⚠ Read this manual before operation

INTEGRATED SEWAGE TREATMENT MACHINE

INSTRUCTION MANUAL

YIXING TEIO INTERNATIONAL TRADE CO.,LTD.

SPECIALIZED IN WATER TREATMENT SOLUTIONS

CATALOGUE

1. Overview

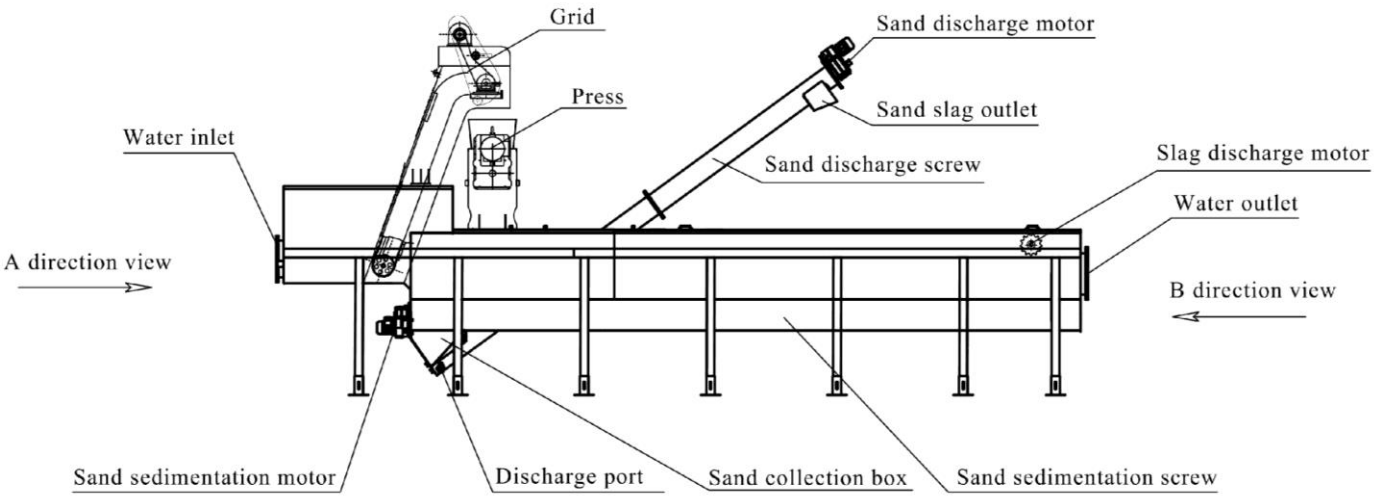
1.1 Product Introduction

1.1.1 Parameters

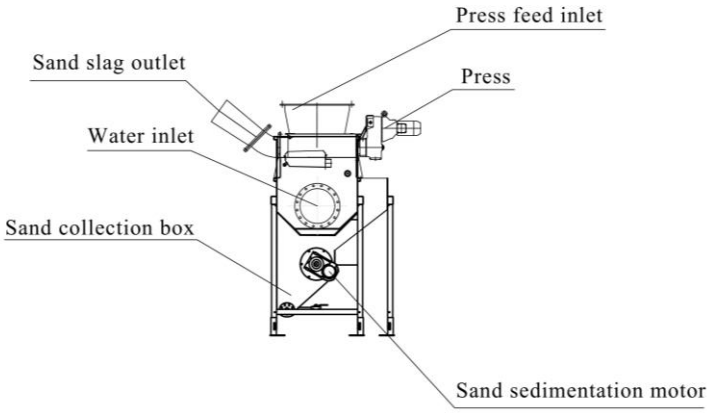
(1) Processing capacity of all models: 20 m³/h~750 m³/h.

(2) Common filter gap: 5.0 mm, 6.0 mm, 8.0 mm.

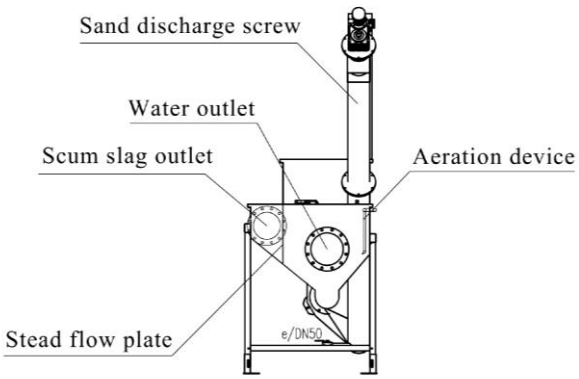
1.1.2 Three-view Drawing



Front view



A direction view



B direction view

1.2 Functional Specification

1.2.1 Device Function

Three different processes are carried out: intercepting the suspended solids in the sewage and lifting the intercepted suspended solids to a press machine for dewatering and compaction; separating the gravel and sand in the sewage; scraping off floating lipids, mud and other substances.

1.2.2 Place of Use

Mainly used in the following application areas:

(1) Wastewater treatment plants (sewage and industrial wastewater).

(2) Other solid-liquid separation areas.

1.2.3 Working Process

(1) First, the sewage will be fed into the equipment, the suspended solids in the sewage are filtered and intercepted by the grid machine. The structure of the gird machine is flexible and varied, including spiral type, drum type, rake filter belt type, bar type, perforated plate type, ladder type, etc.

