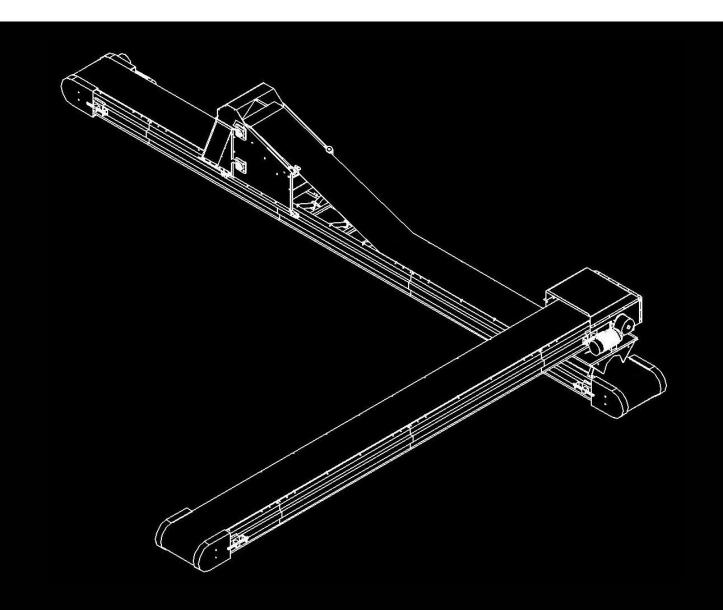


# Manual Belt conveyor T50/T51/T52

**Version 70504.1** 



## **Contents**



Contents	2
Introduction	
EU Declaration of conformity	5
Conditions for use	6
General information	7
Delivery	7
Storage	7
Noise level measuring	7
Type plate	7
A – C belt system	8
B – C belt system	8
Construction	9
Capacity	
Technical specifications – power consumption	
Drive station & tension section	
Extensions	
Conveyor belt	
Movable discharge unit	
Scale drawing T50/T51/T52	
Upon receipt	
Warning labels	
Foundation	
Lifting equipment	
Lifting instructions	
Weight table – individual components T50/T51/T52	
Weight table - Belt conveyor T50/T51/T52	
Assembly	
Drive section & tension section	
Extensions	
Movable discharge unit	
Inlet trough	
Conveyor belt, reset rollers & shielding	
Motor	
Outlet skirts	26





Hack follers 151/152	∠ /
Scrapers	28
Speed monitor	29
Potential equalization	30
Fitting	31
Starting up	32
Belt conveyor stops – fault finding	32
Maintenance	33
Gear motor	33
Motor	33
Bearings	33
Lubrication of bearings	34
Drive station	34
Tension section	34
Movable discharge unit	34
Belt	34
Speed monitor	35
Leaks	35
Noise and vibrations	35
Disposal	36
Options/accessories	36
Collection hopper	37
Top cover/cover plates	38
Speed monitor	
Diagram – relay control for speed monitor	40
Electric cable pull for movable discharge unit	41
Proximity sensor bracket for electric cable pull	42
Parts T51/T52	43
Pars T50	44
Parts list T50/T51/T52	45
Parts T51/52 movable discharge unit	46
Parts T50 movable discharge unit	
Parts list T50/T51/T52 movable discharge unit	48

### Introduction

JEMA AGRO A/S is a modern factory, which specializes in producing and delivering equipment for transport systems for raw or cleaned grain, seeds and granulates.

Our current product range is the result of more than 50 years experience in machine development especially for the agriculture in close collaboration with our customers - and our company is highly regarded in the industry due to the quality and versatility of our products.

JEMA AGRO A/S conveyors and transport systems are compatible with ALL types of dryer- and silage systems.

#### Important!

Please read these instructions carefully before assembly and use.





The manufacturer: JEMA AGRO A/S

> Kløservejen 2, Sahl DK-8850 Bjerringbro Tlf. +45 86 68 16 55

### **Hereby declares that:**

Product: Belt conveyor Type: T50/T51/T52 Year of production: 2006

Conforms to the Machine directive 2006/42/EF with special reference to the directive appendix 1 regarding major health- and safety regulations regarding construction and production of the machines

The following standards have been applied:

EN ISO 12100-1:2005 Basic terminology and methodology

EN ISO 12100-2:2005 **Technical principles** 

EN 1050:1997 Principles for risk assessment

is in accordance with EMC-directive 04/108/EF of 15th December 2004 regarding electromagnetic compatibility.

Director Jens-Peter Pedersen Title Name 28-09-2010 Signature Date

### **Conditions of use**

JEMA AGRO A/S belt conveyors T50/T51/T52 have been constructed for transport of grain, granular materials and seed mix.

- The belt conveyors T50/T51/T52 must only be used for the product(s) specified in the contract.
- The electrical connections must be done by a qualified electrician.
- The belt conveyors T50/T51/T52 must be potential adjusted in accordance with the current local regulations
- The belt conveyor has been thoroughly controlled regarding maintenance, and a checklist has been drawn up
  containing regular cleaning- and maintenance intervals. If these intervals are not observed, the JEMA AGRO conditions
  for a trouble-free operation cease to exist and the warranty will be invalid. Please read the attached maintenance
  summary.
- During installation, maintenance or repair the electric supply to the belt conveyors must be disconnected and secured against accidental reconnection.
- The user manual must be kept / be available in close proximity to the belt conveyor T50/T51/T52.

### **General information**



### **Delivery**

The belt conveyor is disassembled for shipment. Standard packing (pallet/wooden boxes, grid boxes, etc.) Regarding the actual transport there are no specific requirements apart from normal consideration.

The shipment includes the parts stated in the order confirmation.

Before installation and use, this manual must be read carefully.

### Storage

There are no precautions regarding long-time storage.

After delivery the components must be kept in a suitable, dry storage area before installation.

### Noise level

A noise level test was conducted for the belt conveyor. The level has been measured in a distance of 1 m from the conveyor.

During the test the belt conveyor was without any load, which is the operational state of maximum noise level.

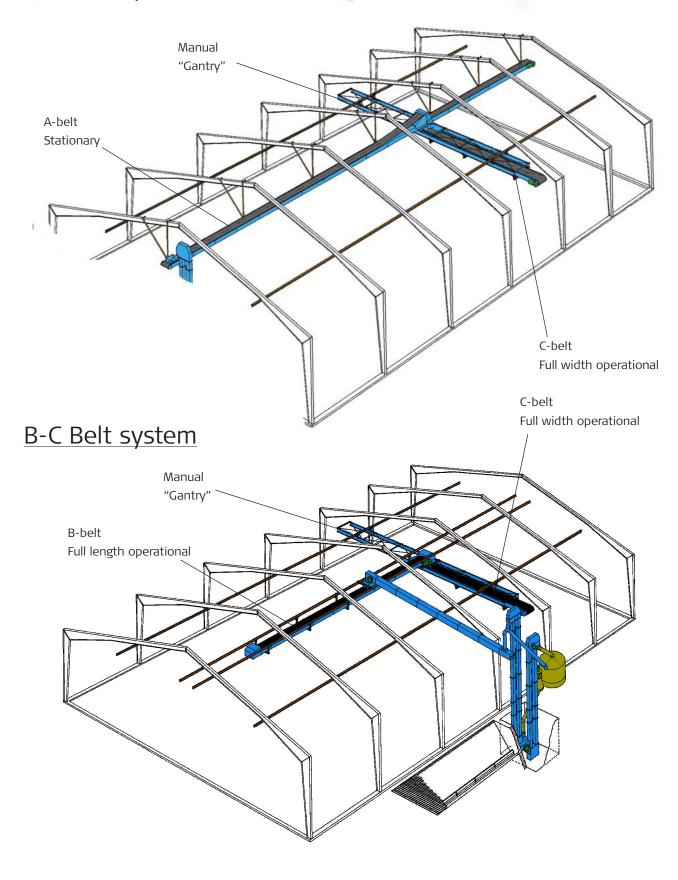
The measured noise level is 70 dB

### Type Plate

The type plate is fitted on the drive station.



