

TQLZ Vibration Cleaner User Manual



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MAOSHENG GROUP

DON'T start up the machine until:

- 1) You have finished **reading this Manual** and understood very well;
- 2) You have **checked and refastened** every parts that may get loose in transportation.

I Brief introduction

Use and specific property

It is used for pre-cleaning and cleaning material in flour mill, rice mill, feed plant, chemical and food processing factory. It may clean wheat, corn, rice, oil materials due to changing different type of sieve frame.

Equiped with aspiration channel, it may separate materials to make the low-density impurity and dust more cleaned. It can get a better separate function to adjust the machine according to the case of grosser and fine impurities in the materials.

It is a excellent equipment of simple structure, turning smoothly, efficient cleaning, high output, small volume, saving power, low noise, easy to operate and maintenance .

Technical parameter

Model	Screen Size (W x L) (cm2)	Capacity on Wheat (t/h)		Screen Angle (°)		Power (kW)	Wt. (kg)	Size (L x W x H) (mm)	Air Suction Volume (m ³ /min)
		Pre- clean	Clean	Pre- clean	Clean				
TQLZ40x80	40x80	3	2	6	6	2x0.15	190	1300x820x1095	22
TQLZ60x100	60x100	20	5	6	6	2x0.25	360	1640x1550x1455	32
TQLZ100x100	100x100	30	8	6	6	2x0.25	420	1640x1610x1455	52
TQLZ100x180	100x180	50	12	9	6	2x0.37	520	2200x1610x1455	80
TQLZ100x200	100x200	60	16	12	6	2x0.37	540	2640x1610x1455	90
TQLZ150x100	150x100	50	12	6	6	2x0.37	540	1640x2160x1455	80
TQLZ150x150	150x150	75	16	9	6	2x0.75	630	2140x2160x1455	110
TQLZ150x200	150x200	100	24	12	6	2x0.75	650	2640x2160x1455	135
TQLZ180x200	180x200	120	28	12	6	2x1.1	1000	2740x2510x1980	160

II. Structuer and working principle

Structure (figure 1)

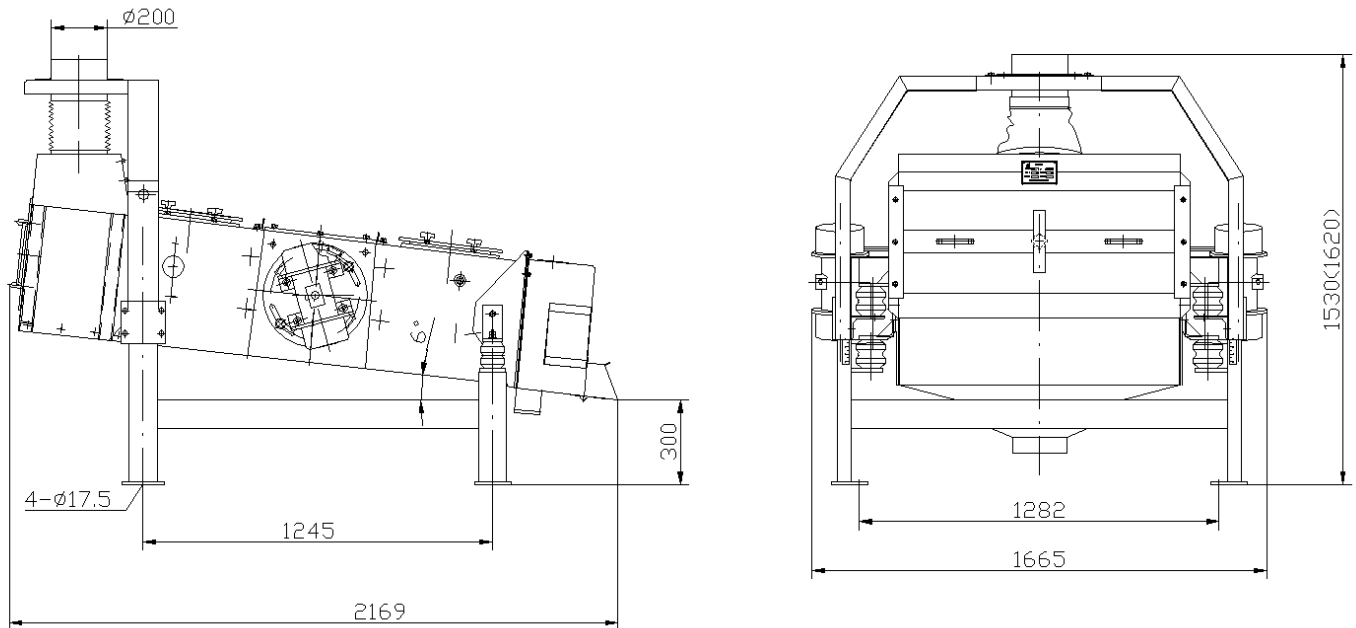
Feed in material device

Sifter

Vibrato motor

Out off material device

Sifter stand



1. Feed in material device

Feed in material device is combined with weding steel plate and screw, it is easy for sieve frame dismantled and sieve frame can be taken out at the the front of sifter body.

