



## STEP SCREENS



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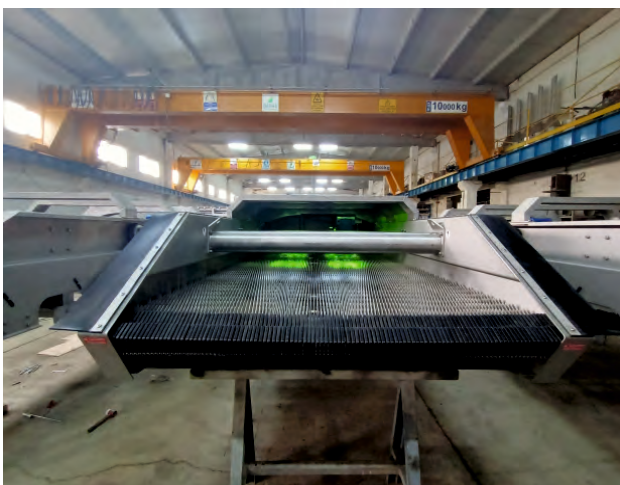
# STEP SCREENS

## GENERAL INTRODUCTION AND INTENDED USE

It is the pre-treatment equipment preferred as a fine screen in order to remove the solid materials coming to the wastewater treatment plant from the wastewater. They are mounted at an angle of 50°-70° on the horizontal axis and are generally manufactured with a screening range of 3-6 mm. They are preferred in cases where the channel height is low due to the low angle of the horizontal axis. They are equipment with optimum cost and high operating efficiency and they generally found at the entry of the facility. The wastes held by means of the movable and fixed metal sheets are gradually carried up the channel. Since it gradually carry the wastes up, the surface area to be screened is more than other screening methods. Thanks to the high removal efficiency, situations such as blockage and deterioration that may occur in the pumps, valves and the pipes are minimized, removal of the suspended solids is provided and treatment process is performed at a lower cost.

## WORKING PRINCIPLE OF EQUIPMENT

While the wastewater passes through the screen metal sheets, the solid wastes larger than the screening gap are separated from the wastewater by getting caught in the screen metal sheets, and the smaller wastes are separated from the wastewater by holding on to the surface of the large wastes. The wastes accumulated in the fixed metal sheets are carried to the upper fixed rake by means of movable metal sheets that can move 360° behind the fixed metal sheets. It is ensured that the collected wastes are carried to the next stage until they are discharged from the channel and the wastes are removed from the channel by means of the scraper plastics in the final stage.



## TECHNICAL SPECIFICATIONS

- It is designed for different channel depths and widths.
- Screening efficiency is very high.
- It works automatically without the need for an operator, depending on the water level in the screen channel or depending on the time.
- There are OHS protection sheets required to prevent manual intervention to the movable parts on the equipment.
- There are torque switch and ems button for the safety of the employees and the equipment. In the event of overloading or strain on the equipment, torque switch activates and stops the system.
- Thanks to its specially designed metal sheets, it cleans the inside of the channel by holding all the waste accumulated at the bottom of the screen channel.
- In order to prevent bad odours and visual pollution that may arise from the wastes generated by the screens, the screens can be manufactured with an upper cover, depending on the need. Upper covers also provide additional safety in terms of occupational health and safety.
- There are torque switches that control the operation of the screens in order to prevent any compression and damage on the screen plates. In the event of any strain, the adjustable pedal attached to the reducer torque arm touches this switch and stops the system automatically.
- These screens, which can be controlled remotely with automation, warn the system main control screen in case of any error, inform the operator, and contribute greatly to the safe operation of the system.





# ADVANTAGES

- Ability to Dispose of Wastes Not Suitable for Fine Screening
- High Free Passage Area,
- Fully Automatic Operation,
- Opportunity to Control and Monitor the Operation of the System on SCADA,
- Providing Convenience for Usage and Operation,
- Long-Lasting Usage,
- Low Operation and Maintenance Cost,
- High Cleaning Performance,
- Remote Usage Feature According to Need, Manufacturing from the Corrosive
- Structure Resistant Material, Design with Strength,
- Opportunity to be Designed Suitable for Narrow and Wide Channels.

