



Sismat Uluslararası
Arıtma Makinaları
İnşaat Mühendislik
Sanayi ve Tic. A.Ş.



**MULTI-RAKE
MECHANICAL SCREENS**



MULTI-RAKE MECHANICAL SCREENS

Multi-rake mechanical screens are commonly used as both fine and coarse screens in all kind of medium and large-sized water and wastewater treatment plants and pumping stations. Multiple chain-mounted rakes clean a single, stationary bar screen and help to reduce the time which takes to clean the bar screen. Therefore, they provide high waste discharge capacity in a short cycle time. Additionally, these types of screens are mostly preferred equipment because of their economical mechanism and proper operation system even in deep channels.

Sismat Uluslararası Multi-Rake Mechanical Screens mainly consist of frame, rakes, screen media, chain, sprockets, counter wiper and discharge chute.

They are angularly mounted to channels.

FEATURES AND BENEFITS OF SISMAT ULUSLARARASI MULTI-RAKE MECHANICAL SCREENS:

- Feasible for deep channels
- Available for high flowrates
- High waste discharge capacity
- Automatic cleaning mechanism activated by time or level sensors
- Easy-to-mount
- Low investment and operation cost
- Low maintenance cost
- Compact design

APPLICATIONS

- Water treatment plants
- Domestic and industrial wastewater treatment plants
- Intake structures
- Pumping stations

