



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



**CABLE OPERATED
MECHANICAL SCREENS**

CABLE OPERATED MECHANICAL SCREENS

Cable operated mechanical screens are the model of front raked bar screens which are used to capture solid materials in both municipal and industrial wastewater treatment plants, and can be preferred as fine and coarse screens. They are robust equipment especially designed for use in deep and wide channels for the purpose of protecting the pumps and mechanical equipment in plant from damages and enhancing the following operations.

This type of screen can be easily mounted in any channel depth at an angle between 60° and 90°, generally preferred in deep channels due to its durable structure.

These equipment have an automatic cleaning mechanism which can be set by time or water level. They are equipped with a grab rake that is raised and lowered by means of one or two sets of cables to clean the stationary bar rack. Operation mechanism of these screens can be arranged according to channel width. Sismat Uluslararası provides two types of cable operated mechanical screens as HK2 and HK1:

HK2 is a mechanical screen which is operated by one cable for channel width up to 1200 mm,

HK1 is a mechanical screen which is operated by two cables for channel width greater than 1200 mm.

Sismat Uluslararası Cable Operated Mechanical Screens are mainly made up of frame, screen, grab rake, cable, counter wiper, drive unit and discharge chute.

FEATURES AND BENEFITS OF SISMAT ULUSLARARASI CABLE OPERATED MECHANICAL SCREENS

- Durable design
- Suitable for use in deep channels
- Capable of removing large amounts of solid materials
- No mechanical components under water level
- Quick and easy installation
- Low investment and maintenance cost
- Low energy consumption

APPLICATIONS

- Water treatment plants
- Municipal wastewater treatment plants
- Industrial wastewater treatment plants
 - Leather industry,
 - Meat, fish and poultry industries,
 - Paper mills,
 - Slaughterhouses,
 - Sugar industry, etc.
- Water intakes
- Power stations

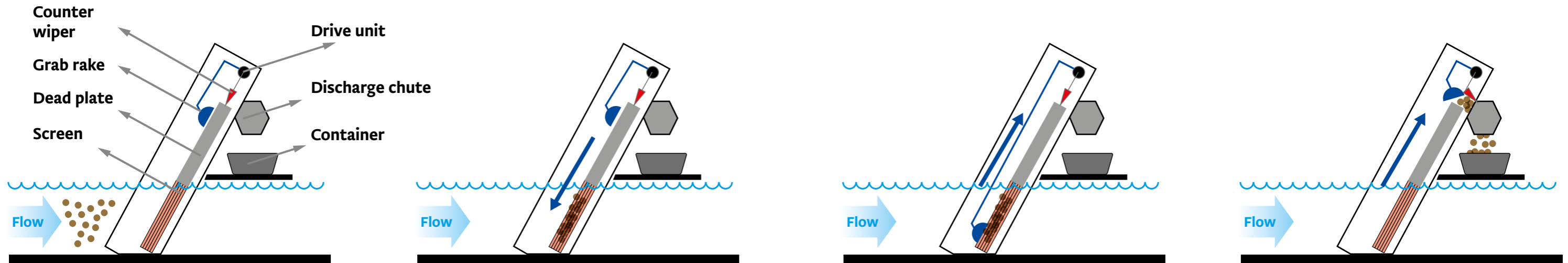


WORKING PRINCIPLE

Water flow enters the channel and approaches the bar rack. The solid materials which are present in the water are captured by the screen bars and that situation causes clogging of the screen openings. A signal is received when water level difference between upstream and downstream reaches to the predetermined point, or it may be time-controlled, and the grab rake descends in open position and it is closed at the bottom point of channel to be able to carry the collected solid materials while ascending. As soon as the grab rake reaches to discharge point, the collected solid materials are dropped into a container or conveyor with the help of a counter wiper.

OUR CABLE OPERATED MECHANICAL SCREEN SPECIFICATIONS

Specifications	
Bar spacing	10 mm - 100 mm
Mounting angle	60° - 90°
Grab rake speed	10 m/min
Rated power	0.25 kW - 11 kW
Discharge height (from operation level)	800 mm - 2000 mm
Channel width	400 mm - 5000 mm



1

Water flows through the channel and brings solid materials with it.

2

The solid materials accumulate on the bar rack and they make the transition of water difficult by time. That situation activates the cleaning mechanism automatically and the grab rake starts to move downward in open position.

