

# MOUNTING INSTRUCTIONS



## TRACTION STATION MAXI DRIVE UNIT



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**DANISH DESIGN | GERMAN QUALITY | GLOBAL EXPERIENCE**

### Manufacturer and product data

*Manufacturer:* ACO Funki A/S  
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Denmark  
Tel. +45 97 11 96 00

*Product type:* Traction station, Maxi Drive Unit

Every effort has been made to ensure that the contents of this manual are correct. However, should you discover any errors, please inform ACO Funki A/S immediately so that they can be corrected.

Despite our efforts, ACO Funki A/S accepts no liability whatsoever for possible errors in the manual or for the consequences of such errors.

ACO Funki A/S reserves the right to change the contents of the manual without prior notice.

### 1.1 General safety instructions

This product has been designed and manufactured in accordance with the latest engineering standards and acknowledged safety regulations, making it highly reliable. The product may, however, be dangerous for operators or third parties and may cause material damage if operated by unqualified persons or for purposes other.

- The following safety instructions must therefore be carefully read and observed.
- The product must only be used for its intended purpose. The general instructions regarding safety and accident prevention must be observed at all times.
- Qualified personnel are persons who by reason of their training, experience or instruction and their knowledge of relevant standards and regulations, accident prevention instructions and operating conditions have been authorised by the person responsible for the safety of the machine to perform appropriate everyday activities, including the identification and prevention of potentially hazardous situations (IEC 364).
- The machine must only be operated by trained personnel. Children may only operate the machine if over 16 years of age, supervised by a qualified adult and where such operation forms part of their training/education.
- To ensure personal safety and reliable operation, only original accessories and spare parts from ACO Funki A/S must be used.
- For safety reasons, unauthorised machine alterations are not permitted.
- Maintenance and repair (of electrical parts in particular) must only be performed by qualified and trained personnel.
- Voltage-carrying, pressure-activated and rotating or in any other way moving machine parts may cause serious or fatal injury if operated incorrectly or if safety instructions are not observed.
- Protection devices must never be disconnected during operation and must never be altered or weakened in relation to their intended effect.
- Current national and international guidelines and regulations regarding accident prevention must be observed at all times, as must general safety requirements.

**NOTE: THE DANISH VERSION IS THE ORIGINAL SAMPLE, ALL OTHER LANGUAGE VERSIONS REFER TO THE ORIGINAL SAMPLE.**

### 1.2 Key to symbols

If the safety instructions described in this manual are not observed, personal injury or material damage may result. Such damage may prevent the machine from functioning correctly. Safety instructions and instructions for trouble-free operation are accompanied by the following symbols:



**Warning symbol in accordance with ISO 3864 B.3.1.**  
**Caution: risk of personal injury or material damage.**



**Warning symbol in accordance with ISO 3864 B.3.6.**  
**Caution: risk of electric shock.**



**Information symbol in accordance with ISO 3864 8.4.**  
**Important instructions for preventing damage to the machine and its function.**  
**Instructions for reliable, problem-free operation.**

Sections of this manual accompanied by one of these symbols should be read with particular care!

## DECLARATION OF CONFORMITY

### ACO Funki A/S hereby declares that:

**Machine:** Traction station, Maxi Drive Unit

**Application:** The traction station must only be used for dry feed (pelleted or meal)/ straw

**Article No.:** 0211-810, 0211-815, 0211-820, 0211-825, 0211-830  
0211-850 feed transport/ straw

**Standards:** The machine conforms to the following standards:

- EN 292-1 Safety of machinery - part 1

The traction station is manufactured in accordance with the council's directive of 10/06/2013 Machinery Directive 2006/42/EC with subsequent amendments



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01.06.2022



  
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Lene Bryde

## 3.1 Article No.

Traction station, Maxi Drive Unit

0211-810, 0211-815, 0211-820, 0211-825, 0211-830  
0211-850 feed transport/straw

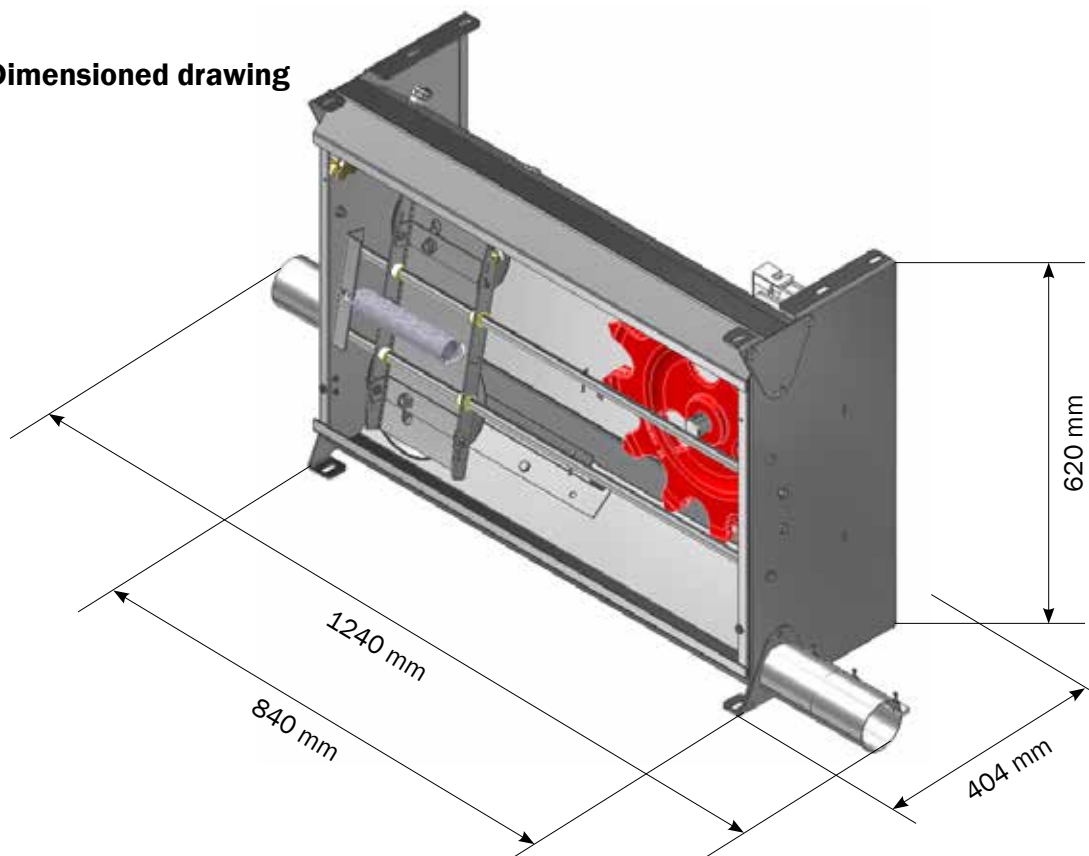
## 3.2 Application

The traction station, Maxi Drive Unit is for dry feed (pelleted or ground feeds)/ straw.

## 3.3 Materials

The traction station is made in stainless steel.

## 3.4 Dimensioned drawing




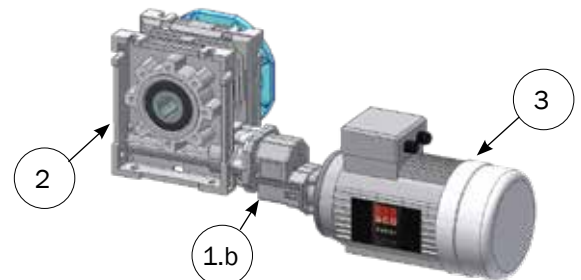
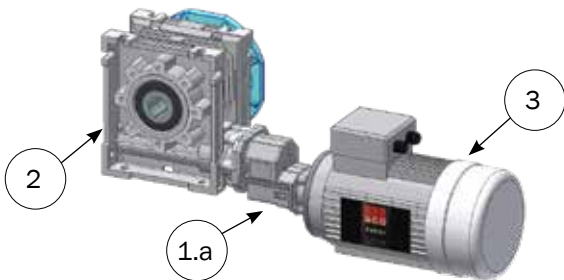
## 3.5 Weight

All article No.: 95 kg

## POWER-REQUIREMENTS

### 3.6 Power supply

ENGINE SPECIFICATIONS									
	Part No.	IE Nr.	U	F	I	kW		Slut om	
	a	45101443	03	240V / 400V	50Hz / 60Hz	8,3 / 4,8	2,2	1440 / 1730	18/min
*	b	45101445	03	240V / 400V	50Hz / 60Hz	8,3 / 4,8	2,2	1440 / 1730	29/min
	1.a	45101441							
	1.b	45101444							
	2	45101442							
	3	45101440							



\* 0211-850 for straw

## HANDLING

### 4.1 General handling instructions

The product must not be subjected to impact, sudden temperature changes, direct sunlight, damp surroundings or strong electromagnetic fields.

### 4.2 Transport packaging

The product is delivered packaged. Do not remove the packaging until the product has been transported to the installation site.

### 4.3 Storage

The product must be stored in a warm, dry place.

### 4.4 Unpacking

On delivery, check the product for transport damage. ACO Funki must be informed of any transport damage without delay. If the product is damaged in any way, it must not be taken into operation.

### 4.5 Possible risks during installation

The machine contains parts that can be sharp and heavy. Use work gloves and safety footwear when working with the machine.

