

MANUAL BELT CONVEYORS



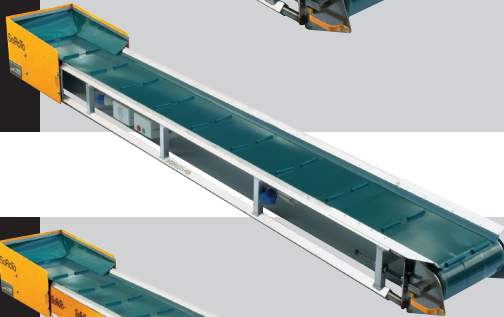
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2.0 M



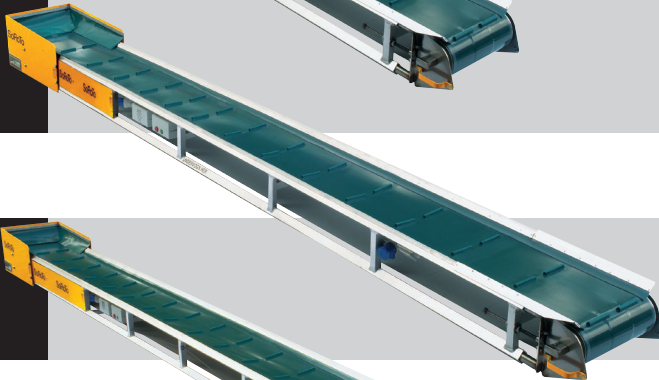
WEIGHT
45 kg

3.3 M



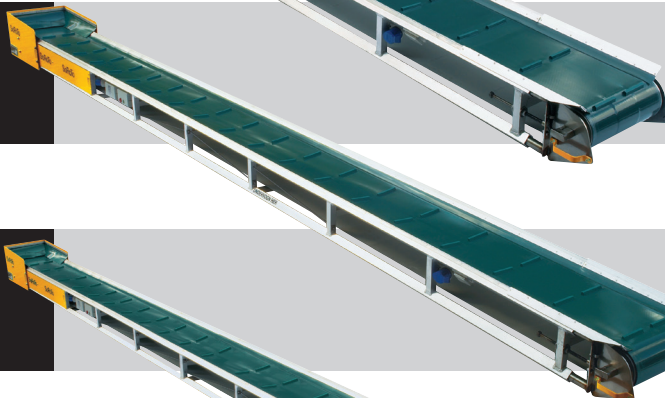
WEIGHT
65 kg

4.5 M



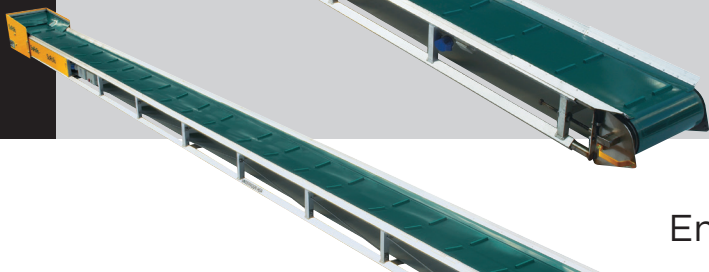
WEIGHT
85 kg

6.0 M



WEIGHT
100 kg

8.0 M



WEIGHT
120 kg

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THE MANUAL APPLIES TO

SoRoTo Belt Conveyors – 2.0 / 3.3 / 4.5 / 6.0 / 8.0 M



USAGE

The SoRoTo Belt Conveyors are available in five different lengths, and are suitable for moving all sorts of building materials. A single belt conveyor can move up to 322 ton a day.

BEFORE USE

Please read the safety regulations, and always remember to check the PVC belt for wear, tear and breakage before use.

Note these symbols throughout the manual - indicating as follows,

-  Risk of injuries or damage to the machine, if the instructions are not followed.
-  Risk of electrical shock.

