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Vibrating Feeder Installation & Operation & Troubleshooting

Vibrating feeder is a kind of common feeding equipment. In production, it can send blocky or granular materials to the follow-up equipment evenly and continuously. This is the first working procedure of the whole production line.

The installation and operation of the vibrating feeder have a certain impact on the production line. Below, we share the installation, operation and troubleshooting of the vibration feeders.

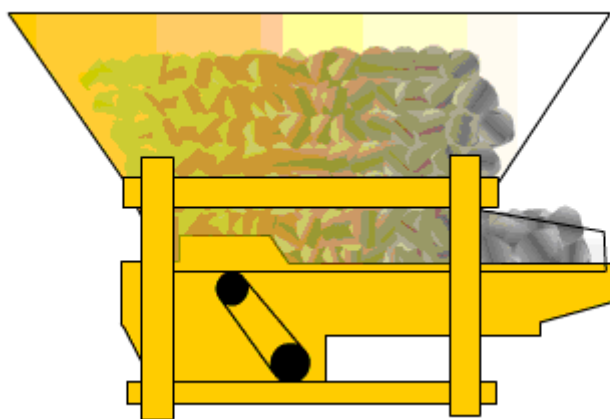


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Vibrating Feeder Installation and Use

- Vibration feeder is used for proportioning and quantitative feeding to ensure uniform and stable feeding and prevent material self-flow.
- Normally, it should be installed horizontally. If continuous feeding, it can be installed 10 degrees downward. For viscous materials and high moisture content materials, the installation can be tilted down by 15 degrees.
- After installation, the vibrating feeder should have 20 mm clearance, keep horizontal, and the suspension device should be flexible connected.
- Before the no-load test, all the bolts should be fastened, especially the foot bolts of the vibrating motor, which should be re-fastened every 3-5 hours.
- Amplitude, current and the temperature of the motor should be checked frequently during operation. If abnormal conditions are found, the machine should be stopped immediately for treatment.
- The lubrication of the vibration motor bearing is the key to the the whole vibrating feeder. During the operation, the bearing should be regularly filled with grease, once every two months, once a month in hot season. Dismantling and repairing motors every six months and replacing internal bearings



Vibratory Feeder Operation Notes

1. Before Startup

- Check and remove the impurities that affect the movement of the feeder, such as material between the body and chute, spring and support.
- Check whether all fasteners are fully fastened.
- Check the lubricating oil level in the exciter.



- Check the conveyor belt, if there is damage, it should be replaced in time, and if there is oil pollution, it should be clean.
- Check the protective devices, and remove any unsafe case in time.

2. When Working

- Check whether the condition of the feeder and the conveyor part is normal before starting.
- Start without load;
- After startup, if abnormal cases are found, the machine should be stopped immediately, the machine will restart only after the abnormal cases are identified and eliminated.
- Only after the vibration of the machine is stable, the feeding operation can be carried out.
- Feeding should meet the load requirements.
- Feeders shutdown should be in accordance with the sequence. Stopping with material or continuing feeding when or after stopping is prohibited.



Vibrating Feeders Troubleshooting & Solutions

1. Lower Amplitude In Production

No-load test of vibrating feeder is normal, amplitude decreases during working, and work efficiency is low. It is likely that the feeding inlet design is improper and the load and pressure of material trough is excessive. ^

Solutions: The inlet and outlet should be improved to reduce the pressure of equipment.

2. Non-Vibration or Intermittent Operation

Vibratory motor fuse burning or coil short-circuit will directly affect the normal operation of equipment, resulting in vibrating feeder does not produce vibration.

Solutions: Replace the new fuse in time, check the coil of the vibration motor, eliminate the short-circuit and connect the lead-out circuit.



3. Exciter Can't Adjust The Amplitude

When the vibration feeder is connected to the power supply, the equipment does not vibrate or work intermittently, and the current is unstable. The exciter thyristor is broken down by excessive voltage and current, or the air gap between the components of the equipment is blocked by excessive materials.

Solutions: It is necessary to clean up the blocked materials in time and replace the exciter thyristor.

4. Noise and Crash When Working

When the amplitude of feeder is irregular, it is easy to produce abnormal impact. The irregular vibration of the feeder can be caused by the rupture of the plate spring of the vibrating feeder or the loosening of the connecting bolt between the exciter and the groove.

Solutions: Bolts and spring should be tightened or replaced in time, motor should be adjusted, and hold rated working voltage.

5. No Feeding or Insufficient Feeding

The excessive load of the hopper extrudes the feeder trough, which results in the damage or fracture of the spring plate and the connecting fork. Excessive feeding causes material to accumulate in the feeder, increases resistance of screw conveyor, and makes hopper running unstably.

