Operating instructions and spare parts list

Belt conveyor - straight
Type: GL

Revision: 03

Translation of the original document
(contains optional variants)
13.03.19

English (US) (Englisch)

EN-BE-GL-03

Variants contained:

- Drives (standard)
- Drives (standard)
- Supports
  - EM, AM, HE, HM (standard)
- Accessories
  - Guiding- and storage structures (standard)

MTF Technik
Hardy Schürfeld GmbH & Co. KG
Stadionstraße 8
D-51702 Bergneustadt

Tel.: +49 (0) 2261/94 31-0
Fax: +49 (0) 2261/94 31-31
info@mtf-technik.de
www.mtf-technik.de

1 General

1.1 Use and storage

Compliance with the following points is mandatory:

- These instructions for use are indispensable for the safe start-up, operation, and maintenance of the unit/machine in line with its intended purpose.
- These instructions for use apply solely to the product that is stated on the cover sheet.
- We reserve the right to change these instructions for use due to further technical developments.
- These instructions for use are part of the scope of supply.
- These instructions for use shall apply from the transport phase up to the final disposal and must be absolutely observed.
- Maintain these instructions for use in a clearly legible state and keep them readily available to the operating personnel near the unit/machine. Hand over the document along with the machine if it is resold.
- These instructions for use are intended solely for briefed and authorized personnel with the necessary qualifications.
- The operator must ensure that all of the persons involved read and understand the instruction manual prior to commencing their work.
- The “Safety” chapter provides an overview of all of the important safety aspects in order to ensure the optimum protection of the operating personnel and the safe and trouble-free operation of the system.
- The manufacturer shall not accept any liability for damage resulting from non-compliance with these instructions for use.
- Substances that are harmful to the environment or hazardous to health must be disposed of properly and separately.
- Reprints, translations or reproductions in any form, either entirely or in parts, are not permissible unless authorized in writing by the publisher.
- The copyright is held by the manufacturer.

1.2 Information about the manufacturer and contact address

MTF Technik
Hardy Schürfeld GmbH & Co. KG
Stadionstr. 8
51702 Bergneustadt

Tel.: +49 (0) 2261/94 31-0
Fax: +49 (0) 2261/94 31-31
E-mail: info@mtf-technik.de
Web: www.mtf-technik.de

1.3 Symbols and abbreviations

The following is a list of the most important abbreviations used in these operating instructions.

Abbreviation	Designation
Fig.	Figure
BA	Operating instructions
EC	European Community
EU	European Union
EEA	European Economic Area
IP	Ingress protection
Pos.	Position number
ProdSV	Ordinance to the Product Safety Law (Machine Directive)
pcs.	Pieces
Tab.	Table
VDE	Verband der Elektrotechnik Elektronik Informationstechnik e.V. (Association of Electrical Engineering, Electronics and Information Technology)

Tab. 1: Abbreviations

The following is a list of the most important units used in these operating instructions.

Unit	Designation	Physical quantity
°C	Degree Celsius	Temperature
rpm	Revolutions per minute	Speed
A	Ampere	Magnitude of the electric current
kW	Kilowatt	Power
mm	Millimeter	Length
Pa	Pascal	Pressure
V	Volt	Electric voltage

Tab. 2: Units

The following elements are part of these operating instructions:

Numbered lists in handling instructions:

1. Step 1
2. Step 2
3. …

Numbering in figures and legends:

1 Component 1
2 Component 2
3 …

Bullet point list for information without a particular sequence:

- Information
  - Sub-item
  - Sub-item

  …
- Information

…

NOTE

The signal word **Note** marks additional information concerning the system or its accessories.

- See the chapter **Depiction of Warning Instructions** for further signal words and symbols.

Internal reference:

This is used to mark references within the document leading to additional information.

External reference:

This is used to mark references to external documents in which additional information can be found.

Disposal of used electrical and electronic devices

The symbol on the product or packaging indicates that this product should not be treated as normal household waste. Instead, it must be handed over to a reception point for the recycling of electrical and electronic devices. Further information can be obtained from your local council, local waste disposal operators, or specialized traders.

1.4 Scope of application

- The product complies with the directives of the European Union.
- Please observe:
  - the enclosed CE declaration of conformity,
  - the information about the intended use and
  - the information about any improper use which is not in line with the intended purpose.

1.5 Other applicable documents

These further applicable documents are relevant for the utilization of this product and these operating instructions:

- CE declaration of conformity
- General terms and conditions, including warranty information
- Drawings
- Sound measurement report
- Information about accessories
- Documentation provided by third-party manufacturers
- Electrical documentation
- Safety data sheets
- Project drawings

1.6 Warranty

Warranty claims must be submitted to the manufacturer immediately after a defect or fault has been detected.

- The warranty shall become null and void in all cases in which liability claims cannot be enforced.
- The information, data and notes included in these Operating instructions and spare parts list were up to date at the time of printing.
- No claims for the modification of systems and components that have already been supplied may be made on the basis of the information, illustrations and descriptions in this instruction manual.
- The information in these Operating instructions and spare parts list describes the characteristics of the product without guaranteeing them.
- No liability shall be accepted for damage and malfunctions resulting from:
  - Non-compliance with the Operating instructions and spare parts list.
  - Unauthorized modifications of the systems.
  - Operating errors.
  - Failure to perform the specified maintenance tasks.

2 Safety

2.1 General safety information

The “Safety” chapter provides an overview of all of the important safety aspects for the optimum protection of the personnel and for the safe and trouble-free utilization of the machine from the transport phase and system operation up to its disposal.

Non-compliance with the instructions and safety notes in these instructions for use may lead to substantial hazards to persons and damage to the machine.

The machine has been designed and manufactured in line with the state of the art and the recognized safety regulations and standards. The machine is safe to operate.

The machine may present residual risks if

- the machine is not used in line with its intended use.
- the machine is operated improperly by untrained or uninstructed personnel.
- the machine is repaired or maintained improperly.
- the safety instructions and warnings that are stated in this instruction manual are not adhered to.
- the machine is modified or converted improperly.
- the prescribed maintenance tasks are not performed in due time.

2.2 Compliance with the instructions for use

NOTE

Any person who is ordered to work on or with the machine must have read and understood these operating instructions, in particular, the “Safety” chapter.

Knowledge of, and compliance with, the content of these instructions is absolutely necessary for the protection of persons against hazards and for avoiding machine faults.

- This is why compliance with all of the safety instructions is mandatory in the interest of your own safety.
- The operating instructions are an integral component of the machine and must be available at the machine at all times. The personnel must read, understand and follow the operating instructions when performing any tasks.
- Please contact the manufacturer without delay (see the chapter "**Information about the manufacturer and contact address**", page 7) if any questions are left open or if parts of these operating instructions are unclear.
- Apart from the safety instructions in this manual, compliance with the following rules and regulations is also mandatory:
  - Intended use
  - The relevant accident prevention regulations
  - Occupational health regulations
  - Generally recognized safety rules
  - Country-specific provisions
  - The documentation concerning any attachments or attachments
  - The documentation provided by third-party manufacturers that is supplied with the machine
  - The information (safety data sheets) provided by the various manufacturers and suppliers of process materials (oils and greases), auxiliary materials, and chemical substances

These rules and regulations can additionally be complemented by specific operating procedures to cover any intra-plant provisions or special operating features.

As a complement to these operating instructions, intra-company briefing must be provided, taking into consideration the professional qualification of the persons attending this briefing.

The product-accompanying documentation provided by MTF Technik does not invalidate the safety regulations of the operator of the overall system, which instead take precedence.

2.3 Intended use

The machine is intended solely for the following uses:

- The conveyor is used to transport unit loads and bulk goods with varying dimensions over a fixed conveying line. The conveying line is determined by the nominal length and angle of inclination.
- The conveyor is intended solely for **commercial use** and not for domestic and private use.

All of the products of MTF Technik as well as all of the other parts that are included in the scope of supply of MTF Technik are intended solely for the purpose that is described in this manual in combination with the technical specification. The technical specification is part of the contract. In particular, the technical data and the provisions concerning the permissible use (assembly, connection, ambient conditions and operating conditions) shall apply. They can be found on the type plate and in the further applicable documents (order documents).

The intended use also includes compliance with the operating instructions and the fulfillment of the inspection and maintenance conditions.

The product-specific documentation can only refer to the intended use of the machine on which the order is based. The operating instructions cannot cover any specific situations arising from special local conditions or special applications that the manufacturer was not aware of. In this case, the operator must ensure the safe operation of the machine or shut the machine down until appropriate measures for the safe operation have been coordinated or implemented in consultation with the manufacturer or other competent authorities.

2.4 Improper use

Any use other than the one described in the chapter "Intended use" and in these operating instructions, and any use going beyond these stipulations, shall be considered as improper use.

The machine is **NOT** intended for the following uses:

- Modifying the machine in any way is strictly prohibited.
- Using the machine if the safety devices and guards have been bypassed or disabled is strictly prohibited.
- Using the machine for the transport of persons is strictly prohibited.
- Transporting loads or materials other than the ones specified in this instruction manual is strictly prohibited.
- Using the machine in potentially explosive atmospheres is strictly prohibited.
- Using the machine in areas which may be subject to the ingress of water of any type (rain, splash water, flooding, etc.) is strictly prohibited.

The following fundamental rules apply at all times:

Any use other than the intended use is an improper use.

The manufacturer cannot be held liable for any resulting damage. The risk for such use shall be borne solely by the user/operator.

Moreover, the use of the device in compliance with applicable international and national safety instructions, and in compliance with the safety instructions in the operating instructions is classed as intended use.

2.5 Foreseeable misuse

The following points describe a foreseeable misuse of the system:

- Set-up on unsuitable surfaces.
- Attachment of transport equipment to the housing.
- Non-compliance with the operating data.
- Non-compliance with the maintenance intervals.
- Incorrect direction of rotation.
- Activation during the rundown of the machine.
- Speed below or above the limit speed.
- Operation without (or with damaged) components that ensure the safety of persons and of the machine.

2.6 Warnings in the instruction manual

Warning notes are marked by a signal word panel in this instruction manual. The warning notes are preceded by signal words indicating the severity of the hazard.

Compliance with the warning notes is imperative in order to avoid accidents, injuries and damage to property.

The following keywords and symbols are used in this instruction manual:

This is the general hazard symbol. It warns of life-threatening dangers.

Measures that are marked with this symbol indicate a danger to persons. Compliance with these warning notes is mandatory in order to avoid injuries or death.

⚠ DANGER

Death or **serious injuries *will result*** if the corresponding safety precautions are not taken.

⚠ WARNING

Death or **serious injuries *may result*** if the corresponding safety precautions are not taken.

⚠ CAUTION

This keyword indicates a potentially hazardous situation that may result in **minor injuries** if it is not avoided.

ATTENTION

This keyword indicates a potentially hazardous situation that may result in **damage to property** if it is not avoided.

2.7 Safety and warning signs on the machine

Any notes or symbols that are affixed to the machine, e.g. safety labels or signs, must be complied with. Do not remove them and ensure that they are legible at all times.

2.8 Operating requirements

As the manufacturer, MTF Technik has no information about any possible interdependence with other systems and devices. This has to be reviewed separately by the operator.

Furthermore, the following conditions must be fulfilled for the normal operation of the machine if they are not part of our area of responsibility:

- Assembly completed as specified.
- Successful test run, including all of the necessary adjustments.
- Briefing of the operating personnel concerning the operation of the machine and the relevant safety regulations.
- If hazards are caused by hot or cold machine parts, these machine parts must be provided with guards to prevent contact.
- Exclusion of hazards caused by electrical energy (see the relevant VDE regulations or the regulations of the utility companies for details).
- Easy access to the machine must be guaranteed.
- Appointment of a person who shall be responsible for the proper operation of the machine.

2.9 Safety devices and guards

There is an increased risk of injury if the safety devices and guards are damaged, modified, removed or disabled. Do not use the machine unless it is fully equipped with all of the protective devices and safety devices and guards.

- Ensure that the safety devices and guards are absolutely fault-free and in perfect working condition.
- The protective devices, safety devices and guards must not be removed, disabled or modified. This also applies to test runs.

NOTE

- Qualified personnel, must check for the trouble-free functioning of the safety equipment, especially after maintenance, repair or overhaul.
- If the machine must be run temporarily without a safety device during maintenance, repair or overhaul, it must be absolutely ensured that no persons are present in the cordoned-off hazard area.

The responsible person (shift supervisor, foreman, etc.) must be informed immediately of any faults concerning the safety devices and guards.

The machine is equipped with the following safety devices and guards:

- Mechanical protection and covers
- Emergency-STOP push-button (can be implemented using the mains switch).

2.10 Duties of the operator

2.10.1 General requirements

The machine must be operated in such a way that it reliably fulfills all of the requirements concerning its intended use and the expected load. The machine must be inspected by a qualified and competent person prior to its initial start-up and also after any type of maintenance, repair, overhaul or structural modification.

2.10.2 Operating instructions

The operating instructions are an integral part of the system. The operator must ensure that the operating instructions are read by every person working on or with the machine. The operating instructions must be accessible at the location of use of the machine at all times.

MTF Technik shall not accept any liability for damage resulting from non-compliance with the product-accompanying documentation.

The operator is required to complement the operating instructions with specific operating procedures in line with the applicable local regulations. Next to the regulations specified hereinafter, this also includes information about the supervisory responsibilities and reporting obligations. The aim is to take into consideration any operational peculiarities concerning the organization of work, the workflow and the appointed personnel.

2.10.3 Local statutory regulations

The operator is responsible for compliance with the binding laws, provisions and decrees and with the existing national regulations concerning the prevention of accidents and with any internal work, operating or safety instructions that are valid at the location of use of the machine.

The following points are part of the applicable local regulations and laws:

- Safety of personnel (accident prevention regulations)
- Safety of work equipment (protective equipment and maintenance)
- Product and material disposal (Waste Management Act)
- Cleaning (cleaning agents and disposal)
- Environmental protection requirements

The operator must ensure that the following tests are performed:

- Test of the machine in terms of its operational safety
- Functional test of the safety devices and guards
- All of the tests that are specified in the maintenance plan

2.10.4 Personnel requirements

The operator must ensure that the following conditions are fulfilled:

- Only trained personnel who are familiar with the fundamental occupational health and safety regulations and who have been instructed in the handling of the machine must be deployed.
- Compliance with the legal minimum age limit.
- Only personnel who have been charged by the operator to do so, are authorized to operate, maintain, repair, and overhaul the machine.
- The area of responsibility, scope of competence and supervision of the personnel must be clearly defined and specified by the operator in order to avoid any ambiguities concerning these points.
- No access to the area of the system for unauthorized persons.
- Compliance with the supervisory responsibilities and reporting obligations as well as with any operational peculiarities.
- Explanation of instructions governing the correct procedures in the event of an emergency. Among other things, knowledge of first-aid measures and the local emergency facilities must be ensured.
- Explanations concerning the handling of hazardous substances.

NOTE

The responsibility for the accident-free operation of the machine lies with the operator or with the personnel authorized by the operator. If the personnel lack the necessary knowledge, corresponding training and instruction must be provided.

2.10.5 Conversions and unauthorized modifications

Any additions or conversions to/of the machine by the operator must be checked for any significant changes. If the change in question is significant, the issued CE declaration of conformity is no longer valid and the operator legally becomes the machine manufacturer. In this respect, please see the machinery directive 2006/42/EC (EEA, Switzerland and Turkey) as well as the machine directive (9th ProdSV, Germany) and, as necessary, national laws and guidelines.

In addition, welding work on load bearing components is not permitted.

2.10.6 Testing

The operator must not start the machine unless a qualified and competent person has performed a test of the machine. This applies to the first start-up of the machine and also to the start of the machine after maintenance, repairs, overhauls or structural modifications.

Based on self-imposed or locally specified regulations, the operator must have the system checked in terms of its operational safety at regular, specified intervals by a qualified and competent person. The results must be recorded in a test log.

2.10.7 Cleaning, maintenance, repair and overhaul

The operator must ensure that the machine and safety devices and guards are kept in a functional state. The control devices as well as the safety devices and guards must be checked in terms of their effectiveness.

Only specialized and trained personnel are authorized to perform maintenance, repairs and overhauls.

The maintenance, repair and overhaul requirements are described in the instructions for use.

2.10.8 Briefing

The operator must protect personnel against any accidents and health hazards and instruct the personnel accordingly before the first performance of a task.

NOTE

The briefing must be repeated at specified intervals (at least once yearly).

- The personnel must read the operating instructions.
- The personnel must attend the briefing.
- The personnel must confirm awareness of the content through their signature.

2.11 Qualification of the personnel

Any work on the machine must be performed by qualified and instructed personnel and strictly in line with the existing rules and statutory regulations. The following points must be fulfilled:

- The personnel must have special knowledge and experience in the respective field of specialization. This applies, in particular, to overhauls and repairs of the electrical, mechanical, hydraulic and pneumatic systems of the machine.
- The personnel must have knowledge of the relevant standards, provisions, accident prevention regulations and operating conditions.
- The personnel must be appointed to perform the required tasks by the person responsible for safety.
- The personnel must be able to identify and avoid any potential hazards.

Depending on the location of use, the necessary qualification of the personnel may be subject to varying statutory provisions. The operator must ensure compliance with the relevant laws. Unless regulated by law, the following list is used to define the permissible personnel and their minimum qualification.

Persons	Task	Qualification	Phase (life cycle)
Qualified personnel for transporting loads	Lifting/lowering and transport of the system	Proven experience in the handling of suspended loads and in the securing of loads [1)]	Transport, assembly, disassembly and removal
Qualified personnel (mechanics)	Mechanical work during: installation, start-up, elimination of faults and malfunctions, maintenance and shutdown	Training as an industrial mechanic or an equivalent professional qualification (in-house training and/or external training) [1)]	Installation, start-up, elimination of faults and malfunctions, maintenance, shutdown, disassembly and removal
Qualified personnel (trained electricians)	Electrical work	Specialized electrical training or an equivalent professional qualification (in-house training and/or external training) [1)]	Installation, start-up, elimination of faults and malfunctions, maintenance, shutdown, disassembly and removal
Qualified personnel (machine operators and fitters)	Operation and set-up of the system	Person who has been trained and instructed by the operator based on the operating instructions	Start-up, operation, elimination of faults and malfunctions
Qualified personnel (disposal specialists)	Proper disposal of the system	Knowledge about the disposal regulations applicable on site	Shutdown, disassembly and removal, disposal
Qualified personnel (safety specialists)	Implementation of the applicable safety regulations	Knowledge about the safety regulations applicable on site	All phases
Visitors	Site inspection	Person under the supervision of a safety specialist	–

Tab. 3: Qualification of the personnel

[1)] Minimum of 3 years of work experience

2.12 Safety instructions for the personnel

Avoid any working practice that:

- puts the health and safety of the user or third parties at risk.
- is detrimental to the machine or other material assets.
- impairs the safety or functionality of the machine.
- does not comply with the safety instructions.

In addition:

- Do not perform any work on running machines.
- Do not perform any work on machine parts under electric voltage.
- Always wear personal protective equipment when working on the machine.

There is a risk of injury if the safety devices and guards are disabled. Never dismantle or disable any safety devices or guards.

- Check the safety devices and guards daily for correct operation.
- Report all the malfunctions and defects concerning the safety devices and guards to the operator without delay.
- Keep covers (e.g. panels, shields, housings) closed during operation.
- Observe the respective supplier's safety data sheets and disposal instructions as well as all of the local safety regulations when using chemicals.
- Wear protective clothing.
- Only perform tasks that you are familiar with, assigned to carry out and that belong to your working area.
- When handling process materials (e.g. oils, greases and other chemical substances), comply with the suppliers' specifications and safety information for the respective product.

There is a risk of damage to property if the machine is operated improperly.

- Comply with the description of any attachments or ancillary equipment (if included). See also the supplier documentation or the separate documentation provided by the third-party suppliers.

2.12.1 Operation of the system

- Operation is permissible only if all of the components are in a perfect technical state and proper operational condition and if they are used in line with the intended purpose.
- Avoid any operation that compromises the safety of the machine.
- The operator must ensure that unauthorized persons cannot work on the machine.
- Do not transport any persons with the machine.
- Prior to switching the machine on, the machine operator must ensure that no persons are put at risk by the start of the machine.
- During operation, the entire hazard area must be observed or closed off so that no one can enter this area without being noticed.
- Use the machine only if all of the guards and safety devices are present and fully functional.
- The machine operator must ensure a clean and clearly arranged workplace at and around the machine by issuing corresponding instructions and performing checks.
- The operating personnel must be briefed about the location and use of fire extinguishers. The fire detection and firefighting procedures must be observed.

2.12.2 Personal protective equipment

Failure to wear personal protective equipment may result in serious injuries or death.

- Wear the prescribed personal protective equipment, e.g. ear protection, eye protection, safety footwear, hard hats, protective clothing, safety gloves, and respiratory protective equipment, whenever working on the machine.