PRODUCT DESCRIPTION

The SoRoTo Belt Conveyor is delivered with the following equipment as standard,

- Aluminum feeder
- PVC belt with 10 mm carriers
- Undercarriage with two wheels – easy to click on and off

Additional equipment can be ordered,

- Larger aluminum feeder for loading with wheelbarrow
- PVC belts wo/carriers – for transporting wet mortar, concrete etc.
- PVC belts with 30 mm carriers – for transporting stony materials
- Reinforced PVC belts with a higher tensile strength
- Motor designed for operating in extreme low temperatures
- Truck pockets



THIS IS QUALITY

TECHNICAL DATA

SoRoTo Belt Conveyor	2 m	3.3 m	4.5 m	6 m	8 m
Motor	230V/0.50 kW	230V/0.50 kW	230V/0.50 kW	230V/0.55 kW	230V/0.55 kW
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Belt speed	32 cm/sec.	32 cm/sec.	32 cm/sec.	32 cm/sec.	32 cm/sec.
Length	2.2 m	3.3 m	4.5 m	6.2 m	8.1 m
Conveyor width	48 cm	48 cm	48 cm	48 cm	48 cm
PVC belt width	35 cm	35 cm	35 cm	35 cm	35 cm
Alu. frame, height	23 cm	23 cm	23 cm	23 cm	23 cm
Feeder, height	39 cm	39 cm	39 cm	39 cm	39 cm
Max. lifting height*	30°	30°	30°	30°	30°
Weight incl. undercarr.	45 kg	65 kg	85 kg	100 kg	120 kg

(*The max. lifting height depends on the choice of material and the no. of kilos to be moved)

SAFETY REGULATIONS

Please keep this manual in a safe place, so the information within it is always accessible. If the SoRoTo Belt Conveyor is handed over to another person, please make sure the manual is included.

The manual can also be downloaded from our website www.soroto.dk/en

The manufacturer is not liable for any legal claims in case of injuries or damages to the machine, which has occurred because of failure to follow safety regulations.

Safe operation of the machine is only possible, when this manual has been read thoroughly. Please follow the instructions at all times.

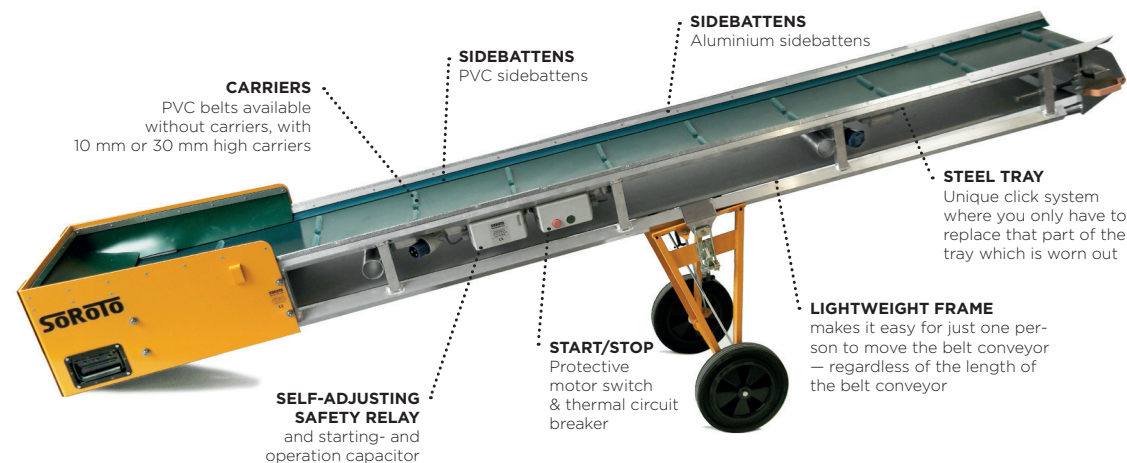
To avoid electrical shock and damages

- Always use the correct current. The power supply must correspond with the information described within this manual (see technical data).
- Always check the cable and plug before use. If the cable is damaged it must to be replaced by either the manufacturer or an authorized electrician.
- Always make sure the belt conveyor is turned off before the cable is connected to the power supply.
- Always make sure that the emergency stop works before using the belt conveyor.



GENERAL SAFETY REGULATIONS

- Always keep a safe distance to children and bystanders, while operating the machine.
- The belt conveyor may only be used by trained personnel.
- The belt conveyor may only be used for moving building materials.
- Maximum three belt conveyors can be interconnected via the supplied power outlet.
- Never stop the belt conveyor before all of the materials have been unloaded.