### 5.1 Electrical connections



**All cables must comply with current regulations. Note that there may be special requirements on the use of reinforced cables in agricultural buildings. ACO Funki accepts no liability for damage caused by the use of unsuitable cables or incorrect installation.**

- Before connecting the equipment to the power supply, check that the mains voltage and frequency are compatible with the equipment to be used.
- The motor must be protected by a motor protector in accordance with current regulations regarding the connection of electric drives. Check that the motor protector settings comply with the data stated on the motor name plate.
- Before connecting the motor, check the phase order for motor rotation direction.

#### 5.1.1 Power supply

Connect the drive unit electric motor to the mains.

See also section 3.6 Power requirements (voltage, output, power consumption, speed).

### 5.2 Main and emergency power circuit breaker

The machine must always be equipped with a mains circuit breaker in accordance with current regulations.

### 5.3 Connection to other equipment



**Control unit: see instructions for unit concerned.  
Drive unit: see instructions for unit concerned.**

### 5.4 Possible hazards during installation

- Pay attention to the pull direction of the transport chain (power line).
- Pay attention to the direction of rotation of the motor when connecting the electricity.
- Reference is also made to the assembly instructions for the electric motor.
- Motor protection is adjusted in relation to the power of the electric motor.
- Recording station / flex auger should not be placed before the pulling station.

## WARNINGS

### 6.1 Intended use

The reception unit must only be used for dry feed (pelleted or meal). Model 0211-850 used for straw.

If, despite this instruction, the product is used for purposes other than its intended use, the warranty and all other liabilities will be waived.

### 6.2 Expected operator contact

As the reception unit is usually operated via a control system, personnel will not be in direct contact with the reception unit.

### 6.3 Special safety instructions

The traction station contains various rotating parts that are shielded.



**The front panel must never be removed during operation!**

If this regulation is not observed, there is a risk of getting your fingers caught in the transport chain. When the front door is removed, the system stops. Switch must not be disabled.

## INSTALLATION INSTRUCTIONS

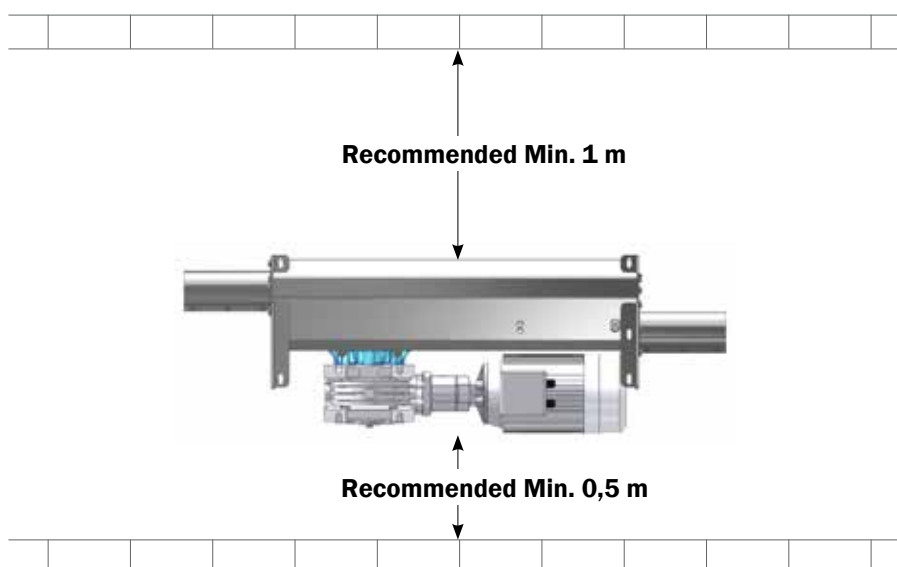
### 7.1 Requirements for foundations

The surface must be flat and stable. The traction station is anchored to the base or wall.

### 7.2 Necessary space around the machine

For the sake of servicing the machine, the following distances are recommended:

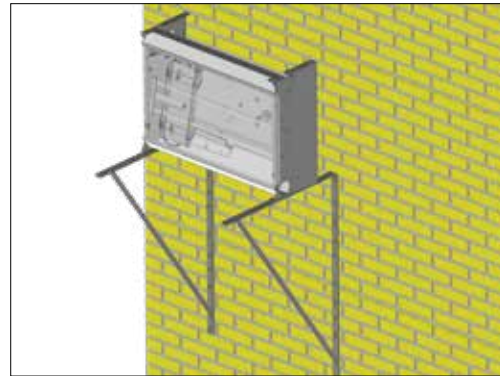
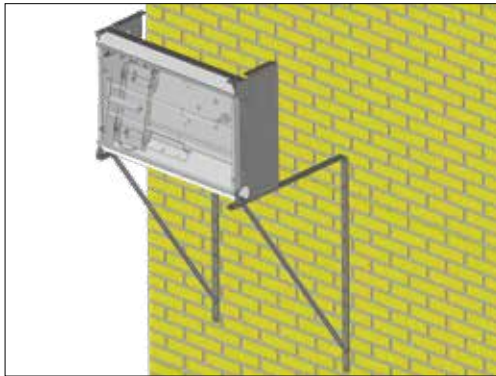
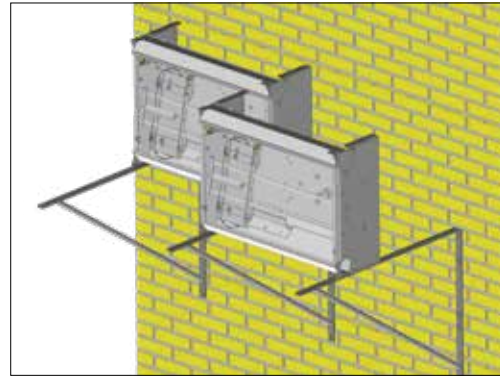
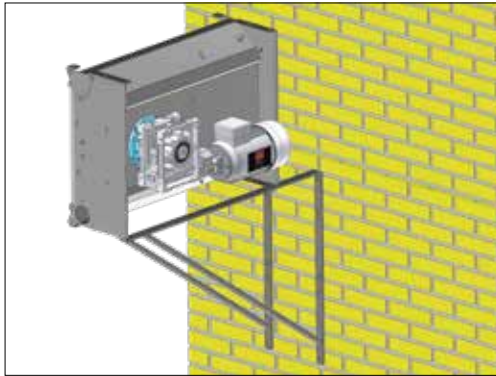
- Behind the machine to the wall - minimum 0.5 metres
- In front of the machine to the wall - minimum 1 meter



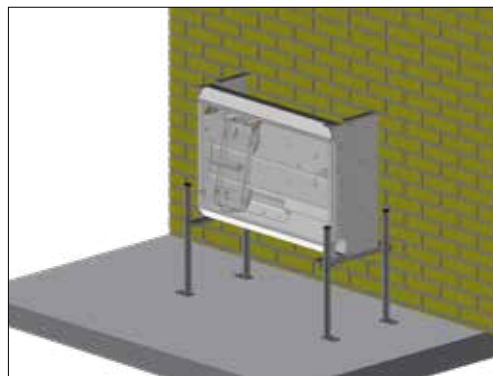


## 7.3 Installation with supports in the wall and on the floor

When mounting on a wall, the traction station can be mounted in different ways:



Installation on the floor:

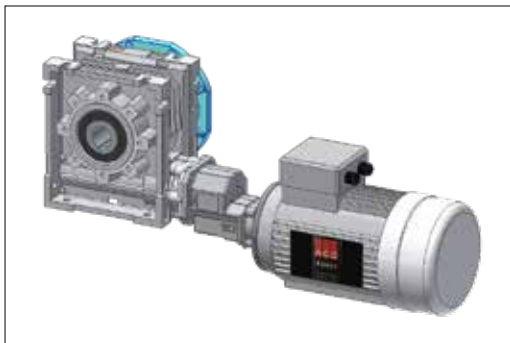


# INSTALLATION INSTRUCTIONS

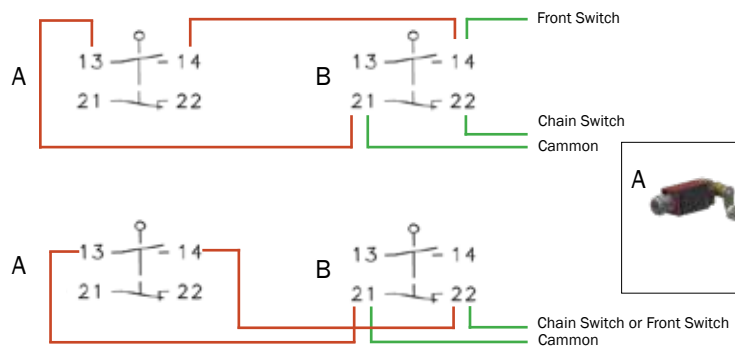
## 7.4 Included components

- Motor
- Sensor tube
- Joint sleeve
- Chain (joint, label, break piece, set screw, nut)
- Engine speed sensor not included as standard

### 7.4.1 Installation of el-motor



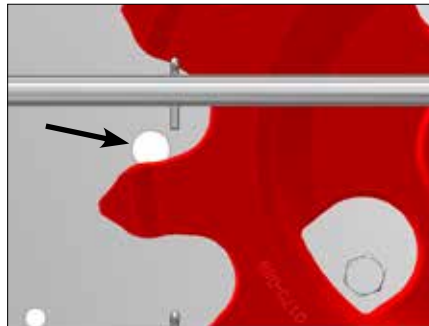
Switch connection



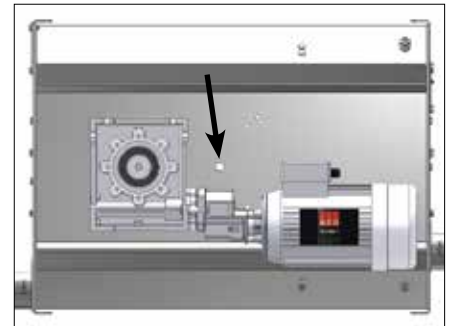
### 7.4.2 Installation of the engine speed sensor (extra equipment)



If Multicontroller or Funki Net Dry Feed controls are used, a engine speed sensor can be fitted.



