



SCREW SCREENS



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KİLOMETRE
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YAKITLI SAKLAMA ÇIKIŞI
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25
KİLOMETRE
HIZ SİMRİ

PM 3 SEVKİYAT
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SCREW SCREENS

General Description and Intended Use

The screw screens are mechanical equipment designed to remove undesired solids from the water received with wastewater. It removes the solid materials of which particle sizes are larger than grab screen gap ($\varnothing 3$ mm - $\varnothing 8$ mm in general).

It is generally used as coarse and thin screen in wastewater treatment plants. The screw screens grab smaller particles and minimize the cases such as blockage and malfunction in the pumps, valves and pipes and the pollution load of the wastewater is reduced and the treatment is performed with lower costs.

The screw screens are assembled at the bottom of the channel with an inclination of 30° - 40° . In case it is required by the process, it can be designed in vertical form with an inclination of 90° .

Working Principle Of Equipment

The solid materials coming to the plant with the wastewater

are accumulated in front of the screw screen. The wastes grabbed on the screen surface are carried up thanks to rotating screw. The wastes on the screen surface are scraped with the fixed brushes on the rotating screw. The wastes grabbed are cleaned of organic materials by being washed thanks to the nozzles in the waste discharge part and on the surface of the screw screen. Thus, the bad odors which may be occurred in the screen wastes are prevented.

Generally, it consists of the main frame, screen surface, a screw and the drive group units.



Technical Specifications

- It is manufactured in any capacity and size.
- The wastes transferred to the waste discharge part are pressed to reduce their volume and thus, the transportation and disposing costs are reduced.
- It is designed and manufactured angled or 90° vertical assembling.
- It is automatically operated depending on the water level in the screen channel or time without needing an operator.
- A torque switch is available for the safety of the employees and the equipment. In case of excessive loading or compulsion in the equipment, the torque switch gets active and stops the system.
- The nozzle system connected to the solenoid valve sprays clean water to the surface of the screw screen and the waste discharge unit in order to clean the wastes grabbed of the organic materials.
- When the upper cover is opened, a safety switch which stops the screen is used to provide safety of the employees.
- The screw screens' upper part over the channel can be manufactured with a cover to prevent bad odors and visual pollution arising out of wastes transferred to the waste discharge unit. The upper covers also provide additional safety in terms of occupational health and safety.



Material Details

- Frame: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Screw: They can be manufactured as DIN 1.4301 (AISI 304), DIN 1.4401 (AISI 316) or S355J0 (St52) + Epoxy Paint.
- Screen Surface: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Cleaning Brush: It is manufactured from Polyamide.

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

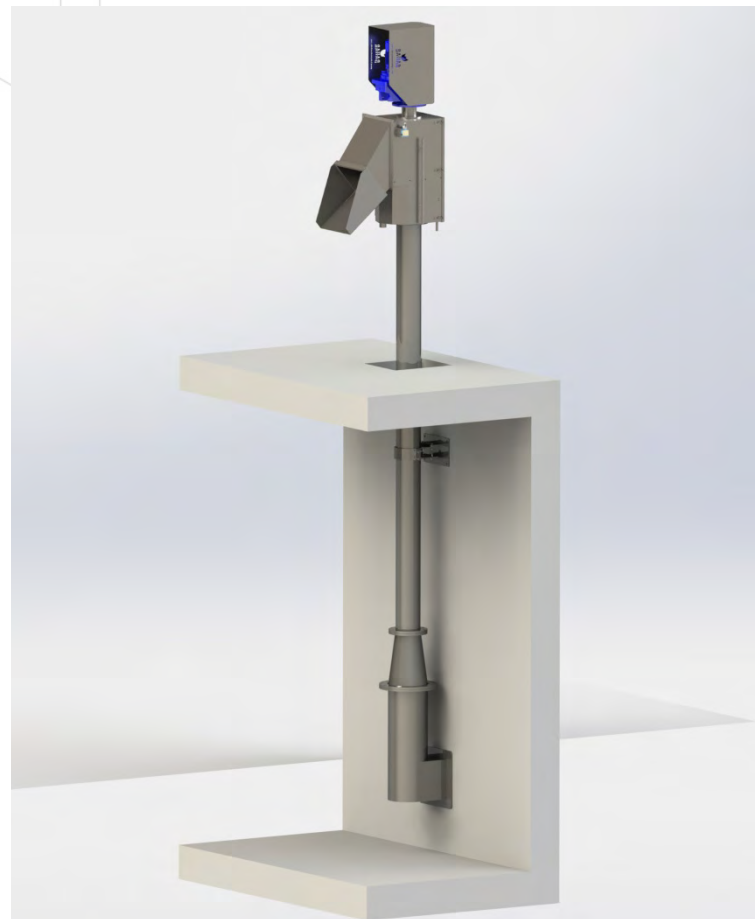
Accessories

- Wash Water Inlet Line Strainer
- Nozzle + Screw Brush
- Torque Safety System
- Upper Cover Safety Switch
- Rotatable Waste Inlet Chute*
- Waste Container*
- Emergency Button*
- Wash Water Inlet Line Solenoid Valve*
- Level Measuring Sensor*
- Local Power and Control Panel*

* Optional accessories are defined.

