



MECHANICAL CHAIN MULTI-RAKE SCREENS



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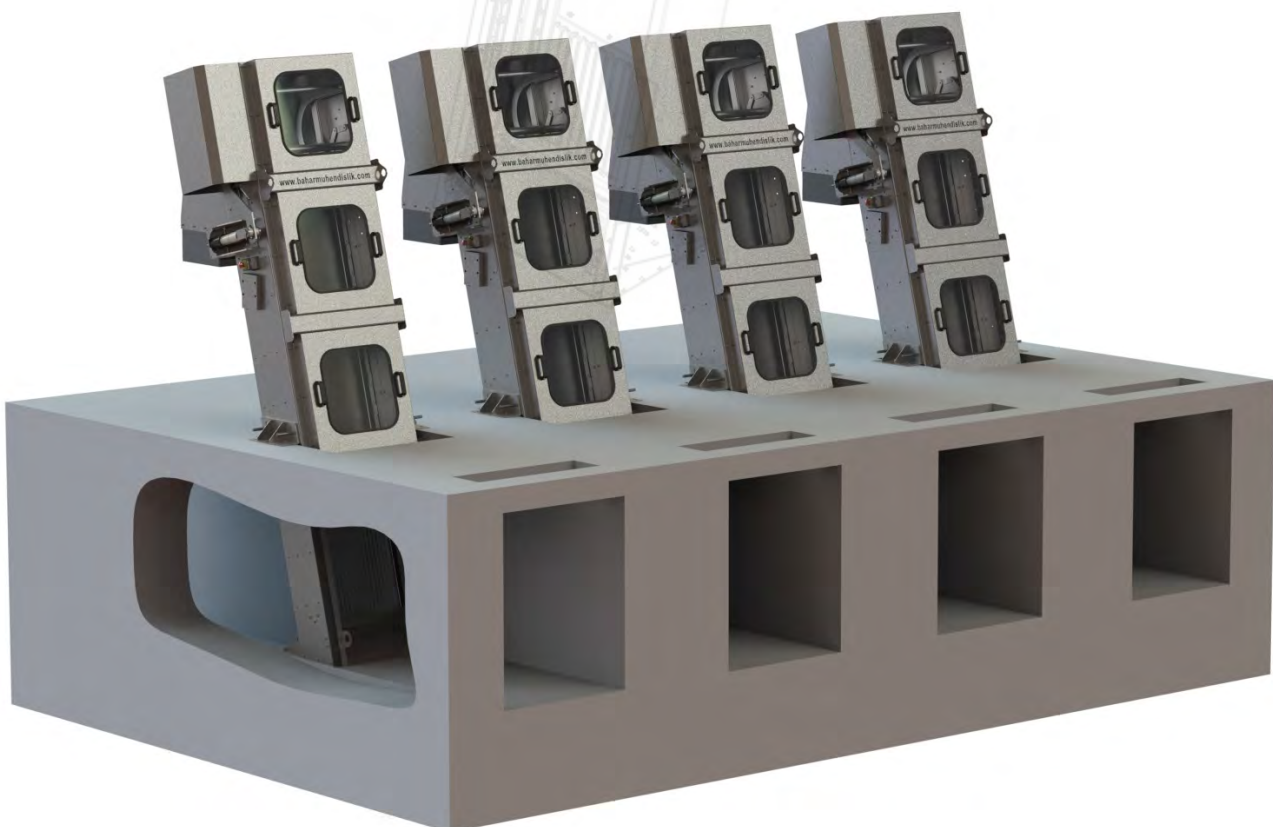
MECHANICAL CHAIN MULTI-RAKE SCREENS

General Description and Intended Use

It is the most preferred pre-treatment equipment in order to remove the solid materials from the wastewater received by the wastewater treatment plant. They are assembled with an angle of 65° - 85° according to the horizontal axis. Generally, they are equipment with optimum cost and high business efficiency in the inlet section of the plant. Thanks to high removal efficiency, the blockages and breakdowns in the pumps, valves and pipes are minimized, the waste solid materials are removed and the treatment is performed with lower costs.

