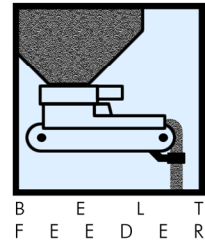


# WÖHWA

## belt feeder

### operation and maintenance instructions



#### general

- 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 emergency shut-off gate mounted above the belt feeder must be closed before begin of any installation and maintenance work. If no emergency shut-off gate is installed, make sure that there is no material in the silo/bin.
- The listed flow rate is only applicable for a horizontally mounted belt feeder. The flow rate will be lower if the belt feeder is installed at an incline. The maximum flow rate as per flow rate table refers to a belt feeder that is frequency-controlled at 100 Hz (material density approx.  $1.5 \text{ kg/m}^3$ ).
- When the belt feeder is used in combination with a discharge gate, attention must be paid to the instructions „Control of Blending and Batching Combinations“.
- **For perfect functioning, the belt feeder should be mounted to a flat silo flange** (Fig. 1).



Fig. 1

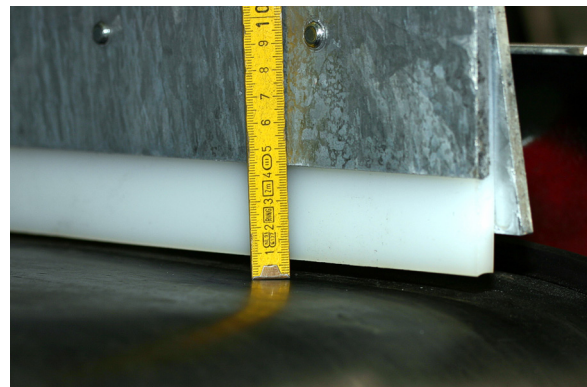


Fig. 2

#### operation and maintenance instructions

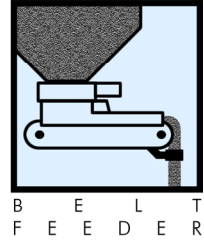
- Prior to start-up, the rotation of the motor is to be checked.
- A high percentage of water content in the product may necessitate the installation of an optionally available water drainage tray.
- When mounting the belt feeder to the silo flange, take care of even fastening of the flange bolts. Always fasten first the bolts that are diagonally opposed. **A flat silo flange is a precondition for perfect functioning of the belt feeder** (Fig. 1).
- The distance between sealing strip and belt is to be adapted on site individually, depending on the product for which the belt feeder is to be used. The recommended optimum adjustment would be a distance between sealing strip and belt of approx. 0.4 times the minimum particle diameter, however in no case more than 6 mm (Fig. 7).
- After completion of the electric connection, the proper functioning of the material flow controller must be tested (Fig. 3). The material flow controller may have to be adapted to on-site conditions. A safe trigger distance between sensor and mechanical flow controller is between 0 – 6.5 mm (see data sheet limit switch).



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- After connecting cables to the terminal box, check for tight closure to prevent intrusion of moisture (Fig. 4).



Fig. 3



Fig. 4

- If the belt feeder is equipped with wear-resisting lining, check regularly for material wear and replace lining, if necessary (Fig. 5).
- **If the belt feeder is supplied with a non-standard centre distance, an additional support needs to be provided and installed locally.**
- The external belt cleaner must be adjusted on site as necessary. For very sticky material, increase the pressure of the cleaner on the belt (Fig. 6).



Fig. 5

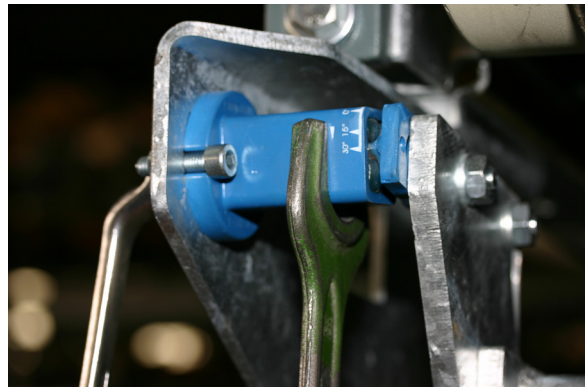
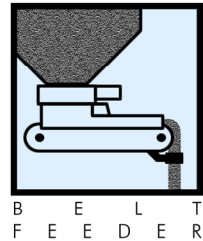


Fig. 6

# WÖHWA

## belt feeder

### operation and maintenance instructions



#### maintenance instructions

- The idlers of the belt feeder are maintenance-free.
- 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 (see motor data sheet).
- The operating and safety instructions of the motor manufacturer are to be observed.
- Belt feeder and sealing strips are to be checked for wear and tear and, if necessary, worn parts must be replaced or sealing strips readjusted.
- The cleaning effect of the external belt cleaner is to be checked in regular intervals and the cleaner must be adjusted, if necessary. The cleaner is a V-type cleaner under load pressure. The plastic strips may have to be changed if excessive wear occurs.
- The belt tension is to be checked regularly and adjusted, if necessary.
- After 3 years of operation, at the latest, the grease in the roller bearings has to be replaced to ensure safe operation of the belt feeder. The roller bearings must be greased until new grease appears at all the bearing gaps.
- Loud noises in the bearings are an indication that the bearings should be greased.
- 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. 8).