When mounting the engine speed sensor, remove the cover from the hole next to the gear.



A screw is inserted into the hole on the back of the traction wheel.



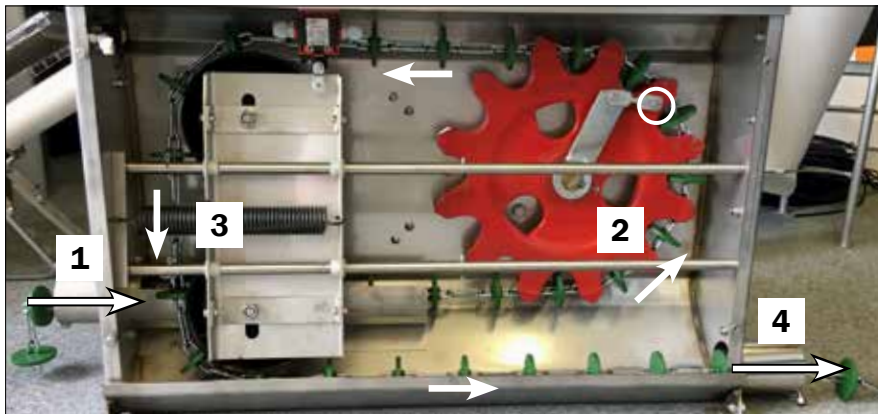
The engine speed sensor (without the outermost nut) is passed through the hole. The nut is screwed on from the other side.



It is ensured that the distance between screw and engine speed sensor is min. 2 mm and max. 4 mm.

# INSTALLATION INSTRUCTIONS

## 7.4.3 Assembly and installation of transport chain



The breaking part on the drive wheel is removed (marked with a circle).

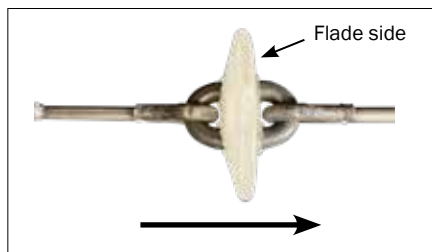
The transport chain is guided through the inlet pipe (1), around the traction wheel (2) and the tension wheel (3) and through the outlet pipe (4).

The chain is moved forward by means of the traction wheel, which can be turned freely when the breaker is removed.

PowerLine or Master Chain can be used for feed transport. It is important that the chain is inserted and turned correctly. For both types of chain, the system must, after loading the chain, run without feed and with attached swivels for min. 2 hours, to ensure that the chains are straightened; however, this does not apply to 38 mm chains.

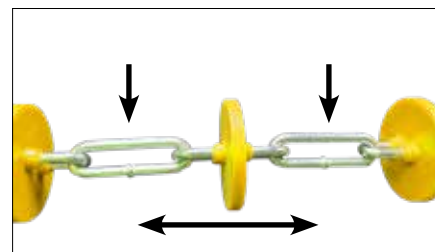
See the PowerLine and Master Chain assembly instructions for more assembly instructions.

### PowerLine chain

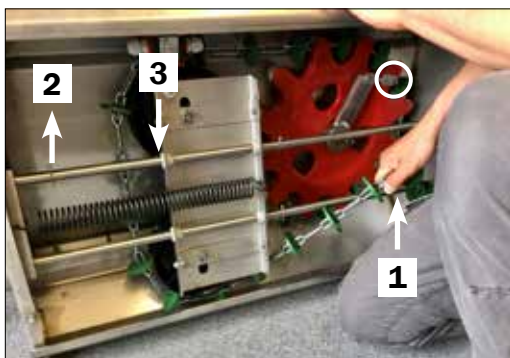


Make sure the pieces are facing correctly. The flat side of the pieces must face the feed direction

### Master Chain



Make sure the weld joint on the joints faces away from the center of the drive wheel



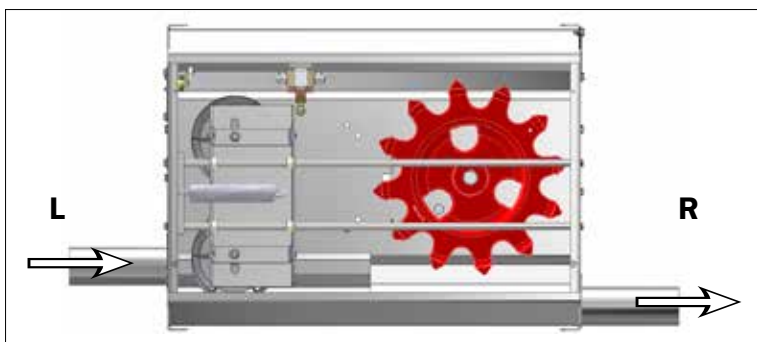
On delivery, the tensioner wheel is tightened.

When the connecting link is mounted, the chain (1) is pulled up so that the tension wheel bracket is pulled to the side (4). Hold the pull while the locking pin (2) on the slide bar is removed and inserted into the second hole on the slide bar (3). The tension in the chain can then be relaxed again. When assembling the transport chain, the aim is to get the tension wheel as close to the drive wheel as possible.

The breaking part is mounted again on the traction wheel (marked with a circle).

**Remember** to move the locking pin back to (2) before starting the traction station.

## 7.4.4 Inlet and outlet



Delivered L against R.

To fit the inlet and outlet pipes, remove the front door.

L = Inlet left side

R = Outlet right side

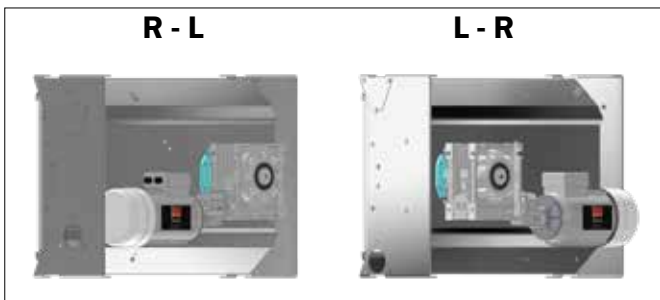
Inlet and outlet pipes must be supported with support posts or wall brackets close to the draw station. The drawing station shown has an inlet on the left side and an outlet on the right side.

Model designation L-R. It can be reversed.

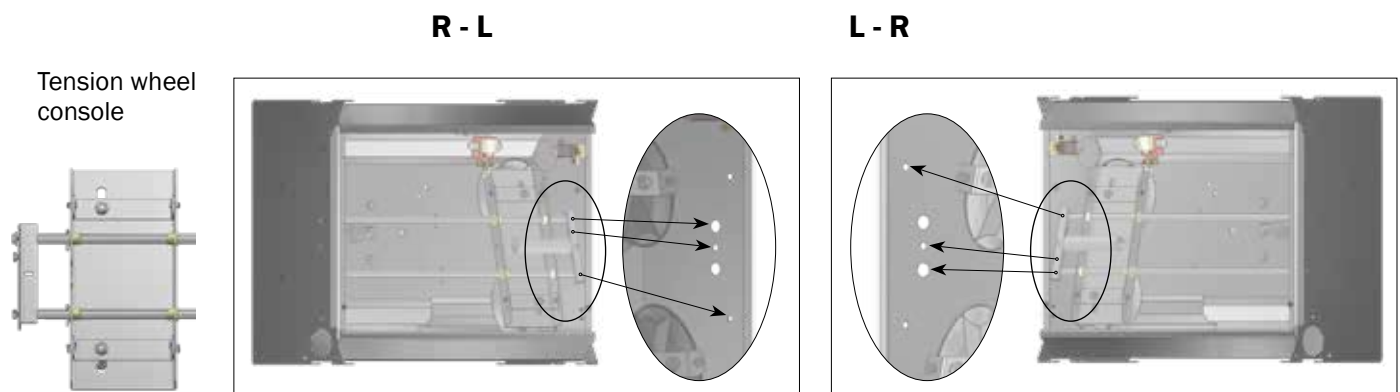
# INSTALLATION. CHANGE OF DIRECTION

## 7.5 Change of direction

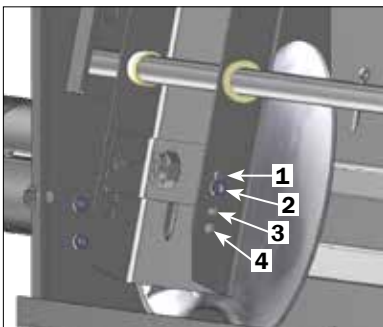
The traction station's drive direction can be changed. The following procedure describes changing direction from left inlet to right inlet



Change the gear from R-L to L-R by dismantling the gear and changing the position of the flange.

