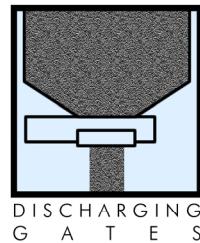


WÖHWA

Discharging Gates

Operation and Maintenance Instructions



General Information

- Installation and maintenance work is to be carried out by qualified personnel only. WÖHWA cannot be held responsible for any damages caused by improper installation or maintenance work.
- Before starting maintenance work, turn off and lock out the motor power supply to prevent inadvertent restarting.
- The gate above the discharge gate must be closed before installation or maintenance work. If no safety gate was installed, make sure that there is no material in the silo above the gate.
- The listed discharge rate is only applicable for a horizontally mounted gate with a good material flow. The flow rate will be lower if the gate is installed at an incline.
- When the gate is used in combination with a belt feeder, attention must be paid to the instructions „Control of Blending and Batching Combinations“.
- For discharging aggregates, the minimum opening width of the gate should be 3 – 5 times the size of the largest particle diameter. (Fig. 1).
- The gate must not be closed through a solid column of material. Only close the gate through a steady flow of material.
- The discharge gate with water drainage is not suited to dewater a complete silo or stockpile. An additional main drainage system, to be supplied by others, is to be used above the discharge gate for products with a high moisture content.
- With a high water content in the silo or stockpile, the discharge gate should be opened in small steps to avoid water jets.
- For perfect functioning, the gate should be mounted to a flat silo flange (Fig. 2).



Fig. 1

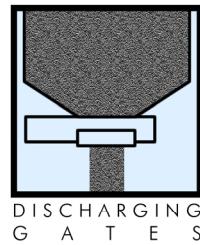


Fig. 2

WÖHWA

Discharging Gates

Operation and Maintenance Instructions



Operation and maintenance instructions

- Prior to start-up, the rotation of the motor is to be checked. Make sure that the limit switches are used with the correct sense of rotation.
- After completion of the installation, it is highly recommended to test the gate without material in the silo.
- When mounting the gate to the silo flange, take care of even fastening of the flange bolts. Always fasten first the bolts that are diagonally opposed. A flat silo flange is a precondition for perfect functioning of the gate (Fig. 2).
- If the gate is installed at an incline, proper discharging is not possible. The listed discharge rate is only applicable for a horizontally mounted gate with a good material flow. For proper functioning, the material should be clean and have consistent flow characteristics.
- The distance between discharge gate and collecting belt conveyor should be kept to a minimum to avoid lateral spilling of products. Optionally, a so-called "tight transfer box" may be mounted to the gate (if necessary, a chute can be used).
- Check functions of material flow controller and limit switches after electric connections have been established. If required, adapt the mechanical flow controller to local conditions. The safe switching distance between switch and feeler is 0-6.5 mm (Fig. 3).
- After connection of cables, make sure that the terminal box is properly closed to prevent entrance of moisture. (Fig. 4).



Fig. 3

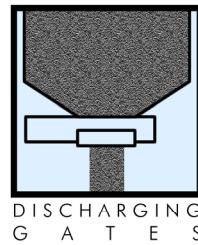


Fig. 4

WÖHWA

Discharging Gates

Operation and Maintenance Instructions



- When using the water drainage system, the drainage sieves can get clogged when certain types of products are discharged. If this is the case, special care should be taken to clean the sieves at regular intervals (the same applies to the gutter). For cleaning purposes, remove the splash guard (item 6 in spare parts list „complimentary parts 3“; Fig. 5) and clean the sieves (Fig. 6) with plenty of water.



Fig. 5



Fig. 6

- Discharge gates equipped with wear resistant lining should be checked at regular intervals for wear. If necessary, replace the lining. (Fig. 7).
- When using the discharge gate for products with particle sizes >80 mm, the gate may not close properly. In such instances, the following measures should be taken:
 - Change the positions of the limit switches so that the slide gate does not close to the second (outer) seal. The correct position must be determined on site (Fig. 8).
 - Select the nominal gate size in length which is approx. 100 – 200 mm larger than the silo opening. (Fig. 1).
 - If the gate fails to close, open the gate slightly and attempt to close it again.

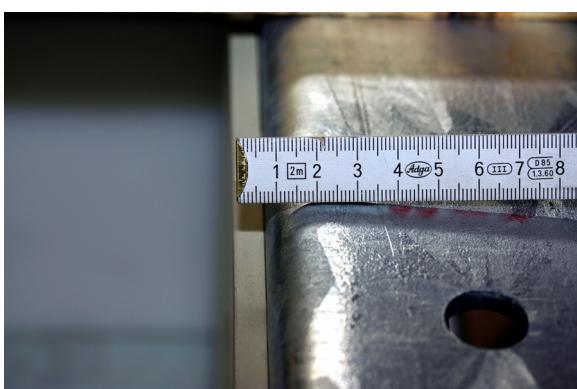


Fig. 7

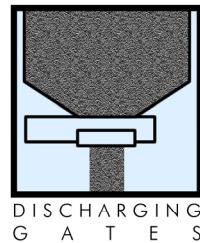


Fig. 8

WÖHWA

Discharging Gates

Operation and Maintenance Instructions



Maintenance Instructions

- The manufacturer of the electric motor recommends a change of lubricant every 10 000 operating hours, however not more than every 2 years. The type of lubricants to be used is specified in the enclosed operating and safety instructions of the motor manufacturer.
- The operating and safety instructions of the motor manufacturer are to be observed.
- The discharge gate is to be checked for wear and tear and, if necessary, worn parts must be replaced. The distance between sealing strip and slide gate should be approx. 0.4 times the minimum particle diameter, however not more than 2mm (Fig. 9).
- When using the water drainage system, special care should be taken to clean the sieves in regular intervals. For cleaning purposes, remove the splash guard (item 6 in spare parts list „complimentary parts 3“; Fig. 5) and clean the sieves (Fig. 6) with plenty of water.
- The optional gutter has to be checked regularly for proper functioning and, if necessary, the gutter must be cleaned or emptied.
- For safety reasons, the grease in the bearings has to be replaced at least every 3 years (Fig. 10).
- The bearings of the slide gate are greased for life.
- Regreasing is required if you notice increasing noises in the bearings. (Fig. 10).
- Greasing the bearings is intended to protect them against solid and fluid contamination. Therefore, the bearings must be greased until new grease appears at all the bearing gaps. (Fig. 10).
- While greasing, avoid any contamination. The grease nipples must be cleaned before greasing.
- Apply injecting grease under hot running conditions, with rotating bearings, before standstill, and before longer operating breaks.
- Use a lithium soap grease with mineral oil base with a temperature range of - 30 to + 140 °C.



Fig. 9



Fig. 10