(2) The intercepted slag will be lifted up and falls into the press machine. The slag will be squeezed and dehydrated, and then discharged.

(3) The squeezed filtrate flows back to the sand box through a plastic hose.

(4) As the sewage continues to flow backward, the sand in the sewage settles in the groove of the sand discharge screw.

(5) The sand sedimentation screw transport the sand in the opposite direction of the water flow, and finally concentrates the sand to the sand collection box.

(6) The inclined sand lifting screw transports the sand in the sand collection box upwards. During the transportation process, the sand is separated from the sewage and discharged.

(7) Finally, the treated sewage will be discharged from the outlet and flows to the next level sewage treatment system.

(8) In addition, the aeration device can be started simultaneously during operation to wash the fine sand in the sewage.

(9) Under the action of aeration, the washed dirt will be pushed to the scraping area, and then scraped off by the scraper.

1.3 Operating Procedures

1.3.1 Manual Mode

By pressing the start button, each device can be started individually, and the sewage will be treated step by step and finally discharged.

1.3.2 Automatic Mode

(1) When the sewage is lifted or flows to the front end of the equipment, the aeration fan will be turned on.

(2) A liquid level detection system is set at the front end. When the starting liquid level is reached, the filter device starts, and the flushing pump starts to flush the filter device. Until the liquid is lower than the starting liquid level, the filter device and the flushing pump will stop working.

(3) After the first filtration, the sewage flows into the sand sedimentation and discharge area at the rear end. The horizontal sand sedimentation screw and the inclined sand discharge screw start at the same time to transport, collect and discharge the sand. After the horizontal sand sedimentation screw stops working, the inclined discharge screw stops will continue to work for a period of time, the time can be set.

(4) The scraper will start according to the set time interval to scrap off floating oil and slag.

2. Equipment Features

(1) Integrated structure: integrates filtering, sand settling, sand removal, oil removal and slag removal functions. Easy to manage and save land.

(2) All parts in contact with sewage are made of 304 stainless steel, which guarantees absolute corrosion resistance and long service life.

(3) Easy installation and time-saving.

(4) Installed on a flat concrete foundation or in a foundation ditch.

3. Additional Devices

(1) Flushing device: used to clean the grid machine.

(2) Aeration device: used to clean sand in sewage and push floating oil and slag to the scraping area.

(3) Scraper: used to scrape off floating oil and slag in sewage.

4. Operator Requirements

The operators engaged in machinery operation, maintenance, inspection and installation must be trained.

5. Precautions

(1) Maintenance, inspection and installation should be carried out by trained and qualified operators.

(2) All maintenance operations can only be performed when the machine is stopped.

(3) If the equipment stops using, shut down the power supply.

Attention: During maintenance, the operators should wear waterproof work clothes, rubber shoes and gloves, and it is best to use a protective mask to avoid contact with waste water and other dirt. After work, immediately clean the protective equipment with tap water.

6. Electricity & Water Supply

6.1 Electricity Supply

The following cables need to be connected to the on-site control cabinet installation site:
Three-phase power supply cable: 3*380/400/415/480V (according to different regions).

6.2 Water Supply

(1) Determine the water flow rate according to the size of the grid machine.

(2) The flushing water must be filtered and the particle diameter in the water cannot exceed 0.5mm. If there is too much dirt in the water, the solenoid valves will be blocked and cannot be opened.

(3) Replace the lubricating oil every 5,000 working hours.

7. Unloading & Storage & Installation

7.1 Unloading

(1) Use a forklift or crane to unload the equipment. The forklift or crane should only be operated by trained and qualified operators.

(2) Lifting method: Fasten the hook to the lifting rings on the equipment, the crane's steel ropes must hang freely, and the angle between the steel ropes should not exceed 60 degrees, and the equipment should be lifted horizontally.

7.2 Storage

The storage area should to be safe, flat and non-pollution.

7.3 Installation

(1) Check whether all installation and fastening materials are in readiness.

(2) Prepare all the materials needed for electricity supply.

(3) Prepare all the materials needed for water supply.

(4) Prepare appropriate lifting tools according to installation requirements.

8. Troubleshooting

No.	Faults	Reasons	Solutions
1	The fault light is off but the equipment doesn't operate.	The main switch is not turned on.	Turn on the main switch.
		The selector switch is in the '0' position.	Change the selector switch to 'Manual' or 'Automatic' position.
		The emergency stop button is pressed.	Release the emergency stop button.
		The control fuse is burned out.	Replace the fuse.
2	The fault light is on and the equipment doesn't operate.	The motor protection switch was triggered or the current relay is triggered.	(1) Turn off the main switch. (2) Check whether there is and wood or stone stuck. (3) After troubleshooting, restart the motor protection switch and press the "Confirm" button. (4) Turn on the main switch.
		No current phase.	(1) Check the fuses in the control cabinet. (2) Check the fuse of the main switch.
3	The solenoid valve can't be closed.	The solenoid valve is blocked.	Disassemble and clean the solenoid valve.
		The diaphragm in the solenoid valve is damaged.	Replace the diaphragm.

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