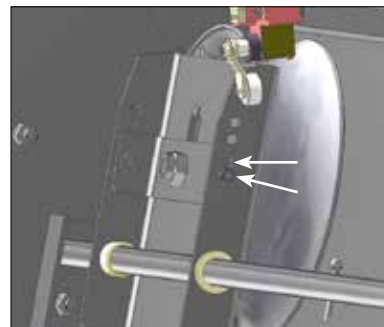


Change of tension wheel console from R-L til L-R. Use the holes shown for mounting.



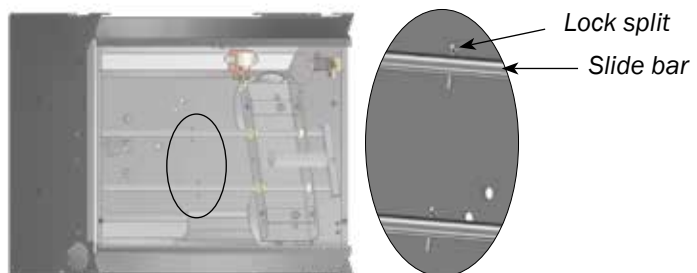
The tension wheel is adjusted accordingly chain size:

1. 76 mm
2. 60 mm (default configuration)
3. 50 mm
4. 38 mm

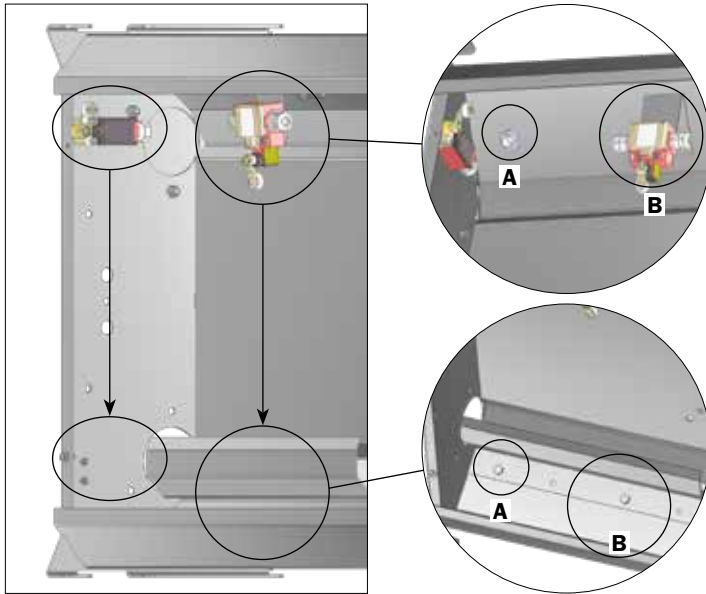


At the top, the tension wheel is set in one of the two lower holes.

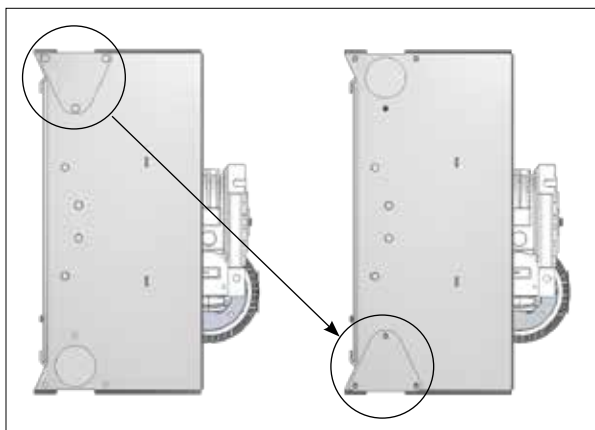
The slide bars must be turned so that the locking splits can be inserted from above.



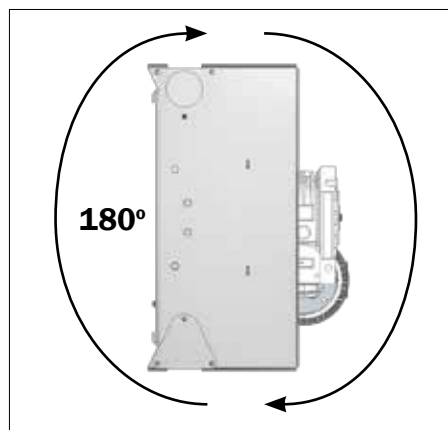
# INSTALLATION



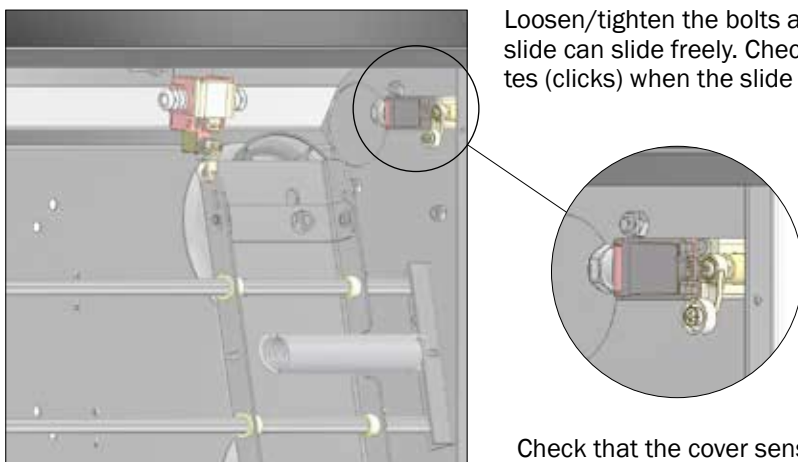
Move sensor for cover, tension wheel, cable entry and feed intake.



Move feed intake.



Then turn the traction station on the head.

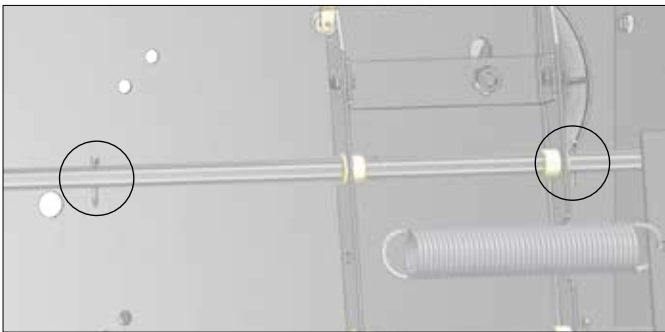


Loosen/tighten the bolts at the ends to ensure the slide can slide freely. Check that the sensor activates (clicks) when the slide hits the locking splits.

Check that the cover sensor is activated (clicks) when the cover is attached.

# INSTALLATION

Assembly of traction wheels after installation:



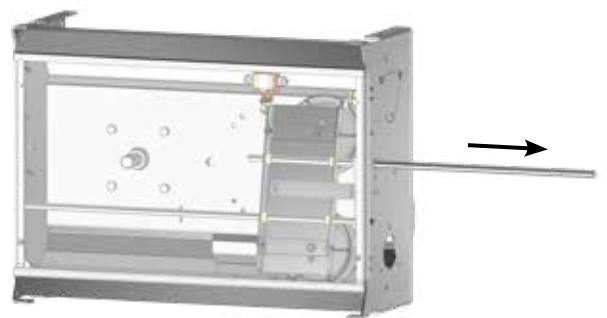
Remove the locking splits on the upper slide bar.



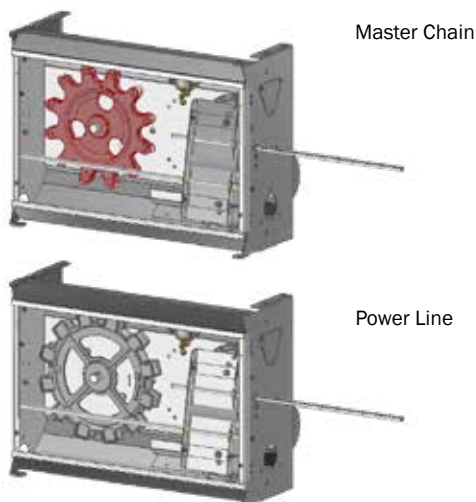
Remove the bolt marked in the illustration and slide the bracket to the side.



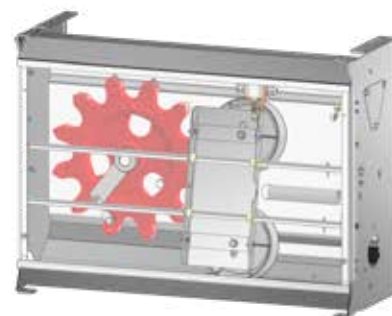
Loosen the bolts on the upper slide bar.



Slide the upper sliding bar to the side to make room for the traction wheel.