## A-C Belt system





#### Construction

The belt conveyor T50/T51/T52 is made up of standard elements, which can be combined and easily integrated into all grain conveyor systems. The belt conveyor is characterized by a large capacity with compact dimensions. The conveyor operates efficiently both horizontally and at an inclination of up to 30° and offers – in spite of the capacity – low power consumption.

The conveyor is made of galvanized steel. The transport function is a belt, available in 3 sizes, T50 has a belt width of 400 mm for 60 t/h. T51 has a belt width of 500 mm for 105 t/h and T52 has a belt width of 650 mm for 150 t/h. The T50 is fitted with sliding profiles on the front side with 0.5 m intervals and the return side is fitted with track rollers with 2.0 m intervals. T51/T52 is fitted with track rollers on the front side with 0.5 m intervals and the return side is fitted with track rollers with 2.0 m intervals.

The belt conveyor can transport material in both travel directions and it is capable of an incline up to 30° by the use of carriers - however at a reduced capacity

The belt conveyor can be fitted stationary or mounted on rails. Outlets can be placed above one or both ends - or a movable discharge unit, which can discharge the material in the full length of the belt.

The belt conveyor consists of:

- Drive station
- Tension section
- Conveyor belt
- Extensions from 0.5 m to 2.0 m
- Movable discharge unit
- Inlet trough
- Worm geared motor

### Capacity

The table below shows the various density capacities:

Density	T50 (80 m³/h)	T51 (140 m³/h)	T52 (200 m³/h)
650 kg. pr. m <sup>3</sup>	52 t/h	91 t/h	130 t/h
700 kg. pr. m <sup>3</sup>	56 t/h	98 t/h	140 t/h
750 kg. pr. m³ (wheat)	60 t/h	105 t/h	150 t/h

Measured in cleaned, storable material at a power supply of 50 Hz

The capacity varies according to the nature of the material.

### Technical specifications – power consumption

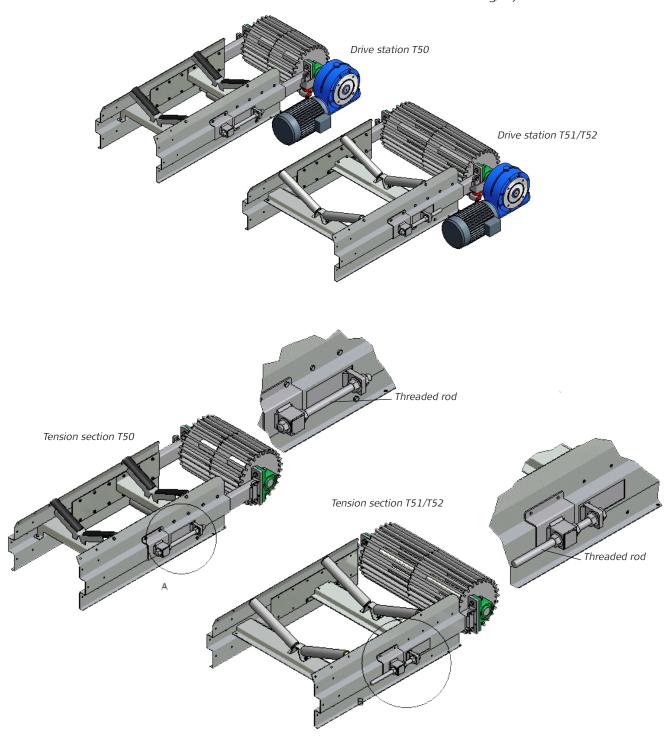
Belt conveyor T50/T51/T52 - power consumption in kW:

	2,2 kW	3,0 kW	4,0 kW	2 x 2,2 kW	2 x 3,0 kW	2 x 4,0 kW
T50	2,0 - 16,0 m.	17,0 - 26,0 m.	27,0 - 39,0 m.	40,0 - 43,0 m.	44,0 - 63,0 m.	64,0 - 80,0 m.
T51	2,0 - 21,0 m.	22,0 - 35,0 m.	36,0 - 52,0 m.	53,0 - 58,0 m.	59,0 - 85,0 m.	86,0 - 100,0 m.
T52	2,0 - 17,0 m.	18,0 - 28,0 m.	29,0 - 42,0 m.	43,0 - 48,0 m.	49,0 - 71,0 m.	72,0 - 100,0 m.

### Drive station & tension station

The conveyor belt is equipped with a drive station and a tension station. The drive station is fitted with a motor, available in various sizes - see section "Technical specifications".

The drive station and tension station are fitted with two threaded rods for belt tensioning/adjustment.

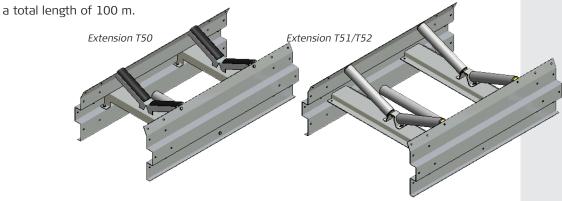




### **Extensions**

The extensions for the belt conveyor are available in different lengths: 0.5 m - 1.0 m - 2.0 m.

By combining these elements, it will be possible to obtain any length with intervals of 0.5 m up to



### Conveyor belt

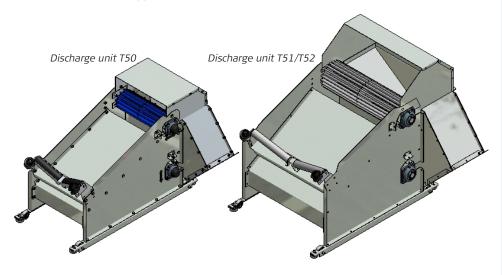
Belts up to 12.0 m. can be ordered pre-vulcanised Conveyor belts above 12.0 m must be vulcanised by trained staff at the customer premises.

Belt quality	T50	T51/T52
Standard quality		NK 250/2, 3,0 +1,0
Oil resistant	GOR 315/3 2+0	GOR 250/2, 3,0 +1,0
With carriers		NK 250/2, 3,0 +1,0, slats VM 16
With carriers Oil resistant	GOR 315/3 2+0	GOR 250/2 3,0+1,0

### Movable discharge unit

The discharge unit can constantly unload material to the left or right hand side of the belt, starting 5.0 m from the inlet (shown on the drawing page 12) and up to 1.0 m before the opposite end of the belt.

The discharge unit must be attached with electric cable pull or connected to a cable pull to stop it from travelling to the end of the belt in the opposite direction.

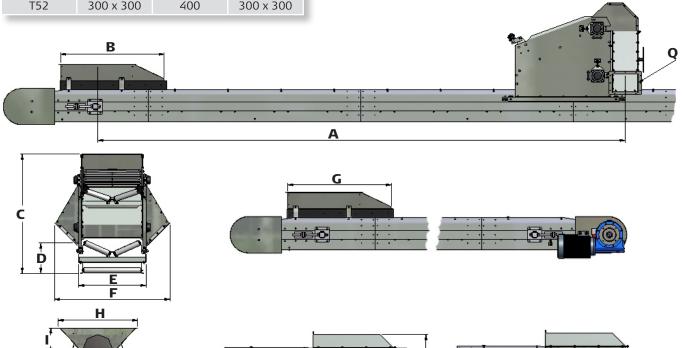


## Scale drawing T50/T51/T52

	A	В	С	D	E	F	G	Н
T50	Min. 5000	1000	955	320	535	1000	1000	650
T51	Min. 5000	1000	1150	300	635	1100	1000	750
T52	Min. 5000	1150	1225	300	785	1330	1150	900

	1	J	К	L	M	N	0	P
T50	215	300	70	650	200	540	415	780
T51	215	300	70	750	200	540	415	780
T52	215	300	70	900	200	540	415	780

	Q	R	S
T50	240 x 240	400	240 x 240
T51	240 x 240	400	240 x 240
T52	300 x 300	400	300 x 300





### **Upon receipt**

Please check that all parts and components are included in the shipment and check for possible transport damages.