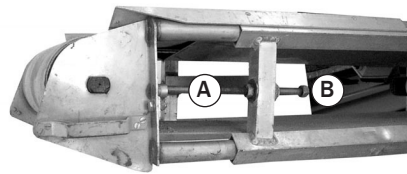
STARTING AND USING THE BELT CONVEYOR

Make sure the data described on the rate plate correspond with the accessible power supply. The SoRoTo Belt Conveyor may be connected to 220V/240V.

Starting and stopping the belt conveyor

The belt conveyor is operated via a mounted motor switch with on/off. Furthermore the motor switch is equipped with an O-discharger, which switches off the machine in case of power failure.

The emergency stop is mounted on the opposite side of the motor switch. Activating the emergency stop is without risk to personnel or the belt conveyor. After an emergency stop, the belt conveyor must to be restarted manually.



! When interconnecting several belt conveyors, always observe that no crushing hazard is present. Always make sure that there is minimum 120 mm between the belt conveyors. Always remove the plug from the power supply before mounting and detaching the PVC belt!

Mounting of a new PVC belt

1. Remove the feeder.
2. The PVC belt is detached by loosening the locknut **(A)**.
3. Hold nut **(B)** while the threaded rod is turned anti-clockwise.
4. Push the motor and the roller fittings back with a rubber hammer.
5. Place the frame on its side with the power box at the top end.
6. Remove the under sledges.
7. Then remove the PVC belt.
8. Before mounting the new PVC belt, please clean the steel tray and side battens.
9. Then mount the new PVC belt.
10. Remount the under sledges. Lay down the belt conveyor again.

Adjustment of the PVC belt

1. Before adjusting the PVC belt, please place the belt conveyor on chocks to avoid the frame from getting twisted.
2. Tighten the PVC belt by holding nut B, while turning the threaded rod clockwise. Tighten the PVC belt as much as possible, so it does not skid on the back roller when this is fully loaded.
3. Adjust the PVC belt so it runs in the middle of the back roller. Adjust it by turning the threaded rod in the roller end.
4. Tighten the locknuts in both ends of the belt conveyor.
5. Turn on the belt conveyor to observe if the PVC belt runs correctly. Please observe if the PVC belt runs straight in the steel tray.
6. If the PVC belt runs askew, measure with a ruler if the motor fittings in both ends has the same distance to the frame.
7. Then refine the adjustment of the PVC belt in the roller end of the belt conveyor. Just so the PVC belt is loosened a little in both ends of the steel tray.
8. If the PVC belt runs askew in the end where the feeder is located, adjust one of the adjustment screws carefully. Just half a turn could suffice. After the adjustment, please allow the belt conveyor to run for at least two minutes, to see if the PVC belt aligns.
9. Before remounting the feeder, please note if the PVC belt runs in a straight line at the back roller and at the motor roller.

! Allow the belt conveyor to run for at least 30 minutes, before putting the machine to use again.

MAINTENANCE AND CLEANING

For a longer durability, always check the SoRoTo Belt Conveyor before and after use.

Check the following,

- That the motor roller and the back roller are clean.
- That nothing is stuck at the back roller- such as stones or other objects
- That the PVC belt runs freely and with ease.
- That the PVC belt runs in a straight line. Please notice if the PVC belt runs straight in the steel tray. (If it runs askew, please follow the adjustment instructions above).
- That the PVC belt has no visible damages. (Cracks, small holes and damaged carriers must to be repaired before the belt conveyor is taken into use).
- That the PVC belt is located under the side battens.
- That the PVC side battens are intact. The battens must have a width of at least five cm. And they must be undamaged. In case of any damages, please replace the battens.

! **NOTE**
When cleaning the belt conveyor NEVER expose the electrical parts to water.

Cleaning

For longer durability, please clean the machine frequently. For a proper cleaning of the SoRoTo Belt Conveyor, please follow this instruction,

1. Clean the PVC belt - e.g. with a pressure washer.
2. First dismount the feeder and observe if any stones, dirt e.g. are stuck to the back roller or the back scraper. Clean if necessary.
3. Make sure the PVC on the feeder is not worn (out). Replace if necessary.
4. Inspect the complete belt conveyor. Remove all foreign objects.
5. If necessary dismount and clean the PVC belt (see point 1-4).
6. After cleaning the belt conveyor, remount the feeder. Now your belt conveyor is ready for use again.

