

JHminiStrø

Bale Opener with High Conveyor Model HBT



USER MANUAL

CE

Der tages forbehold for trykfejl og ændringer

JH Agro A/S can accept no responsibility for possible errors and changes

Irrtümer und Änderungen vorbehalten

Contents

Introduction.....	3
EU declaration of conformity	3
Safety regulations.....	5
Function Description	6
Main parts	6
Dimensional sketch.....	8
Installation instructions	8
Lifting instructions.....	9
Assembling.....	9
Ordinary use of the machine	12
Load of straw bales.....	12
Troubleshooting	12
Cleaning	14
Maintenance intervals.....	14
EL-control.....	15
Electrical connection	15
Parts List	16
Destruction	19

Introduction

Dear Customer

Congratulations on your JHminiStrø device. This manual contains information that is important for proper and safe installation and use of the facility.

JH Agro A/S is working systematically to design the structure so that the user of the product experience full satisfaction of the product.

JH Agro A/S seeks a construction, which is secured the best possible way against accidents. Unfortunately, there are some features of the machine, which can not be secured without compromising the performance of the machine. Therefore, there are formed a few safety rules in the form of warnings in this manual as well as direct transfers warnings on the machine.

You should therefore read these instructions carefully before using the machine.

The user manual is structured, so that you will be informed in detail in the order of which you naturally will need the information about your new machine. This applies from the machine's installation, programming and use to general maintenance and inspection.

This manual describes the latest version. JH Agro A/S reserves the right to modify and improve instruction manual as well as design and construction of the machine, without obligation to make such changes on previously delivered products.

Best regards

JH Agro A/S

EU declaration of conformity**EU declaration of conformity**

Manufacturer:
JH Agro A/S
Lundholmvej 41
7500 Holstebro
Tlf.: +4597428189

Technical dossier can be obtained from the manufacturer.

Declares that

Model/Type Bale Opener with High conveyor for big bales model HBT

Serial number / year _____

is manufactured in accordance with Council Directive of 29 December 2009 on the approximation of the laws of markets (2006/42/EF) with special reference to Annex 1 on essential safety and health requirements for the design and manufacture of machines.

Used the following harmonized standards:

EN 60204-1
EN ISO 13850
EN ISO 13849
EN 13857 (EN 294)
EN 12100

JH Agro A/S



Date Lars Rahbæk
CEO

The machine has a noise level below 70 dB(A).

Safety regulations

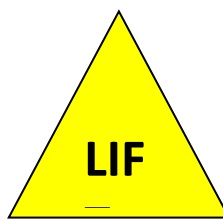
Read these safety regulations, notice the warning signs on the machine and implement the safety routines in your daily workflow.

Pay attention to these three symbols on the machine and in the User Manual!



Keep your distance

Starts on automatic



Lifting points



Danger

Rotating parts

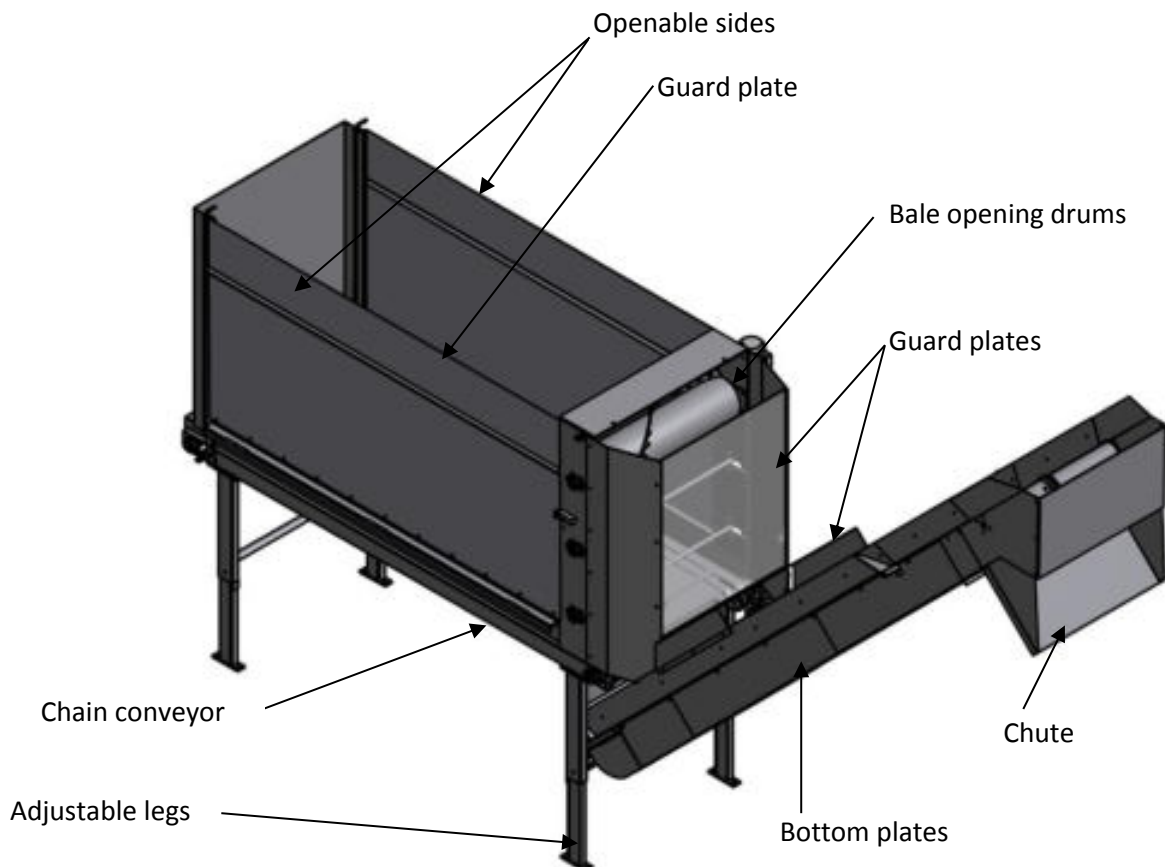
1. Make sure that children or adults who can not take care of their own safety, do not move around the product unaccompanied by adults, who can operate the product.
2. In cases, where people may be trapped between the machinery and other fixed objects (walls, etc.), these danger zones must be marked with warning signs, if it isn't possible to remove the clamp risk.
3. Never do the cleaning, lubrication, maintenance or repair work on the machine without the safety switch is turned off and locked.
4. Never try to remove foreign objects from the machine without the safety switch is turned off and locked.
5. The machine must not be used other than its intended purpose - to store and dose straw.
6. Keep all guards and safety measures in place and in order, when the safety switch is connected, or when you leave the machine with the unlatched safety switch.
7. Never install larger fuses in electrical installations other than those specified by the factory.
8. Electrical installation and electrical repairs must be performed by a licensed electrician or an authorized JH Agro technician.
9. Service inspection must be carried out at applicable intervals. This is important as negligence may cause downtime, which can lead to unqualified persons are injured.