NB: Make sure that the relevant supplier documentation is attached. In case of missing documentation, please contact JEMA AGRO A/S – remember to state the order no.

Remember all necessary safety equipment before installation.

Please read this manual carefully before assembly or installation work begins.

### Warning labels

The belt conveyor is fitted with warning labels.

Warning!
The covers and shields
must
not be opened or removed, when the
machine is working.



### **Foundation**

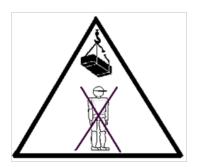
The belt conveyor should be placed on a level surface, and that the attachment / support are of sufficient capacity.

### Lifting equipment

Make sure to have the required SWL-approved lifting equipment/crane, required for the actual job.

The lifting equipment must be approved to carry the load in question. The load capacity for the individual components can be seen under "Parts list T50/T51/T52" in this manual.

The total weight of the machine is stated in the section "Weight table belt conveyor T50/T51/T52".



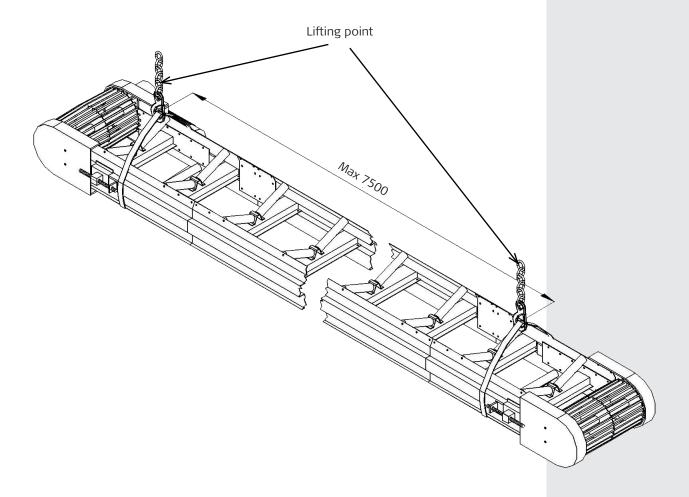
NB: Always make sure that nobody is standing under a suspended load.



### <u>Lifting instructions</u>

The drawing below shows how to lift the belt conveyor.

Max. allowed distance between 2 fixation points is 7.5 m.



## Weight table – individual components T50/T51/T52

	Description	T50 part no.	Weight kg	T51 part no.	Weight kg	T52 part no.	Weight kg
	Drive station 1.0 m	50518	89	50177	99	50375	110
a la	Tension station 1.0 m	50520	83,5	50174	95	50371	105,5
	Extension 0.5 m without belt	50515	10,5	50178	13	50374	14
	Extension 1.0 m without belt	50516	19,5	50175	24,5	50372	25,5
	Extension 2.0 m without belt	50517	37,5	50176	47,5	50373	49
	Belt 500/650 mm NK 250/2, 3.0 + 1.0  Oil resistant belt 500/650 mm, 250/2 3.0+1.0 GOR			91140		91141	
	Oil resistant belt 400 mm EP 315/3 2+0 GOR	91139					
	Belt 500/650 mm NK 250/2, 3.0 +1.0 with V slats VW16 Belt 500/650 mm 250/2 3.0+1.0 with V slats VML15/310. Oil resistant Belt 400 mm EP 315/3 2+0 VMLS- 15/310 with V slats. Oil resistant	91144		91145		91146	
	Inlet trough for model A	50522	13,3	50189	14,5	50247	17
	Inlet trough for model B + C	50523	16,3	50190	17,5	50248	20



Description	T50 part no.	Weight kg	T51 part no.	Weight kg	T52 part no.	Weight kg
Baffle plate for outlet	50526	11	50103	12	50303	13,3
Outlet skirt with top part	50527	17,4	50110	18,2	50475	18,6
Raised edge for outlet skirt	50529	2	50111	2	50476	2,5
Top cover for outlet skirt	50530	11,3	50112	12,5	50477	14,5
Side plate 1.0 m	50187	6,6	50187	6,6	50187	6,6
Side plate 2.0 m	50188	11	50188	11	50188	11
Cover 0.5 m	50532	6,3	50333	6,8	50362	7,7
Cover 1.0 m	50533	12,7	50300	13,5	50363	15,5
Cover 2.0 m	50534	24,4	50301	27	50364	28,5
Cover plate 0.5 m from rear side	50535	3,8	50341	4,5	50365	5,3
Cover plate 1.0 m from rear side	50536	7,5	50321	8,8	50366	10,5
Cover plate 2.0 m from rear side	50537	15	50311	17,5	50367	21

Description	T50 part no.	weight kg	T51 part no.	weight kg	T52 part no.	weight kg
Movable discharge unit	50512	100	50196	160	50252	192
Side guide roller with bracket	50194	0,5	50194	0,5	50194	0,5
Collection hopper for outlet skirt 240 x 240 / 300 x 300	50531	13	50323	14	50332	19



## Weight table - belt conveyor T50/T51/T52

Complete with drive station, tension section, extensions, belt, discharge unit and worm geared motor. Important! The weight with tripper carriage begins from 15 m. (T50 with tripper carriage max. 50 m.)

Length in	T	50	T:	51	T:	Т52	
metres	kW	kg	kW	Kg	kW	Kg	
5,0	2,2	304,5	2,2	349,0	2,2	392,0	
6,0	2,2	333,0	2,2	384,0	2,2	430,0	
7,0	2,2	361,5	2,2	419,0	2,2	468,0	
8,0	2,2	390,0	2,2	454,0	2,2	506,0	
9,0	2,2	418,5	2,2	489,0	2,2	544,0	
10,0	2,2	447,0	2,2	524,0	2,2	582,0	
11,0	2,2	475,5	2,2	559,0	2,2	620,0	
12,0	2,2	504,0	2,2	594,0	2,2	658,0	
13,0	2,2	532,5	2,2	629,0	2,2	696,0	
14,0	2,2	561,5	2,2	664,0	2,2	734,0	
15,0	2,2	689,5	2,2	865,0	2,2	964,0	
16,0	2,2	718,0	2,2	900,0	2,2	1002,0	
17,0	3,0	746,5	2,2	935,0	2,2	1040,0	
18,0	3,0	775,0	2,2	970,0	3,0	1078,0	
19,0	3,0	803,5	2,2	1005,0	3,0	1116,0	
20,0	3,0	838,0	2,2	1040,0	3,0	1154,0	
21,0	3,0	866,5	2,2	1075,0	3,0	1192,0	
22,0	3,0	895,0	3,0	1110,0	3,0	1230,0	
23,0	3,0	923,5	3,0	1145,0	3,0	1268,0	
24,0	3,0	952,0	3,0	1180,0	3,0	1306,0	
25,0	3,0	980,5	3,0	1215,0	3,0	1351,0	
26,0	3,0	1009,0	3,0	1250,0	3,0	1389,0	
27,0	4,0	1037,5	3,0	1285,0	3,0	1427,0	
28,0	4,0	1066,0	3,0	1320,0	3,0	1465,0	
29,0	4,0	1094,5	3,0	1355,0	4,0	1503,0	
30,0	4,0	1123,0	3,0	1390,0	4,0	1541,0	
35,0	4,0	1265,5	3,0	1565,0	4,0	1731,0	
40,0	2 x 2,2	1448,0	4,0	1747,0	4,0	1966,0	
45,0	2 x 3,0	1590,0	4,0	1922,0	2 x 2,2	2156,0	
50,0	2 x 3,0	1733,0	4,0	2097,0	2 x 3,0	2346,0	
55,0	2 x 3,0	1876,0	2 x 2,2	2272,0	2 x 3,0	2536,0	
60,0	2 x 3,0	2019,0	2 x 3,0	2492,0	2 x 3,0	2726,0	
65,0	2 x 4,0	2162,0	2 x 3,0	2667,0	2 x 3,0	2916,0	
70,0	2 x 4,0	2305,0	2 x 3,0	2842,0	2 x 3,0	3120,0	
75,0	2 x 4,0	2448,0	2 x 3,0	3017,0	2 x 4,0	3310,0	
80,0	2 x 4,0	2591,0	2 x 3,0	3192,0	2 x 4,0	3500,0	
85,0			2 x 3,0	3367,0	2 x 4,0	3690,0	
90,0			2 x 4,0	3542,0	2 x 4,0	3880,0	
95,0			2 x 4,0	3717,0	2 x 4,0	4070,0	
100,0			2 x 4,0	3892,0	2 x 4,0	4260,0	

## **Assembly**

Please check the foundation and the travel direction (location of inlet and outlet) before starting the assembly.

