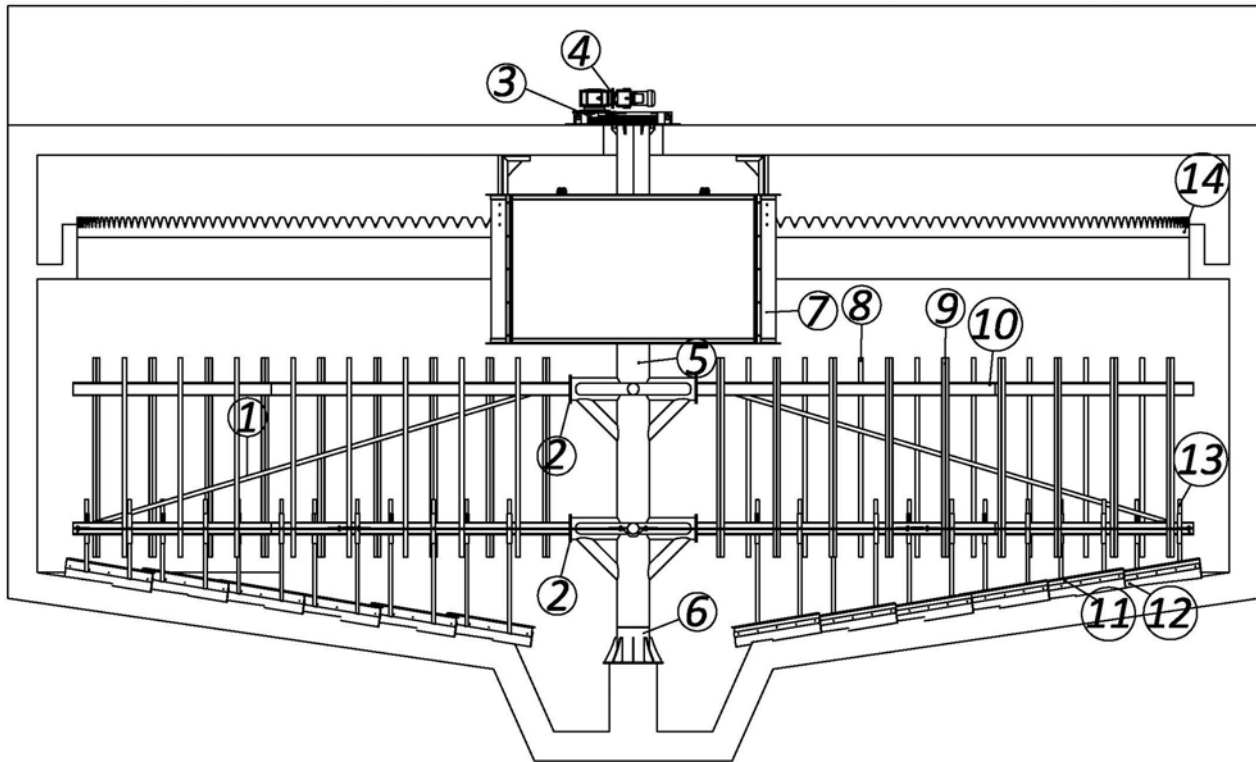


## Accessories

- Reducer Protection Cap
- Life Buoy\*
- Fixed Bridge\*
- Stainless Steel Deflector\*
- Weir
- Lighting over the Bridge\*
- Electric Pans\*
- Emergency Button\*
- Local Power and Control Panel\*
- Cabling Systems\*

\* Optional accessories are defined.