- Changes of machine may only be performed by persons, authorized by supplier to assess, whether the changings meet the requirements of EU declaration of conformity for this machine, and will if necessary draw up an EU declaration of conformity.

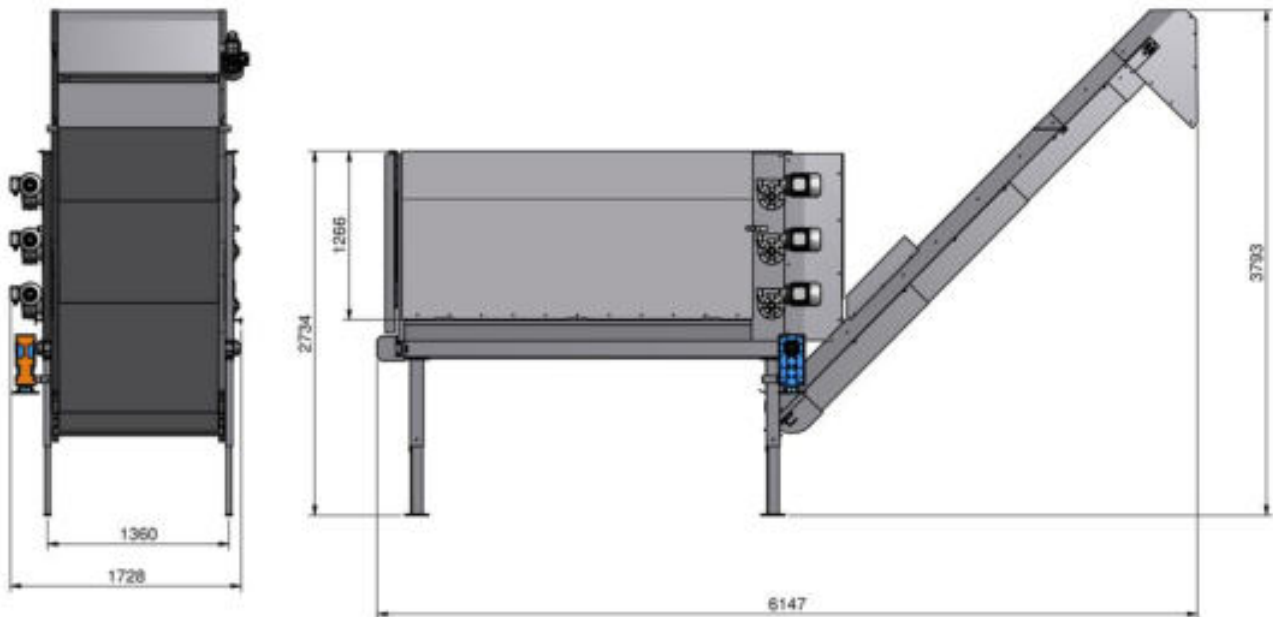
Function Description

The Bale Opener with High conveyor model HBT is intended to open big bales (bales with dimensions W:1,2 x H:1,2 x L:2 m) and to transport the straw into a JHministrø distribution robot. Straw bales should be placed on the conveyor table in front of the Bale Opener, the straps must be removed. The straw bales will move slowly towards the opening drums, which tear the straw apart into a loose mass. After that the straw falls into the conveyor that lifts it into the JH Ministrø robot.