- Long hair must be tied back. Do not wear any loose-fitting clothes or jewelry. There is a risk of injury if these items get caught in or are pulled into any moving components of the machine.
- Ensure that no unauthorized persons are present in the hazard area.

2.13 Transport and installation

There is an increased risk of injury for persons who perform tasks for which they are neither qualified nor trained. Only appropriately trained persons should be entrusted with the fastening of loads and with acting as banksmen for the crane operators. Compliance with the accident prevention regulations is particularly important.

- The shipping company and MTF Technik must be informed immediately in writing about any damage that is noticed after the delivery. The start-up of the machine must be suspended, if necessary.
- Use only suitable lifting devices, transport equipment, load handling attachments and lifting accessories and ensure that they are in a perfect technical state and have a sufficient load-bearing capacity.
- Lift the machine or parts thereof only via the attachment points that are intended for this purpose.
- Check all of the suspension points, e.g. lifting eyes, prior to using them. This applies particularly to the later transport of the machine after a long period of utilization. suspension points that no longer correspond to the delivery state of the machine must not be used.
- Do not add any additional attachment points to the machine by welding, flame cutting or drilling. There is a risk of cracking due to the notch effect of the weld seam or flame-cutting spot or bore.
- Never work or stand under suspended loads. There is a risk of fatal injuries from falling loads.
- If parts of the system or large assemblies need to be replaced, fasten and secure them thoroughly on the lifting devices.
- The banksman must be within the range of vision of the operator or have voice contact with the operator.
- If parts of the system need to be disassembled for transport, they must be reinstalled and fastened properly prior to restarting the system.

2.14 Safety checks

There is an increased risk of injury for persons who perform tasks for which they are neither qualified nor trained.

- Only persons who are familiar with the tasks, who have been informed about the associated hazards and who have the necessary qualifications are authorized to start the machine.
- All technical safety conditions must be fulfilled prior to the start-up.

Safety checks to be performed for the start-up:

- Continuity check of the protective conductor system
- Functional check (check of the safety devices and guards, e.g. protective hoods)
- Insulation test
- Voltage test
- Protection against residual voltages
- Correct operation of the electrical equipment, particularly relating to the applicable safety and protection measures.

2.15 Notes concerning specific hazards and residual risks

The instructions and notes given here are to be considered as fundamental safety instructions and notes for specific types of hazards. These fundamental safety instructions must be observed during any type of work on the machine.

This is to prevent health hazards and dangerous situations. Special safety instructions and warnings are stated in the respective chapters and must also be observed.

Residual risks are determined by way of a risk assessment. Persons working on and with the machine must be informed about these residual risks. Intra-company briefing must be provided, taking into consideration the professional qualification of the persons attending this briefing. The instructions must be followed in order to avoid accidents or damage due to the residual risks.

2.15.1 Hazards caused by untrained personnel

Inexperienced and unqualified personnel put themselves and other persons at risk.

- Only persons who are familiar with the tasks that they are appointed to and who have been informed about the associated hazards are authorized to perform the tasks.
- The areas of responsibility of the personnel for the different life cycle phases must be clearly defined.
- Use only personnel who are sufficiently trained and authorized. The necessary qualifications are described in the personnel requirements.
- Personnel in training may work on the machine only under the permanent supervision of an experienced and qualified person.

2.15.2 Hazards caused by electrical energy

There is danger to life in the event of contact with live components. Serious injuries or even death may result. In addition, active electrical components may perform uncontrolled movements.

- Work on the electrical systems and operating equipment must be performed by qualified electricians and in accordance with the electrical engineering regulations. Prior to working on the electrical system:
  - Disconnect the machine from the power supply so that it is completely voltage-free.
  - Lock it so that it cannot be switched on again.
  - Ensure that the motors/drives and moving parts of the system are at a complete stop.
  - Close the working area off with a red-and-white barrier chain and mark the area with a warning sign.
  - Check whether the equipment is completely voltage-free.
  - Ground and short-circuit the equipment.
  - Cover any adjacent live parts.
- Only use insulated tools.
- Check the electrical equipment for signs of damage at regular intervals. Loose connections and scorched cables are a safety hazard. Eliminate any defects immediately.
- Keep the control cabinets closed at all times. Permit access only to authorized personnel.
- When working on live parts, always bring in a second person who can actuate the Emergency-STOP push-button or the mains switch to shut off the voltage supply in the event of an emergency. Immediately switch the machine off if there are malfunctions or faults concerning the energy supply.

2.15.3 Hazards caused by hot spots

There is a risk of burns due to the hot surface temperatures of motors and machine components.

- Keep a safe distance to hot components.

When working on or near hot spots of the machine:

- Wear suitable protective clothing.
- Switch parts of the machine off, if necessary.
- Let the components cool down.

2.15.4 Hazards when handling chemical substances

Contact with oils, greases and other auxiliary substances may cause chemical reactions.

- When handling chemical substances, observe and comply with the applicable regulations and safety data sheets of the suppliers.
- If there is contact with the skin or eyes, immediately rinse out the affected area with plenty of water. Suitable equipment (e.g. an eye wash bottle) must be available in the vicinity of the workplace.

2.15.5 Hazards caused by moving components

Moving machine parts that are freely accessible are dangerous spots that may lead to serious injuries or even death. There is an entanglement and crushing hazard caused be getting caught in or pulled into any moving components.

If the dangerous spots cannot be physically separated from the working area, the following safety measures must be taken:

- Maintain a safe distance from any moving parts.
- Wear tight-fitting clothes.
- Do not wear any rings, necklaces or other jewelry.
- In the case of long hair, wear a hairnet.
- Wait until the machine has stopped completely prior to performing any maintenance, repair or overhaul tasks. If necessary, depressurize the components.
- Lock the machine or parts of the machine so that they cannot be reactivated in order to prevent unintended movements of the machine parts. Close the working area off and mark it with a warning sign.

2.15.6 Hazards caused by ambient conditions

Insufficient lighting

Poor visibility due to insufficient lighting increases the risk of accidents.

- Ensure sufficient lighting prior to performing any tasks.

Insufficient access

Insufficient or unsafe access to the working area increases the risk of accidents, e.g. by falling.

- Access to hazard areas must be closed off by way of suitable measures.

Noise pollution

The noise level that could occur in the working area could increase the risk of accidents and harm the health of the personnel.

- When working with an increased noise level, wear effective ear protection.
- Only stay in the hazard area as long as this is absolutely necessary.

Contamination and soiling

The operation of the system leads to soiling which presents a risk of slipping and injury to the personnel.

- Wear personal protective equipment and, in particular, safety shoes during all work.
- Eliminate any contamination and soiling immediately.

2.15.7 Hazards for the environment

Process materials, such as greases and oils, contain toxic substances that may contaminate the soil and groundwater. Process materials (grease, oil and other chemical substances) must not be released into the environment.

- Oils and greases must be disposed of in an environmentally sound manner.

The local disposal regulations must be observed.

- The disposal must be performed by a specialist disposal company.
- Observe the information provided by the suppliers and the safety data sheet of the substances.
- In addition, ensure to also observe the information in the supplier documentation.

2.16 Spare parts and wear parts

In the event of maintenance, repairs and overhauls, the operator must ensure that appropriate spare parts in compliance with the technical specifications of the manufacturer are used. This is ensured if original spare parts are used.

Spare parts and wear parts that are not supplied by MTF Technik have not been tested or approved. The installation or use of these components may have a negative effect on the specified design characteristics of the machine and thus compromise the safety of the machine.

MTF Technik shall not accept any liability for damage resulting from the use of non-original parts and accessories.

- Only use the original parts and original accessories that have been supplied by MTF Technik.
- We recommend keeping the most important spare parts and wear parts in stock on site.

2.17 Procedures in the event of an emergency

In the event of danger to life, the machine or parts thereof can be stopped by actuating an Emergency-STOP push-button (can also be implemented using the mains switch).

NOTE

In the event that a separate Emergency-STOP push-button and a mains switch are present:

- An Emergency-STOP push-button should be actuated only in situations in which the safety of persons or of the machine is at risk.
- An Emergency-STOP push-button must not be used for switching the machine off in normal situations.
- An Emergency-STOP push-button does not disconnect the machine from the power supply.

After an emergency stop, authorized personnel must be brought in immediately in order to determine and eliminate the cause of the emergency.

An emergency stop of the machine interrupts the automatic process sequence. The machine must not be switched on again until the cause of the emergency stop has been eliminated.

To restart the affected part of the system, proceed as follows:

- Eliminate the hazard or malfunction.
- Unlock the Emergency-STOP push-button that has been pressed.
- If necessary, acknowledge the fault message via the control unit.
- Start machine operation.

2.18 Procedures in the event of malfunctions

Malfunctions of the machine may be caused by a single, simple fault that can be localized and eliminated.

- In the event of an imminent danger, immediately press the Emergency-STOP push-button (can also be implemented using the mains switch).
- Switch the machine off and lock it so that it cannot be switched on again. The machine must also be switched off in case of any unusual behavior of the machine. For example:
  - unusual noise, vibrations, smells,
  - faulty behavior and false indications,
  - high temperature.
- Disconnect the machine from the power supply so that it is completely voltage-free and authorize only trained and qualified personnel to eliminate the faults and malfunctions.
- If the malfunction cannot be eliminated, contact the service of MTF Technik.

3 Product description

3.1 Technical data

Feature	Value
General technical data	
Product name	See the technical data in the product order confirmation!
Order confirmation no./pos.	
Nominal length [L]	
Nominal width [W]	
Usable width	
Usable belt width	
Guiding profile	
Guiding profile height above belt	
Carrying run	
Power supply	
Electrical connection data	See the technical data in the product order confirmation!
Drive motor	
Electrical connection data	See the technical data in the product order confirmation!
Noise emission	
Emission sound pressure level at workstations	See the sound measurement report for the product!
Operating conditions	Normal operation at rated power
Environmental conditions	
Operating range	-20 to +40°C
Humidity	< 80 %
Vibrations	Not applicable (2006/42/EC Machinery Directive)
Dimensions	
	See the technical data in the product order confirmation!

Tab. 4: Technical data

3.1.1 Type plate

The type plate is usually attached in the vicinity of the drive and contains information about the respective machine type and its technical details. Do NOT remove the type plate.

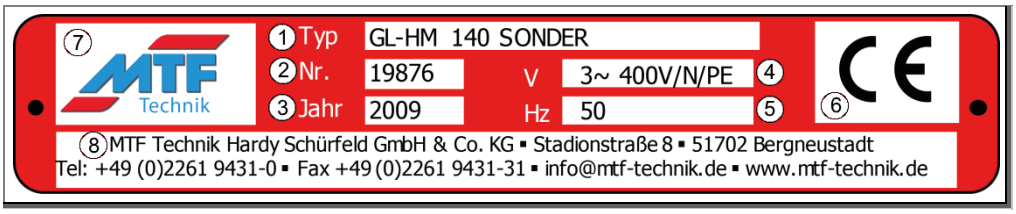


Fig. 1: Type plate (example)

No.	Description
1	Type designation
2	Serial no.
3	Year of manufacture
4	Supply voltage [V]
5	Connection frequency [Hz]
6	CE conformity marking
7	MTF Technik Logo
8	MTF Technik contact data

Tab. 5: Type plate descriptions

3.2 Functional description

3.2.1 Conveyor - straight

The conveyor is used to transport unit loads and bulk goods with varying dimensions over a fixed conveying line. The conveying line is determined by the nominal length and angle of inclination.

A belt (**5**) placed over the conveyor body is continuously tensioned using two pulleys at the end of the conveyor body. A deflection pulley at one end of the conveyor body is used for belt tensioning and setting of the belt alignment. The drive pulley at the other end of the conveyor body is used to drive the belt with the aid of the drive motor.

The belt conveyor essentially comprises the following components:

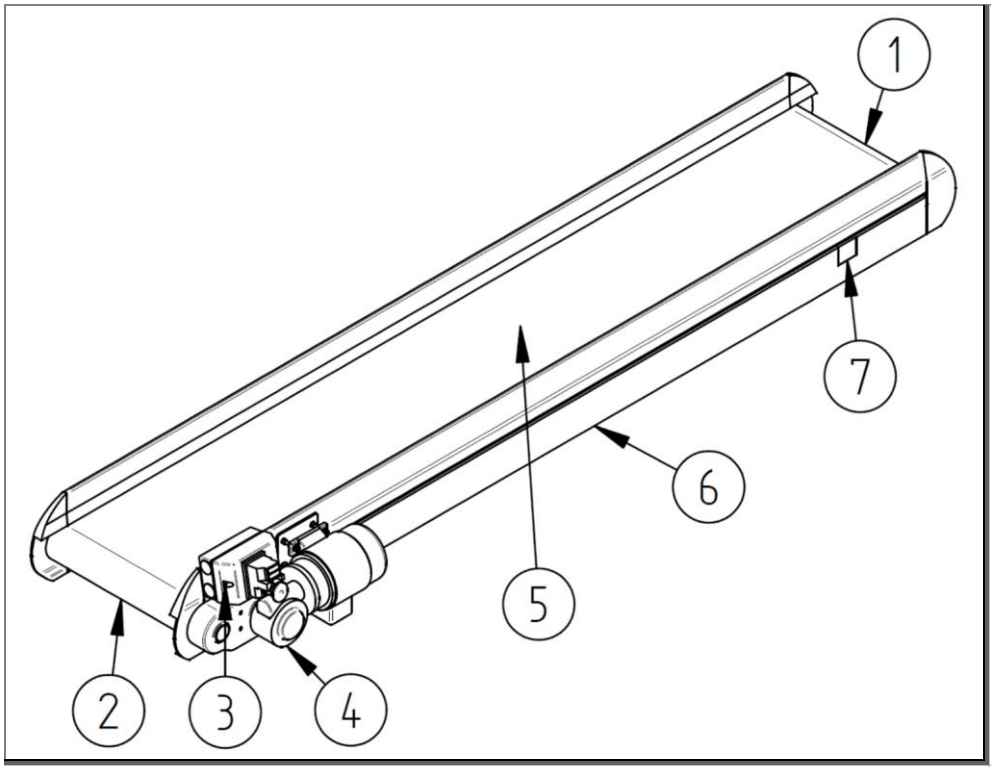


Fig. 2: Straight belt conveyor (typical)

1	Deflection pulley	5	Belt
2	Drive pulley	6	Conveyor body
3	Mains switch (typical)	7	Belt tensioner
4	Drive unit (typical)		

3.2.2 Operatingmodes

3.2.2.1 “Without”

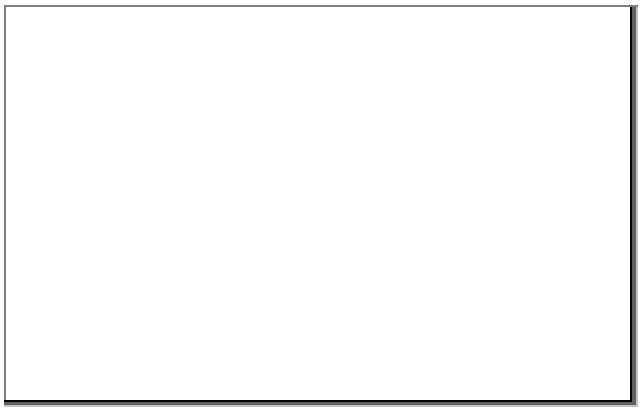


Fig. 3: Open cable connection

“Without” mode of operation

If, due to a customer requirement, the conveyor is supplied without a mains switch, the conveyor does not comply with the Machinery Directive 2006/42/EC. Insofar that a CE marking of the conveyor as an individual machine is necessary (possibly specified by the application), then prior to start-up, there is a duty to attach a mains switch and, if necessary, to carry out other measures. Conformity with the Machinery Directive must then to be evaluated. We will be happy to provide you with further information about this matter.

3.2.2.2 “Constant”

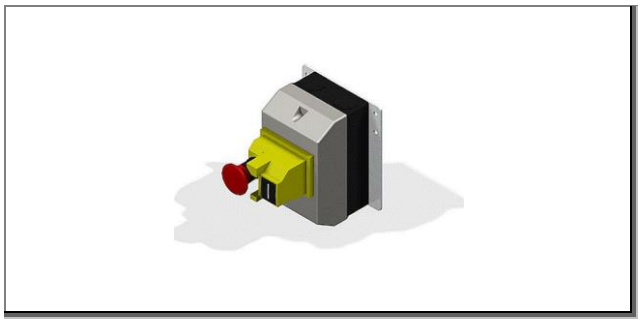


Fig. 4: Mains switch with detent function

“Constant” mode of operation

The speed of the drive is set to a fixed rpm in the “Constant” mode of operation. As a result, the conveying speed is constant. The actual speed can, depending on the motor load, differ from the theoretical speed. A mains switch with detent function is fitted as standard.

3.2.2.3 “Clocked”

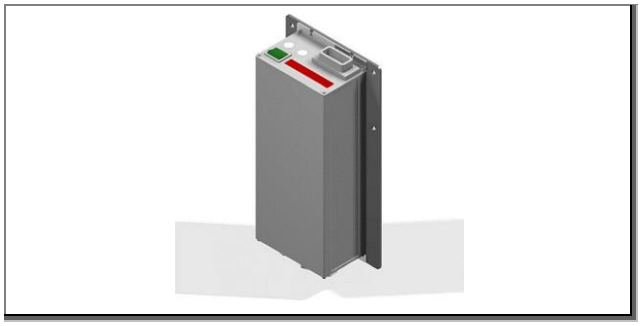


Fig. 5: Clock timer with mains switch

“Clocked” mode of operation

In the “clocked” mode of operation, a clock timer is used to start and stop the conveyor at set times. This allows the pause and running times of the conveyor to be defined.

Moreover, the speed of the drive is designed with a fixed rpm so that the conveying speed is constant. The actual speed can, depending on the motor load, differ from the theoretical speed.

3.2.2.4 “Continuously variable”

Fig. 6: Speed adjuster with mains switch

“Continuously variable” mode of operation

In the “continuously variable” mode of operation, a speed controller is installed together with a mains switch. Consequently the conveying speed can be set within an adjustment range dependent on the motor used. Similarly, a start-up ramp can be set via an externally connected control unit with a display, that enables gentle starting and braking of the conveyor belt.

The actual speed can, depending on the motor load, differ from the theoretical speed.

3.2.2.5 “Continuously variable and clocked”

Fig. 7: Combi-control unit with mains switch

“Continuously variable and clocked” mode of operation

A combi-control unit is used in the “continuously variable and clocked” mode of operation.

Both the speed and also the running and pause time of the conveyor can be set. Similarly, a start-up ramp can be set, which enables gentle starting and braking of the conveyor belt.

The actual speed can, depending on the motor load, differ from the theoretical speed.

3.2.3 Belt (belt cover)

A belt (**4**) placed over the conveyor body is continuously tensioned using two pulleys at the end of the conveyor body.

The belt tensioner (**6**) is used to adjust the belt tension so that the friction between the belt and drive pulley (**2**) is sufficient for transmitting the necessary drive torque. In addition, the belt tensioner can be used to compensate a change in length of the belt caused by its operation.

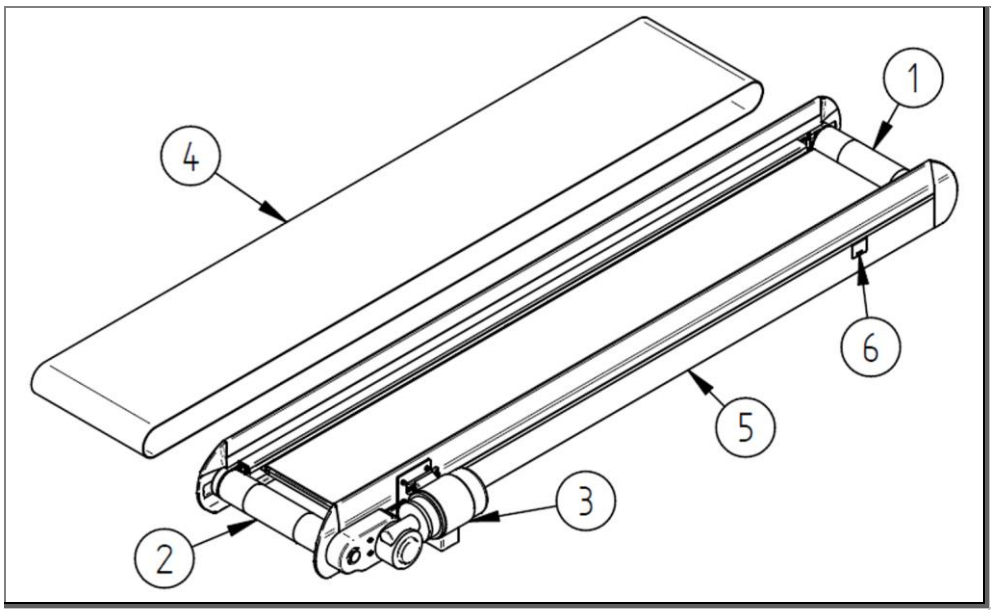


Fig. 8: Exploded view of a straight belt conveyor (typical conveyor)

1	Deflection pulley	4	Belt (=belt cover)
2	Drive pulley	5	Conveyor body
3	Drive unit (typical)	6	Belt tensioner (cover)

3.2.3.1 Designations of the belt

The top of the belt is designed dependent on the transported material. The following figure shows an overview of possible belt designs.