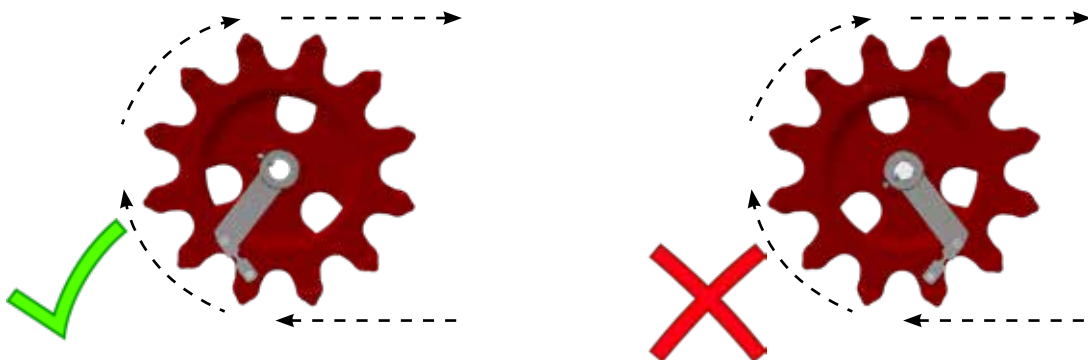
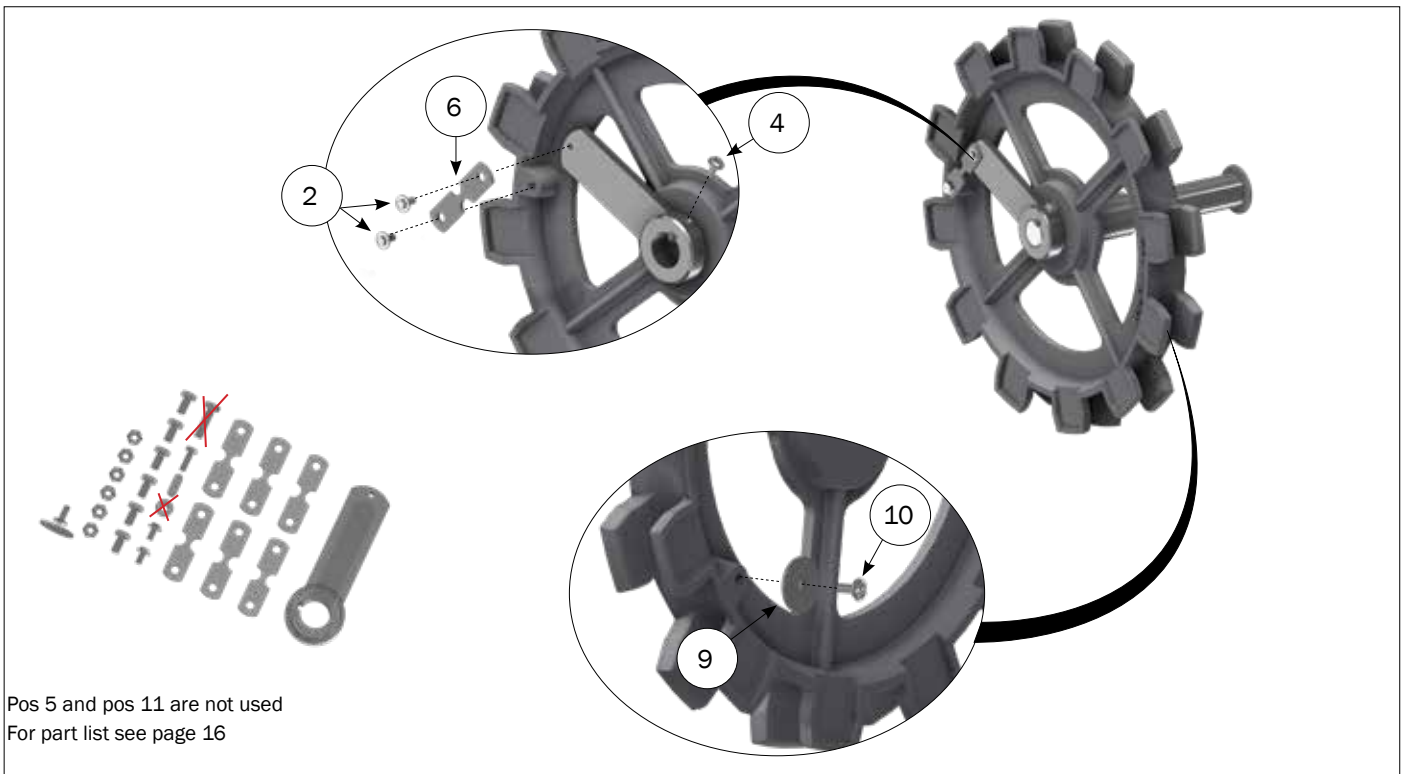
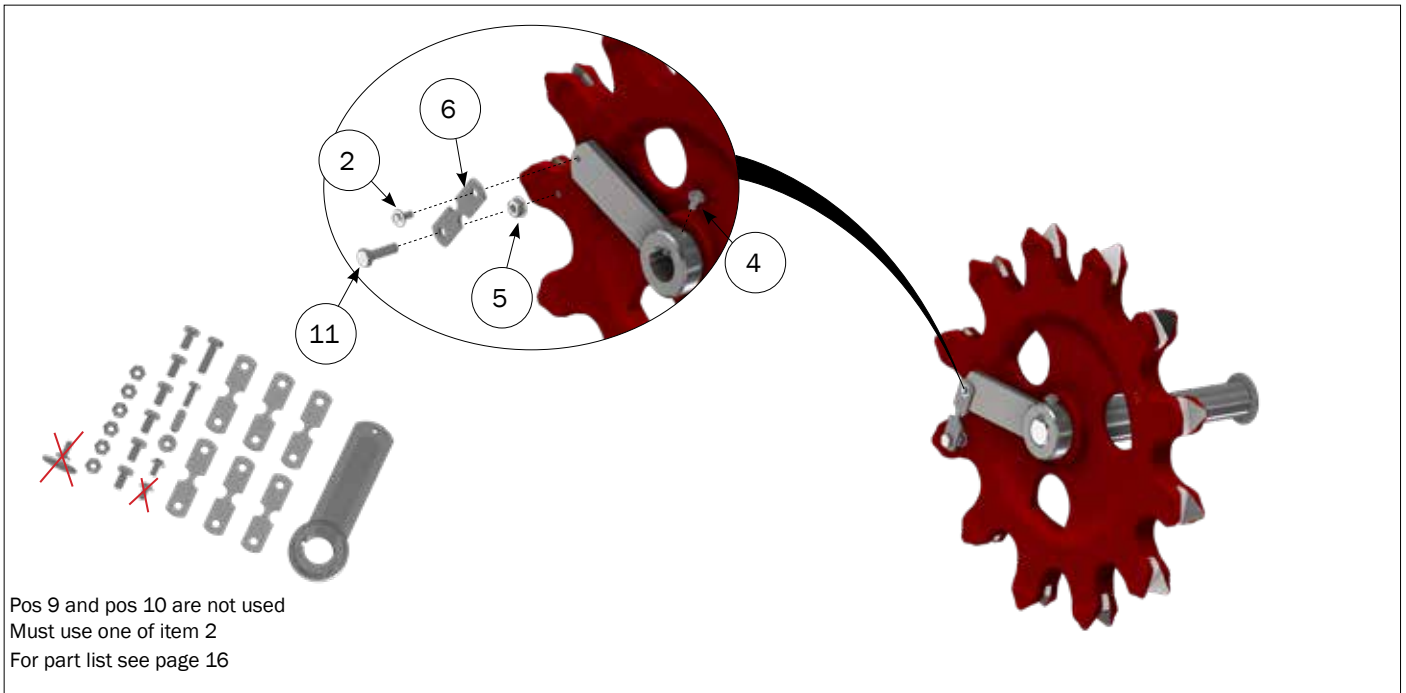


Install the traction wheel as described.

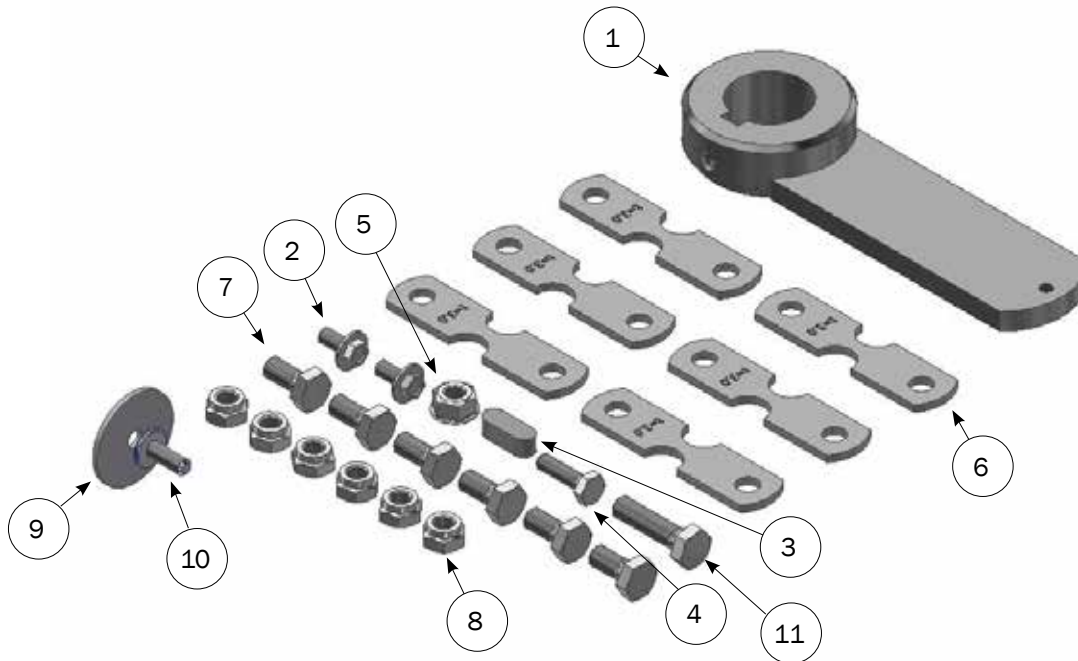


Slide the slide bar into place. Insert the locking splits and fasten the bolts in the sides again.