Main parts



Dimensional sketch



Installation instructions

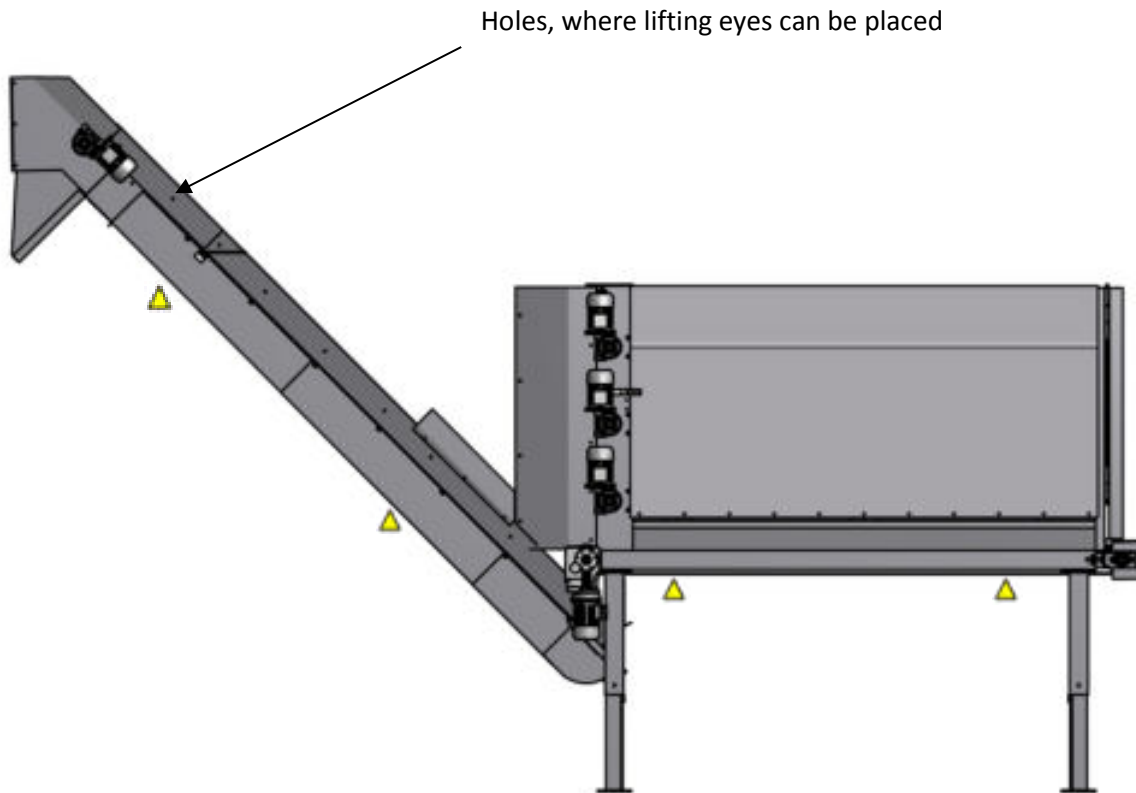
The High Conveyor is delivered with a mounted chain, which is tightened up, and has been tested at the factory. Loose parts for installation on site are placed in the chain section of the Bale Opener, together with all necessary bolts, nuts and screws.



Loose parts must be removed before a crane or other equipment moves the chain section.

Avoid shock impacts of the machine when transporting, as this may damage the machine

Lifting instructions




The machine has to be lifted at the points labeled .

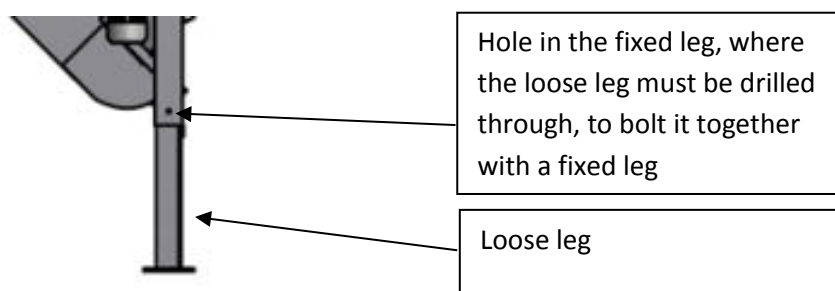
The conveyor can be lifted with the help of lifting eyes, mounted in the holes in the sides.

Assembling

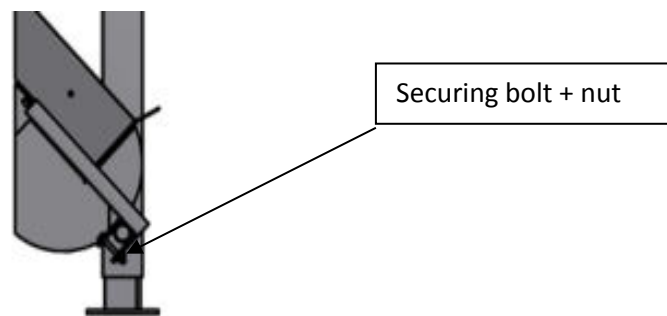
The high conveyor must be placed on a fixed and stable base, where the conveyor can be bolted to with expansion bolts.

1. Remove loose parts from the Bale opener / conveyor.
2. Lift Bale Opener up to the desired height at the two lifting points, marked "", then drill through the loose leg and bolt the four loose legs firmly to the desired discharge height.