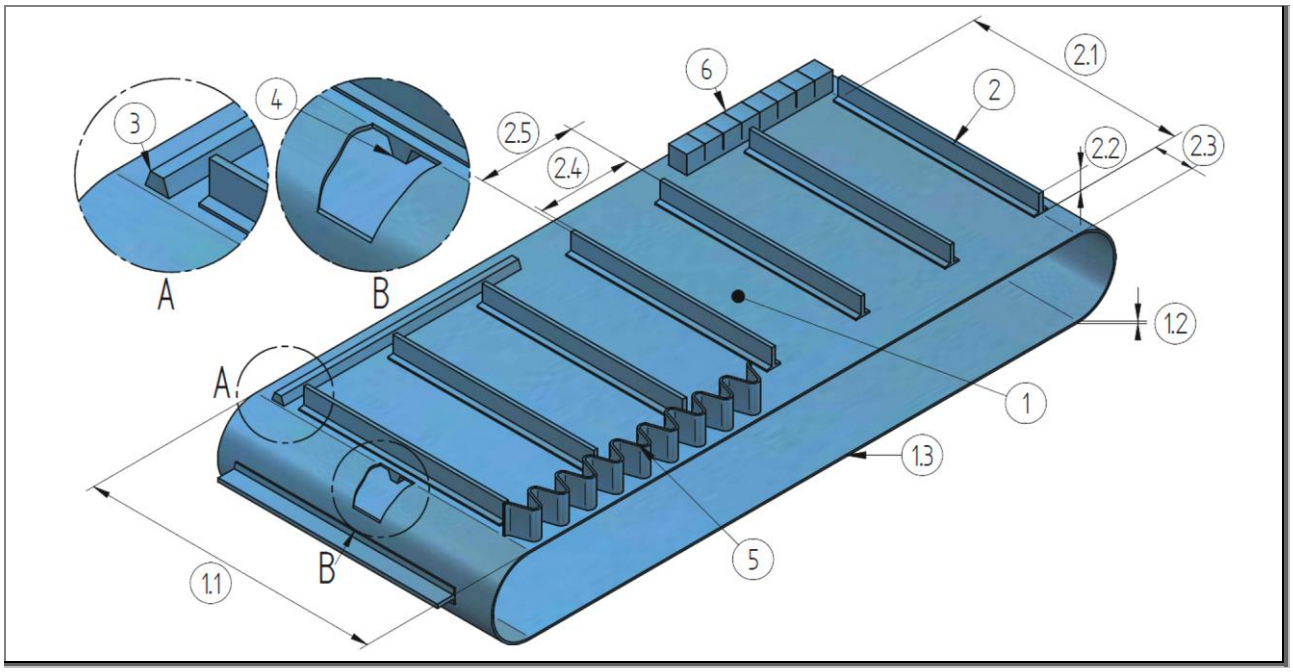


Fig. 9: Designations of the belt designs

1	Belt	2.3	Lateral clearance (on both sides)
1.1	Belt width	2.4	Cleat shelf width
1.2	Belt thickness	2.5	Cleat distance (center to center)
1.3	Endless belt length	3	Carrying side-v-guide
2	Cleat	4	Running side-v-guide
2.1	Cleat length	5	Corrugated side wall
2.2	Cleat height	6	Longitudinal guide

External reference

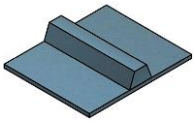
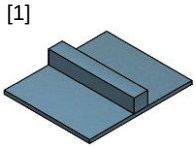
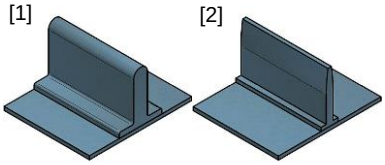
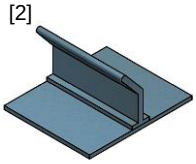
The belt no. and the properties of the belt are contained in the order confirmation (see “Belt cover no.”).

3.2.3.2 Cleat

Cleats are essentially responsible for the correct operation of the entire conveyor belt. They are primarily used for conveying or delimiting transported material. The cleats mainly comprise welded or glued on strips, that are arranged perpendicular to the conveying direction. They reduce the tendency of the transported material to fall back.

The endless belt length is divided by the number of cleats, so that in general there is a uniform cleat distance. From this uniform cleat distance a cleat compartment is created dependent on the cleat form.

The cleat form varies dependent on the material. The various cleat heights are dependent on the belt selection.

Cleat image	Cleat form	Cleat height [mm] (dependent on the selected belt)
	Without	
[1] 	[TR] Trapezoid	4; 5; 6; 8; 11
[1] 	[R] Rectangular	8; 10; 12
[1] [2] 	[T] T-form	20; 25; 30; 35; 40; 50; 60
[1] 	[TN] T-Form; tilted	30; 40
[2] 	[TG] T-form; bent	30; 40

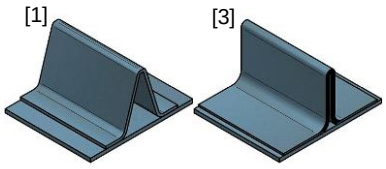
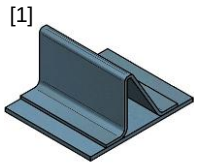
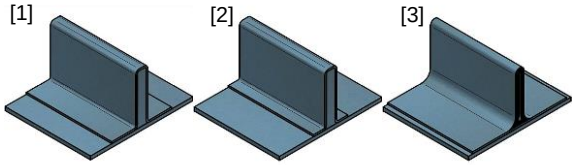
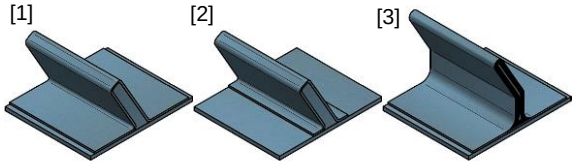
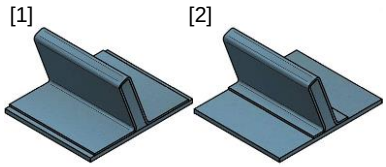
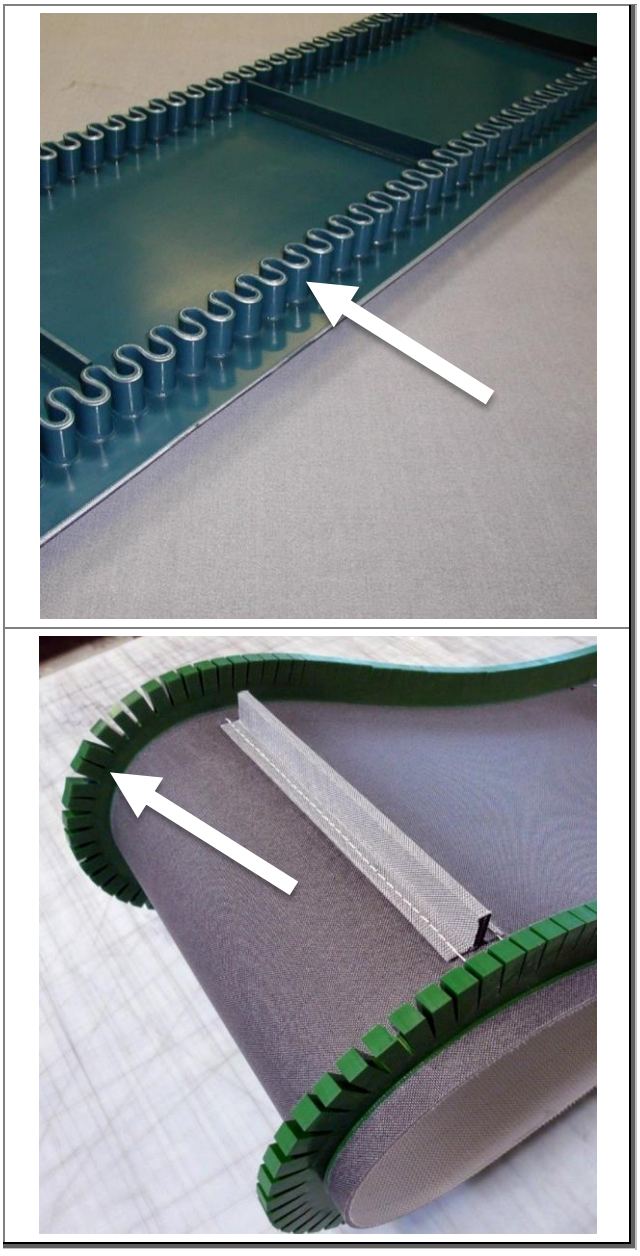
Cleat image	Cleat form	Cleat height [mm] (dependent on the selected belt)
	[SO] Open loop	20, 30, 40
	[SN] Open loop; tilted	20, 30, 40
	[SG] Closed loop	20; 30; 40; 50
	[SY60] Closed loop Y-Form; Tilted 60°	20; 30; 40; 50; 60
	[SY70] Closed loop Y-Form; Tilted 70°	20; 30; 40; 50; 60

Fig. 10: Cleat forms and heights

3.2.3.3 Flexible lateral guide (corrugated side walls and longitudinal guides)

The top of the belt is designed dependent on the transported material.
TheFollowing figures are for illustration only.



Corrugated side walls

The equipping of a belt with corrugated side walls often makes sense when transporting small, sharp-edged, pointed material. The corrugated side walls seal off the area between belt and lateral guide. In combination with cleats it is even possible to form effectively sealed “cassettes”.

Longitudinal guides

Longitudinal guides can also be used for sealing the area between belt and lateral guide. Thus clamping processes with small and pointed transported material are avoided.

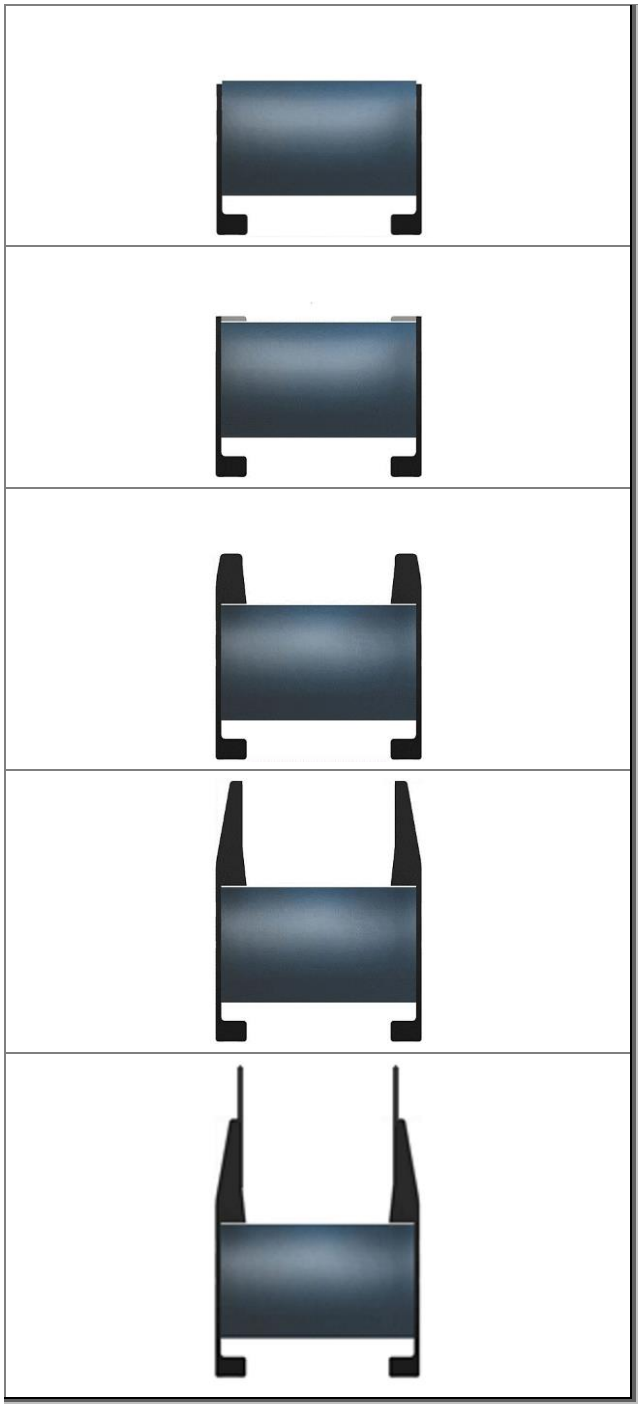
Fig. 11: Belt versions

External reference

The belt no. and the properties of the belt are contained in the order confirmation (see “Belt cover no.”).

3.2.4 Lateral guide

The lateral guide with the guiding profile version “GL” limits the conveyor on the outside and ensures uniform guidance of the transported material.



GL 0

- Height of lateral guides: None
- Sealing strip: None

GL 7

- Height of lateral guides: 7 mm
- Sealing strip: None
- Rigid cover of the belt edge by the guiding profile.

GL 40

- Height of lateral guides: 40 mm
- Sealing strip: possible

GL 80

- Height of lateral guides: 80 mm
- Sealing strip: present

GL 80A

- Height of lateral guides: >80 mm
- Sealing strip: present

Fig. 12: Lateral guides “GL”

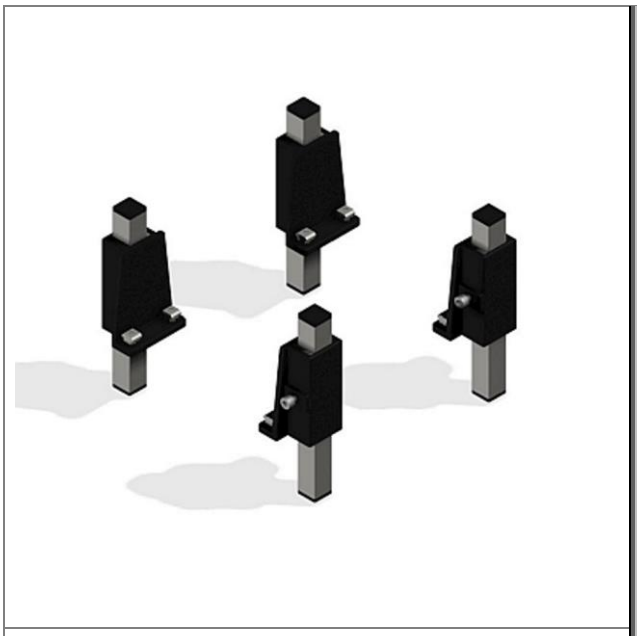
NOTE

Other possible guide profile versions KL 50, KL 80, KL 80A

3.2.5 Support types

3.2.5.1 EM-series

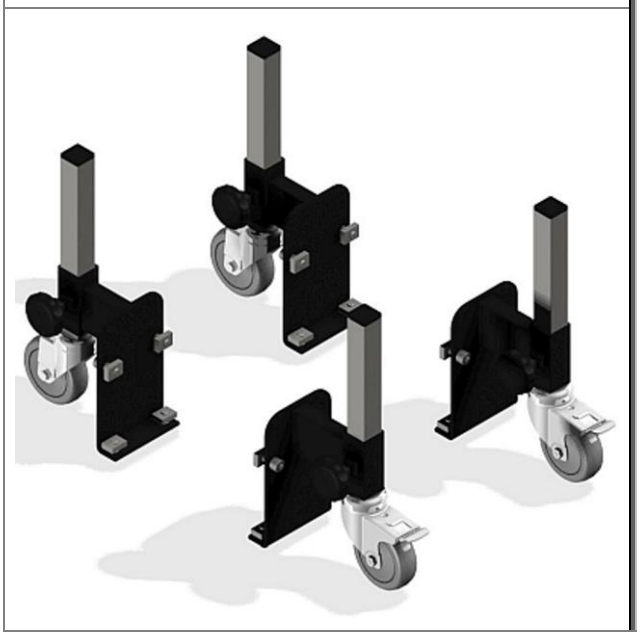
The EM series is suitable for the near-to-the-ground, horizontal belt conveyor and has at least four individual supports. Dependent on requirements, the individual supports are fastened to the conveyor. This support type has a low height adjustment range.



EM 010

- Extremely close to the ground (version: “stationary”)
- Extremely close to the ground (version: “moveable”)

Angle adjustment range: small



EM 120

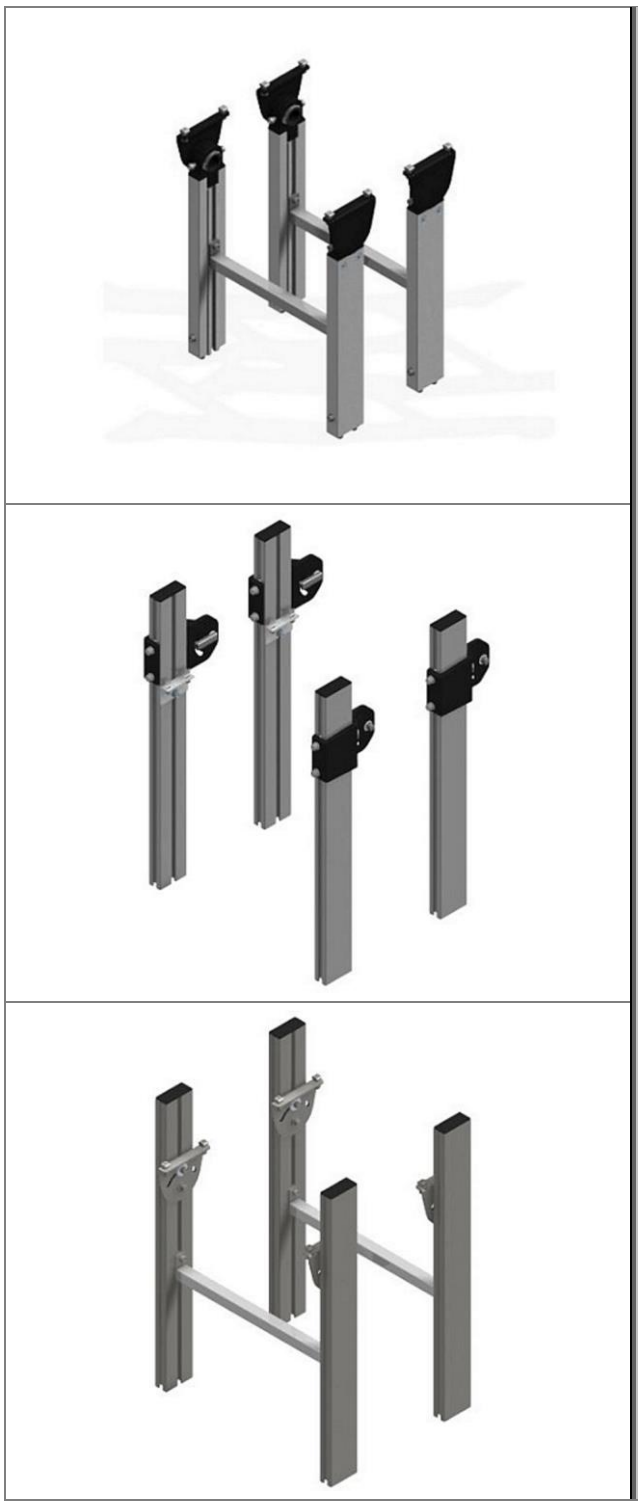
- Extremely close to the ground (version: only “moveable” possible)

Angle adjustment range: small

Fig. 13: EM support

3.2.5.2 AM-series

The AM-series is a compromise between a medium height adjustment range with heights down to close to the ground and has a stable stand. This series has at least four individual supports, which, dependent on requirements, can be fastened individually on the conveyor belt.



AM 010

- Telescopic individual supports
- Installation underneath the conveyor body
- Lateral flush closure with the conveyor body

Angle adjustment range: 0° to 90°

AM 140

- Fixed height of the individual supports
- Lateral installation on the conveyor body
- Lateral projecting individual supports

Angle adjustment range: 0° to 60°

AM 260

- Fixed height of the individual supports
- Installation underneath the conveyor body
- Lateral projecting individual supports

Angle adjustment range: 0° to 60°

Fig. 14: AM support

3.2.5.3 H-series

The H-series has a stable H-shaped base frame, on which the supports are secured. One or more supports are necessary depending on the application. Therefore the series are differentiated into the “H-series (individual)” and the “HM-series (multiple)”.

3.2.5.4 HE-series

The HE-series has one support. It has a large adjustment range in terms of height and angle and has stable design.