INCLUDING
Standard feeder



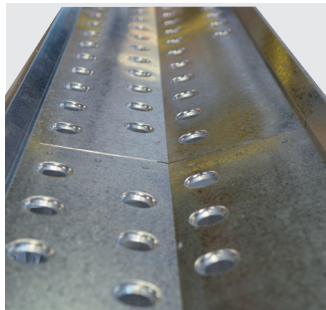
INCLUDING
Undercarriage with two wheels and click on/off



INCLUDING
PVC belt with 10 mm high carriers



INCLUDING
Self-cleaning modular plates = low maintenance



OPTIONAL
Motors for extremely cold temperatures



OPTIONAL
Extra wide feeder for wheelbarrow



MOVING THE BELT CONVEYOR AROUND

When moving the belt conveyor from one place to another, please attach the undercarriage to the frame – approx. in the middle. Then lift the belt conveyor at the end. Make sure the belt conveyor is balanced, and it is easily moved around.

ENVIRONMENTAL PROTECTION



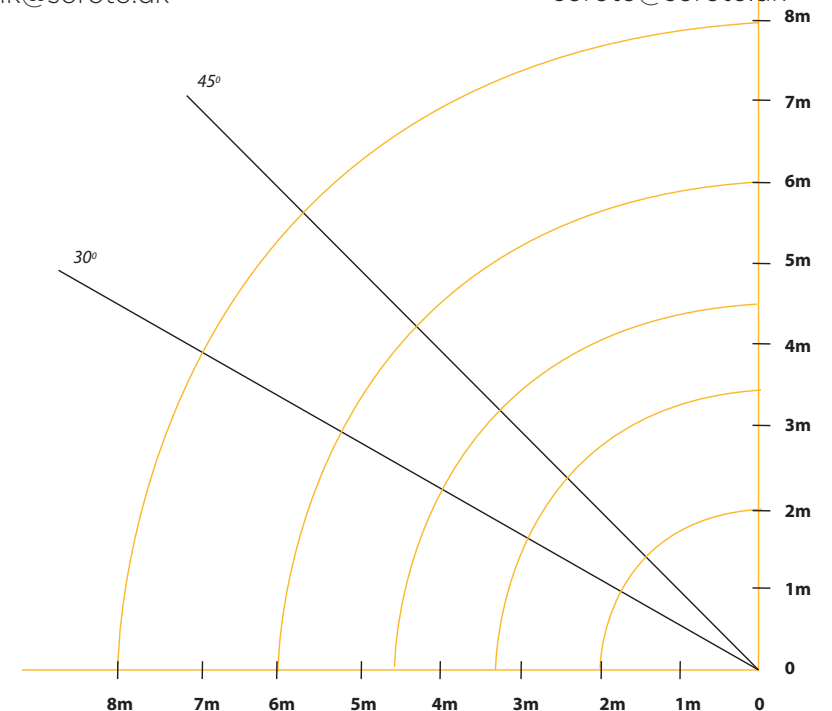
- Worn-out PVC belts must be returned to the collection facilities provided for recycling or destruction.
- Environmentally hazardous waste must always be returned to the collection facilities provided for recycling or destruction.
- Please take care of the environment.

TECHNICAL SUPPORT / WAREHOUSE

Fabriksparken 11
DK-2600 Glostrup
Tel. +45 3672 7800
teknik@soroto.dk

SALES / ADMIN

Fabriksparken 13
DK-2600 Glostrup
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SPARE PART LIST - BELT CONVEYORS, 230V