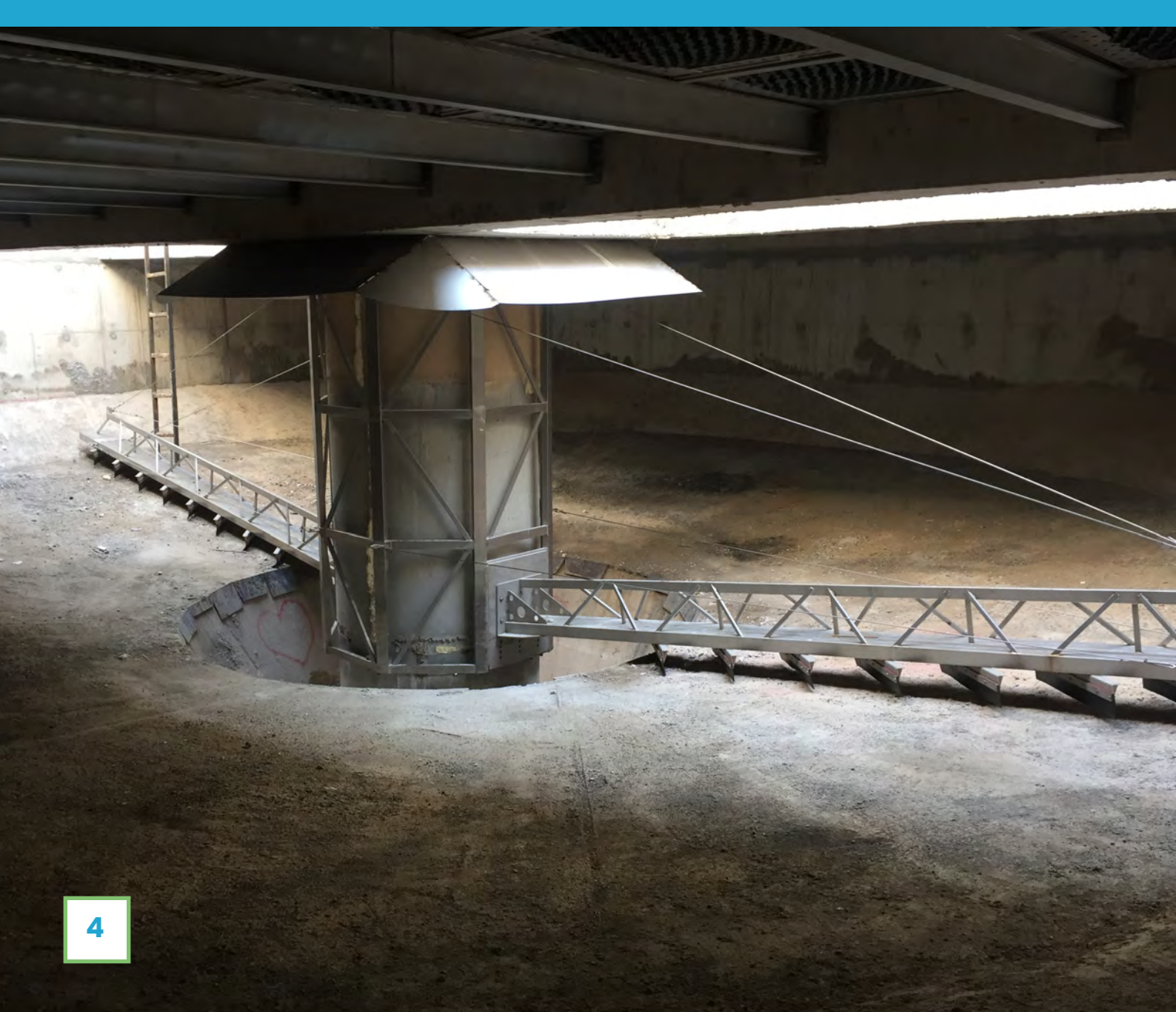
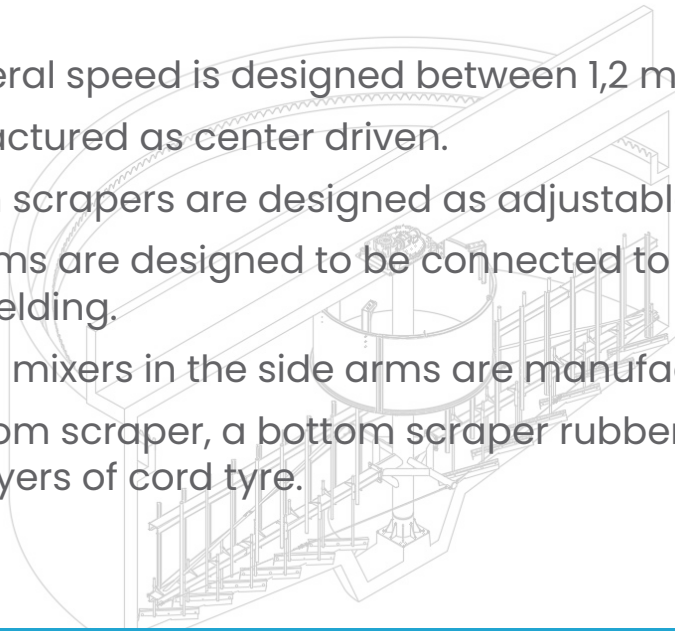


No	Part Name
1	Scraper Support Arms
2	Side Arm Connection Flange
3	Gearbox
4	Motor / Reducer
5	Shaft
6	Bottom Bearing
7	Deflector
8	Mixer Pipe
9	Mixer Bracket
10	Side Arm
11	Bottom Scraper
12	Bottom Scraper Rubber
13	Bottom Scraper Adjusting Pipe
14	Weir
15	Mounting Bridge
16	Motor / Reducer Protection Hat



# TECHNICAL SPECIFICATIONS

- The peripheral speed is designed between 1,2 m/min. and 3 m/min.
- It is manufactured as center driven.
- The bottom scrapers are designed as adjustable.
- The side arms are designed to be connected to the center with flange or welding.
- The vertical mixers in the side arms are manufactured with welding.
- As the bottom scraper, a bottom scraper rubber with a thickness of 10 mm, 6 layers of cord tyre.







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