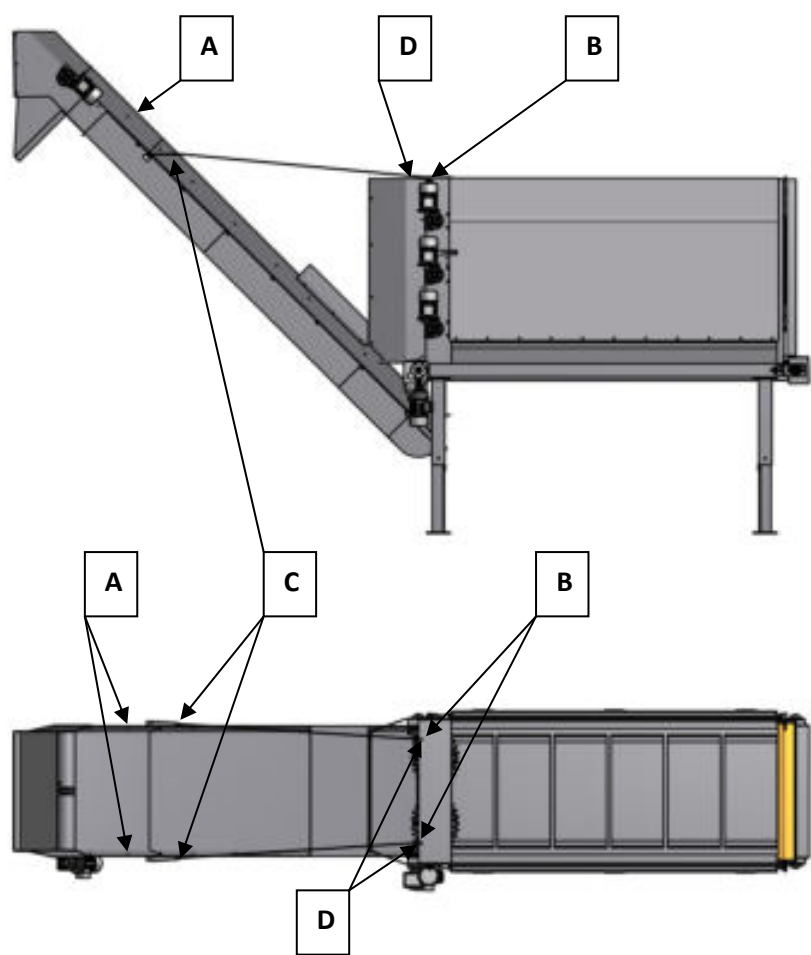
Note: The loose legs have welded end plates where the lowest position of the bale opener should be. This is an important safety precaution, so they should not be cut away.



3. Lift the high conveyor at the two lifting points, marked "▲", and place the conveyor's two forks on to the transverse tube between the front legs of the bale opener. Remember to mount securing bolts in the forks so the conveyor part can not jump out of the legs stiffening.



4. Tighten the pulley between points A and B and pull the conveyor up to the desired height / angle. Mount supplied wire in the holes pos. C and D. Use shackles to mount the wire in the holes. Eyes on the wire should be made by means of wire thimbles and wire ropes. Wire tensioners must be placed at pos. D.



5. The machine can now be placed, where it should deliver the straw to the Ministrø robot. Keep in mind that the center of gravity of the machine is very close to the legs, where the conveyor is mounted.



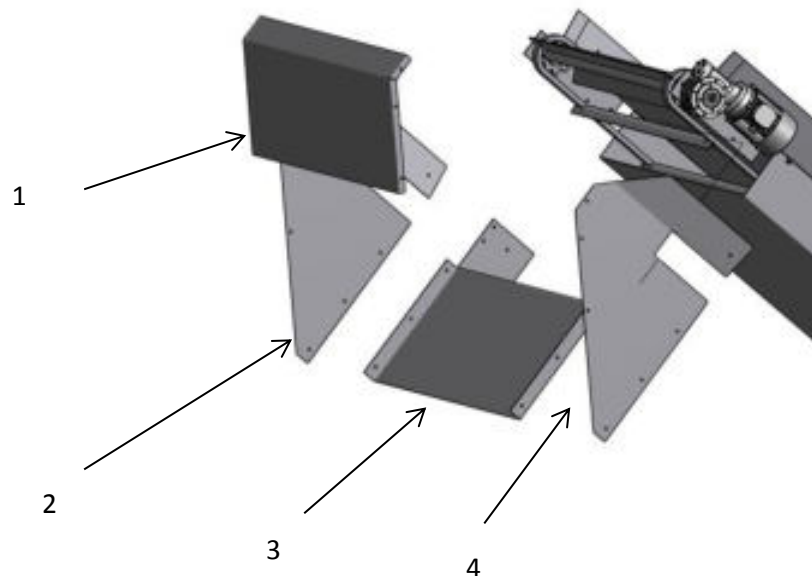
Pay attention to the center of gravity of the machine, when you put it into place

6. When the machine is in the desired position, attach it to the floor with expansion (anchor)bolts.



The machine must be fixed to the floor with anchor bolts

7. Mount the chute (pos.3) and the two triangular guards (pos.2 and 4) and a guard (pos.1). Possibly shorten chute and triangles (pos. 2, 3 and 4) to the desired length.



