



SLAT TOP CONVEYORS

Operating / Assembly Instructions

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1. GENERAL INFORMATION

1.1 Manufacturer of the system

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1.2 Introduction / Purpose of the Operating / Assembly Instructions

Slat Top Conveyors that are delivered including a motor, as according to the Robotunits catalogue, are considered a complete machine (Machinery Directive 2006/42/EC, Art. 2a), and this document is therefore to be regarded as operating instructions. The Declaration of Conformity required for this purpose can be found in the enclosed documents.

Slat Top Conveyors that are delivered without a motor are considered as partly completed machinery (Machinery Directive 2006/42/EC, Art. 2g), and this document is therefore to be regarded as assembly instructions.

The Declaration of Incorporation required for this purpose can be found in the enclosed documents.

Only the designation "machine" is used in the following document.

1.3 Version

Version	Type	Date
01	New document	2025-10-21

2. SAFETY

2.1 General information



- This manual is considered as part of the machine. It must be kept in close proximity to the machine at all times. Careful observance of this manual is required in order to ensure proper use and correct operation of the machine.
- Robotunits will only accept responsibility for the safety, reliability and function of the machine if assembly, adjustments to the settings, modifications, additions and repairs are carried out by Robotunits or an entity authorized by Robotunits, and the machine is used in accordance with the operating instructions.

Careful observance of this manual is required in order to ensure proper use and correct operation of the machine.

2.2 Intended use

The Slat Top Conveyor is designed and built for:

- transporting parts or liquids in closed totes
- being used for the applications specified in the offer or in the order confirmation
- being used by trained adults only.

 CAUTION	
	<p>Danger due to operation by untrained personnel</p> <ul style="list-style-type: none">• The Slat Top Conveyor may only be operated by trained personnel

2. SAFETY

2.3 Improper use

Any unintended use, or using the machine other than specified in the technical documents, data sheets, assembly instructions, operating instructions or other specifications provided by the manufacturer, is prohibited.

In particular, the following must be prevented:

- Operating the machine without safety equipment.
- The manipulation, bypassing or disabling of installed safety equipment.
- Using the machine in or under water.
- The transportation of animals or people.
- The transportation of hot substances and objects ($> 80^{\circ}\text{C}$).
- The transportation of objects that can be damaged by static discharges.
- The transportation of and use in acids, corrosive / abrasive materials and substances.
- The transportation of material at excessive speed (risk of conveyed material to be propelled outwards).

General improper use is:

- the deliberate generation and handling of flammable or explosive substances.
- the use in areas in which frequent or permanent occurrence of explosive atmospheres of gas or dust are expected.
- The use in hazardous areas must be agreed with Robotunits in advance, as design changes may be required.

If the operator moves or transports other or additional materials and substances besides those known to the manufacturer and/or indicated in the agreements and technical specifications, then the manufacturer's declaration no longer applies. In this case, directive 2009/104/EC applies.

NOTICE






The machine is designed for operation at ambient temperatures from -20 to $+40^{\circ}\text{C}$. In regards to atmospheric humidity, the limit values of protection class IP54 must be observed.

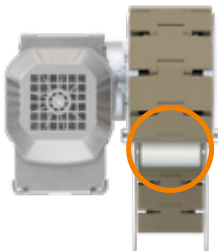
2. SAFETY

2.4 Safety information for normal operation

Robotunits has developed and designed the machine according to state of the art technology. No hazards are to be expected if used as intended. Residual risks have been reduced to a minimum.

- National laws and regulations on safety and health protection for employees must be observed when operating the machine! In the interest of a safe work process, operators and users are responsible for compliance with the regulations.
- The operator must check the machine to ensure it is working properly and in good condition before each use.
- The operator must have read and understood the machine's operating instructions.


 CAUTION	
 	Risk of hand injuries due to moving components <ul style="list-style-type: none">• There is a risk of hands and fingers being pulled in when reaching into the chain links or the idler pulley.• Do not reach between the chain links or into the rotating idler roller.



2. SAFETY

2.5 Electrical safety information

- The machine may only be connected to a properly installed plug or terminal contact.
- Immediately shut down the machine using the switch or EMERGENCY STOP in hazardous situations or in case of a technical fault.
- Installation must be carried out by a qualified and authorized electrical specialist.
- The specifications, instructions and wiring diagrams provided from the motor manufacturer are to be complied with.
- When using a frequency converter, the specifications, instructions and wiring diagrams provided by the frequency converter manufacturer must be observed and, if necessary, a red/yellow device for shutting down the power supply in an emergency must be installed.