## ACCESSORIES

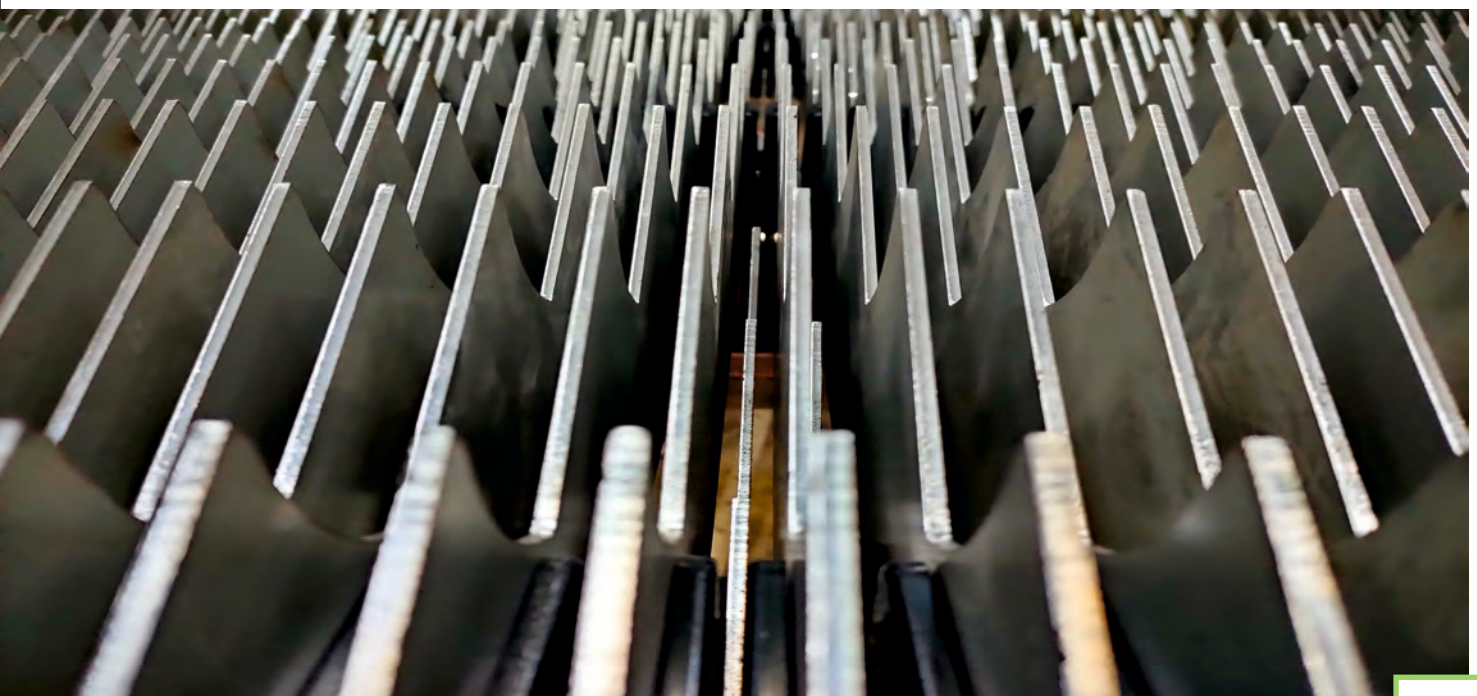
- Torque Safe System
- Position Switch
- Upper Cover\*
- Intervention and Maintenance Platform\*
- Waste Container\*
- Waste Discharge Chute\*
- Level Measuring Sensor\*
- EMS Button\*
- Local Power and Control Panel \*

\* Optional accessories are defined.

## MATERIAL DETAILS

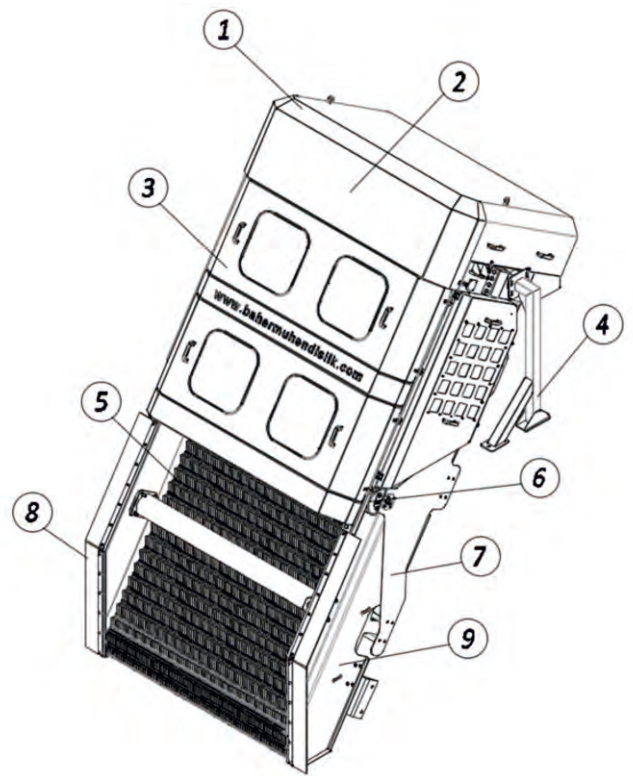
- Chassis: It is manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Chain: It is manufactured as Carbon Steel.
- Fixed and Movable Metal Sheets: They are manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Scraper Plate and Alignment Plastics: They are manufactured as Delrin.

*“Different materials can be preferred in accordance with the request of the customer”*





No	Name of Parts
1	Upper Cover
2	Motor / Reducer
3	Front Cover
4	Montage Base
5	Fixed Metal Sheets
6	Chain-Gear
7	Actuator of Movable Metal Sheets
8	Sealing Gasket
9	Main Chassis







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