Ordinary use of the machine

The machine operates automatically, and is therefore as such not to be operated.

Load of straw bales

Open the side plate of the machine and put the big bale onto the table. Be aware that the bale is placed in centrally in the machine. Close the side plate again. The machine can not run with the side open, because of the mounted safety switch. The machine must be reset after it is closed.

Trouble shooting

Drum Rollers get stuck

If the drum rollers have been jammed, you can manually drive the bale back in the machine, thereby reducing the pressure on the rollers. If it is not enough, you can manually remove a part of the stuck straw.



Check that the safety switch is turned off and locked

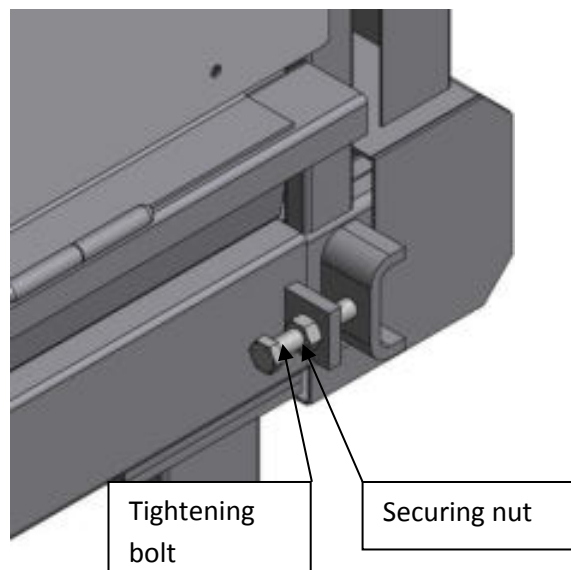
If this happens repeatedly that the rollers get stuck, the driving time of the conveyor chain must be reduced.

Tightening of chain

You can tighten the conveyor chain of the table at the back of the machine.

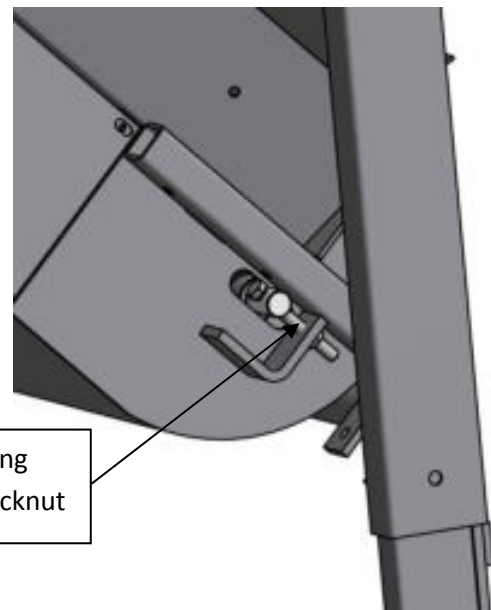
In order to do this, loosen the lock nut and rotate the tightening bolt, so that the end of the shaft is pressed off the machine. If the bolt can not give more, contact JH Agro A/S or a dealer, so a technician can shorten the chain.

The chain can hang approx. 10 cm. in the middle



To tighten the high conveyor chain, loosen the counter nut first and then tighten the bolt. This must be done the same way on both sides of the machine, as uneven tension of the chain will cause an uneven load and therefore greater wear on one of the chains.

You should tighten the chain, when you can hear that it starts scratching against the bottom guard plates.



Tightening
bolt + locknut



**Make sure the safety switch is turned off and locked during tightening
After tightening, all shields must be reinstalled**

Greasing of bearings

Flange bearings on the machine are fitted with grease nipples. The bearings must be greased very carefully. Max. half-strokes and very slowly for not to push the sealing rings from its seat.

Gear motors

Gear motors are generally maintenance free. If a gear starts leaking oil you should contact JH AGRO or a dealer, to get the damage repaired or replace the gear motor.

Replacement of flights on conveyor.

Start the machine. While the damaged flight is on the upper side of the conveyor, turn off the power in the control cabinet. Unscrew the old defect flight and mount the new one with the old bolts and nuts.



Check that the safety switch is turned off and locked.

Cleaning

Keep the floor area around the machine clean of loose straw. Clean the motor end cover for straw. Straw, stuck to the drum rollers, can be removed by first running the bale so far backwards in the machine as possible. When the bale has been moved back, the safety switch must be turned off and locked. Then you can open the side door and work that way in.



Check that the safety switch is turned off and locked.

Maintenance intervals



Check that the safety switch is turned off and locked.

Daily:

1. Control that the alarm button is not lit on the control cabinet.
2. Check that there is enough straw for today's consumption.

Weekly:

Clean the machine for stuck straw.

Monthly:

Clean the receiver / sensor for filling.

Every 3rd month:

1. Check conveyor chains on the filling equipment.
2. Grease all fittings with a grease gun.
3. Observe, if all flights on the high conveyor are functional.