 WARNING	
	<p>Danger due to inadequate power supply unit</p> <ul style="list-style-type: none">• Connect the Slat Top Conveyor using a sufficiently rated power supply unit.

2.6 Mechanical safety information

The machine may only be operated in its original condition (with all safety equipment, i.e. covers, etc.).

The principles of “safety integration” must be observed when integrating the machine into a system. This may result in the operator having to provide additional protective measures and/or safety equipment. The necessary workplace risk assessment must be carried out by the operator/ employer.

2.7 Cleaning and maintenance safety information

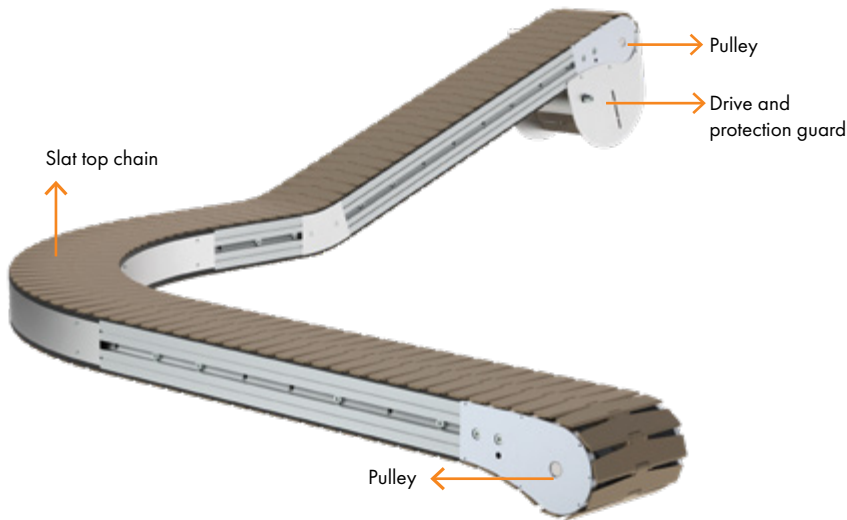
Before cleaning/maintaining, disconnect the machine from the power supply and prevent it from being switched on.

3. PRODUCT DESCRIPTION

3.1 Technical data

Description	Unit	Value
Frame width	[mm]	87; 124; 195
Chain width	[mm]	82.6; 114.3; 190.5
Min. curve radius	[mm]	82.6 = 200 114.3 = 200 190.5 = 610
Speed	[m/min]	5 to 30
Max. conveying length	[mm]	approx. 15,000
Max. load	[kg]	approx. 150 (depending on the conveyor layout)
Motor	[V]	230/400

3.2 Layout and function






4. TRANSPORTATION/ASSEMBLY

4.1 Machine storage/transportation conditions

 CAUTION	
 	<p>Danger due to improper handling during transport and storage</p> <ul style="list-style-type: none">• During transport and storage, secure the machine to prevent it from tipping over.• Do not store outdoors.

4.2 Transportation requirements

 DANGER	
 	<p>Hazard due to lifted load</p> <ul style="list-style-type: none">• Use a suitable means of transport.• Consider the center of gravity when lifting the machine.• Standing under the load is prohibited.

4.3 Electrical installation/wiring

The specifications, instructions and wiring diagrams provided from the motor manufacturer are to be complied with.

When using a frequency converter, the specifications, instructions and wiring diagrams provided by the frequency converter manufacturer must be observed.




If necessary, a mains disconnection device must be installed in the supply line for switching off in an emergency, in particular if multiple conveyor lines with separate motors are installed.




5. COMMISSIONING

5.1 Personnel requirements

All work on the machine must be carried out by qualified and authorized specialists.



5.2 Installing and connecting the machine



 CAUTION	
 	<p>Injury to lower limbs from crushing or colliding if the machine tips over</p> <ul style="list-style-type: none">• Secure the machine against tipping over during the entirety of the assembly.• The electrical safety information (2.5) must be observed.

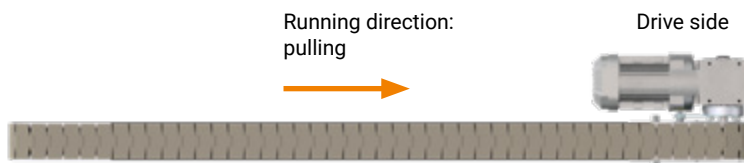
 DANGER	
 	<p>Death or serious injury from electric shock!</p> <p>If the machine is not properly connected, there is a risk of fatal injury from electric shock.</p> <ul style="list-style-type: none">• The machine must be connected by qualified electricians.• The specifications, instructions and wiring diagrams provided from the motor manufacturer are to be complied with.