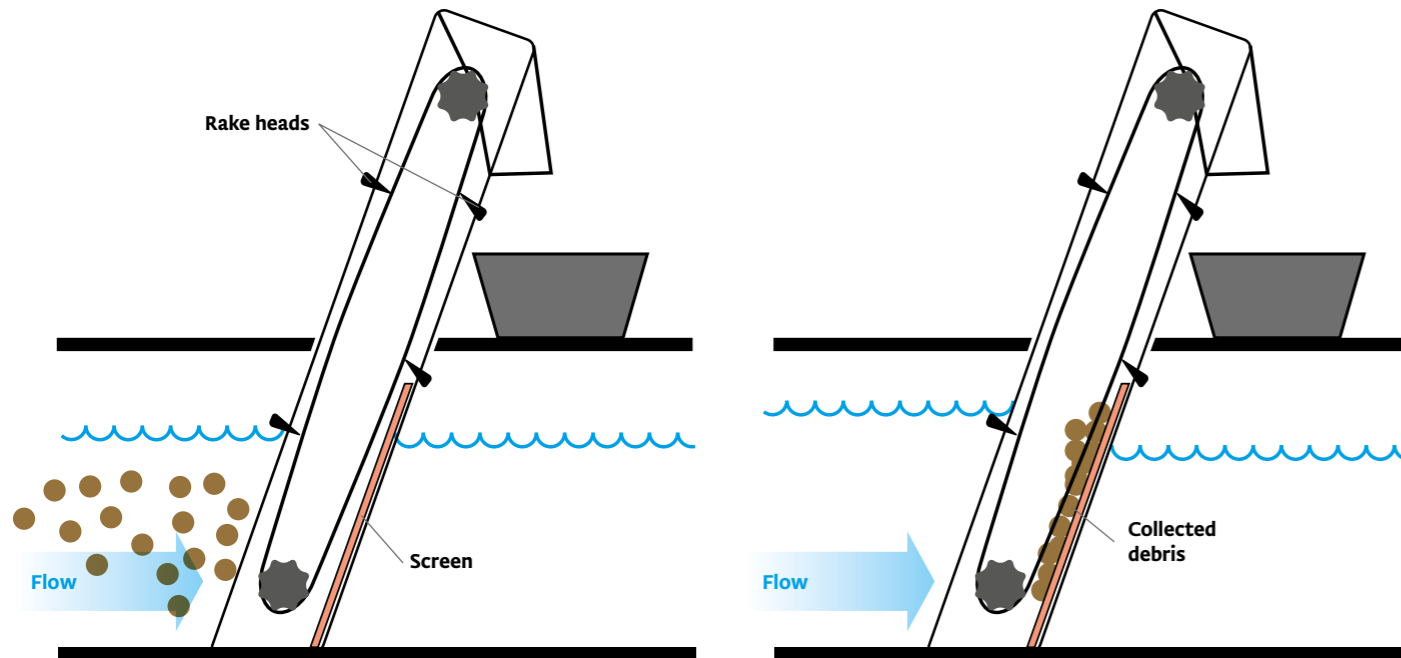
WORKING PRINCIPLE

Water flows through the bar screen and solid wastes having dimensions greater than the bar openings are captured by the bars of screen. When level difference between upstream and downstream reaches the limiting value in consequence of the solid wastes accumulated on the screen, cleaning mechanism is activated. The chain-mounted rakes clean the bars from the front side of the screen. They collect and elevate the screenings and discharge into a chute or a conveyor with the help of a counter wiper.

OUR MULTI-RAKE MECHANICAL SCREEN SPECIFICATIONS

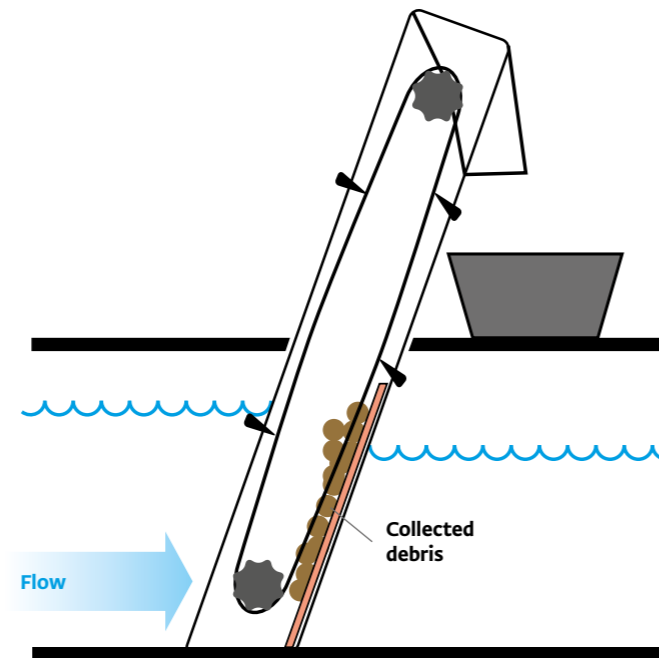
Specifications	
Bar spacing	5 mm - 50 mm
Mounting angle	60°-80°
Rake speed	10 m/min.
Rated power	0.75 kW- 2.2 kW
Waste discharge height (from operational level)	800 mm - 2000 mm
Channel width	800 mm - 3000 mm

*For special dimensions, please consult Sismat Uluslararası Sales Engineers.