HE 010

- Standard H base frame
- Telescopic individual supports
- Lateral flush closure with the conveyor body
- Installation underneath the conveyor body

Angle adjustment range: 0° to 90°

HE 010 B

- Expanded H base frame
- Telescopic individual supports
- Lateral flush closure with the conveyor body
- Installation underneath the conveyor body
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 90°

Fig. 15: HE 010 support

Fig. 16: HE 020 support

HE 020

- Standard H base frame
- Fixed height of the individual supports
- Lateral installation on the conveyor body
- Lateral projecting individual supports
- Quick adjustment option

Angle adjustment range: 0° to 60°

HE 020 B

- Expanded H base frame
- Fixed height of the individual supports
- Lateral installation on the conveyor body
- Lateral projecting individual support
- Quick adjustment option
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 60°

Fig. 17: HE 030 support

HE 030

- Standard H base frame
- Fixed height of the individual supports
- Installation underneath the conveyor body
- Lateral projecting individual supports

Angle adjustment range: 0° to 60°

HE 030 B

- Expanded H base frame
- Fixed height of the individual supports
- Installation underneath the conveyor body
- Lateral projecting individual supports
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 60°

3.2.5.5 HM-series

The HM-series has at least two supports. It has a large adjustment range in terms of height and angle and has stable design.

Fig. 18: HM 010 support

HM 010

- Standard H base frame
- Telescopic individual supports
- Lateral flush closure with the conveyor body
- Installation underneath the conveyor body

Angle adjustment range: 0° to 90°

HM 010 B

- Expanded H base frame
- Telescopic individual supports
- Lateral flush closure with the conveyor body
- Installation underneath the conveyor body
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 90°

Fig. 19: HM 140 support

HM 140

- Standard H base frame
- Fixed height of the individual supports
- Lateral installation on the conveyor body
- Lateral projecting individual supports
- Quick adjustment option

Angle adjustment range: 0° to 60°

HM 140 B

- Expanded H base frame
- Fixed height of the individual supports
- Lateral installation on the conveyor body
- Lateral projecting individual supports
- Quick adjustment option
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 60°

HM 260

- Standard H base frame
- Fixed height of the individual supports
- Installation underneath the conveyor body
- Lateral projecting individual support

Angle adjustment range: 0° to 60°

HM 260 B

- Expanded H base frame
- Fixed height of the individual supports
- Installation underneath the conveyor body
- Lateral projecting individual support
- Use with narrow conveyors to increase the stability

Angle adjustment range: 0° to 60°

Fig. 20: HM 260 support

NOTE

The following information about the support is contained in the order confirmation:

- Type
- Design
- Number of supports
- Conveying height
- Position of the conveyor (e.g. conveyor inlet and conveyor outlet top edges)

3.2.6 Accessories: Guiding- and storage structures (optional)

Guiding- and storage structures are structures that are installed on the conveyor.

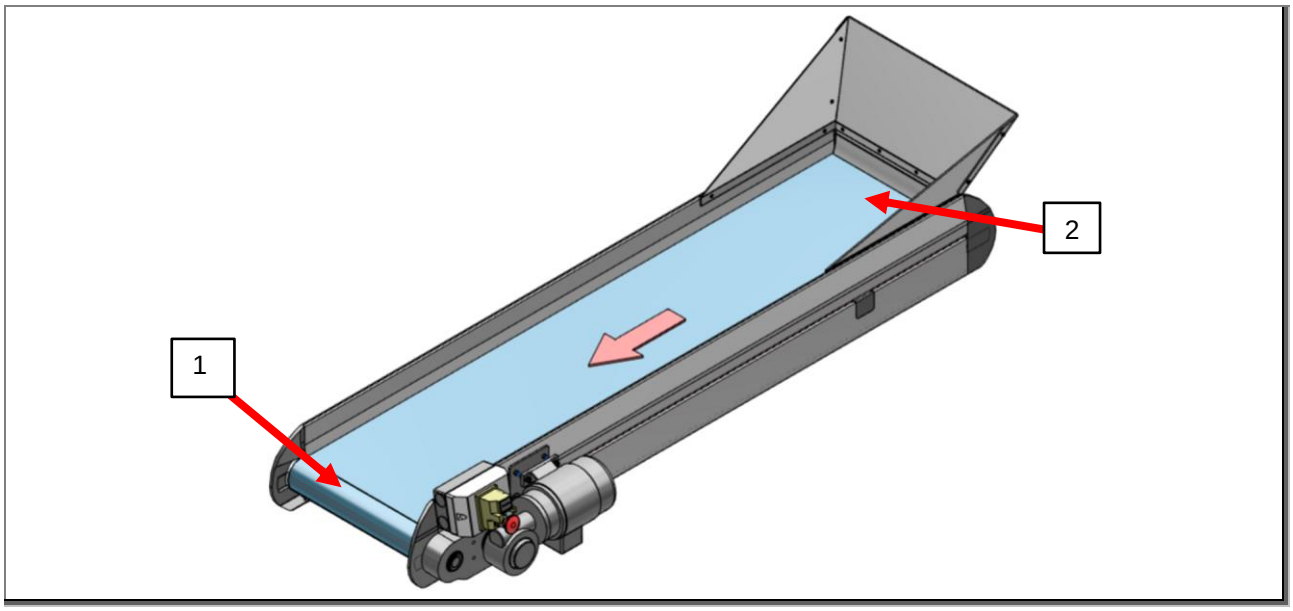
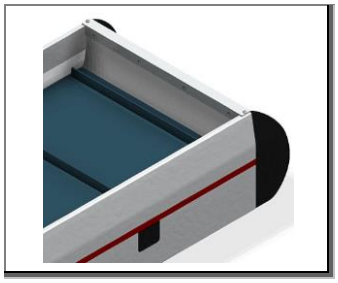


Fig. 21: Conveyor with an extension hopper (typical)

1 Conveyor outlet 2 Conveyor inlet

3.2.6.1 Catch flap

A catch flap shuts off the conveyor to the conveyor inlet and prevents transported material from falling down from the conveyor.



GL-FKW

Fig. 22: Product description: Catch flap

3.2.6.2 Extension hopper

An extension hopper increases the height of the lateral guide and shuts off the conveyor to the conveyor inlet. Relinquished transported material is fed to the conveyor centrally via an extension hopper. The extension hoppers have different geometric shapes and therefore cover different areas of the conveyor.

The following table illustrates the variety of the extension hopper:

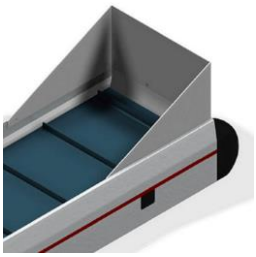
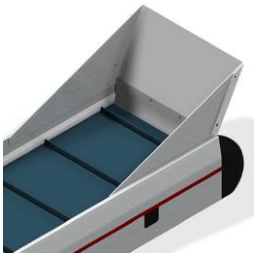
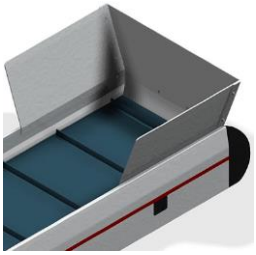
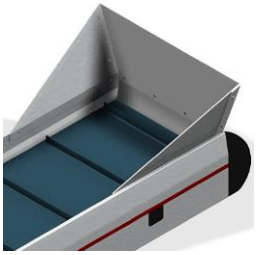
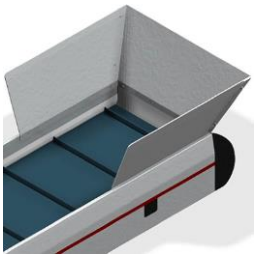
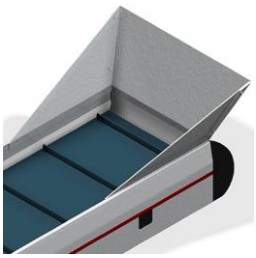
GL-A  Rear wall: Vertical Side walls: Vertical Form: Peaked	GL-D  Rear wall: Tilted Side walls: Vertical Form: Peaked
GL-B  Rear wall: Vertical Side walls: Tilted Form: Straight	GL-E  Rear wall: Vertical Side walls: Tilted Form: Peaked
GL-C  Rear wall: Tilted Side walls: Tilted Form: Straight	GL-F  Rear wall: Tilted Side walls: Tilted Form: Peaked

Fig. 23: Product description: Extension hopper

3.2.6.3 Feeding hopper

A feeding hopper forms a storage container and shuts off the belt to the conveyor inlet. Relinquished transported material is collected in the feeding hopper and subsequently dosed via the conveyor.

GLD-G

Rear wall:	Vertical
Side walls:	Tilted
Form:	Peaked

Fig. 24: Product description: Feeding hopper

4 Packaging and transport

4.1 Safety

Only specialized personnel with proven qualification (see the “Safety” chapter) are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

There is an increased risk of injury and damage to property if unqualified personnel and unsuitable or damaged lifting devices, lifting accessories and transport equipment are used. This is why the persons responsible for the transport must be trained at regular intervals.

Compliance with the safety instructions in the “Safety” chapter is mandatory for transport.

NOTE

The transport must be performed by the operator or by personnel who are appointed by the operator. When transporting the system to its destination, all of the applicable local regulations and laws must be observed.

⚠ DANGER

Suspended loads

Tipping or falling loads may cause serious or even fatal injuries.

- Never step or stand under suspended loads.
- Only use approved lifting devices and lifting accessories that are rated for the total weight of the suspended load.
- Keep the suspension points and the center of gravity of the load in mind.
- Only use lifting accessories and load-handling equipment that are in a perfect technical state.
- Secure the loads with suitable means.
- If transport locks are used, do not remove them until the assembly is complete.
- Close the loading areas off against unauthorized access.
- Ensure sufficient lighting of the loading areas.
- Move loads only under supervision.
- Set the load down when leaving the workplace.

⚠ WARNING

Crushing of limbs between components

Loads falling down during transport may crush limbs and cause serious injuries.

- Only use suitable means of transport.
- Secure the loads adequately during transport.
- Wear personal protective equipment.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

ATTENTION

Damage to property due to improper load handling

Improper handling of the load during loading or unloading may cause damage to property.

- Use suitable lifting devices.
- Loads that can be dismounted or mounted and that are too heavy to be carried manually must be kept in place using suitable devices (ropes or a block and tackle).
- Chafing of ropes and webbing slings on sharp edges and corners must be prevented by way of special devices, e.g. intermediate layers of a softer material, corner protectors or edge protectors.
- Components and their attachments must not be compressed by ropes or chains pulling at angles.
- Avoid strong impacts when setting the load down.
- Loads may be set down only on firm and level ground.

4.2 Check of the delivery

1. Remove the transport packaging of the machine or of the individual components.
2. Check the machine for signs of transport damage.
   – Notify the shipping company and the manufacturer immediately in writing of any damage.
   – Provide protection against further damage.
3. Check the delivery for completeness against the bill of delivery.

4.3 Unloading, transport into a building, setting-down

1. Only use suitable lifting devices with a load-bearing capacity that corresponds to twice the total weight of the load.
2. Check the integrity of the ropes and chains.
3. Position the crane centrally above the goods to be transported.
4. Attach ropes to the attachment points that are intended for this purpose.
5. Lift the load slowly and keep an eye on the environment.
6. If necessary, use additional control ropes in order to hold the load in position.
7. Set the conveying goods safely down on a sufficiently load bearing surface.

4.4 Unpacking

ATTENTION

Risk of environmental damage

The environment will be harmed if the disposal is not performed properly.

– Comply with the local regulations and statutory provisions for the disposal.

1. Remove the packaging material prior to the installation.
2. Dispose of the packaging material in a proper manner.

5 Set-up and installation

5.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

NOTE

The manufacturer does not accept any liability for damage resulting from faulty installation or assembly.

DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

DANGER

Use of suspension points

A damaged or loose suspension point can result in severe injuries or even death.

- Satisfy yourself that the suspension points are in a fault-free condition
- Before using the suspension points, retighten the screws.

WARNING

Fall hazard when working at height

Work at height may cause slipping, falling, and serious injuries.

- Wear personal protective equipment.
- Ensure safe working conditions in time.
- Always use fall protection equipment when secure footing cannot be guaranteed.
  - Use, for example, work platforms, scaffolds, personnel elevators, or cherry pickers.
- Protect the installation area against falling objects.
- Never work alone.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

⚠ WARNING

Hazards caused by rotating or moving components

Rotating and moving components may crush or sever limbs and cause serious injuries.

- Stay within the defined working area.
- Keep a safe distance to the components.
- Heed any warning signs in the working area.
- Wear personal protective equipment.
- Wear tight-fitting clothes.
- Knot long hair together and wear a hair net as necessary.

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Sharp edges

Sharp edges may cause cutting.

- Wear personal protective equipment.
- Be careful when handling objects with sharp edges.

ATTENTION

Damage to property due to improper load handling

Improper handling of the load during loading or unloading may cause damage to property.

- Use suitable lifting devices.
- Loads that can be dismounted or mounted and that are too heavy to be carried manually must be kept in place using suitable devices (ropes or a block and tackle).
- Chafing of ropes and webbing slings on sharp edges and corners must be prevented by way of special devices, e.g. intermediate layers of a softer material, corner protectors or edge protectors.
- Components and their attachments must not be compressed by ropes or chains pulling at angles.
- Avoid strong impacts when setting the load down.
- Loads may be set down only on firm and level ground.

ATTENTION

Damage to the equipment due to incorrect voltage

If the equipment is connected to an incorrect voltage supply, the electrical equipment may be destroyed.

- The voltage supply should be connected by skilled electricians only.
- Observe the local rules and regulations concerning the energy supply. The electrical equipment complies with the European safety standards.

ATTENTION

Damage to the equipment due to an incorrect direction of rotation of the motors

Prolonged movement of the belt in the wrong direction may damage the system.

- Work on the system should be performed by authorized and specialized personnel only.
- Check the direction of movement of the conveyor belt by visual inspection.
- If necessary, change the direction of rotation of the motors. To do so, change the phases of the power supply.
- Attach a conveying direction arrow.

ATTENTION

Damage to the equipment due to an incorrect alignment of the belt

Lateral mistracking or slipping of the belt may cause equipment damage.

- Work on the system should be performed by authorized and specialized personnel only.
- Adjust the belt alignment.
- Adjust the belt tension.

ATTENTION

Damage to the machine due to unsuitable cleaning agents

The conveyor and belt may be damaged if solvents are used for cleaning.

- Do not use solvents for cleaning.
- Remove normal dirt with lukewarm water.
- Remove greasy stains with white spirit.
- Contact the manufacturer if you have any questions concerning suitable cleaning agents.

5.2 Set-up location

The following measures must be taken prior to the set-up:

- The set-up location must have level ground with a sufficient load-bearing capacity.
- The system must be set up in line with the specifications of the project drawings (floor plan, foundation plan).
- All of the supply lines must be present and their sizes and dimensions must be sufficient.
- Suitable lifting devices must be available and ready for use.
- Process materials (oils, greases and chemicals substances) are available in the specified qualities and quantities.

5.3 Suspension points for lifting gear

⚠ DANGER

Suspended loads

Tipping or falling loads may cause serious or even fatal injuries.

- Never step or stand under suspended loads.
- Only use approved lifting devices and lifting accessories that are rated for the total weight of the suspended load.
- Keep the suspension points and the center of gravity of the load in mind.
- Only use lifting accessories and load-handling equipment that are in a perfect technical state.
- Secure the loads with suitable means.
- If transport locks are used, do not remove them until the assembly is complete.
- Close the loading areas off against unauthorized access.
- Ensure sufficient lighting of the loading areas.
- Move loads only under supervision.
- Set the load down when leaving the workplace.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

ATTENTION

Damage to property due to improper load handling

Improper handling of the load during loading or unloading may cause damage to property.

- Use suitable lifting devices.
- Loads that can be dismounted or mounted and that are too heavy to be carried manually must be kept in place using suitable devices (ropes or a block and tackle).
- Chafing of ropes and webbing slings on sharp edges and corners must be prevented by way of special devices, e.g. intermediate layers of a softer material, corner protectors or edge protectors.
- Components and their attachments must not be compressed by ropes or chains pulling at angles.
- Avoid strong impacts when setting the load down.
- Loads may be set down only on firm and level ground.

5.3.1 Attachment areas for lifting gear

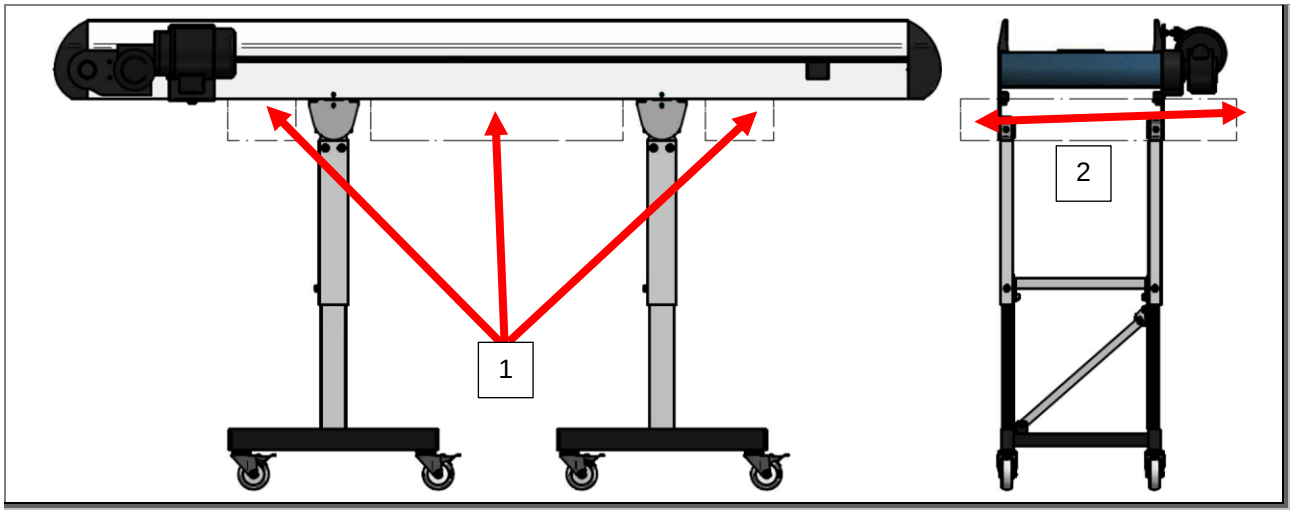


Fig. 25: Attachment areas for lifting gear (e.g. forklifts)

1 Length 2 Width

- Support of the conveyor using forklifts, etc. is possible using the marked attachment areas. Ensure that the conveyor is supported over its whole width and a sufficient length so that toppling or falling down is not possible.
- Be aware of the center of gravity of the load.
- Secure the load to prevent falling down.

5.3.2 Attachment points for lifting gear

DANGER

Use of suspension points

A damaged or loose suspension point can result in severe injuries or even death.

- Satisfy yourself that the suspension points are in a fault-free condition
- Before using the suspension points, retighten the screws.

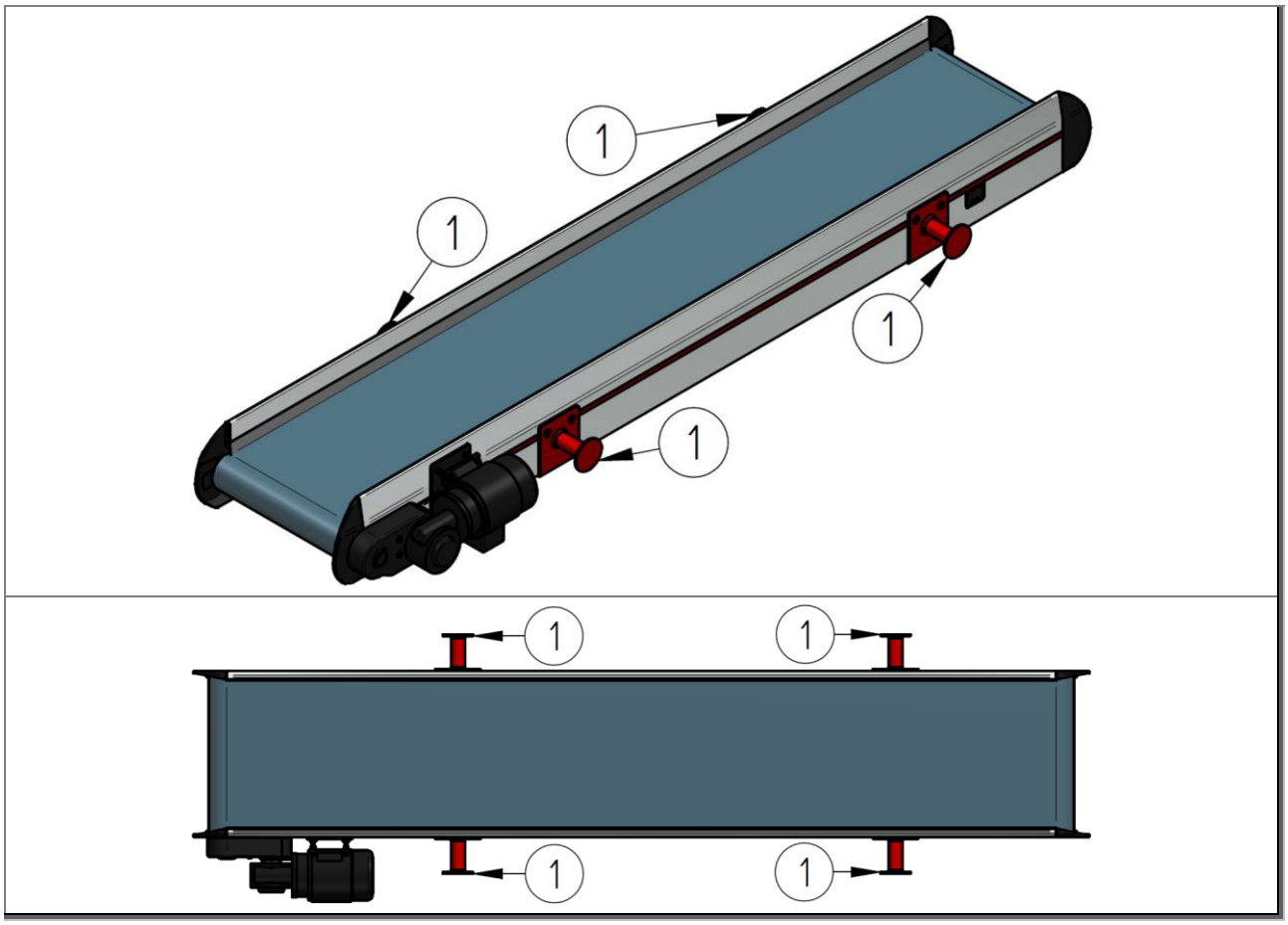


Fig. 26: Suspension points for lifting gear (e.g. ropes)

1 Suspension point

- It is possible to support the conveyor using ropes at the red marked suspension points (crane fastenings).
- Be aware of the center of gravity of the load

5.4 Installation of the supports

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

5.4.1 Support - EM

5.4.1.1 Assembly of the support – EM 010

Prerequisites

- The support has been removed from the packaging.