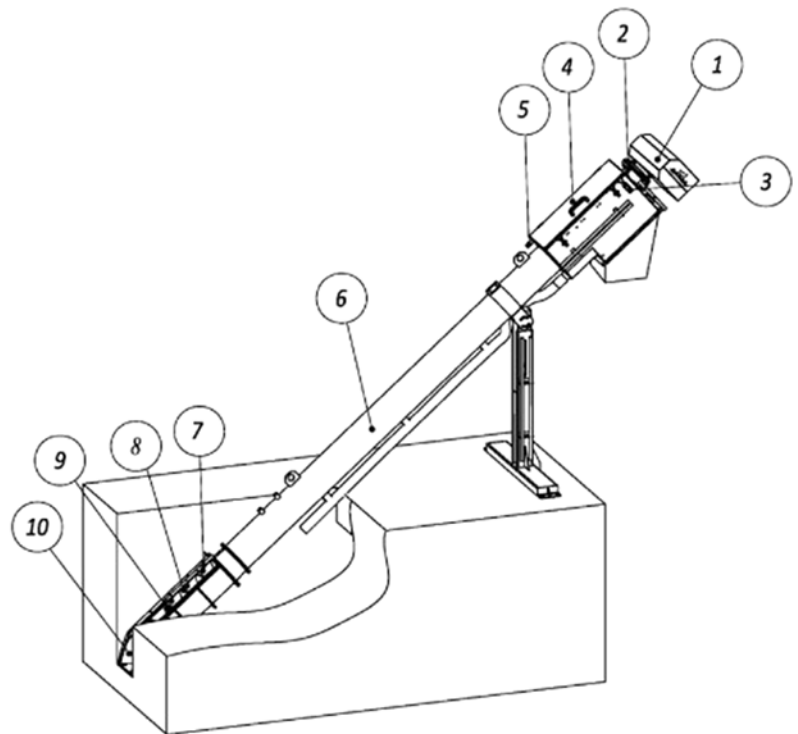
Advantages

- High Screening Performance,
- Design Without Requiring an Additional Waste Carriage and Pressing Equipment,
- 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,
- Manufactured From Corrosion Resistant Material,
- Low First Investment Cost,
- Easy to Operate and Maintain,
- Suitable Design for Usage in Small Channels.

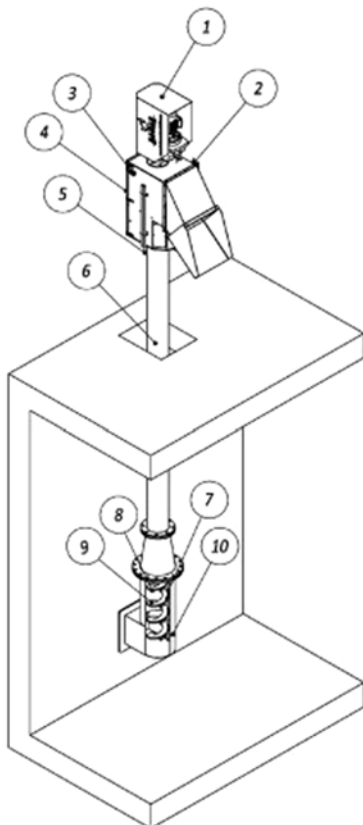


No	Part Name
1	Motor / Reducer
2	Torque Safety System
3	Upper Cover Safety Switch
4	Upper Cover
5	Clean Water Connection - 1
6	Frame
7	Clean Water Connection - 2
8	Brush
9	Screw
10	Screen Surface

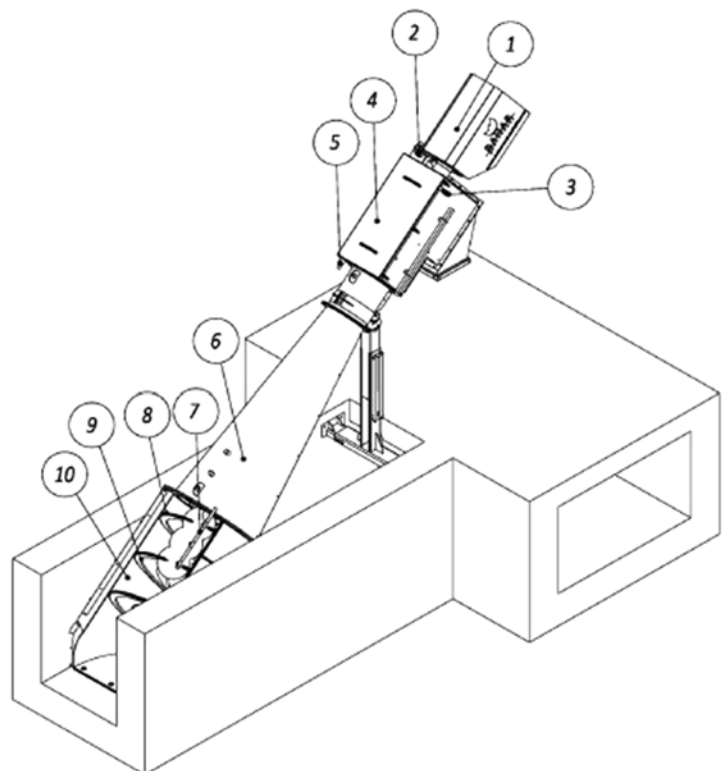
SCREW SCREENS TYPE-1



SCREW SCREENS TYPE-2



SCREW SCREENS TYPE-3





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