It is important to read these instructions carefully before starting the assembly.

Check that there is sufficient space.

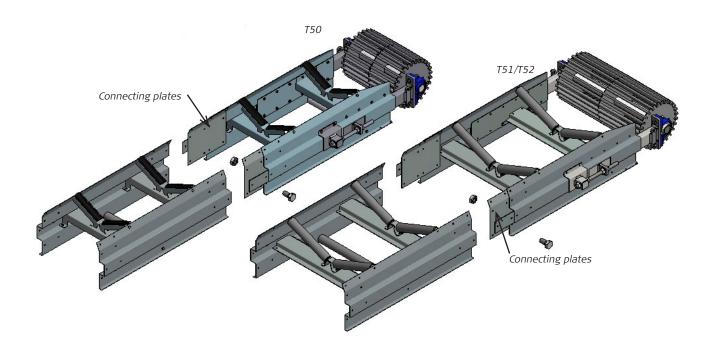
#### Attention!

Before starting the assembly work, check that the required safety equipment is available, e.g. work gloves, safety footwear, helmet, safety glasses and a lifeline, if necessary. These parts are not included as standard.

### Drive station & Tension station

Assemble the drive station and tension section with extension by means of the connecting plates and the enclosed fasteners.

**Notice** that the bolt head must be placed on the front with the nut on the back





### Extensions

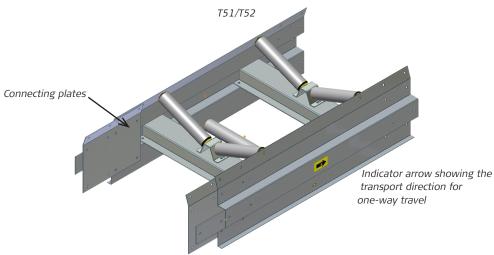
As shown in the drawing the extensions are assembled and fitted by using the connecting plates and the enclosed hardware.

The conveyor must constantly be secured during the assembly - see section "Attachment".

#### T51/T52:

Extensions that are designed for one-way transport have an indicator arrow, which shows the travel direction (the top track roller is fitted for one-way transport).

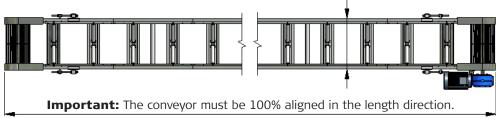
Extensions designed for transport in both directions do not have this arrow (the top track roller is fitted for transport in both directions). - ref. page 26.



#### T51/T52:

For transport in both directions the belt conveyor must be equipped with edge guide rollers.

**Important:** The conveyor must be 100% leveled on the width direction.



### Movable discharge unit

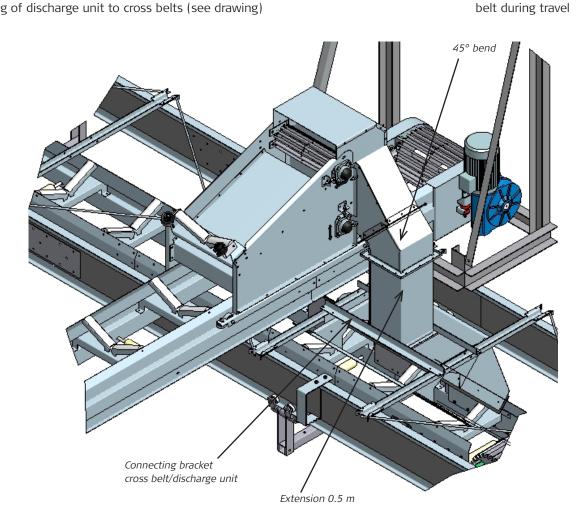
If the belt conveyor is required with discharge unit, this must be fitted.

T50 discharge unit Adjust the discharge unit lift rolls/sliding profiles before starting the belt conveyor in order to support the belt by a light When starting the conveyor, adjust the discharge unit belt drums horizontally and vertically in order to centre the

T51/T52 discharge unit

Fitting of discharge unit to cross belts (see drawing)

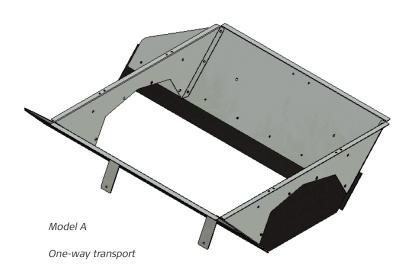
pressure

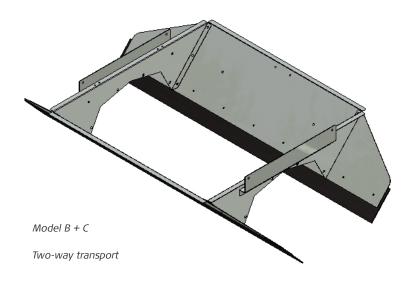




## Inlet trough

Two types of inlet hoppers can be fittet to the belt conveyor.





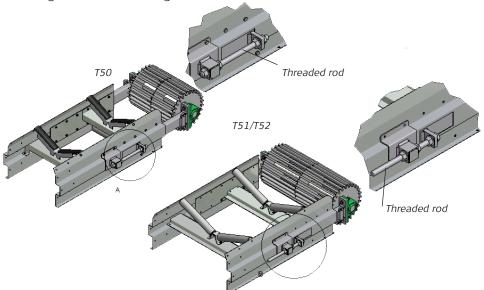
### Belts, return rollers & guards

The belt can be ordered pre-vulcanised from the factory for conveyor belts without movable discharge unit and at a max. length of 12 m. The threaded rods on the drive- and tension sections can be used to place the drive and tension drums in the innermost position. Dismantle the return rollers and fit the pre-vulcanised belt by pushing it above the drums on the drive and tension sections. Refit the return rollers, when the belt is in place. Start with the rollers in the drive and tesion sections and then fit the rollers on the extensions. Fit the scrapers, guards, baffle plates and outlet skirt.



Conveyor belts with a length above 12 m or with movable discharge unit cannot be ordered with pre-vulcanised belts. In this case the belt must be vulcanised by trained staff at the premises.

Before the belt is vulcanised, the threaded rods on the drive and tension sections must be adjusted so the rolls are in the inner position. In order to obtain the correct belt length, when the conveyor is equipped with discharge unit, the belt must be tightened, so that it does not come into contact with the extension lift rolls/sliding profiles the last 3 m to the discharge unit. Fit guards and inlet trough.



Tighten the belt and adjust it, so it runs centrally on the rollers/sliding profiles. Tighten the belts with the threaded rods on the sides of respectively the drive and the tension section.



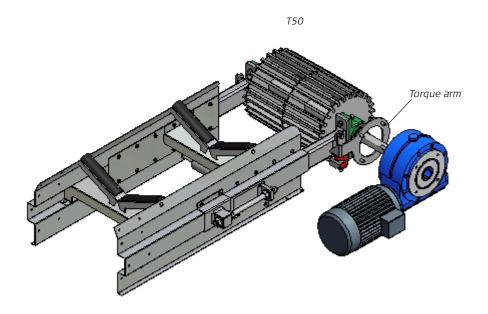
### **Motor**

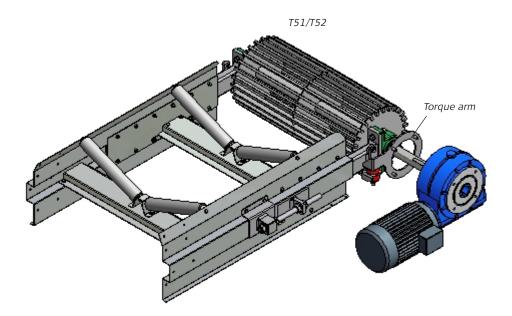
Fit the gear and motor on the drive shaft and connect it to the torque arm – see below drawing. The engine can be fitted in parallel or traversely on the machine.