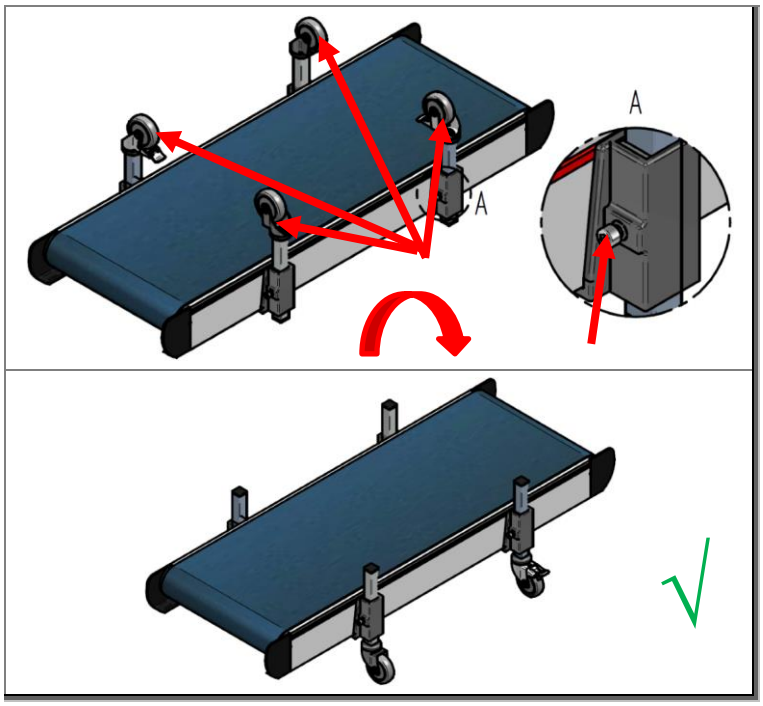


Fig. 27: Assembly of the support – EM 010

For transport reasons, it may be that the individual supports are fitted rotated in the device.

1. Ensure that the support cannot fall out.
2. Undo the M8 screw.
3. Ensure that the clamping plate does not fall out when pulling the support out.
4. Refit the support in the rotated direction (see figure left).

Result: The support is assembled.

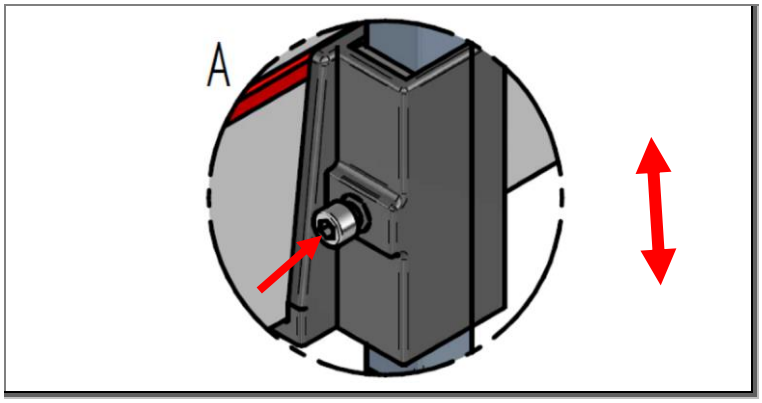


Fig. 28: Assembly of the support – EM 010

5. Set the desired height of the support (all support legs) and correctly tighten the screws.

Result: The height of the support is adjusted to match your requirements.

5.4.1.2 Assembly of the support – EM 120

Prerequisites

- The support has been removed from the packaging.

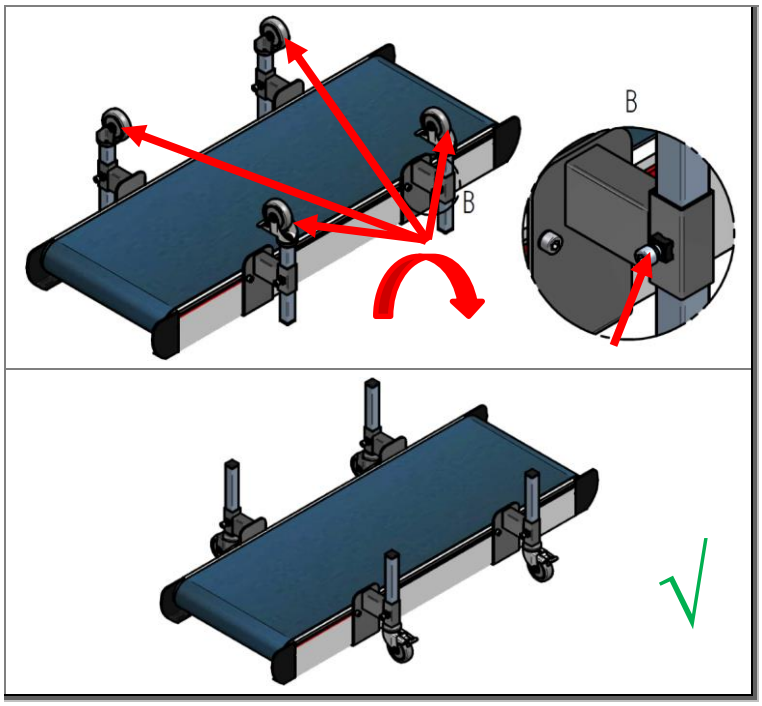


Fig. 29: Assembly of the support – EM 120

For transport reasons, it may be that the individual supports are fitted rotated in the device.

1. Ensure that the support cannot fall out.
2. Undo the M8 screw.
3. Refit the supports in the rotated direction (see figure left).

Result: The support is assembled.

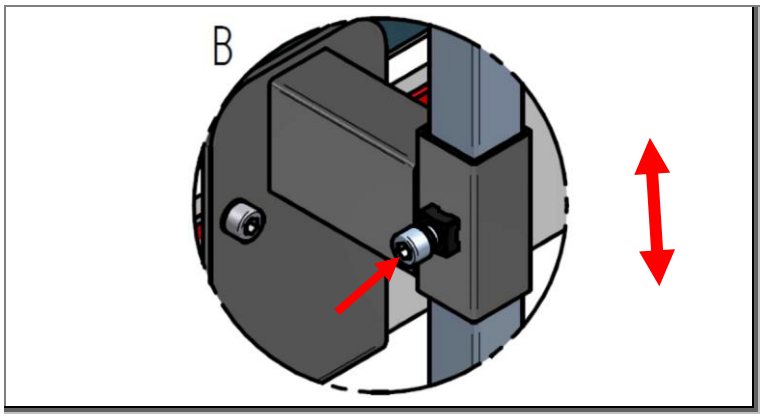


Fig. 30: Assembly of the support – EM 120

4. Set the desired height of the support and correctly tighten the screws.

Result: The height of the support is adjusted to match your requirements.

5.4.2 Support - AM

5.4.2.1 Assembly of the support – AM 010

Prerequisites

- The support has been removed from the packaging.

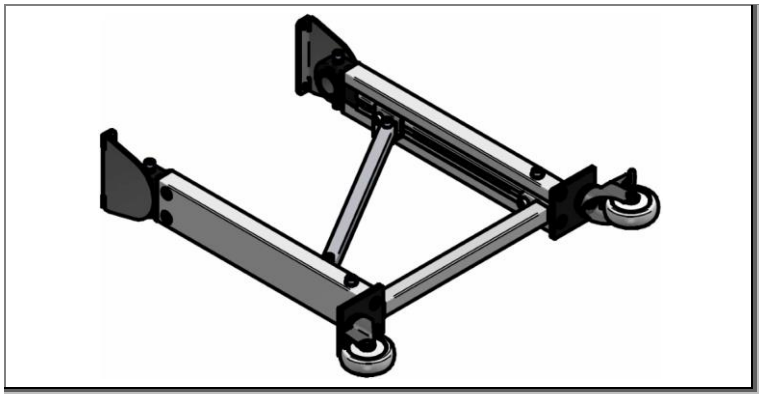


Fig. 31: Assembly of the support – AM 010 (typical)

The support is supplied in pre-assembled condition as shown on the left.

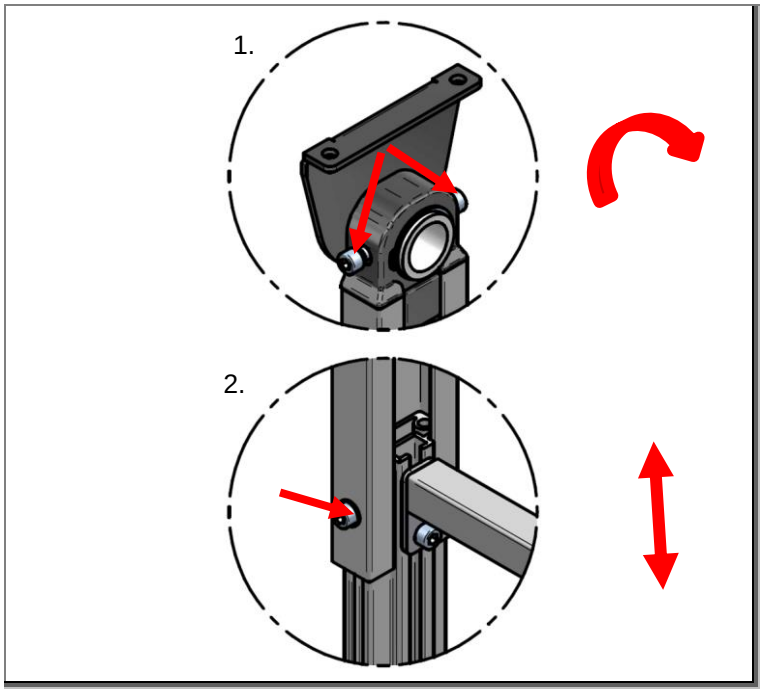


Fig. 32: Adjustment options of the support – AM 010

You can carry out the following adjustments on the support:

1. Set the desired angle of inclination.
2. Set the desired height of the support.
3. Tighten all screws correctly.

Result: The height and angle of the support are adjusted to match your requirements.

5.4.2.2 Installation of the conveyor body on the support - AM 010

Prerequisites

- All supports are fully assembled.

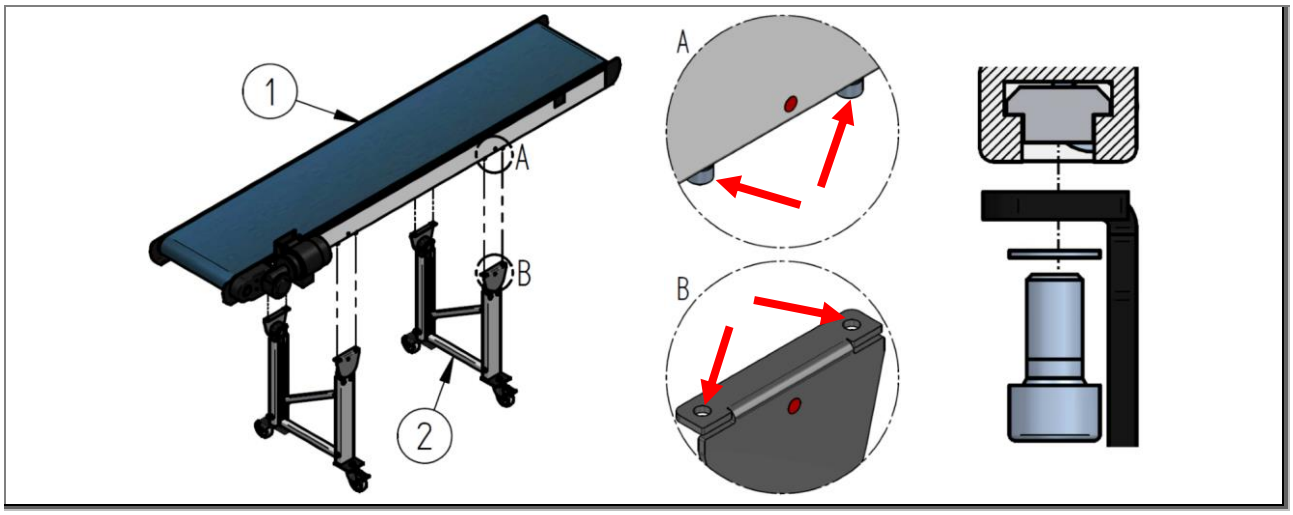


Fig. 33: Assembly, conveyor with support AM 010 (typical)

1 Conveyor 2 Support(s)

1. Undo the moveable erection screws [A] in the guiding profile underneath the conveyor body (2 x 2 pieces per support) and insert these in the provided fastener [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.

NOTE

Ensure that the red glue dots are arranged one above the other.

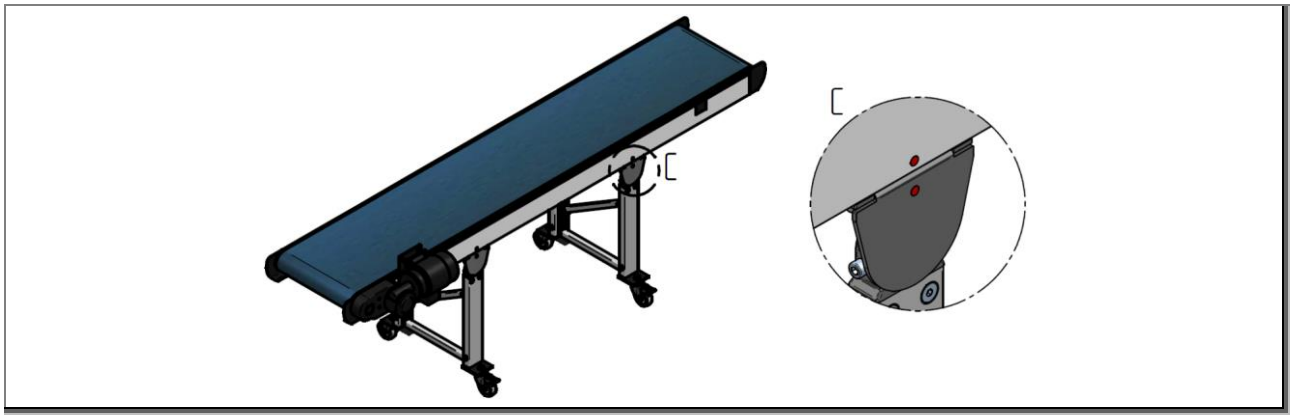


Fig. 34: Overall construction assembly, conveyor with support AM 010 (typical)

Result: The conveyor is assembled on the support.

5.4.2.3 Assembly of the support – AM 140

Prerequisites

- The support has been removed from the packaging.

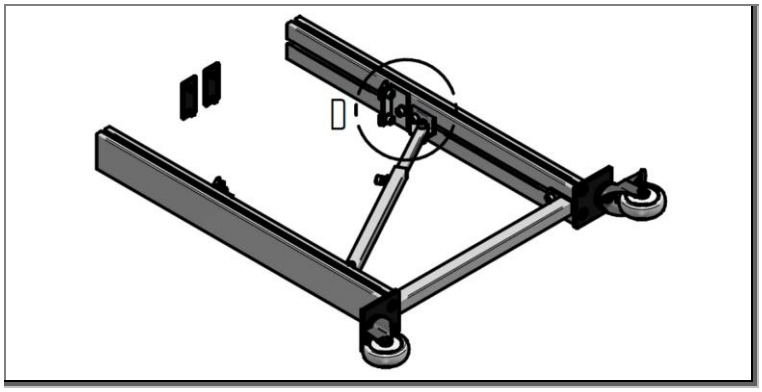


Fig. 35: Assembly of the support – AM 140 (typical)

The support is supplied in pre-assembled condition as shown on the left.

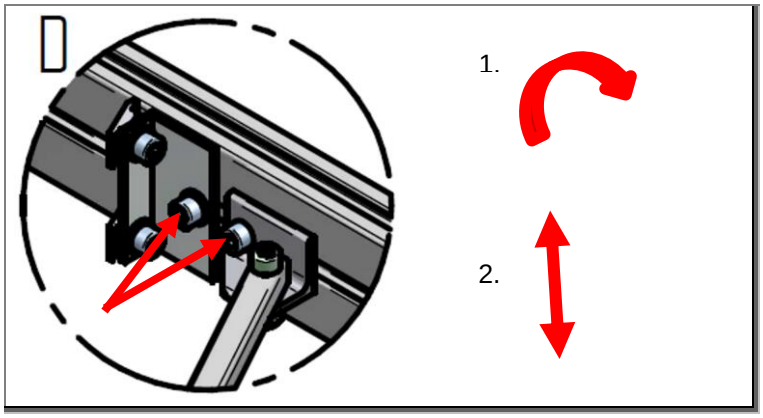


Fig. 36: Adjustment options of the support – AM 140

You can carry out the following adjustments on the support:

1. Set the desired angle of inclination.
2. Set the desired height of the support.
3. Tighten all screws correctly.

Result: The height and angle of the support are adjusted to match your requirements.

5.4.2.4 Installation of the conveyor body on the support - AM 140

Prerequisites

- All supports are fully assembled.

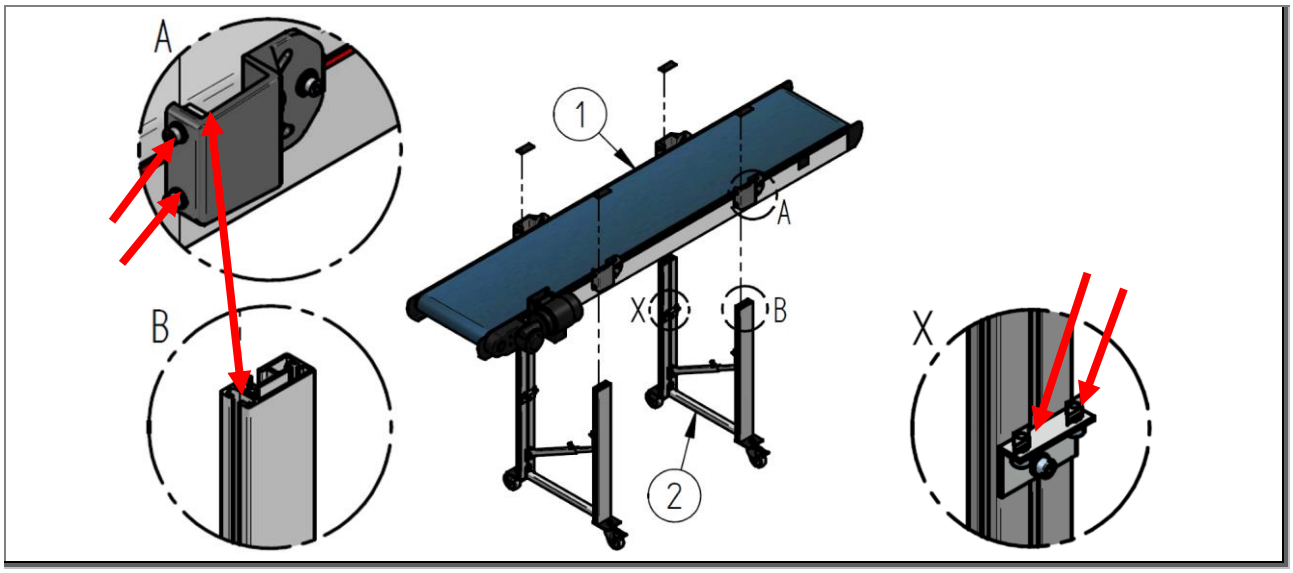


Fig. 37: Assembly, conveyor with support AM 140 (typical)

1 Conveyor 2 Support(s)

1. Undo the erection screws [A] on the angle adjuster (2 x 2 pieces per support) and insert the now projecting slot nut in the provided support groove [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.
3. Fit the slot nuts of the bracket using screws [X] (2 x 2 pieces per support) in the lower guiding profile groove on the conveyor body.
4. Close off the facing profile ends with the black covers.