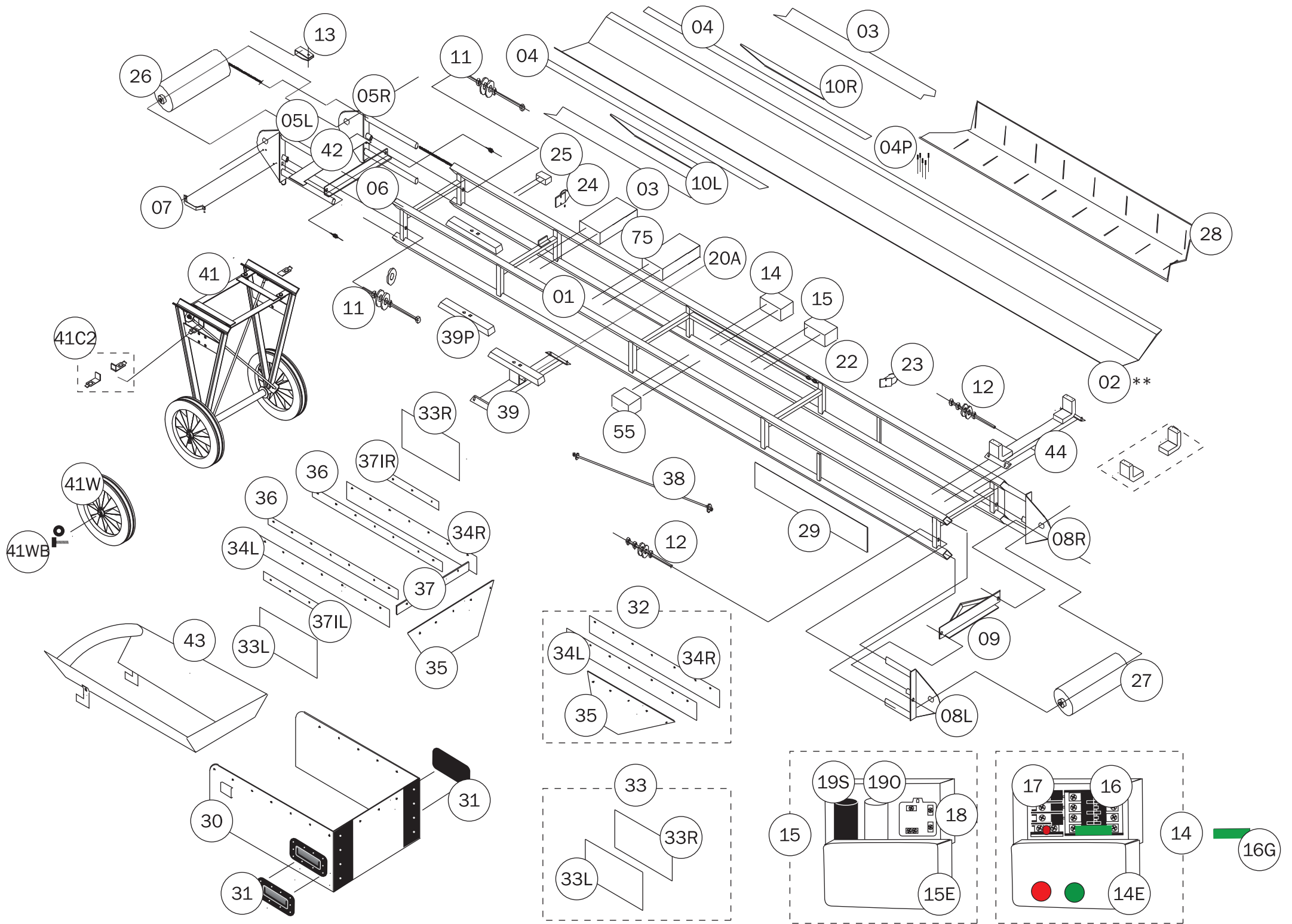


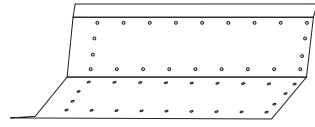
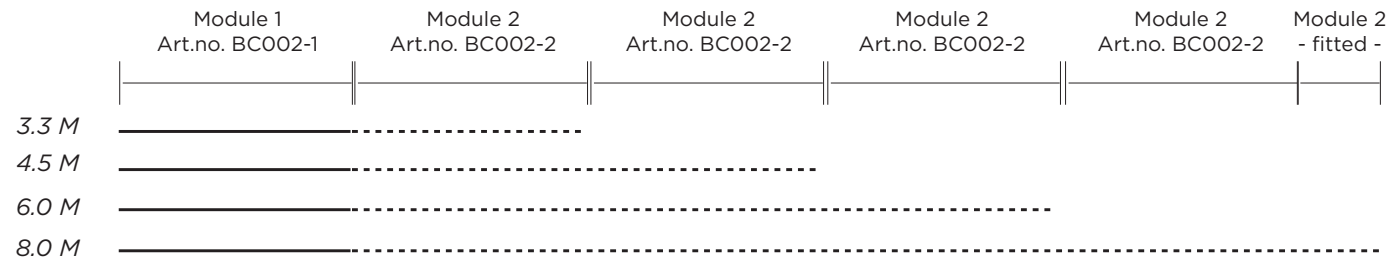
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POS.NO.	DESCRIPTION	ART. NO.	POS.NO.	DESCRIPTION	ART. NO.
1	Alu. frame	XX01	23	CE power intake, 230V	BC023
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M		24	CE power outlet, 230V, by the motor	BC024
2	Steel tray, module 1	BC002-1**	25	Connector box, by the motor	BC025
	Steel tray, module 2	BC002-2**	26	Motor	XX26
	Reinforcement plate for steel tray*	BC002-3**		— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M	
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M		27	Alu. back roller	BC027
3	PVC side batten (8 x 55 mm), for 1 side	XX03	28	PVC belt	XX28
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M			— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M	
4	Alu. side batten, for 1 side	XX04	29	Side plate, (1 pc.)	BC029
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M		30	Feeder box, standard, complete	BC030
4 P	Rivets for alu.side batten, for 1 side	XX04-P	31	Handle for feeder box, new model, (1 pc.)	BC031
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M		32	PVC for feeder box, complete set (green)	BC032
5 L	Motor fitting, left side, complete	BC005-L	33	Rubber for feeder box, complete set (black)	BC033
5 R	Motor fitting, right side (elec. components), complete	BC005-R	34	Separate side-PVC for feeder box, (2 pcs. — 1 x left, 1 x right) ..	BC034
6	Front scraper by the motor, complete	BC006	35	Separate back-PVC for feeder box, (1 pc.)	BC035
7	Handle for motor fitting, (1 pc.)	BC007	36	Alu. batten for side-PVC, feeder box, 64 cm, (1 pc.)	BC036
8 L	Roller fitting, left side	BC008-L	37	Alu. batten for end-PVC, feeder box, 44 cm, (1 pc.)	BC037-B
8 R	Roller fitting, right side	BC008-R		Alu. batten for rubber, feeder box, 30 cm, (1 pc.)	BC037-I
9	Back scraper, "Plough", complete	BC009	38	Threaded rod, zinc, 6 x 750 mm, (1 pc.)	BC038
10 L	End piece, "Horn", left side	BC010-L		6.0 M (6 pcs.), 8.0 M (12 pcs.)	