#### Important!

The ventilation screw on the gear must always be fitted in the top position.

For maintenance of motor and gear, please see the attached supplier documentation.





### Outlet skirts

It is possible to fit outlet skirts at the end of the drive or tension section.



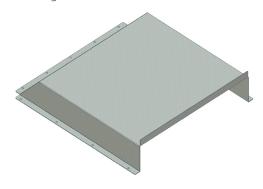
Outlet skirt without top part



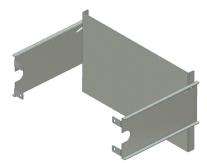
Collecting hopper for outlet skirt



Raised edge for outlet skirt



Top guard for outlet skirt

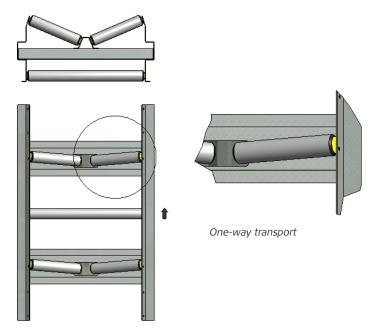


Baffle plate

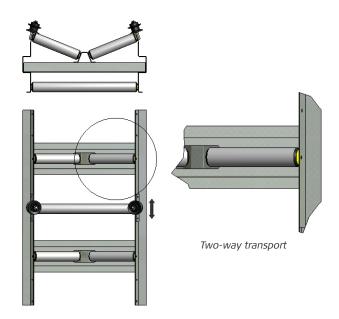


### Track rollers T51/T52

For one-way transport the top track rollers are fitted in an inclined position, which keeps the belt automatically centered on the rollers. Please note that extensions with non-level track rollers are marked with indicator arrows to indicate the travel direction.

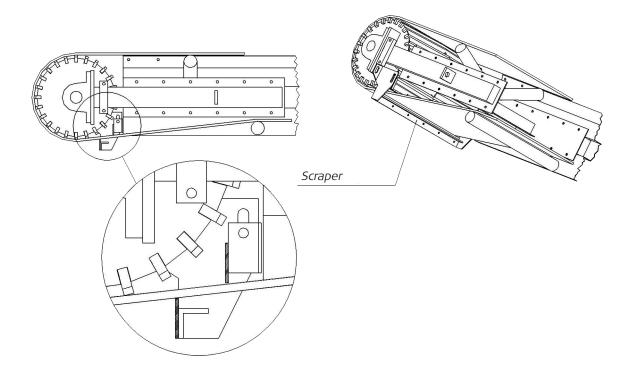


For two-way transport the upper track rollers are fitted in straight, parallel lines, and as a result the belt does not automatically stay centered on the rolls. To keep the belt centered it is necessary to fit side guide rolls on each side 1.0 – 1.5 m from the drive and tension roll. The guide rolls are fitted between these rolls in pairs with a distance of max. 8.0 m.



## <u>Scrapers</u>

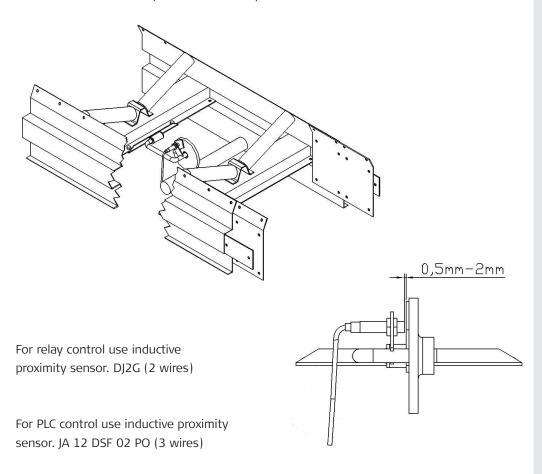
Fit scrapers, if required, so they just touch the belt slightly (see drawing)





### **Speed monitor**

Fit the roller sensor for speed control in any location between the belts on the lift rollers/sliding profile cross member.



Normally the speed monitor will be assembled and adjusted from the factory.

For later instalment there must be a distance between the sensor area on the wheel and the sensor of min. 0.5 mm and max. 2 mm.

Fit the roller sensor in any location between the belts on the lift rollers/sliding profile cross member.

Upstart with relay control:

Start the system and carefully adjust the relay control switch down, until the operating current is disconnected and the belt stops.

Then adjust the switch approx. 5% up to create a safety margin.

The lowest level corresponds to approx. 2.6 m/sec. and the highest to approx. 0.13 m/sec.

For systems with PLC control the above setting is pre-programmed in the PLC.

See diagram on page 39.

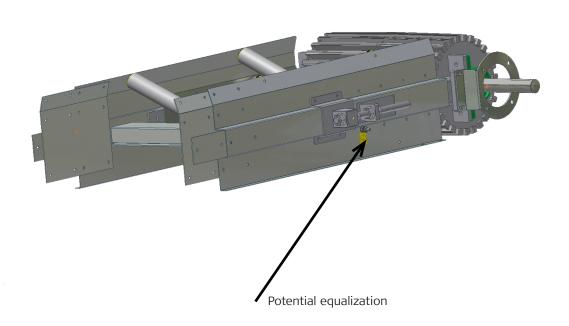
### Potential equalization

The potential equalization must be carried out according to current regulations.

A label on the T50/T51/T52 drive station indicates the point of the belt conveyor potential equalization.

The label indicates the potential equalization point for the belt conveyor.



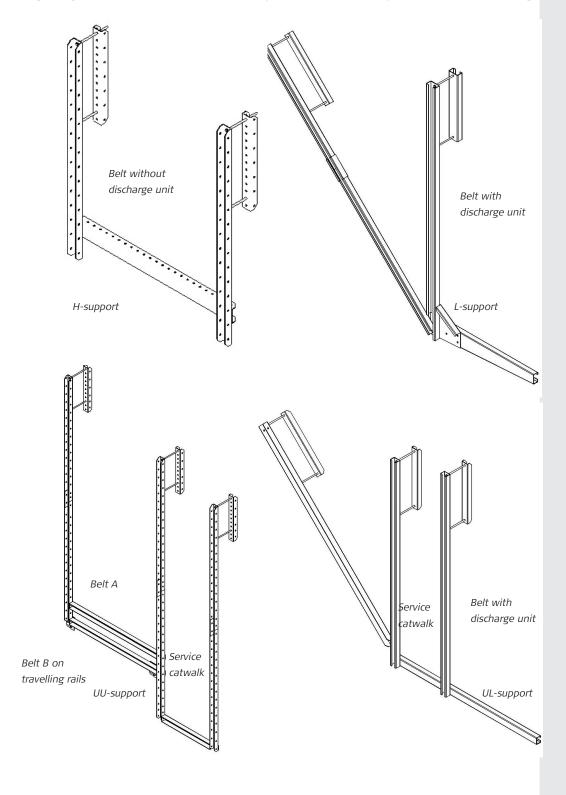




### **Fitting**

In order to obtain the maximum stability, it is important to attach the belt conveyor. There must be a distance of max. 6.0 m between the fixation points.

Regarding the attachment of the belt conveyor, there are various possibilities - see drawings below.



### Starting up

Before starting to work with the belt conveyor, please check the following:

- Nobody is working on or near the machine.
- The motor rotation direction is correct.
- All conveyor bolts are correctly fitted and tightened.
- The belt is correctly fitted and adjusted.
- The attachment and stability of the belt conveyor is correct.
- Check the belt conveyor attachment/stability.