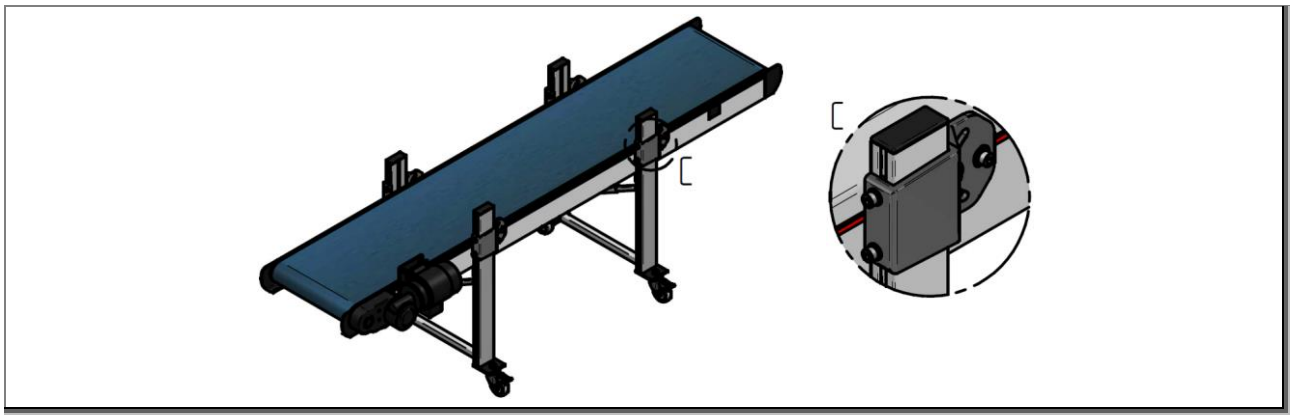


Fig. 38: Overall construction assembly, conveyor with support AM 140 (typical)

Result: The conveyor is assembled on the support.

5.4.2.5 Assembly of the support – AM 260

Prerequisites

- The support has been removed from the packaging.

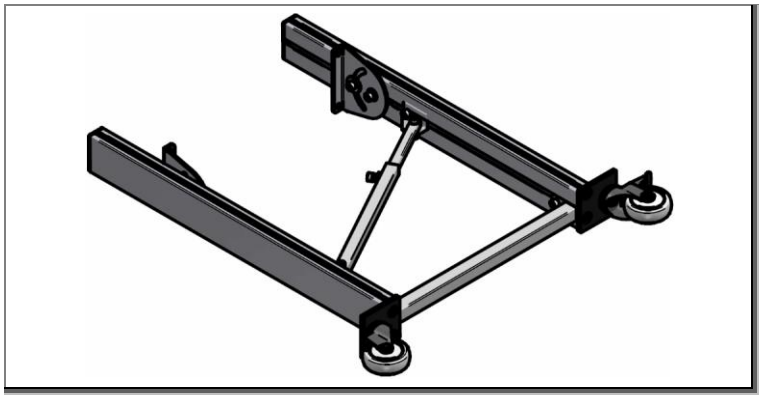


Fig. 39: Assembly of the support – AM 260 (typical)

The support is supplied in pre-assembled condition as shown on the left.

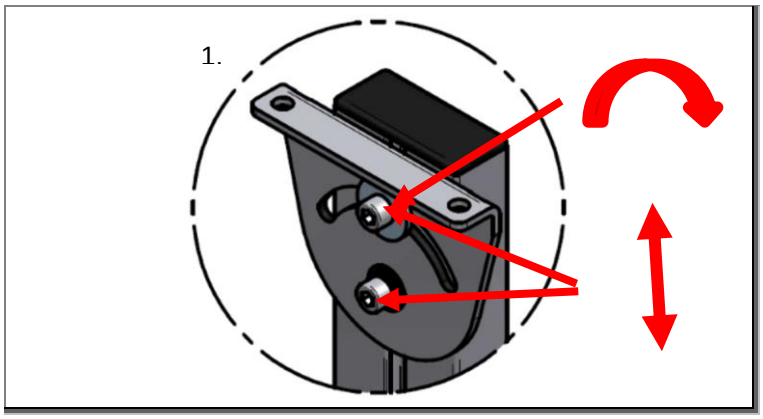


Fig. 40: Adjustment options of the support – AM 260

1 Set the desired angle of inclination, by undoing the top screw.

2. Set the desired height of the support by loosening both screws.

3. Once the support has been correctly set up, tighten all screws correctly.

Result: The height and angle of the support are adjusted to match your requirements.

5.4.2.6 Installation of the conveyor body on the support - AM 260

Prerequisites

- All supports are fully assembled.

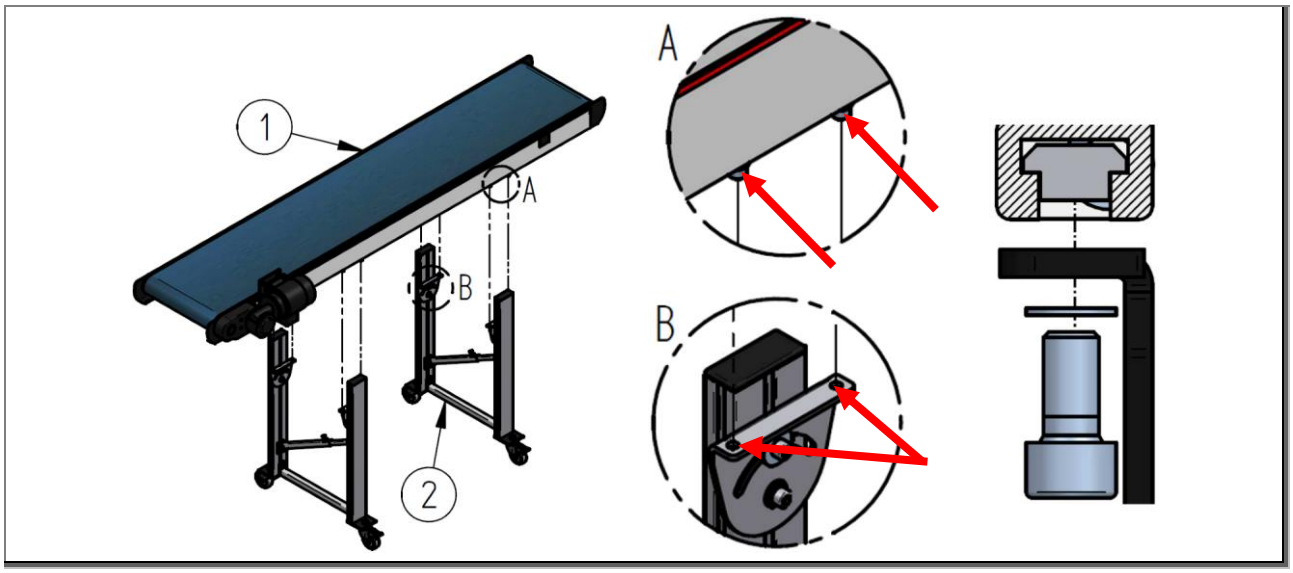


Fig. 41: Assembly, conveyor with support HE 030 – HM 260 (typical)

1 Conveyor 2 Support(s)

1. Undo the moveable erection screws [A] in the guiding profile underneath the conveyor body (2 x 2 pieces per support) and insert these in the provided fastener [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.

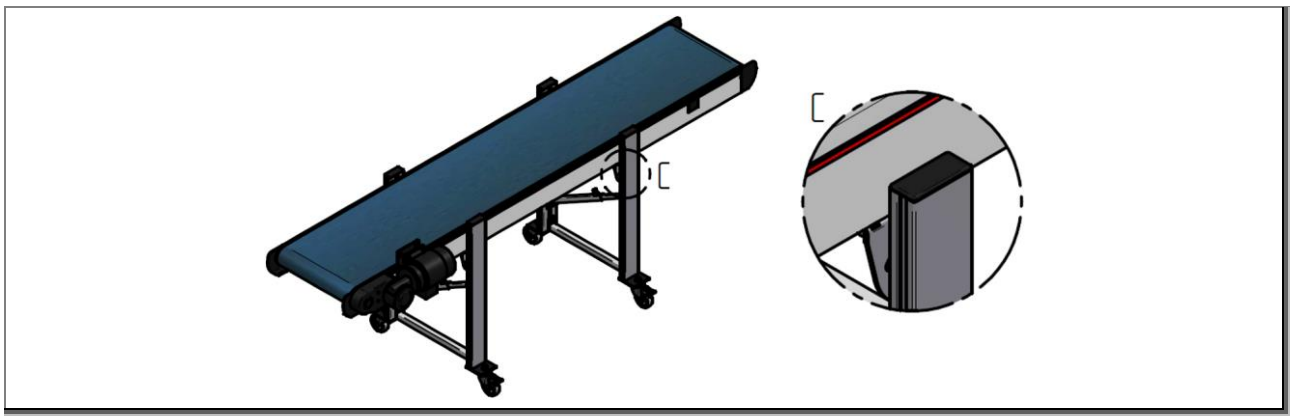


Fig. 42: Overall construction assembly conveyor with support HE 030 – HM 260 (typical)

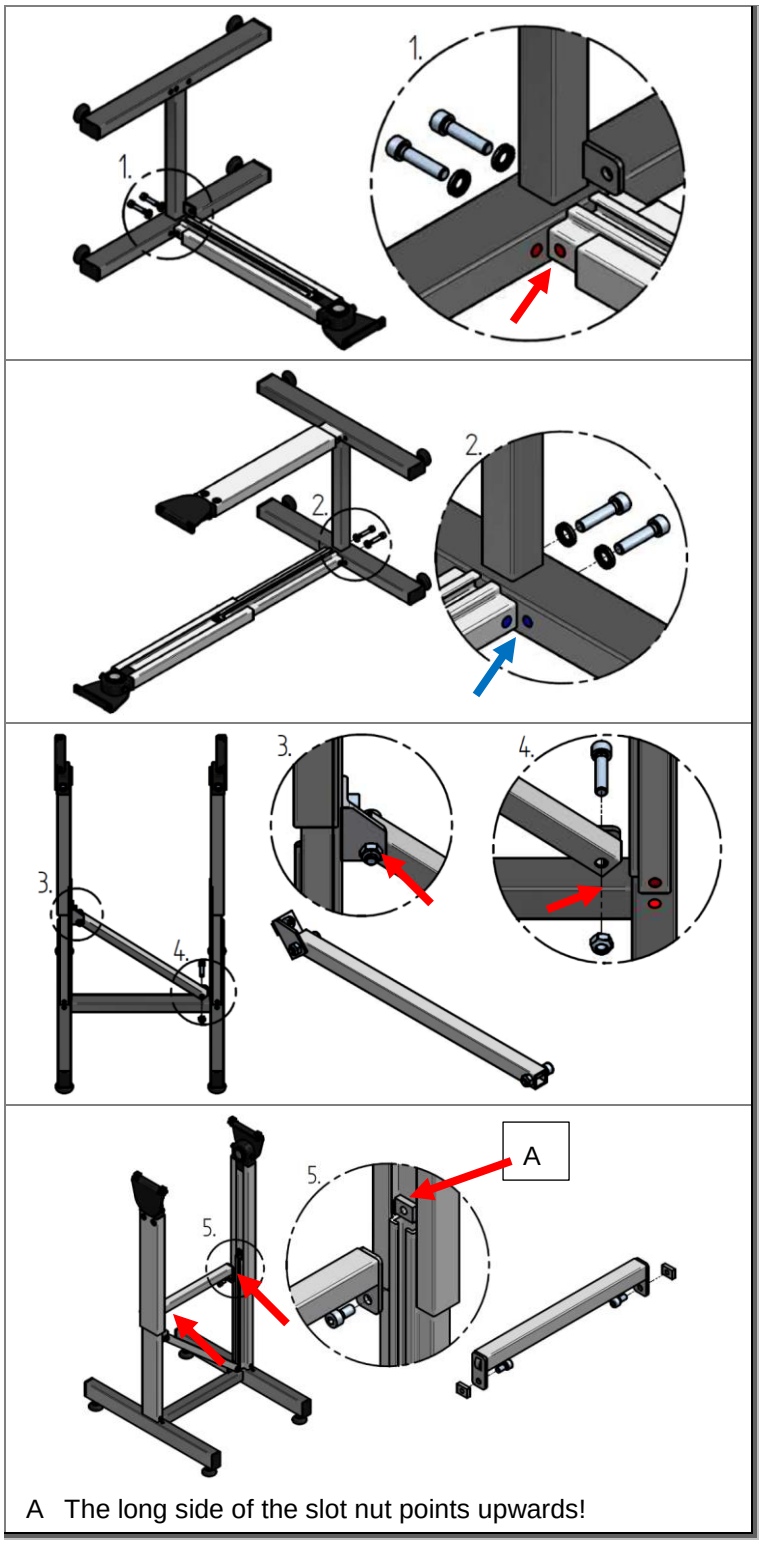
Result: The conveyor is assembled on the support.

5.4.3 Support - HE / HM

5.4.3.1 Assembly of the support – HE 010/ HM 010

Prerequisites

- The support has been removed from the packaging.



A The long side of the slot nut points upwards!

Fig. 43: Assembly of the support – HE 010/ HM 010

Check that the **red** and **blue** glue dots are correctly matched during the assembly and both dots are visible, as shown in the figure on the left.

1. Place the base frame and a telescopic profile (IP1) on the side on a level, clean surface as shown in the figure. Now tighten the screws correctly, as shown.
2. Rotate the base frame onto the other side and place the 2nd profile on the base frame. Now screw in the screws correctly, as shown.

If a diagonal strut is supplied:

3. Now fit the diagonal strut: To do so, undo the screw connection at 3. so that the strut can be moved.
4. Fit the diagonal strut as shown and correctly tighten the screws.

If a cross strut is supplied:

5. Now fit the cross strut, by inserting the slot nut in the groove and then screwing this is place. In doing so, ensure that the cross strut sits as close as possible to the profile end. Tighten the screws correctly.

Result: The support is assembled.

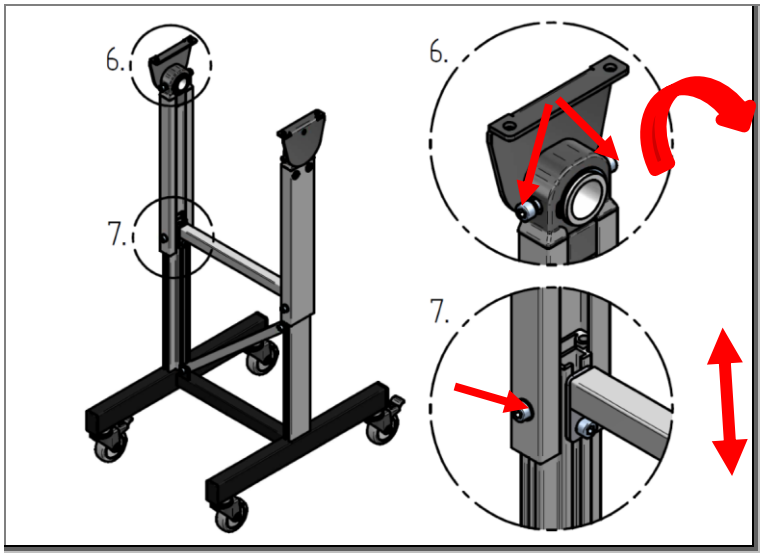


Fig. 44: Assembly of the support – HE 010/ HM 010

6. Set the desired angle of inclination.
7. Set the desired height of the support.
8. Tighten all screws correctly.

Result: The height and angle of the support are adjusted to match your requirements.

5.4.3.2 Installation of the conveyor body on the support - HE 010-HM 010

Prerequisites

- All supports are fully assembled.

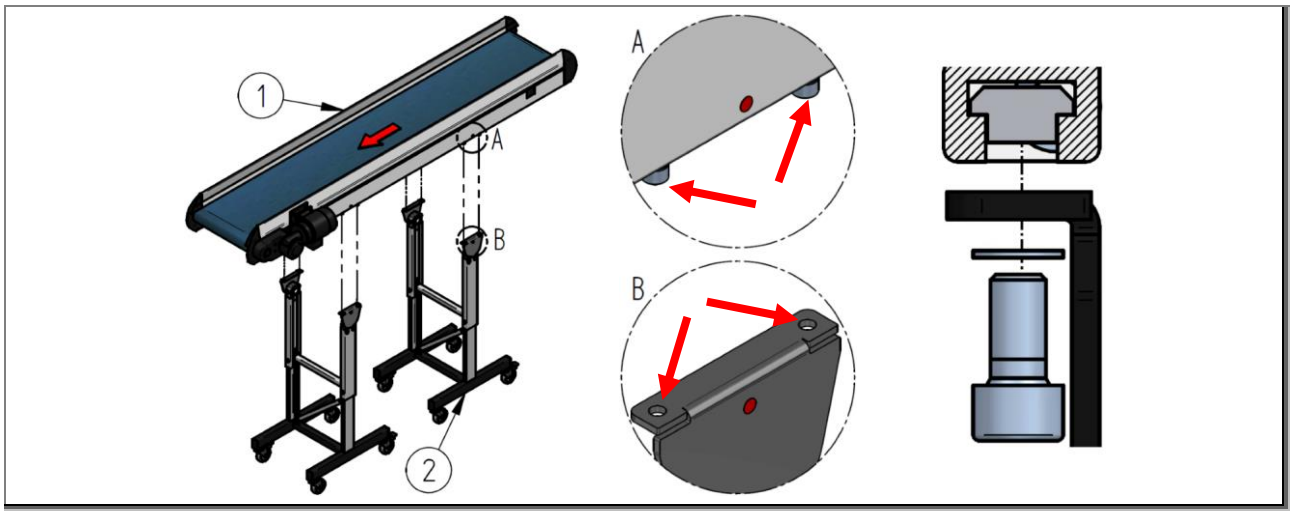


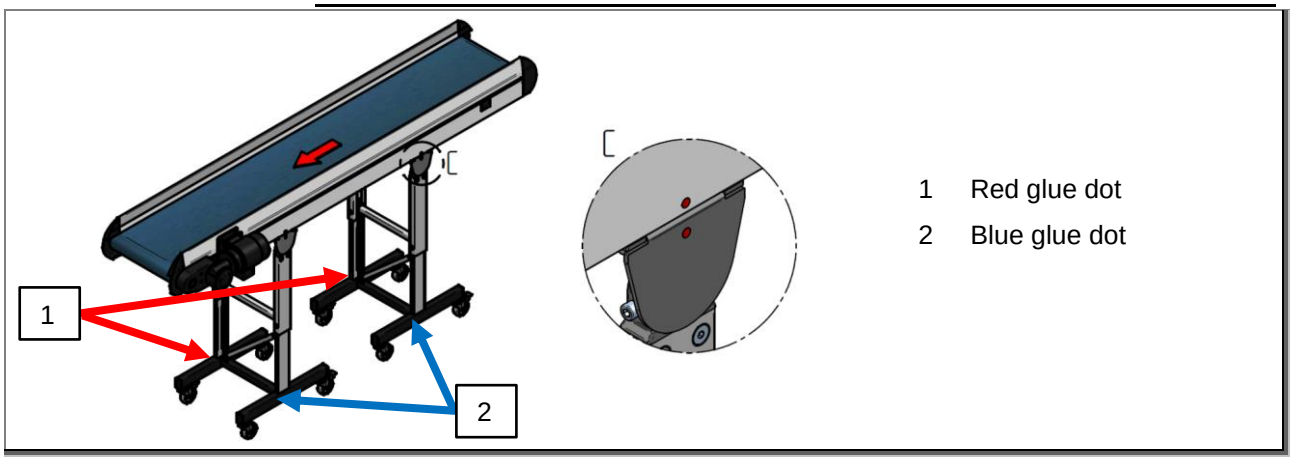
Fig. 45: Assembly, conveyor with support HE 010 – HM 010 (typical)

1 Conveyor 2 Support(s)

1. Undo the moveable erection screws [A] in the guiding profile underneath the conveyor body (2 x 2 pieces per support) and insert these in the provided fastener [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.

NOTE

- Check that there are always the same colored glue dots on the connection points.
- Ensure that the base frames are always aligned in the same way, diagonal strut and cross strut (see below).