# INSTALLATION



## ACCESSORIES



Note:

- Pos 9 and 10 is only being used in conjunction with Powerline wheel for shaft rotation measure
- Pos 6 along with pos 2 is used for Powerline attachment
- Pos 6 along with pos 5 and 11 is used for Master Chain attachment

ASSEMBLY KIT			
	Item No.	Description	Pcs.
1	0211-190	DRIVER TYPE 60	1
2	30306012	SET SCREW WITH COLLAR M6X12 A2	2
3	0211-311	PARALLEL KEY A8X7X22 DIN 6885	1
4	30306020	SET SCREW M6X20 A2 DIN 933	1
5	68552	COLLAR HEAD NUT M8 A2 DIN 6923	1
6	0113-199	BREAKING PART 3 MM	6
7	30308016	SET SCREW M8X16 A2 DIN 933	6
8	33908001	LOCK NUT M8 A2 DIN 985 WAXED	6
9	35600088	WASHER Ø6.5X35X1.25 MM BZP	1
10	67175	SET SCREW M6X16 A2	1
11	30308030	SET SCREW M8X30 A2 DIN 933	1



## 7.6 Disassembly



**The power is disconnected during disassembly!**

Be careful with the tensioner spring. The chain must not be dismantled if it is tightened. The chain must be loosened before disassembly - follow the section on "Assembly and assembly of transport chain" in reverse order.

## 8.1 Ongoing maintenance

### 8.1.1 Transport chain

After a period of operation, the Power Line and Master Chain chain will be stretched, and the distance between the traction wheel and the tensioning wheel in the traction station will be increased. At the latest, when the tensioning wheel goes against the microswitch, the chain must be shortened. This is done by removing some links from the chain and reassembling with a connecting link. When the chain is assembled, the tension wheel must be pulled as close to the drive wheel as possible - see section 7.3.3 *Assembly and assembly of transport chain*.

If the chain breaks, the spring will pull the tensioner against the stop sensor, which will stop the system. To be able to reassemble the chain, it is necessary to pre-tighten the tension wheel - see section 7.3.3 *Assembling and assembling the transport chain*.

### 8.1.2 Gearbox

The gearbox should be checked for leaks, especially around stuffing boxes. In case of leakage, defective parts of the gear must be replaced with new ones, or the entire gear must be replaced. The cooling fins of the gear must be kept clean.

### 8.1.3 El-motor

The engine's cooling fins and fan cover must be kept clean.

### 8.1.4 Bøsninger

Bøsninger i strammehjul og konsol for strammehjul skal kontrolleres for slitage og udskiftes om nødvendigt.

## 8.3 Troubleshooting Instructions

### 8.3.1 Broken fuse

If the system is overloaded or blocked, the fuse will trip.

### 8.3.2 If the fuse often blows

- Blockage in the system in the form of foreign bodies
- Incorrect fuses are used. Use ACO Funki's fuse blocks. Fragment 3 mm.
- The feed has too much volume weight
- Defective bearings in corner wheels

### 8.3.3 Motor protection switches off

- Too big a facility
- Check motor protection setting
- The feed has too much volume weight
- Corner wheel fitted with wrong direction of rotation
- Defective bearings in corner wheels

# DISPOSAL

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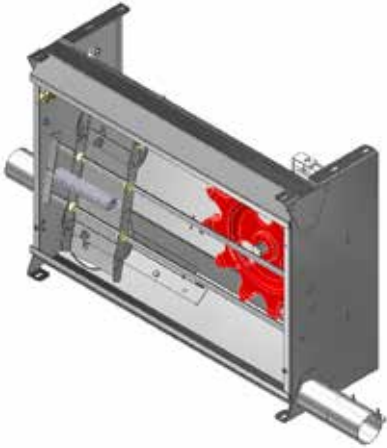
Disposal must take place in accordance with applicable national regulations.

For disposal, you should contact the local product dealer so that the system is dismantled and disposed of in an environmentally most appropriate way.

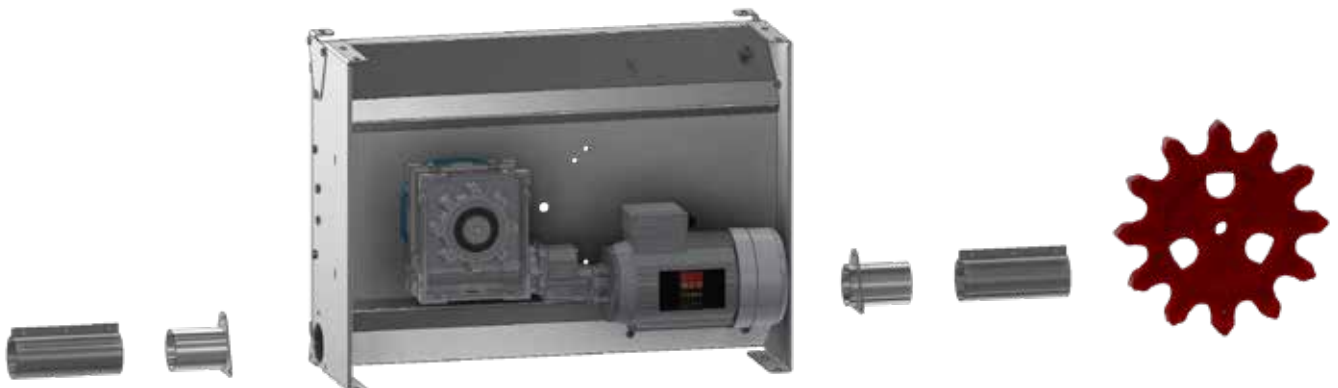
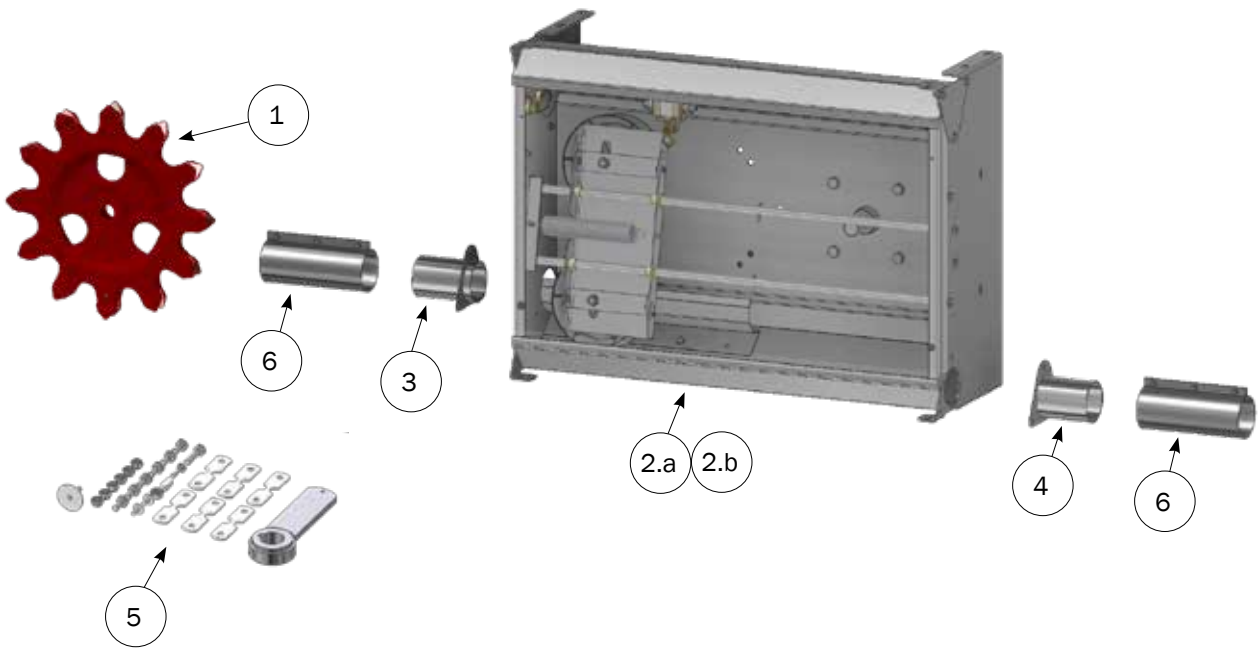
## **Warning!**

- The power supply to the motor must not be connected during disassembly.
- If the space conditions permit, disassemble the traction station on the floor and in the opposite order as described in the assembly instructions.
- The towing station is largely made of materials that can be recycled.
- A prerequisite for recycling is that the materials are sorted correctly.
- Machine parts smeared in oil must be wiped with a cloth. Suck possibly expired oil with paper towel; dispose of the paper properly. Oil or grease must never be poured into the drainage system or onto the ground.
- All metal parts should be handed over to the metal recycling industry.