### Belt conveyor stops - fault finding

If the belt looses speed, and the speed monitor disconnects the entire system, check whether the belt is sufficiently tightened and adjust if necessary. The belt tension is correct, if the belt starts up immediately at full speed.

In case of stops, check first whether the conveyor is able to start again, when the relay has gone cold. If yes, the fault is either caused by too low adjustment of the relay or lack of motor capacity.

If the conveyor is still not able to start without being emptied of material, check whether the drain system has been blocked.





Please see the maintenance summary and the attached supplier documentation for cleaning- and maintenance intervals.

Warning!

- During cleaning and maintenance work, the electric supply for the belt conveyor must be disconnected and secured against accidental reconnection.
- After repair and maintenance the inspection doors and shields must be refitted before the work is continued.

#### Always use original parts only

In case that original parts are not used, the warranty becomes void, and JEMA AGRO A/S can no longer be held liable for the EU Declaration of conformity.

#### Geared motor

Check the gear as described in the attached supplier documentation.

#### Important!

Check that the ventilation screw is fitted in the top position on the gear.

#### Motor

Bearing noise from the motor: please see the attached supplier documentation.

Motor inspection: please see the attached supplier documentation.

Retorque the motor as indicated in the maintenance summary. Please see the assembly guidance for instructions.

### Bearings.

Check the bearings for wear/becoming loose, and lubricate as described in the maintenance summary.

Check for wear/becoming loose by lifting up the shaft and control manually.

### Lubrication of bearings

#### Important!

It is extremely important to use the correct amount of grease, as too much will damage the sealing of the bearing, which will result in leaks and subsequent overheating of the bearings.

Check the amount of grease per gun stroke.

### Drive station

Lubricate the drive station bearings with 4.0 g grease in accordance with the maintenance instructions.

### Tension section

Lubricate the tension station bearings with 4.0 g grease in accordance with the maintenance instructions.

### Movable discharge unit

Lubricate the discharge unit bearings with 4.0 g grease in accordance with the maintenance instructions.

### Conveyor belt

Check for belt cracks as described in the maintenance instructions.

If the belt looses speed, check whether it is tightened correctly, and adjust if necessary.

If the belt starts immediately at full speed, the tension is correct. The problem may then be caused by clogged material, which should be removed.



### **Speed monitor**

Check the speed monitor according to the maintenance summary.

### <u>Leaks</u>

All leaks must be repaired immediately.

### Noise and vibrations

Stop the belt conveyor immediately and identify the problem.

### **Disposal**

The methods of disposal must comply with the current local regulations

#### Warning!

The electric supply to the motor must be disconnected during the disassembly.

Disassemble the conveyor on the floor, if space allows, following the reverse order of the assembly procedure.

If the belt conveyor is disassembled at the premises, start by detaching the motor. The belt may be removed by cutting through the vulcanisation, which should then be removed and rolled up. Remove the drive- and tension section and the discharge unit. Finally detach all extensions.

The belt conveyor contains various parts that can be reused. All metal parts should be delivered to a recycle industry.





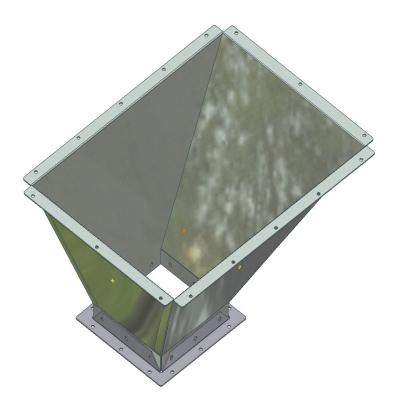
A range of options/accessories is available for the belt conveyor, for instance:

- Oil resistant belts
- Collector hopper for outlet skirt
- Top cover / cover plates
- Speed monitor
- El-cable pull

## Collector hopper

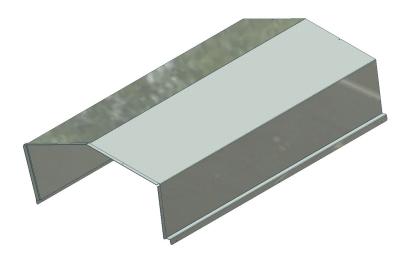
Collector hopper for outlet skirt

240 x 240 / 300 x 300

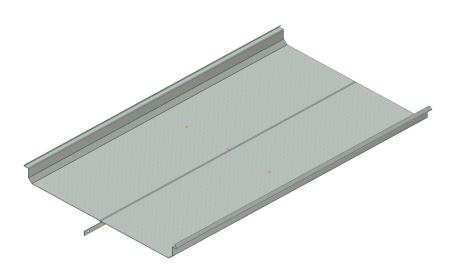


## <u>Top cover / cover plates</u>

The top cover is available in following lengths: 0.5 m - 1.0 m and 2.0 m



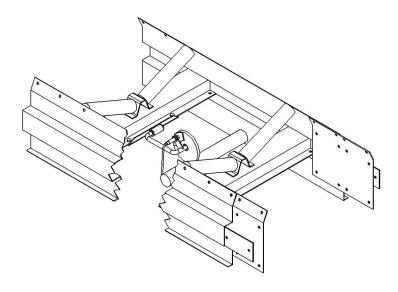
Cover plates for bottom part is available in following lengths: 0.5 m - 1.0 m and 2.0 m

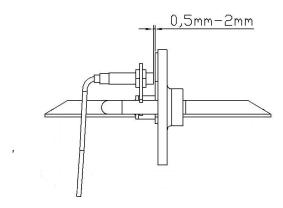




# Speed monitor

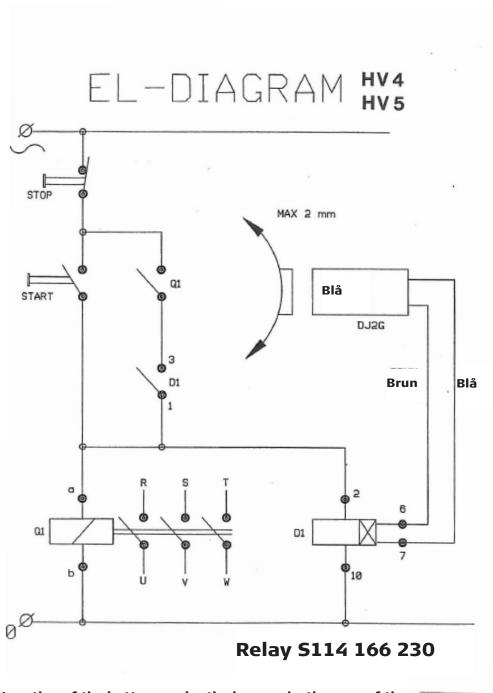
The speed monitor can be fitted in any location in the total length of the machine.





#### Diagram for relay control speed monitor

The inductive proximity sensor DJ 2G (2 terminals) is used with the relay control.



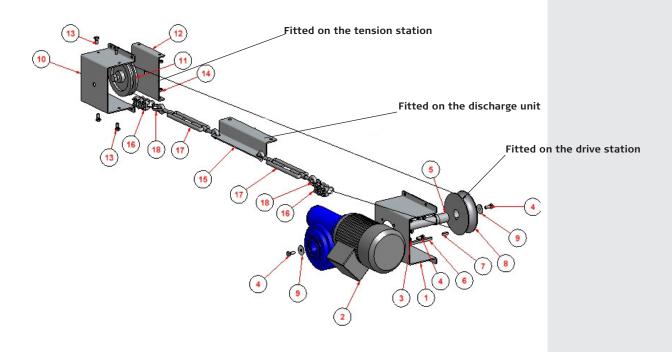
Location of the buttons under the brown plastic cover of the relay.