B. Sifter

The Sifter is combined with weding steel plate and screw. Vibrator motor and drive-device are situated at the centre of machine. The throw angle can be adjusted in the range of 0--45. Sieve frame are fixed by fixture (3) (figure 4) and Sifter is supported by hollow rubber springs.

.C. Vibrato motor

Vibrato motor is the power for sifter body vibrating on straight line motion. Simple structure makes it convenient for adjusting the throw angle and amplitude of vibration.

D. Out off material device

Out off material device is made of steel plate structure connected with sifter by bolts.

E. Sifter stand

Sifter stand is steel structure with crossbeam which can be installed at any height so as to adjust the caren angle of sieve surface in the range of 1—12°.

2. Working principle

Materials are sent into the inlet with eccentricity taper funnel (6) from inlet pipe (5) and cloth tube (4), then into the scattering material board (9) of the material box (8). Taper funnel (6) can turn round which makes material fall down on the middle of the scattering material board (9). Feeding material box vibrates together with sieve set, material spread on the bottom board (10) of receiving material drawer (10), then flow to the whole wide of sieve surface along with bottom board. If the materials are not spreaded equally on the whole sieve surface, adjust the dividing material board (7) to achieve a perfect state.

A pressure door (11) is installed at the connection of receiving material drawer and the end-surface of sieve board, which makes the material to spread equally at the same height. After flowing into the press door the materials are spread on the first sieve surface (3), then sieved materials underneath the first sieve fall down on the second sieve surface (2), materials above the sieve are discharged from the outlet (1). Sieved materials underneath the second sieve surface fall down on the bottom board (12) and to be discharged from outlet (13) at the middle back of the machine. The sieved materials above the second sieve surface are passed through the pressure door (14) and discharged out to the machine into the next working procedure. The materials are usually separated by aspiration separator (16) or Air-recycling aspirator so as to separate the low-density impurity from the materials and achieve a better cleaning effect.

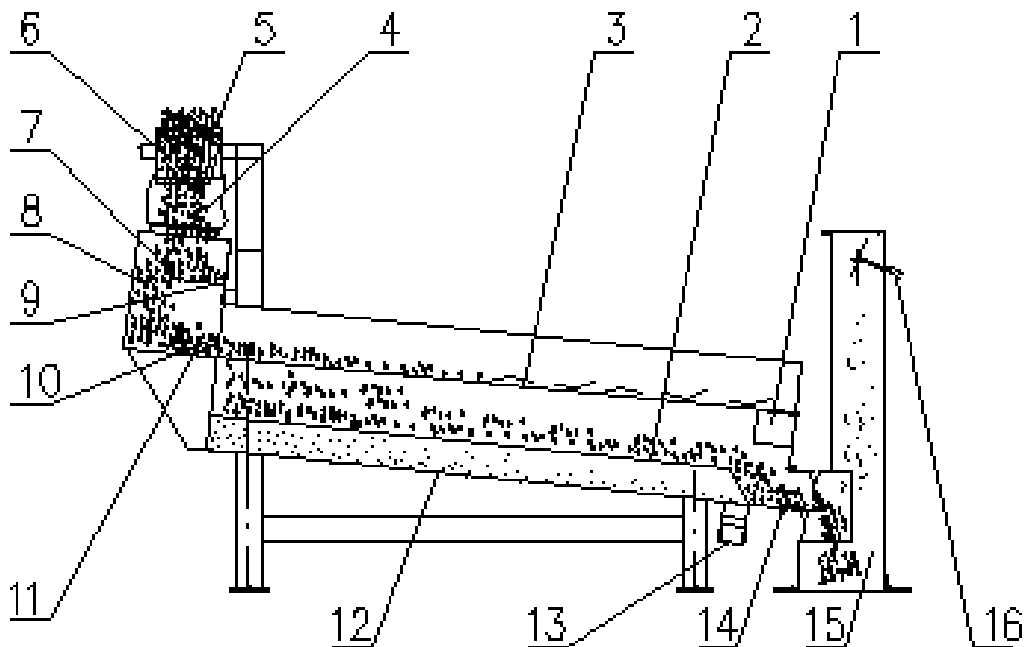


figure 2



III. Transport , Installation , Adjustment .

1.Transport :

Four pieces of safety angle steel (2) (figure 3) painting with yellow colour are fixed with sifter and separator frame for safety in transport, the angle steel must be dismantled before using machine. The machine must not be transported and hang up without safety angle steel in order to protect the rubber springs.