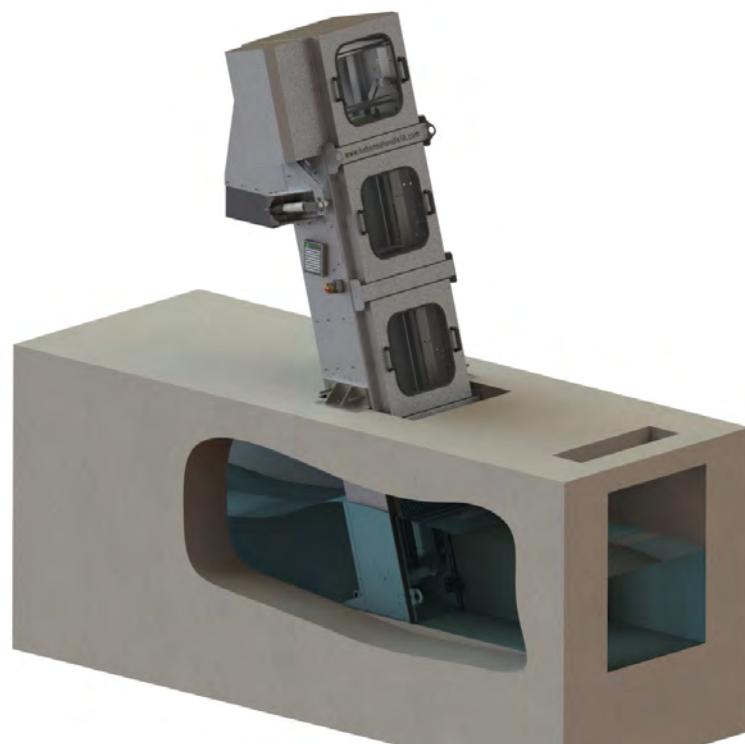
Working Principle Of Equipment

When the wastewater passes through the screen sheets, the wastes which are larger than the screen gap are grabbed by the screen sheets and removed from the wastewater. The wastes accumulated in front of the screens are cleaned with the rakes circulating in the horizontal axis with the help of the chain.



Technical Specifications

- It is manufactured for special processes in accordance with the customer's request.
- It is designed to comply with the different channel depths and channel widths.
- It is automatically operated depending on the water level in the screen channel or time without needing an operator.
- There are necessary OHS protection sheets in order to prevent interfering in the movable parts manually.
- 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 is activated and stops the system.
- Thanks to its custom-made rakes, it grabs all wastes accumulated at the bottom of the screen channel and cleans inside of it.
- The mechanical chain multi-rake screens are manufactured in different screen gaps.
- The screens can be optionally manufactured with a cover to prevent bad odors and visual pollution arising out of wastes during carriage. The upper covers also provide additional safety in terms of occupational health and safety.
- When coarse wastes (wood blocks, car wheels etc.) which cannot be grabbed by the screen rakes come, there are torque switches checking the operation of the screens in order to prevent any clamping and damage in the screen rakes. In case of any strain, the adjusted pedal connected to the reducer torque arm contacts this switch and stops the system automatically.
- In case of any breakdown, these screens which can be easily controlled via a remote control with automation gives a warning at the main panel control display of the system and inform the operator and it makes great contribution for the system to operate properly.
- The mechanical chain multi-rake screens are designed to serve for more than one intended use or in many different automation scenarios.



Advantages

- Fully Automatic Operation,
- Possibility to Control and Follow the System Operation over SCADA,
- Easy to Use and Operate,
- Long-Life Use,
- Low Operation and Maintenance Costs,
- High Cleaning Performance,
- Designed to Operate in Heavy - Duty and Harsh Conditions,
- Remote Control Feature According to the Requirements,
- Design for Narrow and Wide Channels.

No	Part Name
1	Frame
2	Motor / Reducer
3	Drive Shaft
4	Waste Scraper
5	Rake Carrier Chain
6	Torque Safety System
7	Assembling Lugs
8	Rake
9	Rear Sheet
10	Sheet bars

Accessories

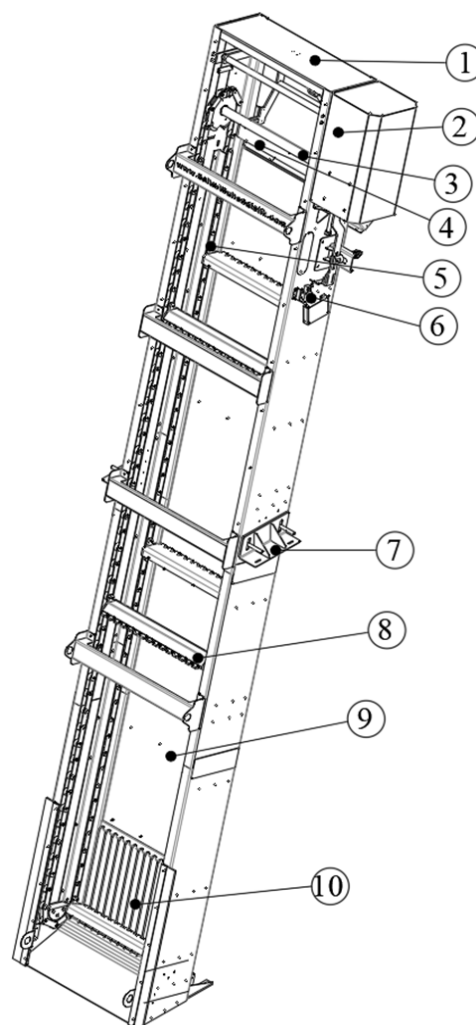
- Torque Safety System
- Upper Cover*
- Intervention and Maintenance Platform*
- Waste Container*
- Waste Inlet Chute*
- Level Measuring Sensor*
- Emergency Button*
- Local Power and Control Panel*

* Optional accessories are defined.

Material Details

- Frame: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Chain: They can be manufactured as DIN 1.4301 (AISI 304), DIN 1.4401 (AISI 316) or S235JR + Electrogalvanized coating.
- Rake: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Sheet bars: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Waste Scraper: It is manufactured from High Density Polyethylene (UPE 1000).

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





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