# PRODUCT OVERVIEW AND PARTS LIST

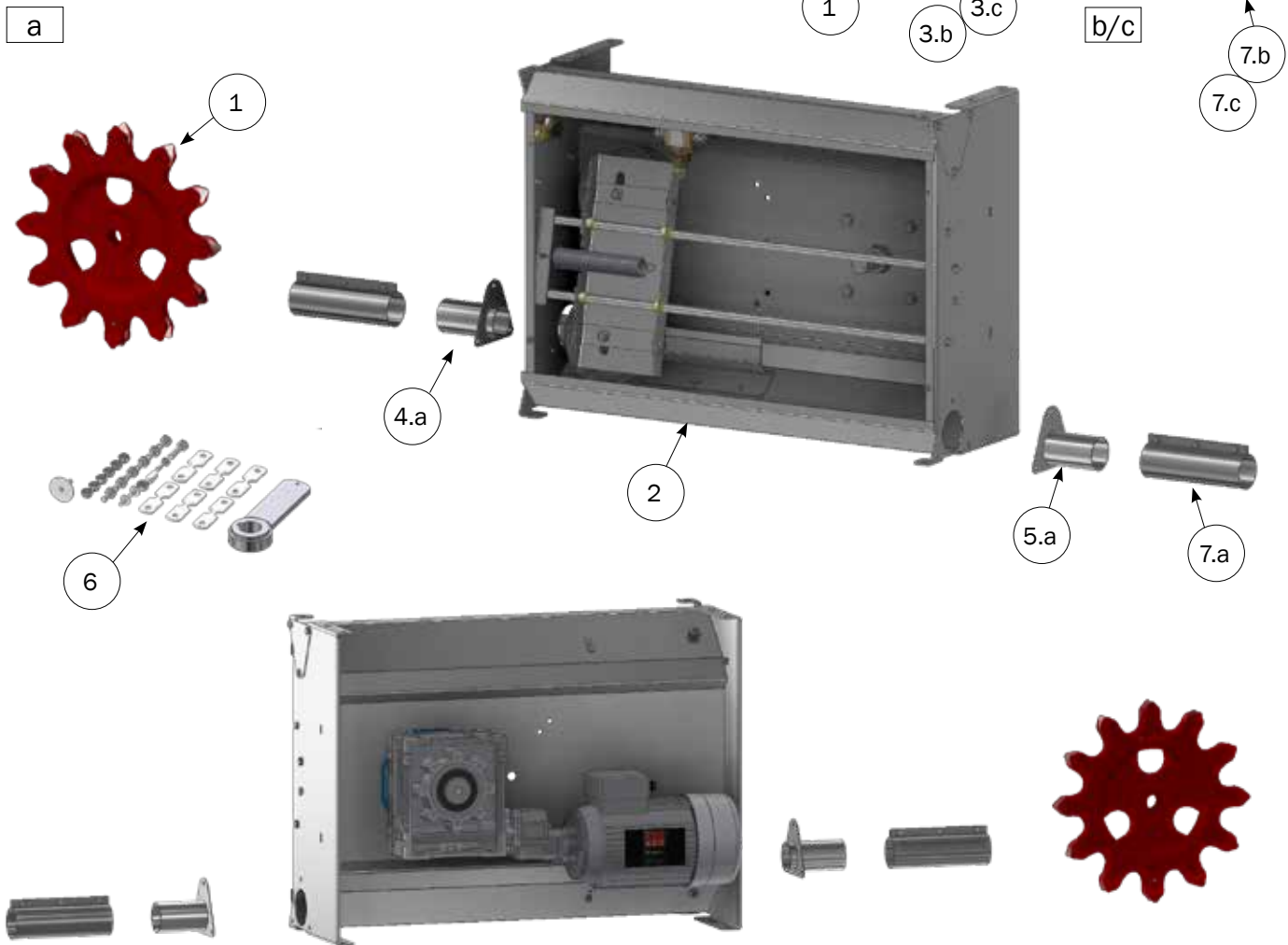
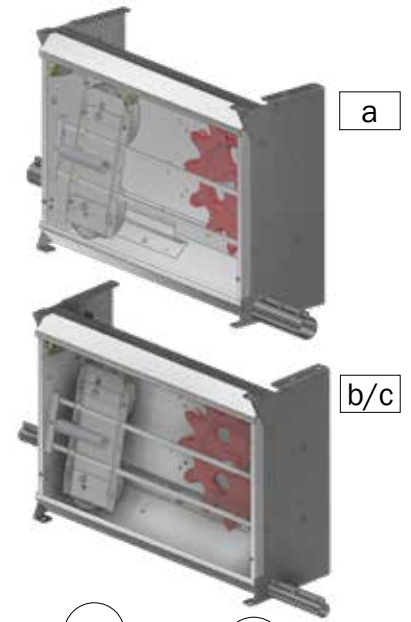


MAXI DRIVE UNIT FOR FEED TRANSPORT			
	Item No.	Description	Pcs.
a	0211-825	MAXI DRIVE UNIT 76 MM	
b	0211-850	MAXI DRIVE UNIT FOR FEED TRANSPORT/STRAW	
1	0170-089	EB DRIVE WHEEL FOR COMPAC 4	1
2.a	0211-805	MAXI DRIVE UNIT	1
2.b	0211-807	MAXI DRIVE UNIT STRAW AND TRANSPORT	1
3	0211-826	INLET 76 MM FOR MAXI DRIVE UNIT	1
4	0211-827	OUTLET 76 MM FOR DRIVE UNIT	1
5	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	1
6	86137	UNION CONNECTOR 76 MM FEEDING PIPE COMPLETE	2



# PRODUCT OVERVIEW AND PARTS LIST

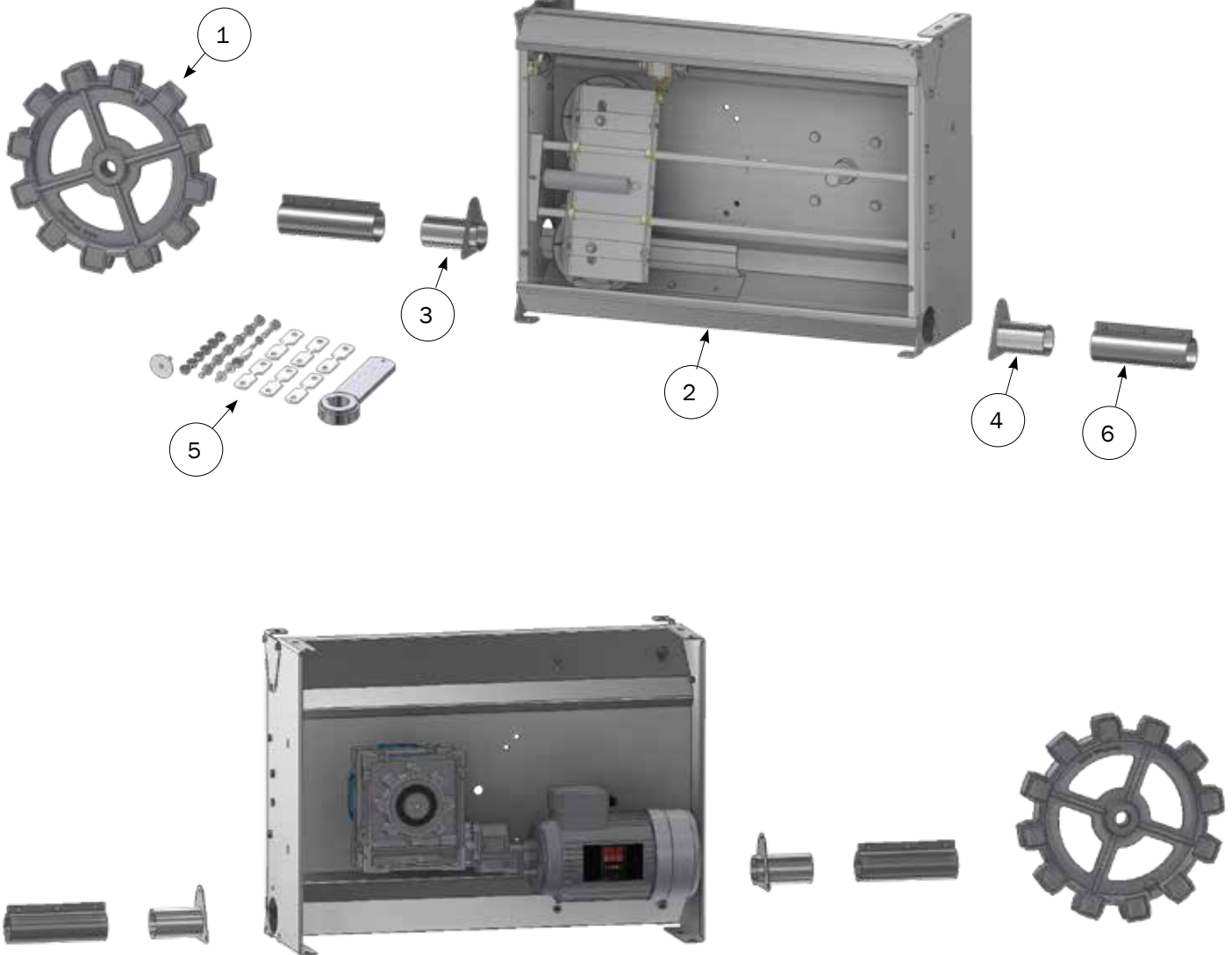
MAXI DRIVE UNIT FOR FEED TRANSPORT			
	Item No.	Description	Pcs.
a	0211-820	MAXI DRIVE UNIT 60 MM	
b	0211-815	MAXI DRIVE UNIT 50 MM	
c	0211-810	MAXI DRIVE UNIT 38 MM	
1	0170-089	EB DRIVE WHEEL FOR COMPAC 4	1
2	0211-805	MAXI DRIVE UNIT	1
3.b	0211-818	BRACKET FOR 50 MM MAXI DRIVE UNIT	1
3.c	0211-813	BRACKET FOR 38 MM MAXI DRIVE UNIT	1
4.a	0211-821	INLET 60 MM FOR MAXI DRIVE UNIT	1
4.b	0211-816	INLET 50 MM FOR MAXI DRIVE UNIT	1
4.c	0211-811	INLET 38 MM FOR MAXI DRIVE UNIT	1
5.a	0211-822	OUTLET 60 MM FOR MAXI DRIVE UNIT	1
5.b	0211-817	OUTLET 50 MM FOR MAXI DRIVE UNIT	1
5.c	0211-812	OUTLET 38 MM FOR MAXI DRIVE UNIT	1
6	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	1
7.a	86100	UNION CONNECTOR 60 MM FEEDING PIPE COMPLETE	2
7.b	86115	UNION CONNECTOR 50 MM FEEDING PIPE COMPLETE	2
7.c	86125	UNION CONNECTOR 38 MM FEEDING PIPE COMPLETE	2