Installation :

(1) Installation the machine :

The machine is loaded high changing load, it must be installed directly on the frame of floor, the machine frame must be added if necessary. It must not be installed at the state of one of the machine foot on the beam another foot on the thin wooden floor, to add a beam is very necessary. The machine must be installed on the firm base and fixed with bolts. We give some examples for user to install the machine.

The machine must be adjusted installation level ,all the base of machine must be in one level surface.

(2). Material inlet tube :

The turning eccentric circle-awl of the material inlet device is in front of machine which makes the material to be sent to the centre of machine. adjust the position of the tube when connect with the tube. The machine would achieve the best function only the materials spread equally on the whole wide of the separator surface .

(3) Electric cable :

Two vibrate motors must turn at same direction . A electric interlock device should be equipped to ensure two motors starting and stopping at same time.

Adjustmant

1. Swing :

Adjust the swing at 5-5.5 mm, the most journey is 6 mm ,the swing can be watched at journey display.

When the machine is working ,according to the visual principle, while journey display is on the correct position of watching vibration angle, the opposite scale of watching swing line point of intersection is the actual swing value, which always being about 4—5 mm .



TQLZ Vibration Cleaner

If we need to adjust the vibrating swing, adjusting the balance weight piece G which may move at the shaft of motor, we can change the swing of the separator. The journey should be increased as the balance weight pieces move close together, the journey should be decreased as it divide. The position of two motors balance weight pieces must be accordant and adjust them as same as they need.

(2) Vibration direction angle

When the machine is working, loosen the lock-screw of vibration display, turn it and make circle on the display become a line (showing circle line), then lock it up, the scale that direction needle point is the vibration direction angle.

The vibration direction may be adjusted from 0° to 45° . In the flour mill cleaning need 20° , pre-cleaning need 25° . If we need to change the vibrate direction, loosen four fixed bolts, turn the motor, the best angle may get in using course and record it.

Notice: this adjustment must be at the motionless state.

(3) Angle of sieve

The angle of separator may be adjusted in the range of 0° -- 12° ,

It only need to loosen bolts (1), the whole sifter may get necessary angle according to the scale of direction display to move.

Notice: it must shut off electricity while adjusting machine.

IV.Operation

1. Preparing before start machine

1-1 Dismantle the four pieces of safety angle steel.

1-2 Inspect the case of installing the sieve frame and putting clean balls. According to requirement three or most six balls should be put into per sieve frame.

1-3 Inspect turning direction of motor. Two motor must turn at same direction. Start and stop at same time.

1-4 Inspect the fixing of dividing material board (7) (figure 2), install the cloth tubes and hoop it tightly

1-5 Assure no tools and other parts put on the machine.

Start machine at no loading

2-1. Inspect the pointing swing on the journey plate.

2-2 Observe the support of rubber springs if let out and loosen.



TQLZ Vibration Cleaner

2-3 After starting machine for 10-15 minutes, stop the machine working till it quiescence, inspect and tight the bolts of driving device which had been loosened by wrest force handle, the wrest force is 8 kg m.

Working with materials

3-1 Inspect the proportion of feeding material system, if it does not satisfy the requirement, adjust the system accord to what described above. 3-2 It makes most effect for cleaning to adjust the aspiration channel .

V. Maintenance

1. Bearings of vibration motor need lubricating.

(1) Pour lubricating grease into it per 2000 hours (about 3 months), adopt No. 3 lubricating grease or equivalent lubricating oil into the motor bearings .

(2) Change lubricating grease per 5000 hours (about 8 months). If the bearings dismantled and cleaned, 1/3 volume lubricating grease of bearing must be poured into .

2. Sieve surface should be cleaned termly. Do not knock the sieve surface with hammer. It is suitable to use scrape board to clean the sieve surface (figure 12). Check the sieve surface termly , the damaged sieve surface and cleaning balls should be changed to ensure the separating effect.

◆ Inspect the bolts and handle and such fixing parts termly to ensure which at tighten state .

◆ The broken rubber parts should be changed timely.

THANK YOU!