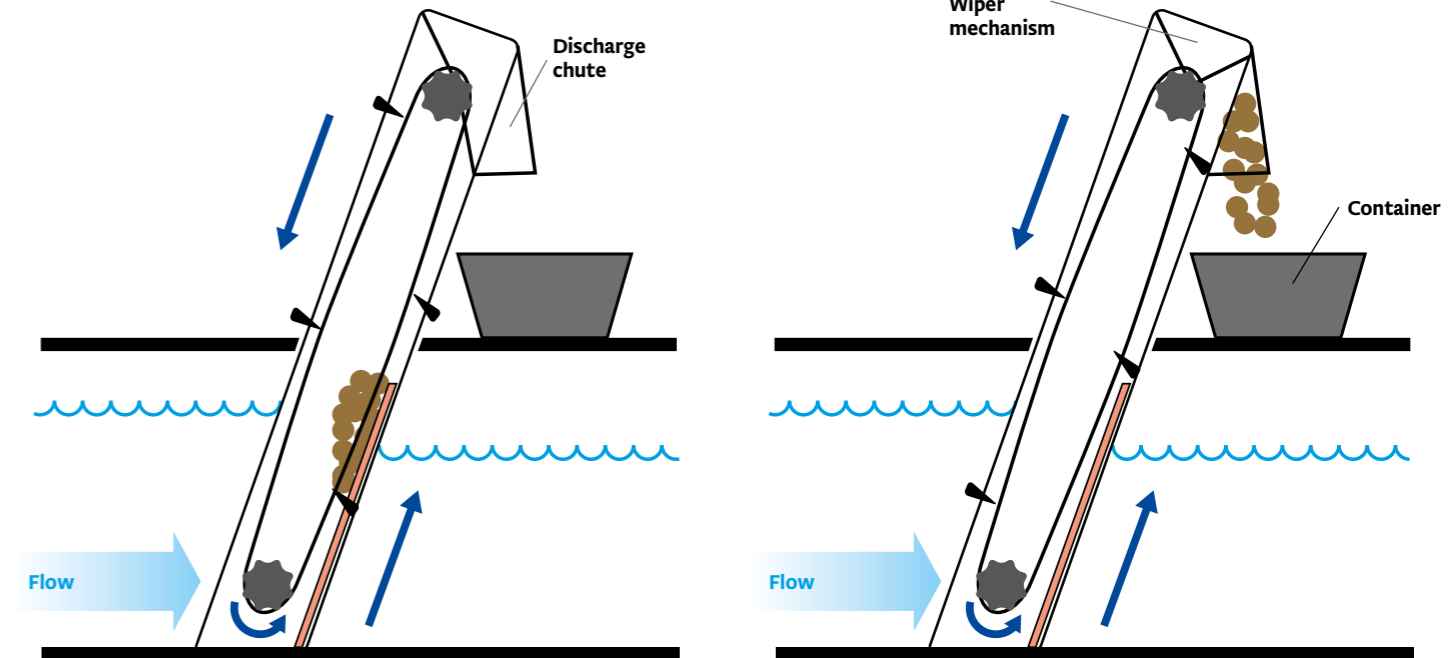
1

Wastewater flows through the bars and solid wastes which are present in the wastewater start to accumulate on the screen.



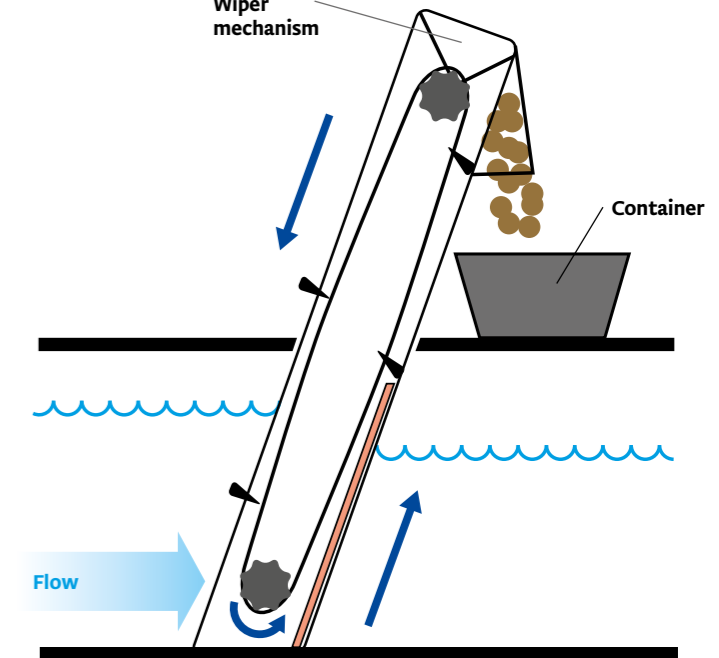
2

Solid wastes which are collected by the bars clog the screen, and this situation causes a level difference between upstream and downstream.