5. COMMISSIONING

5.3 Initial commissioning




 CAUTION	
	<p>Risk of injury to upper limbs due to cutting or pinching by conveyed material</p> <ul style="list-style-type: none">• Risk assessment by the operator, taking into account the conveyed material• If necessary, prevent access to the hazard zone by means of safety guards or similarly effective protective measures.

 WARNING	
	<p>Hazard due to misconduct / improper use</p> <p>Before initial commissioning, check the following:</p> <ul style="list-style-type: none">• The proper installation of all safety equipment and covers.• In case of an increased risk of conveyed material possibly falling down, additional safety equipment must be installed.• After starting up the conveyor for the first time, check the chain's speed, smooth operation and running direction. To ensure safe operation, the running direction must be "pulling".



5. COMMISSIONING

5.4 During commissioning

 CAUTION	
 	<p>Danger due to operation by untrained personnel</p> <ul style="list-style-type: none">• The removal of safety equipment, covers, or guards during commissioning is prohibited.• Approaching and/or operating the machine is only permitted with appropriate protective clothing (hair net, ear protection, safety shoes, etc.).

6. MAINTENANCE

Operator safety and fault-free operation of the machine are ensured only if original machine parts are used. Proper maintenance of the machine is essential for reliable operation and a long service life.

Any maintenance, with the exception of chain adjustment and checking the running direction, may only be carried out when the machine has been disconnected from the power supply.

6.1 Maintenance personnel requirements

Ensure the stability of the machine during maintenance work. Maintenance must be carried out by a qualified and authorized technician.

6.2 Maintenance table

Maintenance point	Maintenance interval	Task
Bearing	Every 6 months	Check for wear
Electrical installations	Every 6 months	Visual check for damage
Slat top chain	Once a month	Visual check for damage
Screw connections after initial commissioning	1 month after initial commissioning	Check for tight fit
Screw connections	Once a year	Check for tight fit
Slat top chain	1 month after initial commissioning	Check slat top chain tracking

6.3 Corrective maintenance / repairs

Maintenance or repair work may only be carried out by Robotunits or by an approved service center approved by Robotunits.

6.4 Bearing replacement

See enclosed drawings

6. MAINTENANCE

6.5 Replacing the slat top chain



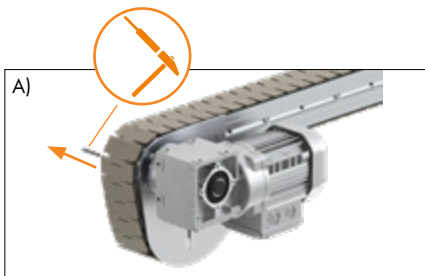
DANGER



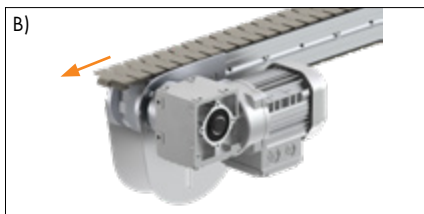
Death or serious injury from electric shock!

There is a risk of fatal injury from electric shock when working on the machine while it is in operation.

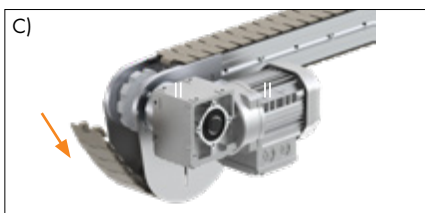
- Before starting maintenance work, shut down the machine and disconnect it from the mains.



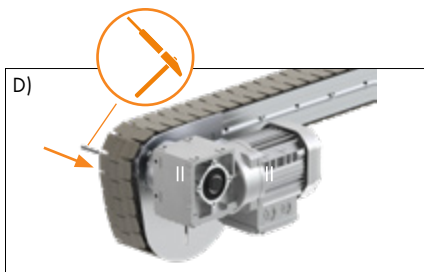
Remove bolt



Remove the old slat top chain






Insert the new slat top chain



Insert bolt

7. DECOMMISSIONING

**DANGER**



Death or serious injury from electric shock!

Before decommissioning, shut down the machine and disconnect it from the mains power before completing further disassembly work. The machine must be in a safe condition during decommissioning.

- Decommissioning must be carried out by qualified and authorized personnel.

8. DISPOSAL

The product contains valuable materials (metals, plastics, electrical components) that can be recycled separately.

At the end of its service life, the machine must be taken to a specialist disposal center.



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