10 R	End piece, "Horn", right side	BC010-R	39	Undersledge, complete	BC039
11	Threaded rod, 200 mm, Ø12, (2 pcs.)	BC011		4.5 M (1 pc.), 6.0 M (2 pcs.), 8.0 M (3 pcs.)	
12	Threaded rod, 120 mm, Ø12, (2 pcs.)	BC012	39 P	Separate runner for undersledge	BC039-P
13	Leads protector, black PVC	BC013-P		4.5 M (1 pc.), 6.0 M (2 pcs.), 8.0 M (3 pcs.)	
	Leads protector, stainless steel	BC013-S	41	Undercarriage, complete	BC041
14	Power box with start/stop, complete, 230V	BC014	41 C2	Handles for undercarriage, (2 pcs.)	BC041-C2
14 E	Power box with start/stop — without elec. components	BC014-E	41 W	Wheel for undercarriage, Ø300 mm, (1 pc.)	BC041-W
15	Power box, P1, complete, 230V	BC015	41 WB	Bolt and washer for wheel Ø300 mm, set for 1 wheel	BC041-WB
15 E	Power box P1 — without elec. components	BC015-E	42	Safety plate, by the motor	BC042
16	Protective motor switch, model K3, 230V	BC016	43	Feed hopper for wheelbarrow	BC043*
16 G	Green button for protective motor switch, model K3, 230V	BC016-G	44	Side controller, complete set incl. alu. bridge w/sliding profiles ..	BC044
17	Thermal circuit relay, model K3, 230V	BC017	44 P	Sliding profiles, "Pehd", (2 pcs.)	BC044-P
18	Self-adjusting relay, new model	BC018	55	Emergency switch, complete	BC055
	Starter switch = BC016 + BC017 + BC018		66	Repair set for PVC belt: Glue and hardener, PVC patch 100 x 100 mm (1 pc.), PVC patch 160 x 160 mm (1 pc.), PVC patch Ø120 mm (1 pc.), standard carriers — 10 mm high (1 m.) PVC line (1 m.)	BC066
19 O	Operating capacitor 25 µF	BC019-O		Truck pockets (2 pcs.)	BC075*
19 S	Starting capacitor 63 µF	BC019-S	75	Truck pockets (2 pcs.)	BC075*
20	Lead, cable with 3 leads	XX20	99	Alu. frame incl. steel trays, reinforc. plate and side battens	BC099
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M			— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M	
20 A	Lead, cable with 7 leads	XX20 A			
	— Please specify: 2.0 M - 3.3 M - 4.5 M - 6.0 M - 8.0 M				
21	CE adaptor, CE-16, w/plastic nuts M20	BC021			
22	Rubber seal (leading-in)	BC022			

