Esefo ezilawolayo
Isefo ezisebenzisayo
Sisefo lesitilawulako
Sefo eo e itaolang
Sefo e e itaolang
Sefo yeo e itaolaga
Sefo leyi yi tilawulaka
Sefo ine ya di laula
Inlaatwerke meganieserooster
The Purpose of the Mechanical Operated Inlet Screen

Screening of the incoming raw waste water is part of the preliminary treatment phase and is applied to remove non-biodegradable floating objects. The purpose is to protect the mechanical equipment in downstream process units, as well as to reduce blockages in pipes, channels and sumps. In addition, floating material can encourage the development of odours and fly breeding.

Mechanical Operated Inlet Screen Unit

Screenings are collected in a wheelbarrow or container

Emergency stop button

Conveyor belt for screenings

Motor

Automatic raking arm

Manual screen

Work procedure - collection of screenings

The operator collects the screening material in the wheelbarrow/container. When the first wheelbarrow or container is full, it is removed and replaced with a second clean wheelbarrow or container.

The operator must not allow the wheelbarrow or container in which the screening material is collected to overflow.

11
The operator sprinkles lime on the screening material to discourage flies.

**Notes**

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The operator checks for unusual noises, caused by a possible obstruction, e.g. cans.

The operator switches the equipment off before removing the obstruction.

The operator removes the obstruction.

The operator reports any irregularities to the supervisor.

**Problem solving**

GRRR!!!

STOP

The operator buries the screenings in an excavated pit.

The operator reports any irregularities to the supervisor.

STOP
The operator switches the machine off and then calls the supervisor.

The operator checks to see if the motor is operational. Overheating and unusual noises should be reported.

Screening material building up on the manual inlet side of unit.

The operator regularly checks to see if there is power supply to the unit.

The operator calls the supervisor if there is no power to the unit.

Screening material building up.

Disposal of screenings.

The operator buries the screenings in an excavated trench (see page 8).

The operator places the screening material in the incinerator (see page 8).
Umsele wesanti
Izekhewu zokuhluza ukungcola
Umsele wesihlabatsi
Mosele wa lekhoarana
Mosela wa lekgwarana
Mosela wa lekgwarana
Ndlela ya rikhwara
Mugero wa madi a no tshimbila na mutavha
Grint kanale
The Purpose of the Grit Channels

Grit removal takes place downstream of the inlet and forms part of the preliminary treatment phase. It is applied to remove inorganic material, or ditritus, from the suspended organic material in the raw waste water. The purpose is to protect mechanical equipment located in downstream process units, particularly pumps, from excessive wear and tear. Inorganic material that is allowed to pass through the preliminary treatment phase will also unnecessarily occupy process volume. Various mechanical grit removal operations are also available, which includes pista grit traps, vortex degritters and automatically driven suction devices.

Grit Channel Unit

Work procedure

1. Rag trap
2. Remove
3. Dispose

The operator removes the rag trap from the channel and removes any screenable material that passes from the inlet screen.

The operator diverts the inflow from the channel (A) to be cleaned by installing sluice gates, allowing the waste water to pass through a clean channel (B).
The operator opens the valve slowly to drain the water in the isolated channel (A) and then drains and cleans alternative channels on a regular basis, averaging between daily to weekly intervals.
After the channel has been drained, the operator removes the settled grit from the bottom of the channel.

The operator places the grit on the area adjacent to the channel, to allow the grit to dry and the water to drain back into the channel.

The operator sprinkles lime on the drying grit to discourage flies.

The operator must not brush the settled grit along the channel into the downstream units.

Settled grit washed along the channel into the downstream units may cause incorrect flow meter readings.
The operator must not hose the settled grit along the channel into the downstream units. Turbulence due to the grit being washed along the channel into the downstream units may cause incorrect flow meter readings.

The operator must not hose the dry grit back into the channel into the downstream units. Turbulence due to the dry grit being washed back into the channel and into the downstream units may cause incorrect flow meter readings.

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The operator buries the dried grit in an excavated trench (see page 8)

The operator can also place the dried grit in an incinerator, if available (see page 8)

The operator is responsible for the general upkeep around the grit channel unit
Iwashi elibonisa ukugeleza kwamanzi
Umatshini okhangela indlela amanzi ahamba gayo
Liwashi lelibonisa kuhamba kwemanti
  Sesupa kelelo ea metsi
  Sesupa kelelo ya metsi
  Sesupa kelelo ya meetse
Nchumu/iwatch lowu wu kombaka nkhuluko wa mati
Watshi yo no sumbedza u tshimbila ha madi
Vloeimeting
The Purpose of the Flow Measuring Unit

Regular measuring of the flow is required to determine the hydraulic and organic loadings imposed on the works. In addition, regular flow recordings can provide warnings on blockages or pump failure in sewer reticulation. Peak flow factors can also be determined from flow recordings.
The operator maintains the correct work procedures and the correct flow meter readings are recorded (see page 17).

Inadequate grit removal or incorrect work procedure leads to turbulence and incorrect flow meter readings (see page 17 and 18).

Inadequate grit removal or incorrect work procedure leads to washed out grit and incorrect flow meter readings (see page 17 and 18).
The operator checks on the flow regularly. Turbulence causes incorrect readings. The operator reports any turbulence to the supervisor.

Grit that has been washed out or not removed from the grit channels may cause incorrect flow meter readings. The operator reports any washed out grit that causes incorrect readings to the supervisor.
If there is no power supply to the unit, the operator calls the supervisor.

If there is no power due to cable damage, the operator calls the supervisor.

The operator is responsible for general maintenance around the unit. Grass, weeds, and spider webs around the sensor, can cause incorrect readings.