3

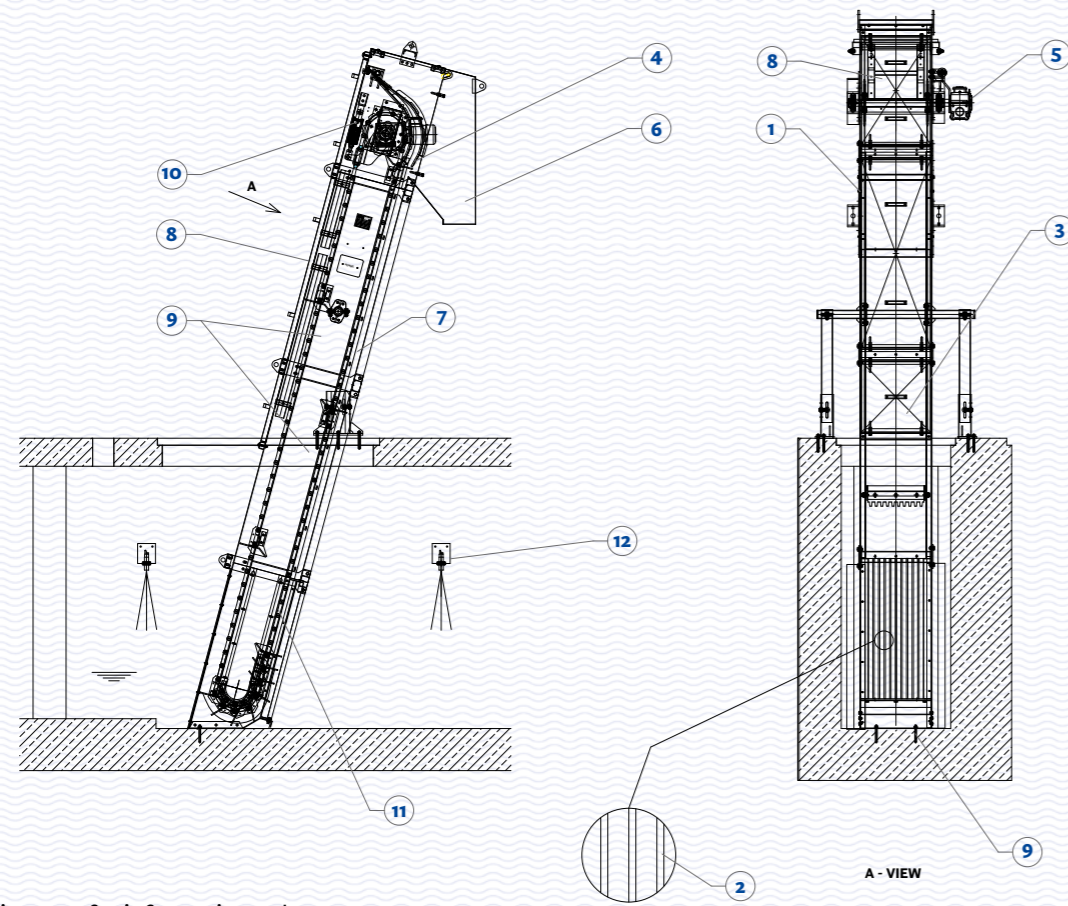
The cleaning mechanism is automatically activated by time or level sensors and starts to move up the screenings.



4

The screening materials are discharged into a container or conveyor by means of a wiper mechanism.

Typical Multi-Rake Mechanical Screen & Components



Typical drawings are for information only.

OUR MULTI-RAKE MECHANICAL SCREEN COMPONENTS

	Multi-Rake Mechanical Screen Component	Materials Available
1	Frame	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
2	Screen bars	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
3	Rake	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
4	Counter wiper	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
5	Drive unit	-according to norm of manufacturer
6	Discharge chute	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
7	Dead plate	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
8	Cover	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
9	Assembly fasteners & Anchor bolts	A2, A4, DUPLEX or SUPER DUPLEX
10	Mechanical spring loaded torque limiter	---
11	Chain	Stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
12	Ultrasonic level sensor	---





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Sisimat Uluslararası Arıtma Makinaları
İnşaat Mühendislik San. ve Tic. A. Ş.
Address: Gebze Güzeller Organize Sanayi Bölgesi (GGOSB)
Fatih Sultan Mehmet Cd. 5/1 Gebze/Kocaeli/Türkiye
Telephone : +90 262 751 12 54
Fax: +90 262 751 12 56