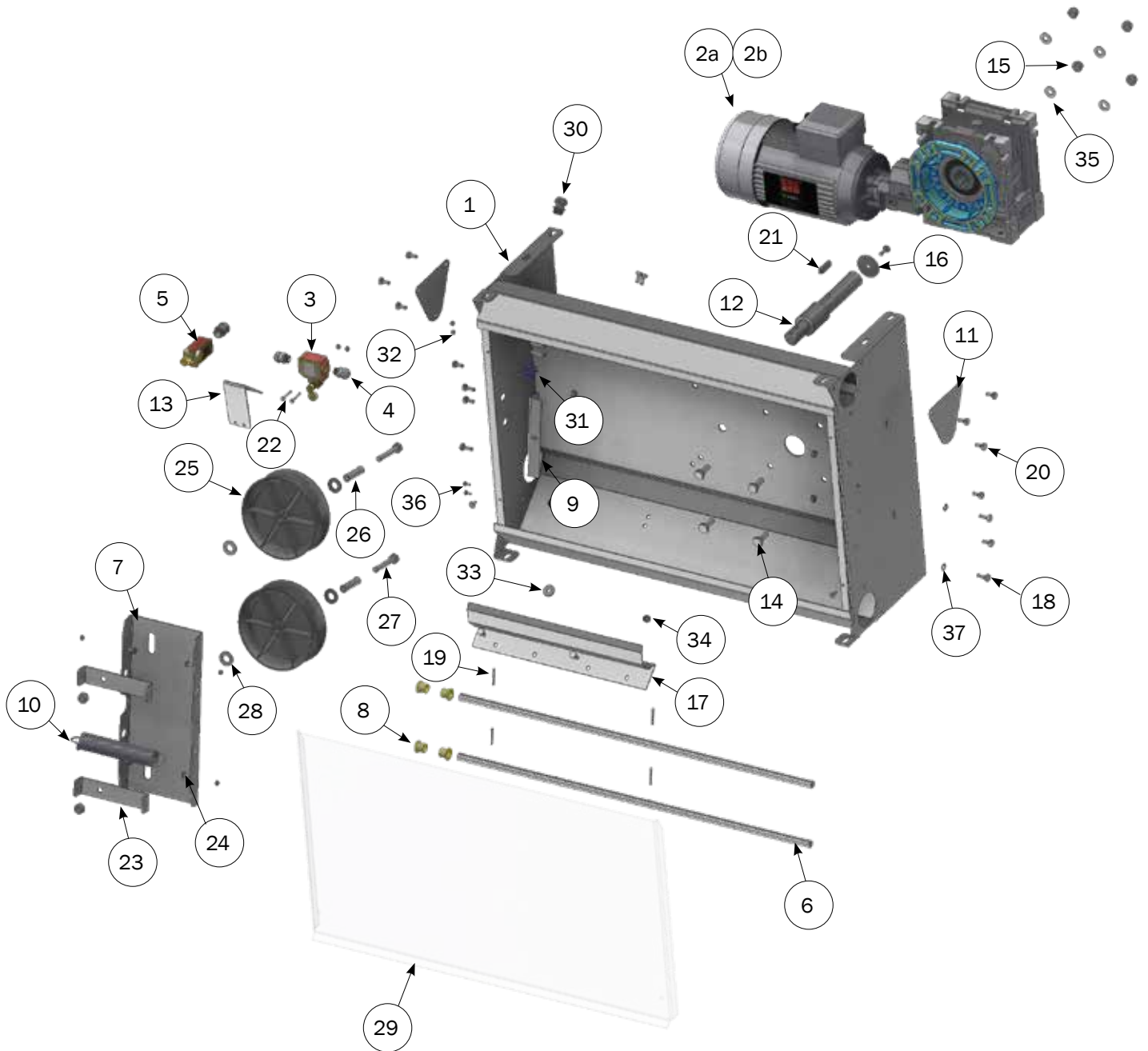
## PRODUCT OVERVIEW AND PARTS LIST



MAXI DRIVE UNIT FOR FEED TRANSPORT			
	Item No.	Description	Pcs.
	0211-830	MAXI DRIVE UNIT 60 MM POWERLINE	
1	0170-089	EB DRIVE WHEEL FOR COMPAC 4	1
2.	0211-805	MAXI DRIVE UNIT	1
3	0211-826	INLET 76 MM FOR MAXI DRIVE UNIT	1
4	0211-827	OUTLET 76 MM FOR DRIVE UNIT	1
5	0211-845	ACCESSORIES FOR 0211-805 AND 0211-807	1
6	86137	UNION CONNECTOR 76 MM FEEDING PIPE COMPLETE	2



# PRODUCT OVERVIEW



## PART LIST

PART LIST			
	Item No.	Description	Pcs.
a	0211-805	MAXI DRIVE UNIT	
b	0211-807	MAXI DRIVE UNIT STRAW AND TRANSPORT	
1	0211-806	HOUSE FOR MAXI DRIVE UNIT	1
2a	45101443	GEAR MOTOR 2,2 KW IE3 OUTPUT 18 RPM	1
2b	45101445	GEAR MOTOR 2,2 KW IE3 OUTPUT 29 RPM	1
3	70000008	MICROSWITCH 2 ENTRY	1
4	76100128	CABLE GLAND M16 Ø5-9.5	2
5	70000007	MICROSWITCH	1
6	0211-837	SLIDE BAR Ø16X829 MM FOR TENSION WHEEL	2
7	0211-836	GUIDING BRACKET FOR TENSION WHEELS	1
8	0115-102	BEARING Ø20/16,4X18,5	4
9	0211-838	BRACKET FOR TENSION SPRING	1
10	60000000	TENSION SPRING 4,0X37,5X215	1
11	0211-843	FLANGE COVER FOR OUTLET/INTAKE	2
12	0211-444	SHAFT FOR DRIVE UNIT TMC	1
13	0211-840	ANGLED BRACKET FOR SWITCH	1
14	30312030	SET SCREW M12X30 A2 DIN 933	4
15	33912000	LOCK NUT M12 A2 DIN 985 WAXED	6
16	35600098	NUT WASHER Ø8X50X1,5 A2	1
17	0211-841	GUTTER FOR INLET	1
18	30308020	SET SCREW M8X20 A2 DIN 933	5
19	35104025	SPLIT PINS 4X25 MM BZP DIN 94	4
20	30308016	SET SCREW M8X16 A2 DIN 933	14
21	49900044	PARALLEL KEY A10X8X40	1
22	67109	HEXAGON SOCKET SCREW M5X30 A2 DIN 912	4
23	0211-846	SLEIGH CHAIN ADJUSTMENT	2
24	30306012	SET SCREW WITH COLLAR M6X12 A2	6
25	0211-835	TENSION WHEEL Ø150 MM	2
26	0211-839	BUSH FOR TENSION WHEEL 0211-835	2
27	32312070	MACHINE BOLT M12X70 A2 DIN 931	2
28	35600041	FLAT WASHER Ø17X30X3 MM A2 DIN125A	4
29	0211-842	TRANSPARENT COVER FOR MAXI DRIVE UNIT	1
30	76101515	CABLE GLAND M20 Ø3-9 IP68	2
31	0413115126	NUTRIC POLYAMIDE M20	1
32	33905000	LOCK NUT M5 A2 DIN 985	10
33	35600058	WASHER Ø8.4X24X2 MM A2 DIN 9021	2
34	33908001	LOCK NUT M8 A2 DIN 985 WAXED	14
35	35600080	FLAT WASHER Ø13X24X2.5 MM A2 DIN 125A	4
36	30305010	SET SCREW M5X10 A2 DIN 933	2
37	35600044	STAR WASHER Ø8.4X15X0.8 MM A2 DIN 6798A	3