1 Red glue dot

2 Blue glue dot

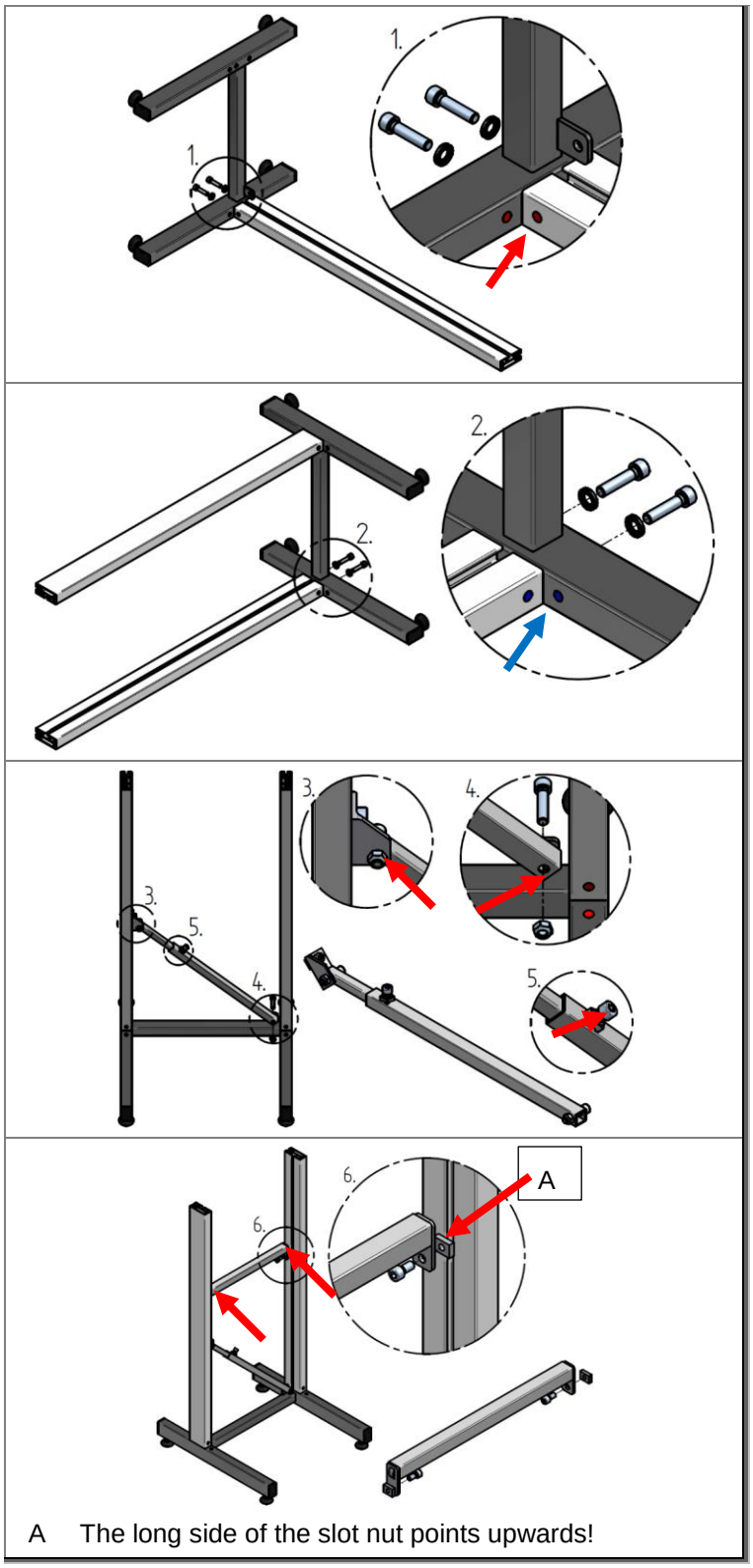
Fig. 46: Overall construction assembly conveyor with support HE 010 – HM 010 (typical)

Result: The conveyor is assembled on the support.

5.4.3.3 Assembly of the support – HE 020/ HM 140

Prerequisites

- The support has been removed from the packaging.



A The long side of the slot nut points upwards!

Fig. 47: Assembly of the support – HE 020/ HM 140

Check that the**red** and **blue** glue dots are correctly matched during the assembly and both dots are visible, as shown in the figure on the left.

1. Place the base frame and a telescopic profile (IP2) on the side on a level, clean surface as shown in the figure. Now tighten the screws correctly, as shown.
2. Rotate the base frame onto the other side and place the 2nd profile on the base frame. Now tighten the screws correctly, as shown.

If a diagonal strut is available:

3. Now fit the diagonal strut: To do so, undo the screw connection at 3. and 5. so that the strut can be moved.
4. Fit the diagonal strut as shown in the figure and correctly tighten the screws.

If a cross strut is available:

6. Now fit the cross strut, by inserting the slot nut in the groove and then screwing this is place. Tighten the screws correctly.

Result: The support is assembled.

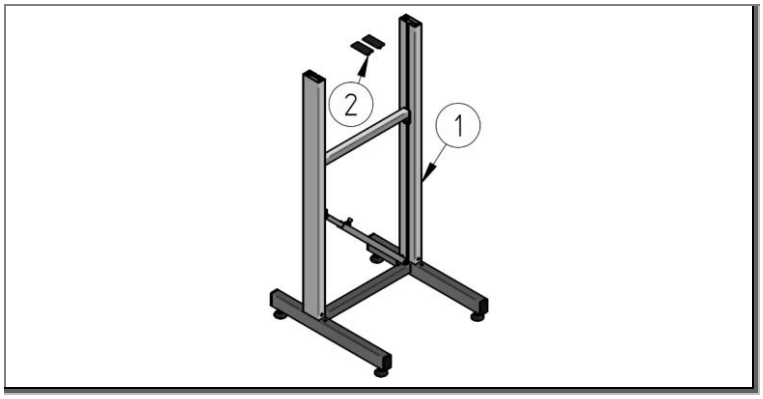


Fig. 48: Assembly of the support – HE 020/ HM 140

Place the cover caps 2 to one side.

5.4.3.4 Installation of the conveyor body on the support - HE 020-HM 140

Prerequisites

- All supports are fully assembled.

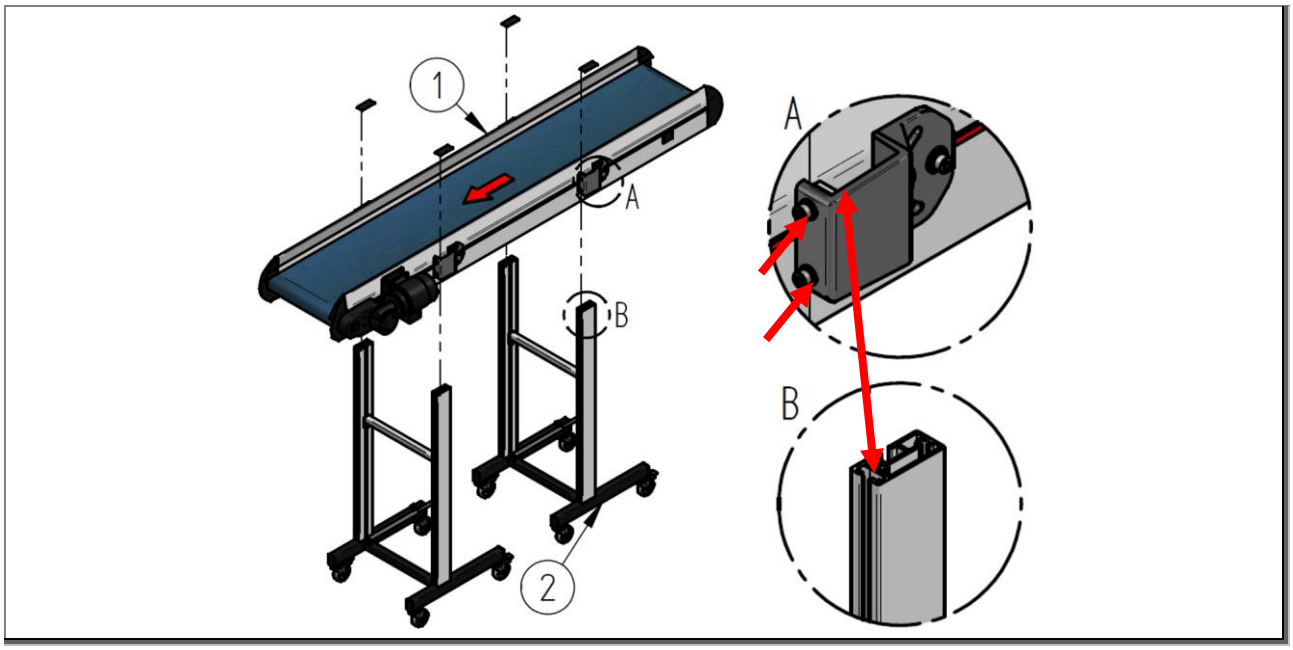


Fig. 49: Assembly, conveyor with support HE 020 – HM 140 (typical)

1	Conveyor	2	Support(s)

1. Undo the erection screws [A] on the angle adjuster (2 x 2 pieces per support) and insert the now projecting slot nut in the provided support groove [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.
3. Plug the cover caps onto the profile ends.

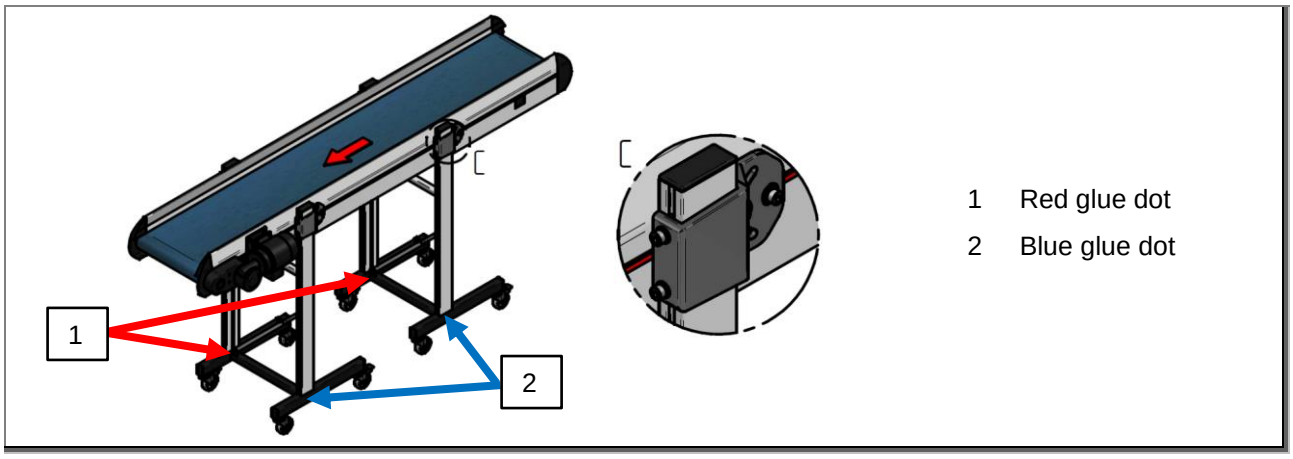


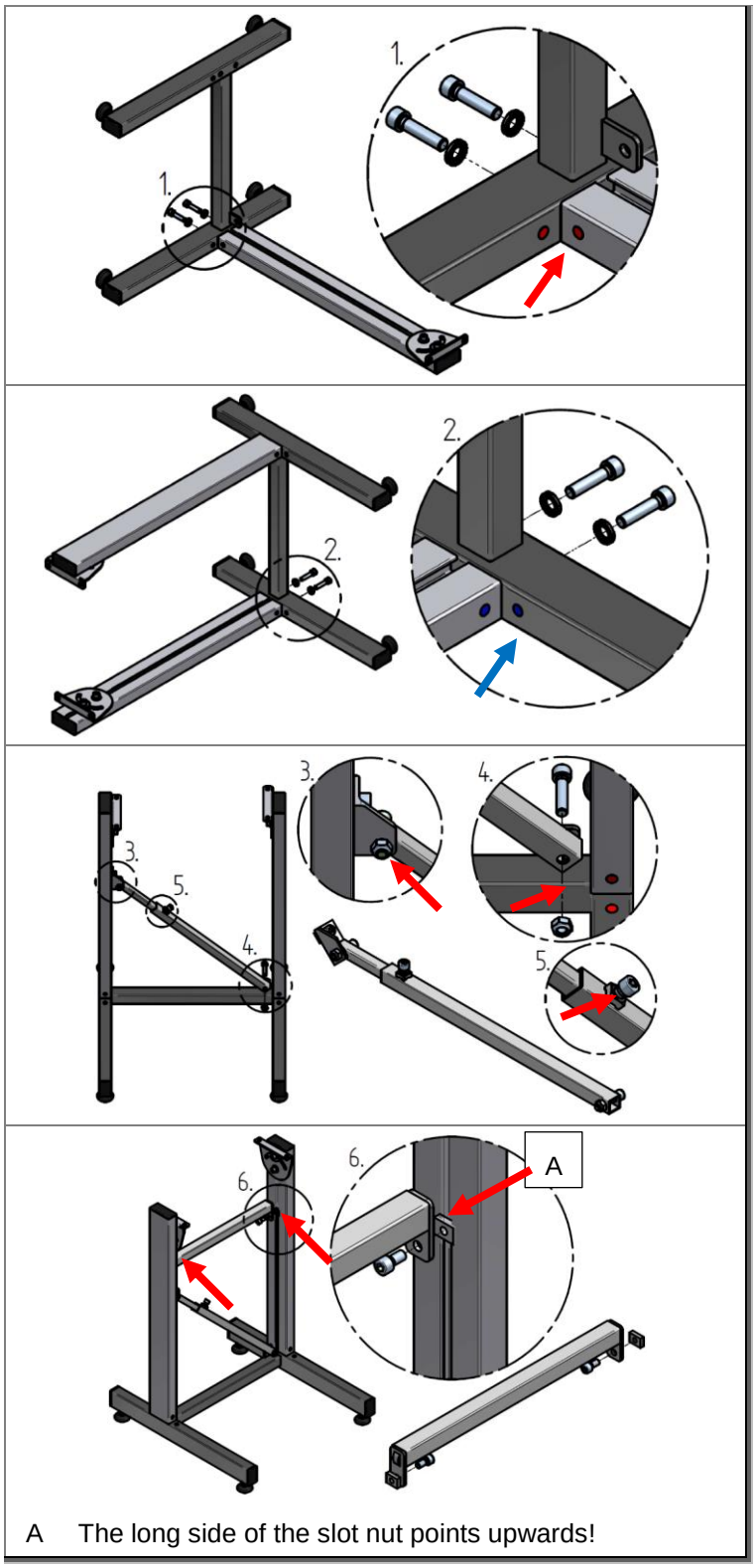
Fig. 50: Overall construction assembly conveyor with support HE 020 – HM 140 (typical)

Result: The conveyor is assembled on the support.

5.4.3.5 Assembly of the support – HE 030/ HM 260

Prerequisites

- The support has been removed from the packaging.



A The long side of the slot nut points upwards!

Fig. 51: Assembly of the support – HE 260/ HM 260

Check that the**red** and **blue** glue dots are correctly matched during the assembly and both dots are visible, as shown in the figure on the left.

1. Place the base frame and a telescopic profile (IP1) on the side on a level, clean surface as shown in the figure. Now tighten the screws correctly, as shown.

2. Rotate the base frame onto the other side and place the 2nd profile on the base frame. Now tighten the screws correctly, as shown.

If a diagonal strut is supplied:

3. Now fit the diagonal strut: To do so, undo the screw connection at 3. and 5. so that the diagonal strut can be moved.

4. Fit the diagonal strut as shown in the figure and correctly tighten the screws.

If a cross strut is supplied:

6. Now fit the cross strut, by inserting the slot nuts in the groove and then screwing this is place. In doing so, ensure that the cross strut sits as close as possible to the profile end. Tighten the screw correctly.

Result: The support is assembled.

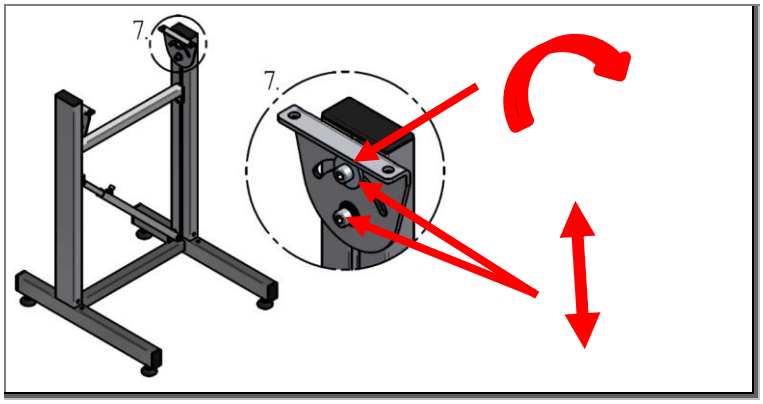


Fig. 52: Assembly of the support – HE 260/ HM 260

7. Set the desired angle of inclination, by undoing the top screw.
5. Set the desired height of the support by loosening both screws.
6. Once the support has been correctly set up, tighten all screws correctly.

Result: The height and angle of the support are adjusted to match your requirements.

5.4.3.6 Installation of the conveyor body on the support - HE 030-HM 260

Prerequisites

- All supports are fully assembled.

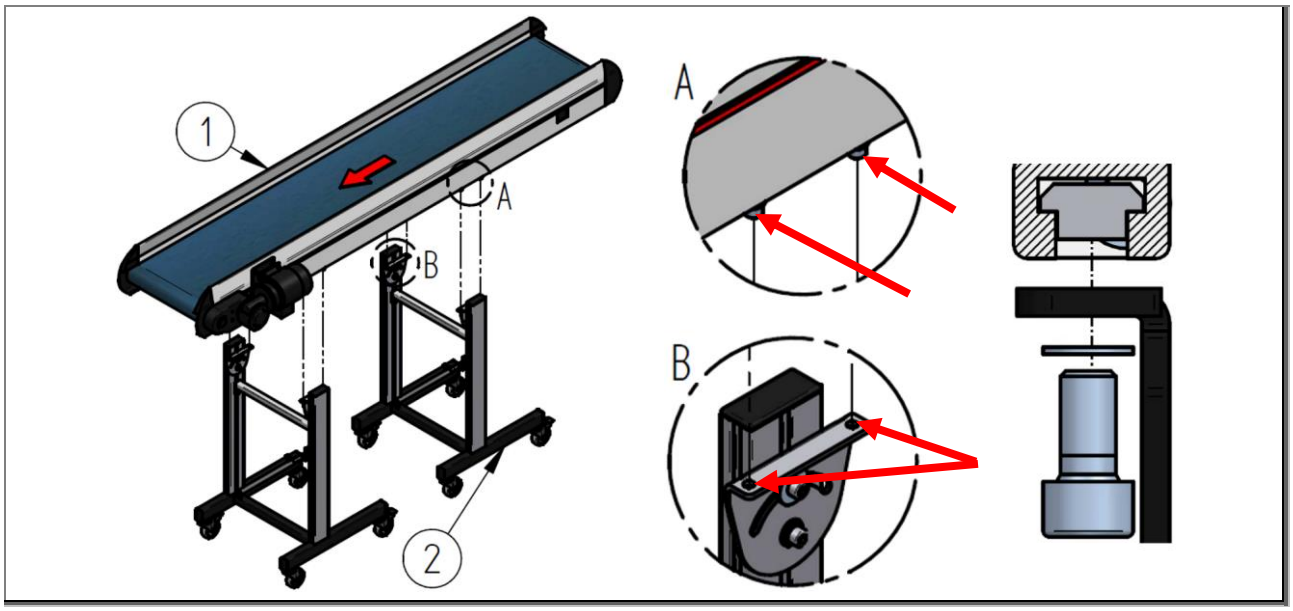
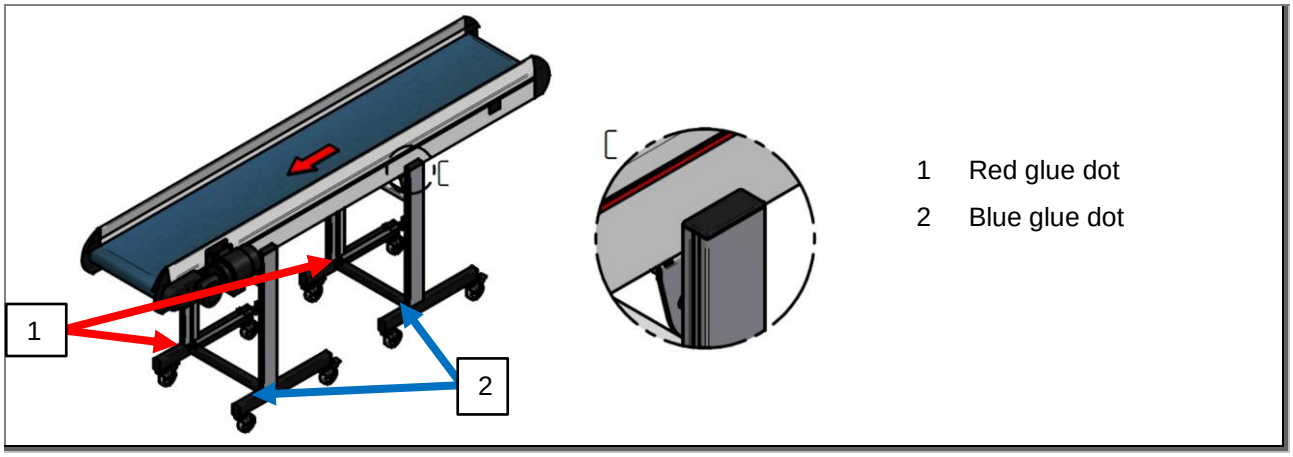


Fig. 53: Assembly, conveyor with support HE 030 – HM 260 (typical)

1 Conveyor 2 Support(s)

1. Undo the moveable erection screws [A] in the guiding profile underneath the conveyor body (2 x 2 pieces per support) and insert these in the provided fastener [B].
2. Fit the conveyor body on the support, as shown in figure [C] below and correctly tighten the screws.