Annually:

Annual service by a JH Agro technician or a dealer

EL-control

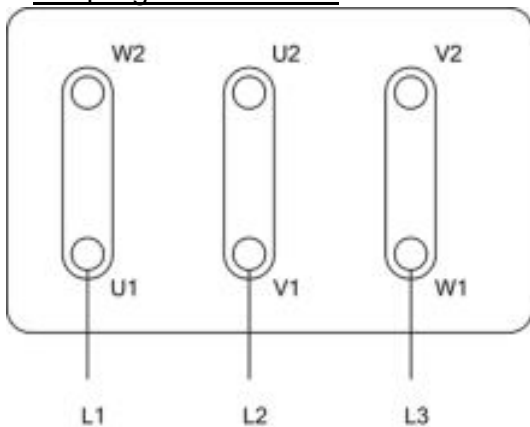
Electrical connection

When installing the machine, the power must always be disconnected and the machine secured against accidental startup.

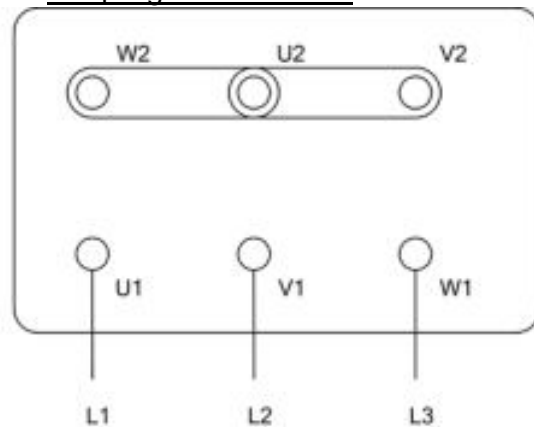
The machine must always be used with motor protection switch with zero voltage release and must be fitted with Lock-off safety switch in connection with the installation site. The Bale Opener may only be connected by licensed electrician, in accordance with high voltage regulations.

The motor supply voltage must match motor sign data.

