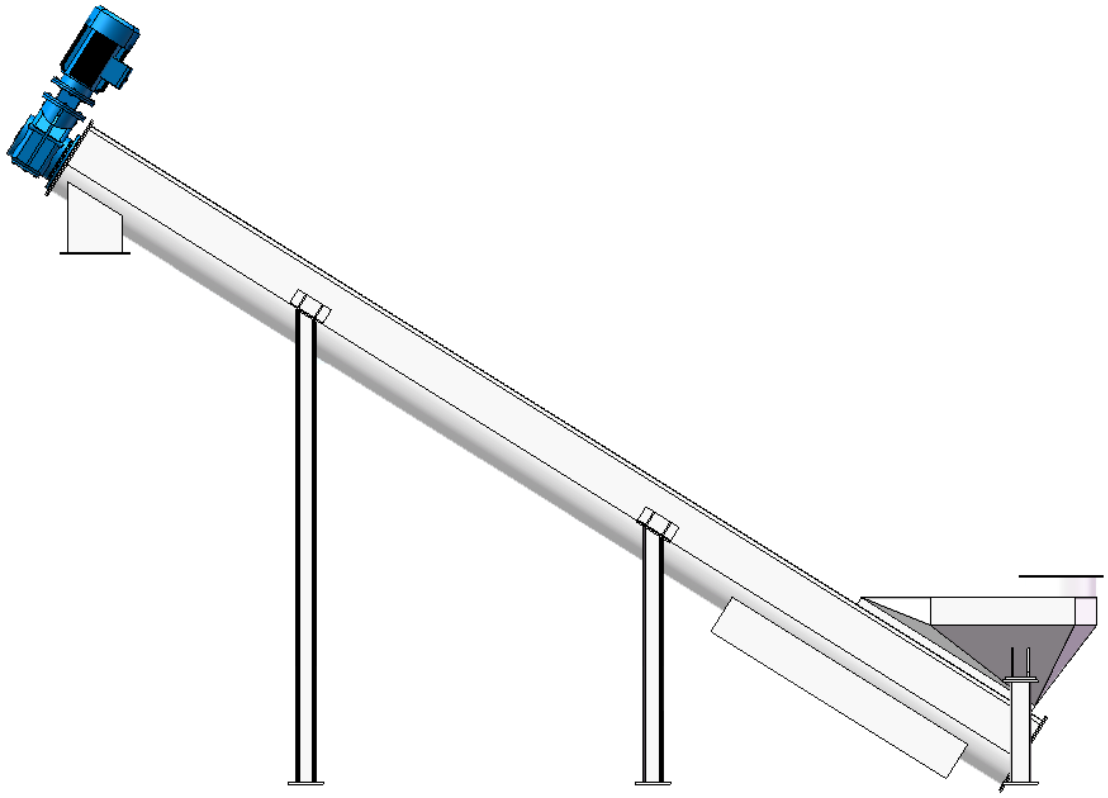
⚠ Read this manual before operation

SCREW CONVEYOR

INSTRUCTION MANUAL



YIXING TEIO INTERNATIONAL TRADE CO.,LTD.

SPECIALIZED IN WATER TREATMENT SOLUTIONS

CATALOGUE

1. Overview

Screw conveyor is used for transporting various waste materials and filter residues generated in industrial production, as well as grid residues in urban water supply and drainage systems and sludge cake in sludge dewatering processes. This model is specifically designed for conveying sludge dewatering cakes.

2. Working Principle

The screw conveyor consists of a shaftless screw, a U-shaped chute with a cover, inlet and outlet ports, and a drive unit. The U-shaped chute is equipped with a replaceable liner. The structure is simple: materials enter through the inlet, are pushed forward by the screw, and exit through the outlet. The entire conveying process can be carried out in a sealed chute, reducing noise and minimizing odor emissions.

As there are no high-speed rotating components, the screw has low wear, the equipment operates with low energy consumption, and maintenance is convenient.

3. Equipment Installation

(1) Check the position of the discharge port according to the drawing and put it in place.

(2) Fix the expansion bolts of the screw conveyor base firmly.

(3) Pay attention to the horizontality and verticality of the screw conveyor during installation.

(4) Turn on the power supply.

4. Trial Operation Inspection

(1) Remove any debris such as stones or wood from inside the screw conveyor.

(2) Fill the gearbox with clean lubricating oil as per the manufacturer's instructions.

(3) Apply lubricant to all transmission components.

(4) Check that all fasteners are securely tightened.

(5) Check that the power supply voltage matches the motor specifications.

5. No-Load Operation

5.1 Inspection Items

After installation, perform a no-load test run before introducing materials. The following items should be checked before operation:

(1) Check that whether the motor wiring is correct and the rotation direction is appropriate.

(2) Check that whether all load switches are set to their designated values.

(3) Check that whether all switches operate reliably.

(4) Check that whether all signal points between the central control room and the conveyor are correctly connected.

5.2 Manual Control

Turn the working mode switch to the ‘Manual’ (local) position. In the manual (local) mode, press the "start" or "stop" button to control the operation of the equipment. This mode is used for continuous or adjustment operations during equipment maintenance and commissioning.

5.3 Remote Control

Switch the working mode to ‘Remote’ (auto). In this mode, the operation of the equipment is controlled by the remote control system. The ‘operation’ and ‘fault’ signals are transmitted from the electric cabinet to the remote control room.

6. Load Operation

(1) Run the screw conveyor under load for 4 to 8 hours and check whether it starts and stops normally.

(2) Check whether the operation is stable and there should be no vibration, impact and other abnormal conditions.

(3) Check whether the motor and reducer are overheated, whether there is abnormal noise, vibration, etc.

(4) Check whether the current and voltage meet the requirements during load operation.

7. Maintenance

(1) During operation, if there are fibers, debris, or sticks wrapped around the blades, the on-duty personnel should clean them up in time before continuing to operate.

(2) The on-duty personnel of each shift must patrol and inspect frequently. Once an abnormality is found, the machine should be stopped and checked immediately. Find out the cause and solve the

problem before restarting the machine.

(3) The lubricating oil in the reducer must be replaced regularly to increase the service life of the machine. Generally, the reducer needs to be replaced with new oil after two months of normal operation, and the lubricating oil should be replaced every three months thereafter. Attention should be paid to the oil level of the reducer at ordinary times.

(4) If the screw conveyor has not been used for a long time, it should be maintained. Empty the remaining debris and dirt in it to prevent damage to the spiral blades.

(5) Remove the debris separated by the screw conveyor in time to prevent the normal operation and environmental hygiene of the screw conveyor from being affected by excessive accumulation of debris.

(6) The screw conveyor is operated in conjunction with other equipment. When used in conjunction with other equipment, this equipment should continue to operate for 5 to 10 minutes before stopping.

(7) Check the oil level of the motor and reducer frequently and add lubricating oil in time (if the screw conveyor has not been used for a long time, the oil should be replaced before restarting it).

TEIO

YIXING TEIO INTERNATIONAL TRADE CO.,LTD.

Add.: NO.198 JUNMA ROAD, QITING STREET, YIXING, JIANGSU, CHINA.

Tel: +86-15995396766

WeChat/WhatsApp/Facebook: +86-15995396766

Email: m15995396766@gmail.com

Web: www.yxteio.com

P.C.: 214213