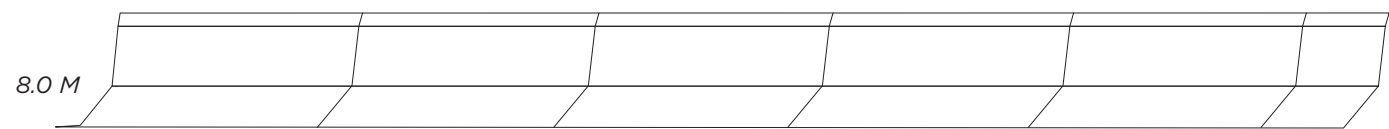
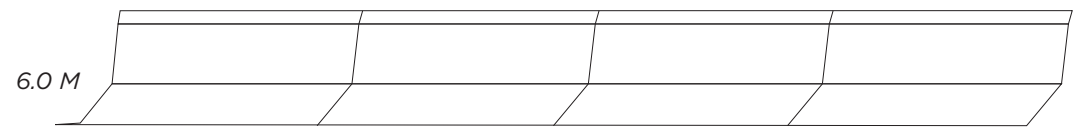
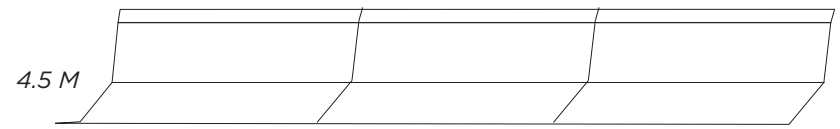
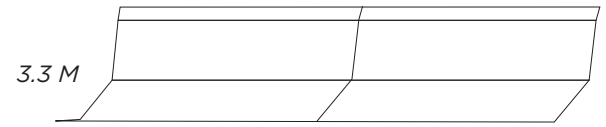
* OPTIONAL

** Please see exploded drawing for further details





Reinforcement plate
- optional but recommended -
Art.no. BC002-3



EU DECLARATION OF CONFORMITY

ANNEX II.A OF THE MACHINERY DIRECTIVE

Manufacturer: SoRoTo A/S

Address: Fabriksparken 11-13, 2600 Glostrup, DENMARK

Product: Belt Conveyors

Model: 2.0 M — 3.3 M — 4.5 M — 6.0 M — 8.0 M

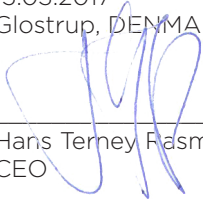
Manufactured: From 2015 and onwards

We hereby declare that the **SoRoTo Belt Conveyors** are manufactured in conformity with the stipulation contained in COUNCIL DIRECTIVE No. 2006/42/EC on the approximation of the laws of member states on machine, including subsequent modifications, with special regard to Annex I of the directive on important safety and health requirements in connection with the design and manufacture of machines.

Furthermore, we declare that the **SoRoTo Belt Conveyors** are manufactured in conformity with the following harmonised standard,

EN 10151

15.03.2017
Glostrup, DENMARK



Hans Terney Rasmussen
CEO

Original