Coupling to 3x230 VAC



Coupling to 3x400 VAC

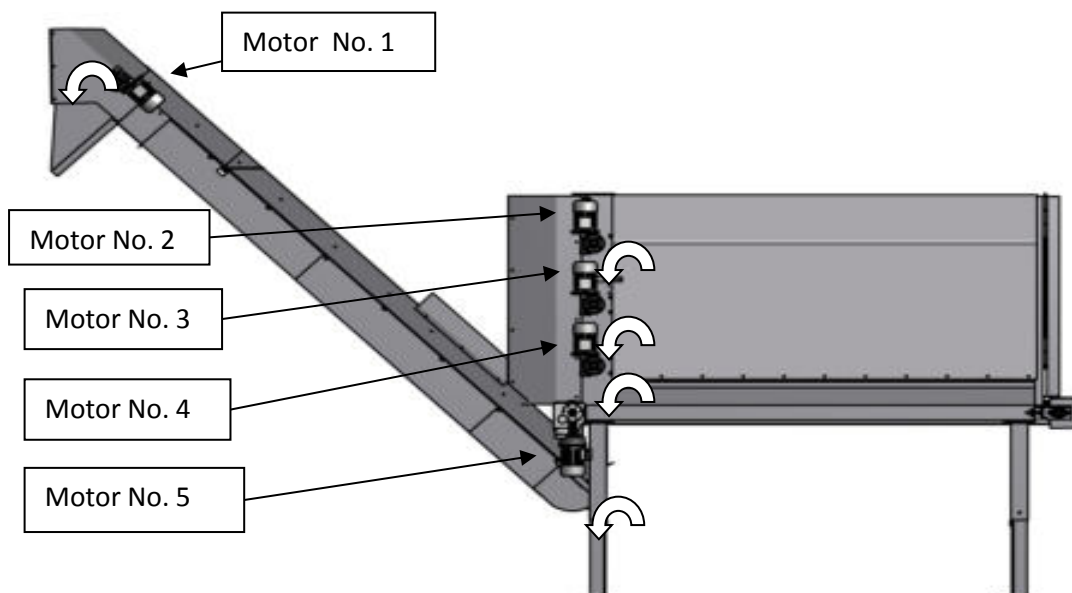


Motors must be connected according to motor nameplate

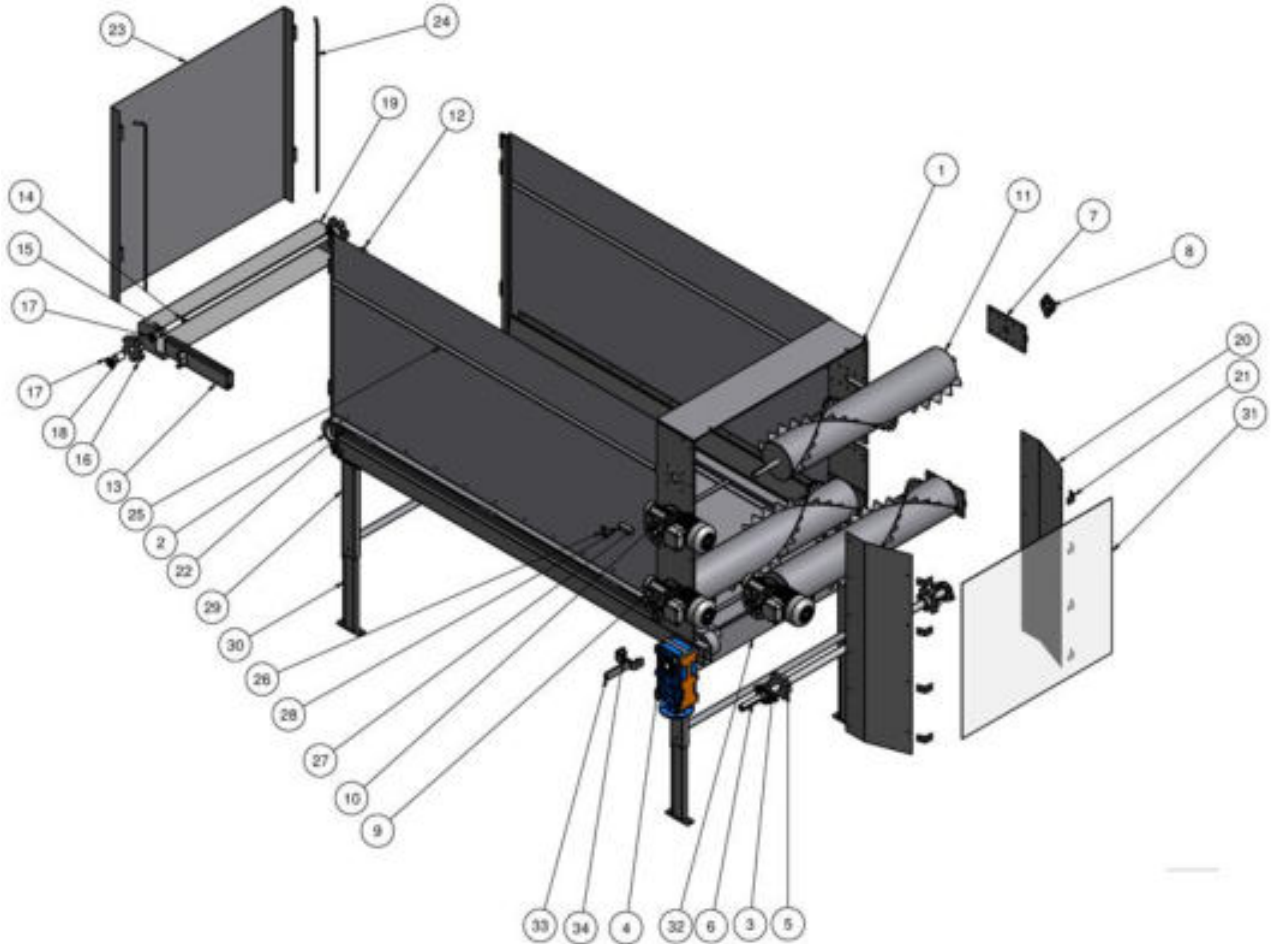
Note!

To avoid risk of electrical shock, all wiring above floor must be encapsulated, so it is protected from rodent attack.

Rotation of gear motors numbers during operation.