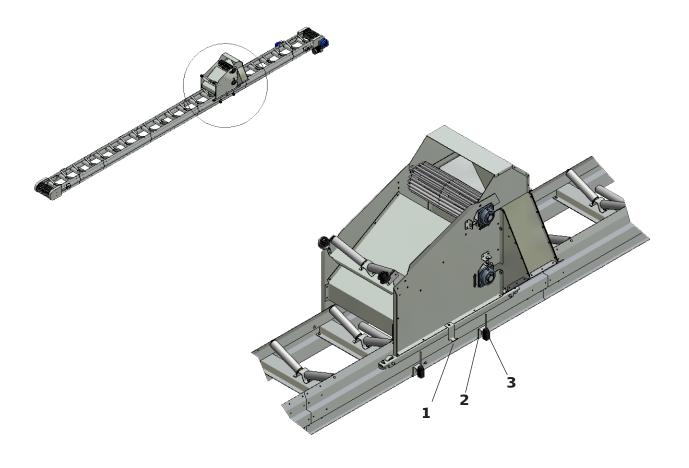
## Electric cable pull for movable discharge unit

The conveyor belt can be fitted with an electric cable pull (see drawing)



Pos.	Description	T50	Kg	T51	Kg	T52	Kg
1	Drive wheel housing	50347-1	1,490	50347-1	1,490	50347-1	1,490
2	Worm gear motor RMI 63 20 rpm	81241	14,248	81241	14,248	81241	14,248
3	Spring washer M8 FZB	87295	0,001	87295	0,001	87295	0,001
4	Steel set screw 8 x 20 FZB	86179	0,014	86179	0,014	86179	0,014
5	Shaft for electric cable pull	50350	0,648	50350	0,648	50350	0,648
6	Feather key 8x7x80	87066	0,034	87066	0,034	87066	0,034
7	Feather key 8x7x20	87056	0,008	87056	0,008	87056	0,008
8	Cable wheel for drive wheel d25	33109	2,310	33109	2,310	33109	2,310
9	Disc guard d8xd30 FZB	87308	0,006	87308	0,006	87308	0,006
10	Casing for cable reverse wheel	50346-1	1,223	50346-1	1,223	50346-1	1,223
11	Cable reverse wheel	83190	1,406	83190	1,406	83190	1,406
12	Spacer for housing	50346-2	0,590	50346-2	0,590	50346-2	0,590
13	Steel set screw M8x16 FZB	86177	0,012	86177	0,012	86177	0,012
14	Nut M8 FZB	86606	0,005	86606	0,005	86606	0,005
15	Cable support angle bar	50349	0,635	50349	0,635	50349	0,635
16	Cable clips for 5 mm cable	92105	0,044	92105	0,044	86179	0,044
17	Threaded rod with ring and hook	92106	0,457	92106	0,457	92106	0,457
18	Cable eye for 5 mm cable	92107	0,001	92107	0,001	92107	0,001

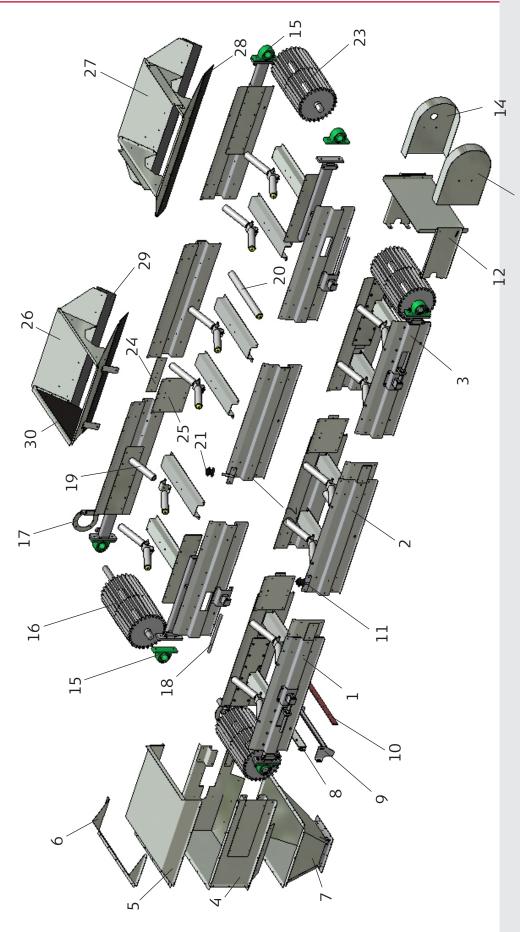
# Proximity sensor bracket for electric cable pull



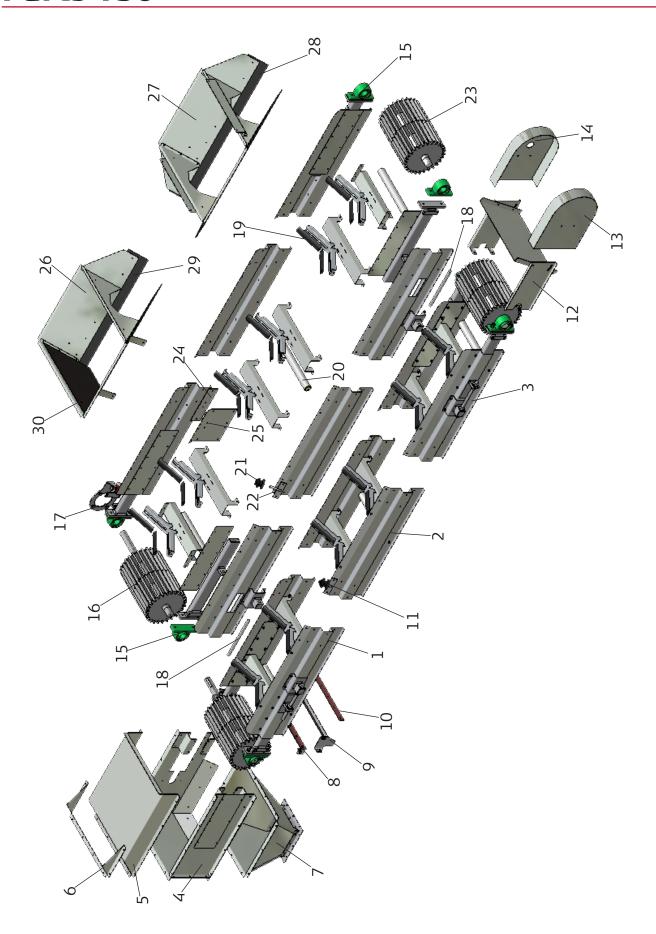
Pos.	Description	T50	T51	T52	Quantity
1	Sensor bracket for switch	19158	19158	19158	1
2	Bracket for switch for T51/T52 with discharge unit	19157	19157	19157	2
3	Switch with whip	88001	88001	88001	2