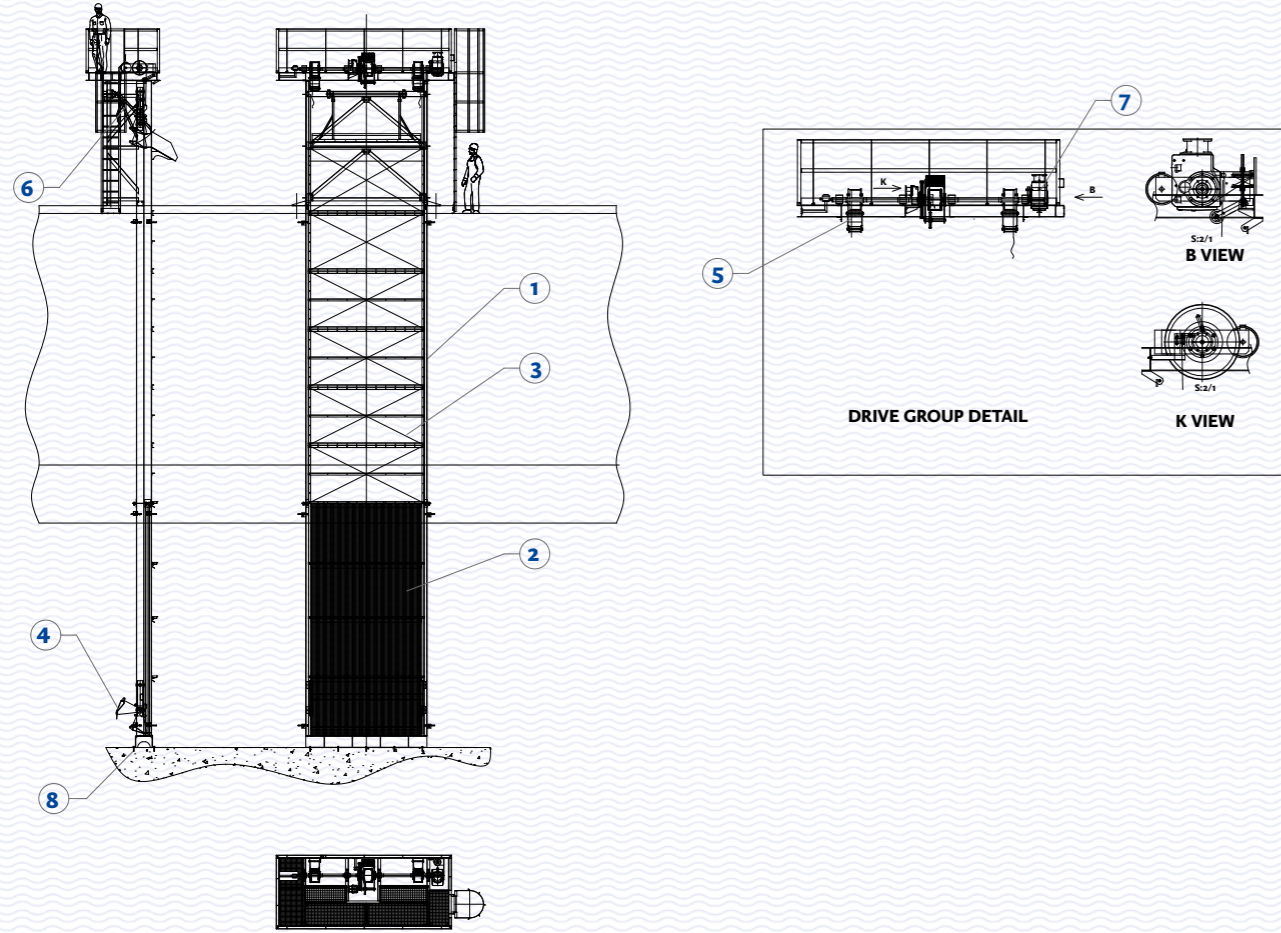
3

The grab rake is closed at the bottom point of channel and collects the screenings while moving upward.

4

The collected screenings are dropped into a container or conveyor by means of the counter wiper.

Typical Cable Operated Mechanical Screen & Components



Typical drawings are for information only.

OUR CABLE OPERATED MECHANICAL SCREEN COMPONENTS

	Cable Operated Mechanical Screen Components	Materials Available
1	Frame	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
2	Screen	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
3	Dead plate	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
4	Grab rake	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
5	Cable	A2 ,A4 or Polyester belt
6	Counter wiper structure	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
7	Drive unit	-according to norm of manufacturer
8	Anchor bolts	A2, A4 , DUPLEX or SUPER DUPLEX





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