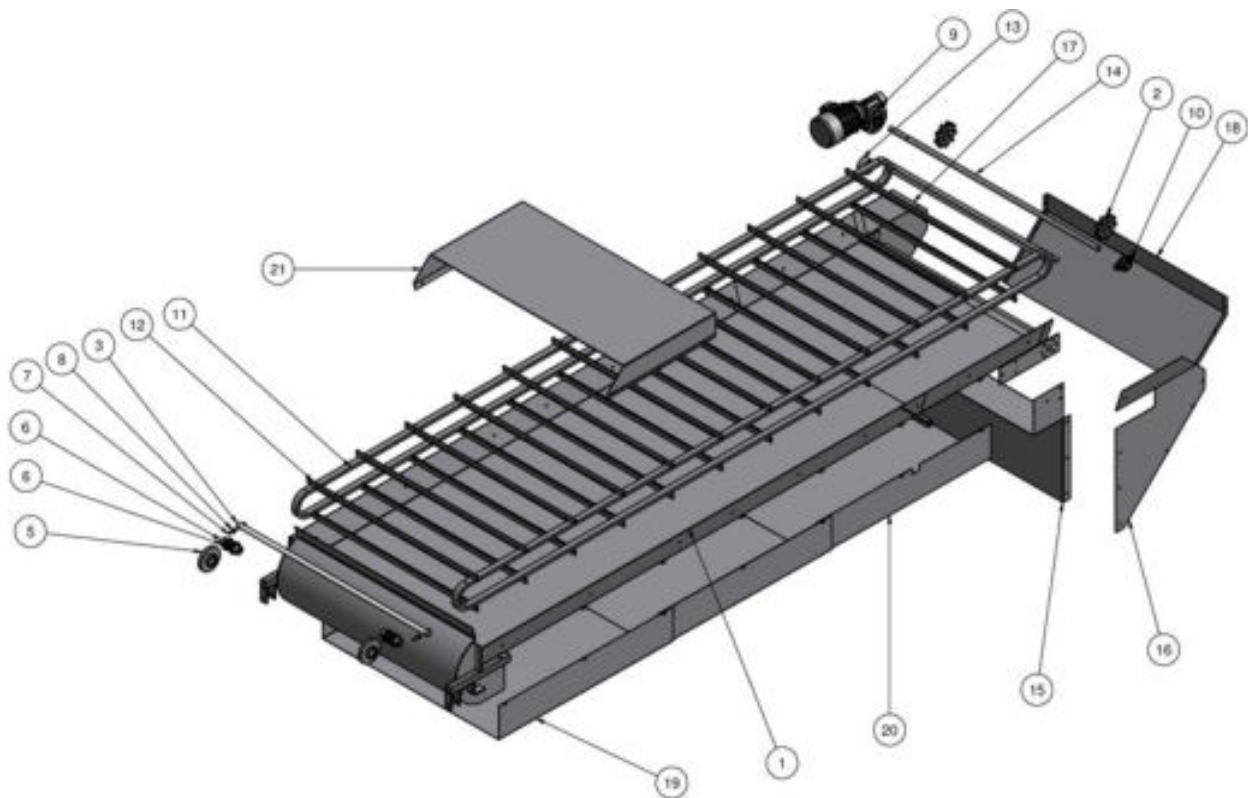


Parts List
Bale Opener



Pos.	Pcs.	Product nr.	Description
1	1	PS1401	Chassis for HK
2	1	PS1469	Conveyor chain
3	2	PCJTY45	Flanged housing unit
4	1	T_C_100_C_400_80_B5_O_B3_H42	gear motor
5	2	PS1466	Sprocket Kohlswa 78 6 teeth
6	1	PS1465	Drive shaft for chain of straw dosing unit Bigbale
7	3	PS1428	Side bracket for Roller
8	3	PCJTY35-N	Flanged housing unit
9	2	PS25110	Gear motor RMI 85 /1,5 kW i=20 RPM 1500
10	1	PS25115	Gear motor RMI 85 2,2 kW i=20 RPM 1500
11	3	PS1403	Shredder Roller
12	1	PS1433	Bearing base for chain conveyor right
13	1	PS1432	Bearing base for chain conveyor left
14	1	PS1470	Rear shaft for conveyor chain
15	2	PS1482	Locking ring $\varnothing 50 / 32 - 20$
16	2	PS1467	Sprocket Kohlswa 78 6 teeth.
17	4	PS1481	Thrust washer PA6
18	2	PS1480	Slide bearing PA6
19	1	PS1473	Rear guard for conveyor chain
20	2	PS0972	Shielding at Rollers HK/HB
21	8	PS0087	Fitting for protection plate
22	2	PS0906	Hinge jamb for HK/HB
23	1	PS1404	End-plate hinged HK/HB
24	2	PS0924	Nail for end-guard HK/HB
25	2	PS1421	Side plate for dosing unit
26	2	PS0142	Bracket for key door contact
27	2	Omron D4NS-4AF	
28	2	Omron D4DS-K2	
29	2	PS1408	Legs for chassis
30	4	PS0905	Foot pilar
31	1	PS1488	Protection plate at rollers
32	1	PS1439	Roller guard
33	1	PS1442	Torque bracket for conveyor chain drive
34	2	Rubber Buffer $\varnothing 40$	
35	2	B016080	Bolt M16 x 80
36	2	M016	Nut M16

High Conveyor



Pos.	Pcs.	Product nr.	Description
1	1	PS1501	Conveyor frame
2	2	PS0048	Kohlswa 55/62 9 teeth Ø25
3	1	PS1509	Conveyor shaft (BT conveyor)
4	4	PS1511	Slide bearing for chain conveyor BT sprocket
5	2	PS0049	Kohlswa 55/62 9 teeth Ø52
6	4	PS1512	Locking ring Ø40/25-28
7	2	B012100	Bolt M12 x 100
8	2	M012	Ecrou H M 12, Inox
9	1	PS25005	Gear motor
10	1	Flangeleje Ø25	Flanged housing unit
11	2	PS1513	Chain for conveyor BT
12	25	PS1514	Flight / cleat for conveyor BT
13	1	PS1517	Spacer bush gear motor conveyor BT
14	1	PS1518	Drive shaft for conveyor BT
15	1	PS1519	Discharge plate for conveyor BT
16	1	PS1520	Side for conveyor BT discharge right
17	1	PS1521	Side for conveyor BT discharge left
18	1	PS1522	End plate for conveyor BT discharge
19	2	PS1523	Back plate for conveyor BT
20	1	PS1525	Back plate for conveyor BT with cut-out for wire
21	1	PS1526	Shielding at Rollers

Destruction

Once the product is worn and must be disposed, disposal must always be done according to national regulations.

The product in its entirety may be returned for destruction to JH Agro, freight free for JH Agro.

Complaints and warranty provisions

All JH Agro machines are made of selected materials in a carefully controlled manufacturing process. Before delivery a careful inspection of the product will be carried out.

Within the warranty period, JH Agro shall rectify any material or manufacturing defects at no charge, if work is performed within normal working hours.

Claims must be made to JH Agro or nearest JH Agro service center of your choice.

However, it is a prerequisite:

- That the claim is reported immediately after the defect is discovered.
- That the defective machine is sent FRANCO to the factory or the nearest JH Agro service center.

Addresses of these can always be stated on phone number +45 9742 8189

- That there has been no interference with other machines than those, described in the operational and service instructions.
- That machine has not suffered harm or neglect.

It should be added, that normal wear and indirect damages are not covered by the above warranty. All moving components are considered as wearing parts and are not covered by the above warranty.