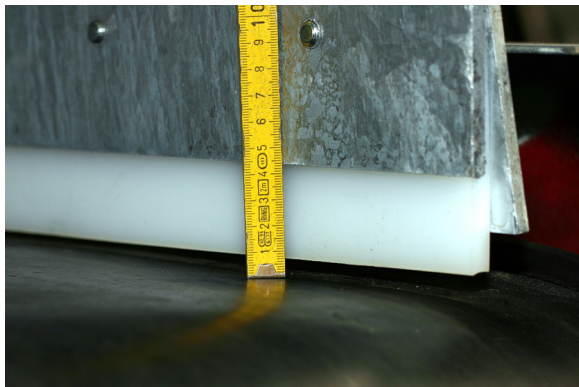


Fig. 7



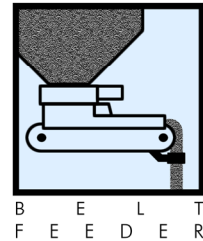
Fig. 8

- 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.

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#### data sheet – bevel gear motor, manufacturer: „Getriebebau Nord“

##### frequency-controlled belt feeder

Adjustment range from 5 Hz to 100 Hz

##### motor data at 50 Hz

motor rated power	3,0 kW
output speed	33 min <sup>-1</sup>
isolation class	F
IP rating	IP 65
power supply	230 V / 400 V, 50 Hz
drive shaft	40 mm hollow shaft
weight	approx. 60 kg
temperature sensor	3 PTC thermistors / 155°C

	belt speed at 5 Hz	belt speed at 50 Hz	max. belt speed. at 100 Hz
drive pulley ø 215	v = 0,037 m/s	v = 0,37 m/s	v = 0,74 m/s
drive pulley ø 240	v = 0,041 m/s	v = 0,41 m/s	v = 0,82 m/s

Adjustment range for belt feeder: 1 / 20; from 5 Hz to 100 Hz. An external motor ventilator must be used for continuous operation at low speed (< 20 Hz ).

##### „reclaim belt feeder“ operation without frequency converter at 50 Hz

motor rated power	4,0 kW
output speed	64 min <sup>-1</sup>
isolation class	F
IP rating	IP 66
power supply	230 V / 400 V, 50 Hz
drive shaft	40 mm hollow shaft
weight	approx. 68 kg
temperature sensor	3 PTC thermistors / 155°C

##### belt speed at 50 Hz

drive pulley ø 215	v = 0,73 m/s
drive pulley ø 240	v = 0,81 m/s

Standard operation as reclaim belt feeder at 50 Hz.

Material bed depth up to 400 mm and standard material feed chute.

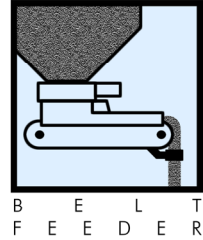
Please contact WÖHWA if belt feeders are to be mounted at an incline and / or product feed is difficult (sticky products) as well as for special material feed chutes.



# WÖHWA

## belt feeder

### operation and maintenance instructions



#### safety instructions

- Installation and maintenance works are to be carried out by trained personnel only. WÖHWA cannot be held responsible for damages caused by improper installation or maintenance.
- Before starting maintenance work, turn off and lock out the motor power supply to prevent inadvertent restarting.
- Prior to start-up, the rotation of the motor is to be checked.
- The emergency shut-off gate above the belt feeder 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 belt feeder.
- Never touch moving parts. Never move your hand into the discharge area of a gate. The gate may suddenly be closed by the control system. Never move your hands into the material feed.
- Never change or adjust seals during belt operation.
- Suitable lifting gear must be used for installation or removal of the belt feeder.
- The safety instructions of the motor manufacturer are to be strictly observed. Refer to the motor manufacturer's operating and maintenance instructions.
- The belt feeder must only be used for the application it was intended for.
- All electric terminal boxes are to be carefully reclosed to avoid ingress of moisture.
- All warranty claims shall be forfeited if any changes or modifications to the belt feeder are carried out on site by the client or any third party.