# **Parts T51/T52**





# Parts T50



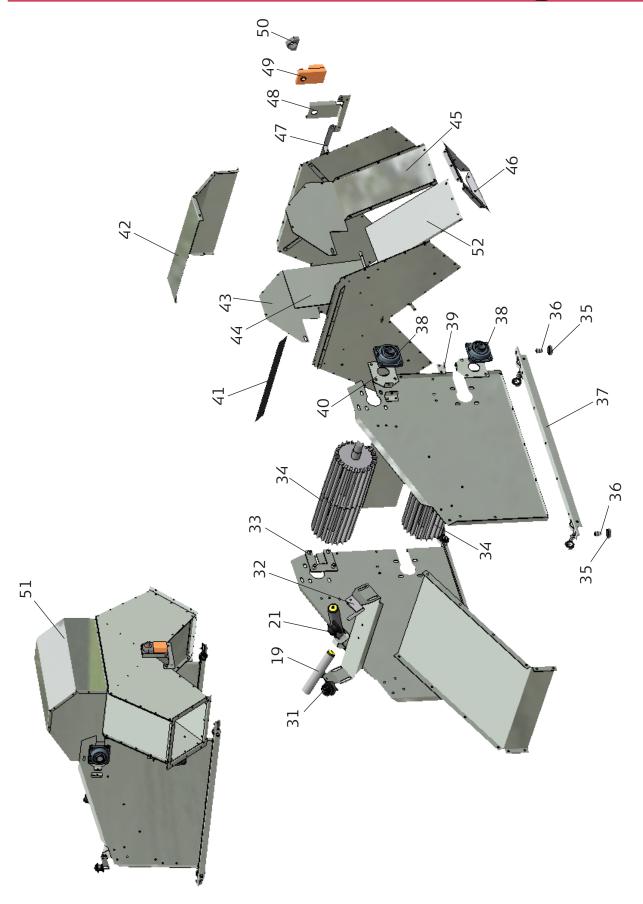


# Parts list T50/T51/T52

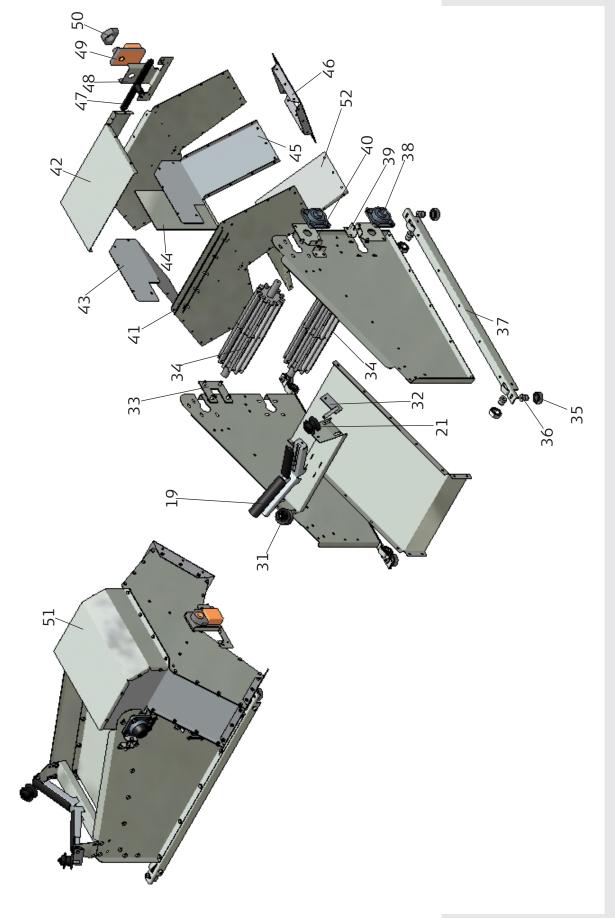
Pos.	Description	T50	Kg	T51	Kg	T52	Kg
1	Drive station 1.0 m w/rollers d42, RHS	50518	89	50177	99	50375	110
2	Extension 0.5 m, w/rollers	50515	10,5	50178	13	50374	14
	Extension 1.0 m, w/rollers	50516	19,5	50175	24,5	50372	25,5
	Extension 2.0 m, w/rollers	50517	37,5	50176	47,5	50373	49
3	Tension section 1.0 m	50520	83,5	50174	95	50371	105,5
4	Outlet skirt with top	50527	17,4	50110	18,5	50475	19,5
5	Top cover for outlet skirt	50530	11,3	50112	12,5	50477	14,5
6	Raised edge for outlet skirt	50529	2	50111	2,5	50476	3
7	Collector hopper for outlet skirt	50531	13	50323	1,4	50332	19
8	Belt scraper, internal	50525	0,97	50192	1	50250	1,2
9	Belt scraper, external	50524	1,48	50191	1,6	50249	2
10	Vulkolan for scraper	50525-2	0,1	50117	0,2	50417	0,2
11	Side guide roller with bracket	50194	0,4	50194	0,4	50194	0,4
12	Baffle plate for outlet, model C	50526	11	50103	12	50303	13,5
13	Guard for drive- and tension section	50491	3	50491	3	50491	3
14	Guard for drive station	50492	3	50492	3	50492	3
15	Steel bearing UCP 209 d45 mm	85128	0,5	85128	0,5	85128	0,5
16	Tension drum complete	50504	34	50232	40	50262	50
17	Motor support	50215	2,3	50215	2,3	50215	2,3
18	Threaded rod	49538	0,8	49538	0,8	49538	0,8
19	Roller- PVC, short			87375	0,4	87377	0,5
	Sliding profile PEHD	50514	0,1				
20	Roller-PVC, long	87374	1,2	87376	1,2	87378	1,3
21	Roller for side guide	50126-1	0,05	50126-1	0,05	50126-1	0,05
22	Bracket for side guide roller	50118	0,3	50118	0,3	50118	0,3
23	Idler roller	50505	31,6	50275	37,5	50276	47,5
24	Connecting plate, narrow	50263	0,5	50263	0,5	50263	0,5
25	Connecting plate, wide	50264	1,2	50264	1,2	50264	1,2
26	Inlet trough for model A	50522	13,3	50189	14,5	50247	17
27	Inlet trough for model B+C	50523	16,3	50190	17,5	50248	20
28	Rubber for inlet trough, model B+C	50310	0,7	50310	1	50334	1,2
29	Rubber for inlet trough, model A	50307	0,6	50307	1	50337	1,2
30	Rubber for inlet trough	50308	0,4	50308	0,5	50338	0,6

When ordering parts, please state conveyor type (T50/T51/T52 plus model A or B), and spare part number

# Parts T51/T52 – Movable discharge unit



# Parts T50 – Movable discharge unit



# Parts list T50/T51/T52 - Movable discharge unit

Pos.	Description	T50	Kg	T51	Kg	T52	Kg
19	Roller- PVC, short			87375	0,4	87377	0,5
	Sliding profile PEHD	50514	0,1				
21	Roller for side guide	50126-1	0,05	50126-1	0,05	50126-1	0,05
31	Side guide roller for discharge unit	50356	0,4	50356	0,4	50356	0,4
32	Welded bracket for discharge unit side guide roller	50356-2	0,3	50356-2	0,3	50356-2	0,3
33	Clamping iron for discharge unit	50512-13	0,4	50354	0,3	50354	0,3
34	Drum for discharge unit	50506	11,8	50295	27	50328	34
35	Ball bearing 6205-2RS	85104	0,02	85104	0,02	85104	0,02
36	Trunnion	83257	0,12	83257	0,12	83257	0,12
37	Driving rail for discharge unit	50353-3	3,2	50353-3	3,2	50353-3	3,2
38	Ball bearing	85130	1,06	85135	1,4	85135	1,4
39	Bracket, small for adjustment of discharge unit drum	50351-2	0,08	50351-2	0,08	50351-2	0,08
40	Bracket, large for adjustment of discharge unit drum	50512-11	0,3	50351-1	0,35	50351-1	0,35
41	Rubber belt for scraper	50512-14	0,08	50282	0,12	50358	0,15
42	Shroud for discharge unit	50512-9	4,26	50287	5	50317	6,6
43	Side plate for outlet LHS	50512-16	2,5	50286	4,91	50316	
44	Flap for two-way branch for discharge unit	50513	2	50290	2,4	50320	3,5
45	Side plate for outlet RHS	50512-15	2,5	50288	4,91	50318	
46	Flange for two-way branch for discharge unit	50294	1,4	50294	1,4	50327	1,5
47	Rocker arm for discharge unit kpl	50359	0,7	50359	0,7	50359	0,7
48	Bracket for Belimo motor	56147	0,5	56147	0,5	56147	0,5
49	Belimo damper motor 230V	81021	1	81021	1	81021	1
	Belimo damper motor 24V	81032	1	81032	1	81032	1
50	Switch set for Belimo	81033	0,2	81033	0,2	81033	0,2
51	Discharge unit	50512	100	50196	160	50252	192
	Discharge unit 230 V	50538	101.5	50201	161,5	50203	193,5
	Discharge unit 24 V	50539	101.5	50202	161,5	50204	193,5
52	Shroud for two-way branch for discharge unit	50512-7	3,11	50289	5,81	50319	

When ordering parts, please state conveyor type (T50/T51/T52 plus model A or B), and spare part number.





#### JEMA AGRO A/S

Kløservejen 2, Sahl, DK-8850 Bjerringbro, Denmark Tel.: +45 8668 1655, Fax: +45 8668 0074 www.jema.as









