



## PERFORATED TYPE SCREENS



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# PERFORATED TYPE SCREENS

## GENERAL DESCRIPTION AND INTENDED USE

Perforated type screens are mechanical equipment designed to remove undesired solids from the water received with wastewater from the free flowing channels. Thus, the cases such as blockage and malfunction in the pumps, valves and pipes are minimized and the pollution load of the wastewater is reduced and the treatment is performed with lower costs. It removes the solid materials of which particle sizes are larger than grab screen gap ( $\varnothing 3$  mm -  $\varnothing 10$  mm in general). Generally, it is mounted in the screen channel with an inclination of  $45^{\circ}$ – $75^{\circ}$ . It is generally used as thin screen in wastewater treatment plants. Perforated type screens operate with thinner screen gaps compared to other screens.

## Working Principle Of Equipment

It grabs the wastes via perforated bands assembled on the chain system operating in endless loop. After the grabbed wastes are carried up, they are scraped with a brush system rotating at the same direction with the perforated band and transferred to the waste container. The movement of the chain - sprocket is driven by the perforated band drive group. There are rakes on the perforated band to remove the wastes which cannot be grabbed by the band surface from the wastewater. After the wastes on the perforated surface are carried up, the band surface is sprayed clean water by the nozzle system and the efficiency of the cleaning is increased.

The screens are protected against excessive strains by the torque control system and can be operated level and time - controlled depending on the requirement. Generally, it consists of a main frame, a perforated band, a drive group, scraper brush and a nozzle system.

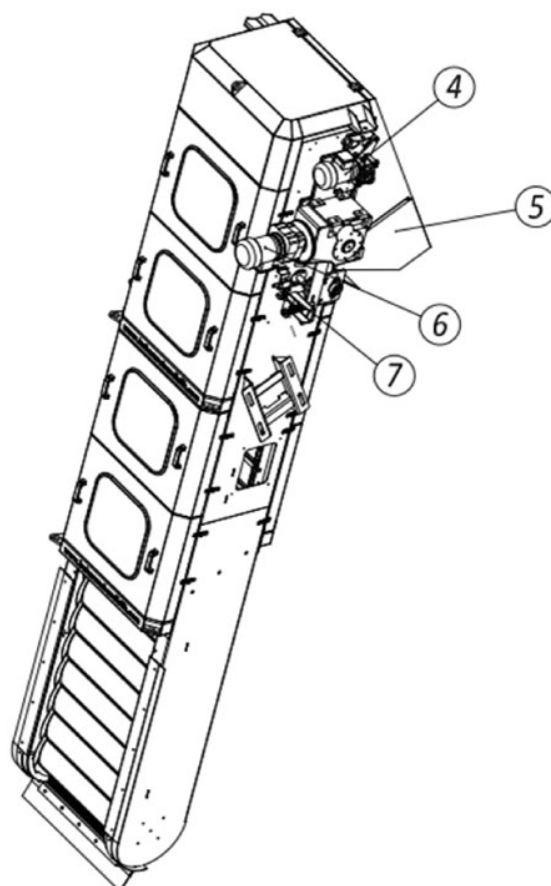
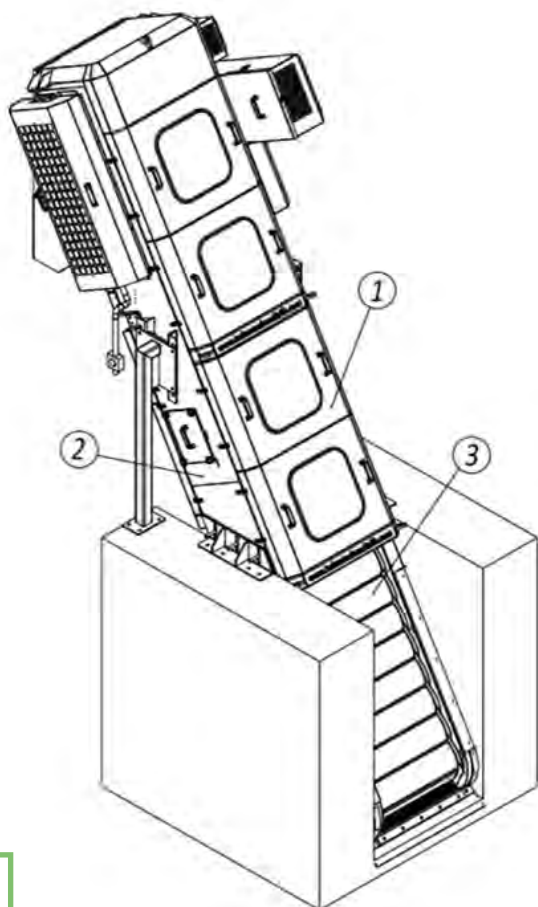




# Advantages

- High Screening Efficiency in Small Diameter Wastes,
- Compact Design in Desired Capacity and Size,
- Fast and Simple Assembling,
- Low Operation and Maintenance Costs,
- Possibility to Control and Follow the System Operation Over SCADA,
- Low Energy Consumption,
- Manufactured From Resistant Material for Corrosive Place,
- Long Operation Life,
- Resistant Design,
- Suitable to be used in Wide Channels.

No	Part Name
1	Upper Cover
2	Frame
3	Perforated Band
4	Brush Drive Reducer
5	Waste Discharge Chute
6	Belt Drive Reducer
7	Torque Safety System



## TECHNICAL SPECIFICATIONS

- Very small materials are grabbed with high efficiency.
- It is manufactured in any capacity and size.
- In wastewater treatment plants, it is generally used as thin screen.
- Since they are cleaned with automatic cleaning system, the perforated band screens are long-life equipment.
- They have double drive system as band drive reducer and brush reducer.
- The perforated band screens are manufactured closed to prevent bad odors and visual pollution arising out of the wastes carried to the waste discharge unit. The upper covers also provide additional safety in terms of occupational health and safety.
- There are a torque switch and an emergency button 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.







## 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 + Electro galvanizing.
- Perforated Band: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Rake: 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 Solenoid Valve
- Wash Water Inlet Line Strainer
- Wash Water Inlet Line Contact Outlet Manometer
- Nozzle + Rotator Brush Mechanism
- Torque Safety System
- Emergency Button
- Waste Outlet Chute\*
- Waste Container\*
- Intervention and Maintenance Platform\*
- Water Level Measuring Sensors\*
- Local Power and Control Panel\*

\* Optional accessories are defined.







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