1 Red glue dot

2 Blue glue dot

Fig. 54: Overall construction assembly conveyor with support HE 030 – HM 260 (typical)

Result: The conveyor is assembled on the support.

5.5 Set-up of the conveyor

5.5.1 Conveyor positioning

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

Prerequisites

- The conveyor is assembled on the support and position on its installation location.

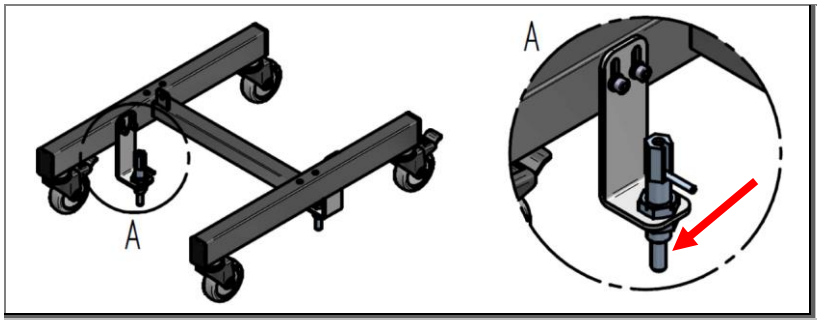


Fig. 55: Floor locking

Positioning the conveyor with floor locking:

- The conveyor is pushed into the specified position, so that the locking bolts engage in a device in the floor.

Result: The conveyor is positioned.

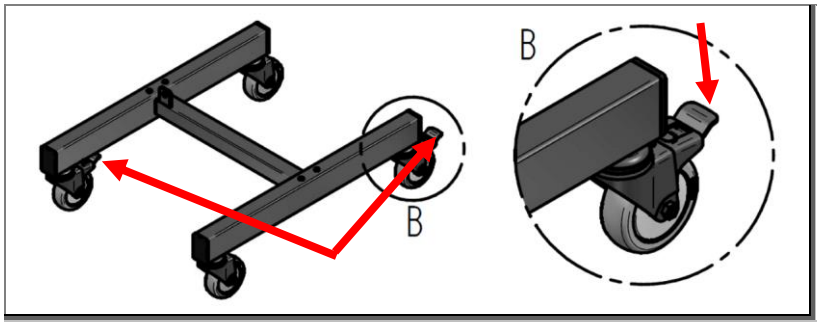


Fig. 56: Locking the casters

Locking the casters:

- Press the arresters of all casters down until they engage.

Result: The conveyor is secured to prevent it rolling away under its own weight.

5.5.2 Securing the conveyor against tipping over

⚠ WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

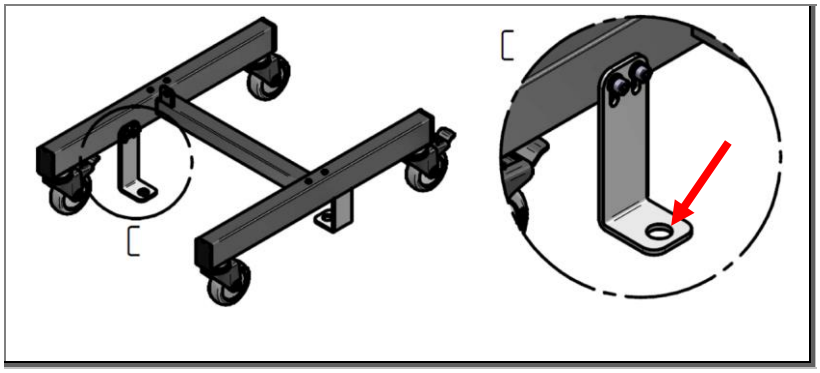


Fig. 57: Floor fixation

Secure the conveyor with floor fixation:

- Assembly the floor fixation system in the ground with suitable bolting.

Result: The conveyor is secured to prevent it toppling over under its own weight.

5.6 Electrical connection

1. Plug the connecting plug of the power cable into a suitable socket.
2. Route the power cable so that no one can trip over it.

5.7 Cleaning after the installation

1. Ensure that there are no tools, lifting accessories or other foreign objects left in the area of the machine after its assembly.
2. Remove any moisture that may be present (condensation, cleaning solutions, etc.).

6 Start-up

6.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

NOTE

The manufacturer does not accept any liability for damage resulting from improper start-up.

⚠ DANGER

Entanglement and crushing hazard

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause severe injuries.

- Never operate the machine without chain protective cover.
- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Tie up long hair.
- Maintenance work: Check machine is completely voltage-free and secure to prevent switching back on. Only then remove protective covers. Prior to starting up again, fit the protective covers.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ DANGER

Danger to life

Transporting of persons is dangerous and can cause fatal injuries.

- Transporting of persons is expressly forbidden.

⚠ DANGER

Lack of avoidability of dangers

Avoidance and reduction of personal injury will not be possible if switching off devices are rendered inaccessible.

- Do not block or otherwise render inaccessible switching off devices.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

⚠ WARNING

Entanglement, shearing and crushing hazard

Fingers can be drawn in on the cleats, the corrugated side walls or the longitudinal guide in the inlet area

- Do not grip the cleats, corrugated side wall or longitudinal guide.

⚠ WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

⚠ WARNING

Hazards caused by rotating or moving components

Rotating and moving components may crush or sever limbs and cause serious injuries.

- Stay within the defined working area.
- Keep a safe distance to the components.
- Heed any warning signs in the working area.
- Wear personal protective equipment.
- Wear tight-fitting clothes.
- Knot long hair together and wear a hair net as necessary.

⚠ CAUTION

Entanglement and scraping hazard in the conveyor inlet and outlet as well as on the return idler on the lower belt run

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause injuries.

- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Knot long hair together and wear a hair net as necessary.
- Do not reach into the danger areas.
- Maintain a sufficient distance from the danger points/areas.

⚠ CAUTION

Risk of crushing and scraping

The conveyor inlet area is reached into from the covers or hoppers, limbs can be crushed or scraped.

- Do not reach into the inlet area.

⚠ CAUTION

Risk of crushing (with drive positioned underneath and cleated belt)

On the lower belt run there is a risk of crushing between the motor and cleats as they pass by.

- Never reach into the area below the drive motor for as long as the motor is switched on or is not secured to prevent switching back on.

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

ATTENTION

Damage to the equipment due to incorrect voltage

If the equipment is connected to an incorrect voltage supply, the electrical equipment may be destroyed.

- The voltage supply should be connected by skilled electricians only.
- Observe the local rules and regulations concerning the energy supply. The electrical equipment complies with the European safety standards.

ATTENTION

Damage to the equipment due to an incorrect direction of rotation of the motors

Prolonged movement of the belt in the wrong direction may damage the system.

- Work on the system should be performed by authorized and specialized personnel only.
- Check the direction of movement of the conveyor belt by visual inspection.
- If necessary, change the direction of rotation of the motors. To do so, change the phases of the power supply.
- Attach a conveying direction arrow.

ATTENTION

Damage to the equipment due to an incorrect alignment of the belt

Lateral mistracking or slipping of the belt may cause equipment damage.

- Work on the system should be performed by authorized and specialized personnel only.
- Adjust the belt alignment.
- Adjust the belt tension.

6.2 Points to be checked prior to the initial start-up

The following general points must be checked PRIOR to the initial start-up:

1. Ensure that the area around the machine is free from tools or other foreign objects that had to be used for the installation or assembly.
2. Ensure that the conveyor is correctly positioned and secured in the ground as necessary.
3. Clean the system to remove all traces of moisture and dirt.
4. Ensure that grid power is available on site.
5. Switch the machine on via the main switch.
6. Ensure that all of the safety devices and guards are fully functional from an electrical point of view.
7. Check whether all of the safety devices and guards have been installed correctly.
8. Close all of the inspection openings, covers and doors.
9. Check the direction of rotation of the drive motor once again.
9. Check all of the points listed above a second time.

6.3 Start-up

ATTENTION

Risk of belt damage

Increased abrasion up to and including belt damage is possible

- After the first start-up, the belt can lengthen due to the running-in characteristics and change in temperature.
- Therefore, check the belt alignment and belt tension frequently, especially during the first two weeks of use.

1. Ensure that the conveyor is correctly positioned and secured in the ground as necessary.
2. Ensure that grid power is available on site.
3. Switch the machine on via the main switch.
4. Check the power supply.
5. Ensure that all of the safety switches, safety devices and guards are fully functional from an electrical point of view.

   Following an intervention triggering the safety system, the warning lamps must illuminate to indicate a potential hazard. Repeat the triggering intervention for all of the safety elements:

   – emergency stop buttons,
   – emergency off buttons,
   – safety doors,
   – main switch etc.
6. Check the direction of rotation of the motors.
7. Check the belt alignment. If necessary, adjust the belt alignment and tension.

NOTE

▶ Following the successful completion of the aforementioned tasks and checks, the machine is ready for operation with the goods to be conveyed.

6.4 Start-up after a planned shutdown

NOTE

▶ If the machine is restarted after a longer period of non-utilization, repeat the start-up procedure.

7 Operation

The chapter “Operation” describes the operation of the system under normal operating conditions and provides an overview of the controls and warning devices.

After the activation of the system under normal conditions, it runs fully automatically without needing any interventions by the system operator.

7.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

⚠ DANGER

Entanglement and crushing hazard

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause severe injuries.

- Never operate the machine without chain protective cover.
- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Tie up long hair.
- Maintenance work: Check machine is completely voltage-free and secure to prevent switching back on. Only then remove protective covers. Prior to starting up again, fit the protective covers.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ DANGER

Danger to life

Transporting of persons is dangerous and can cause fatal injuries.

- Transporting of persons is expressly forbidden.

DANGER

Lack of avoidability of dangers

Avoidance and reduction of personal injury will not be possible if switching off devices are rendered inaccessible.

- Do not block or otherwise render inaccessible switching off devices.

WARNING

Entanglement, shearing and crushing hazard

Fingers can be drawn in on the cleats, the corrugated side walls or the longitudinal guide in the inlet area

- Do not grip the cleats, corrugated side wall or longitudinal guide.

WARNING

Hazards caused by rotating or moving components

Rotating and moving components may crush or sever limbs and cause serious injuries.

- Stay within the defined working area.
- Keep a safe distance to the components.
- Heed any warning signs in the working area.
- Wear personal protective equipment.
- Wear tight-fitting clothes.
- Knot long hair together and wear a hair net as necessary.

WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

⚠ CAUTION

Entanglement and scraping hazard in the conveyor inlet and outlet as well as on the return idler on the lower belt run

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause injuries.

- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Knot long hair together and wear a hair net as necessary.
- Do not reach into the danger areas.
- Maintain a sufficient distance from the danger points/areas.

⚠ CAUTION

Risk of crushing (with drive positioned underneath and cleated belt)

On the lower belt run there is a risk of crushing between the motor and cleats as they pass by.

- Never reach into the area below the drive motor for as long as the motor is switched on or is not secured to prevent switching back on.

⚠ CAUTION

Risk of crushing and scraping

The conveyor inlet area is reached into from the covers or hoppers, limbs can be crushed or scraped.

- Do not reach into the inlet area.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

NOTE

The accident prevention regulations as well as any internal operating procedures and safety instructions must be observed in addition to the other regulations and instructions.

7.2 Prior to operation

ATTENTION

Risk of belt damage

Increased abrasion up to and including belt damage is possible

- Check the belt alignment before the start of each shift.

Improper use of the system or misconduct may cause life-threatening injuries and damage to property. This is why the information in the “Safety” chapter must be strictly followed when using and operating the system. The persons responsible for the operation of the system must be trained at regular intervals.

Prior to using or operating the system, the following points must be checked and considered:

- Have I read and understood the instructions for use?
- Am I authorized to operate the system based on my training and qualification?
- Have I been authorized to operate the system by the operator?

Moreover, undertake the following preparations for operation and use of the machine:

- Have available and wear personal protective equipment.
- Familiarize yourself with the entire system.
- Familiarize yourself with the applicable rules and regulations.
- Coordinate the operating procedures with all of the persons involved.
- Check the state of the machine for signs of damage prior to starting any work.

7.3 Operating and display elements

7.3.1 Operation - “Without” mode of operation

If, due to a customer requirement, the conveyor is supplied without a mains switch, the conveyor does not comply with the Machinery Directive 2006/42/EC and **no operating elements** are available. Insofar that a CE marking of the conveyor as an individual machine is necessary (possibly specified by the application), then prior to start-up, there is a duty to attach a mains switch and, if necessary, to carry out other measures. Conformity with the Machinery Directive must then to be evaluated. We will be happy to provide you with further information about this matter.

7.3.2 Operation - “Constant” mode of operation

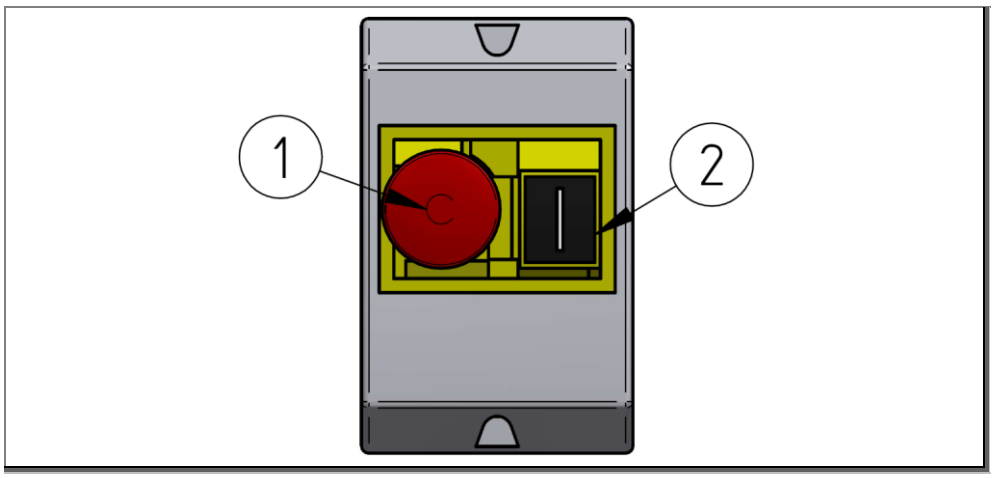


Fig. 58: Mains switch

No.	Control	Function
1	Locking mushroom push-button (red)	Switch off
2	Push-button (black)	Switch on

Tab. 6: Operating elements of the mains switch

7.3.2.1 Switch on

Perform the following steps to switch the machine on:

1. Check that the mushroom push-button (1) is not locked.
   If the mushroom push-button is locked, unlock by rotating to the right.
2. Press on the black push-button (2) so that the on switch of the mains switch engages.

Result: The machine is switched on and the conveyor runs.

7.3.2.2 Switch off

Perform the following step to switch the machine off:

1. Press forcefully on the mushroom push-button (1) so that it locks.

Result: The machine is switched off.

7.3.3 Operation - “Continuously variable” mode of operation

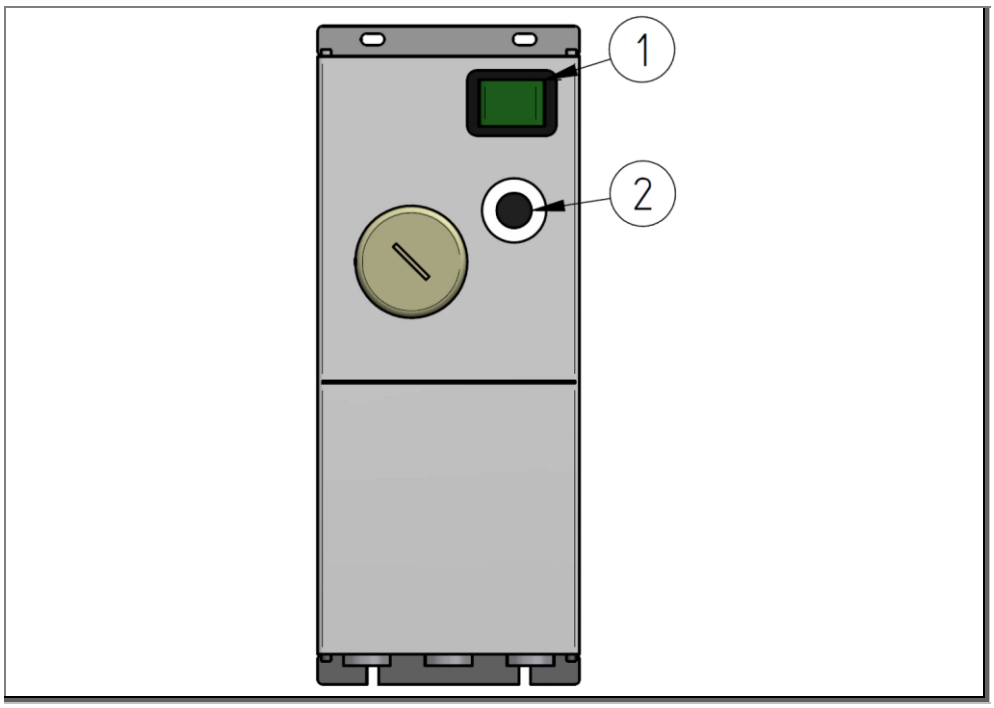


Fig. 59: Speed controller

No.	Control	Function
1	Mains switch (green)	Switch on/switch off
2	Rotary knob (black)	Speed adjustment

Tab. 7: Operating elements of the speed controller

7.3.3.1 Switch on

Perform the following steps to switch the machine on:

1. Press on the green switch (1) to enter switch position I. The green lamp comes on.

Result: The machine is switched on and the conveyor runs.

7.3.3.2 Switch off

Perform the following step to switch the machine off:

1. Press on the green switch (1) to enter switch position O. The green lamp goes off.

Result: The machine is switched off.

7.3.3.3 Speed adjustment

Perform the following steps to adjust the machine speed:

Increase speed:

1. Turn the black rotary knob (2) to the right, until the desired drive speed is reached.

Reduce speed:

1. Turn the black rotary knob (2) to the left, until the desired drive speed is reached.

Result: The machine works with the set speed.

External reference

The speed controller is provided by a third-party supplier. Further information about operation of and the circuit diagram for the control unit can be found in the operating instructions provided by the third-party supplier.

7.3.4 Operation - “Clocked” mode of operation

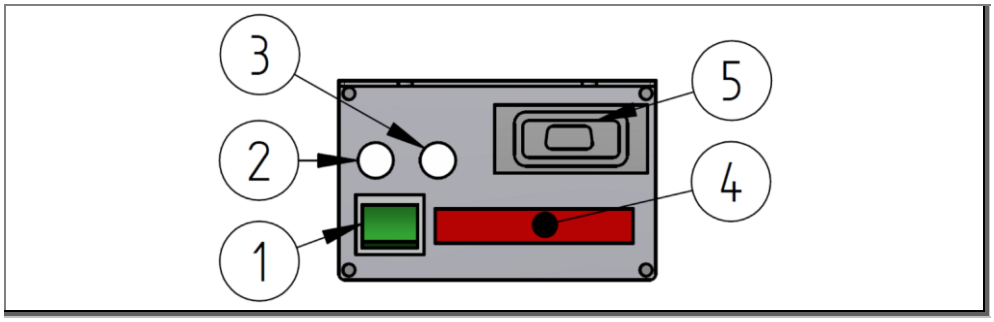


Fig. 60: Clock timer

No.	Control	Function
1	Mains switch (green)	Switch on/switch off
2	Setting button	E.g. select time
3	Mode button	Select mode
4	Display	
5	Sub-D-9 socket	

Tab. 8: Operating elements of the clock timer

External reference

The clock timer is provided by a third-party supplier. Further information about operation and the circuit diagram can be found in the operating instructions of the clock timer provided by the third-party supplier.

7.3.5 Operation - “Continuously variable and clocked” mode of operation

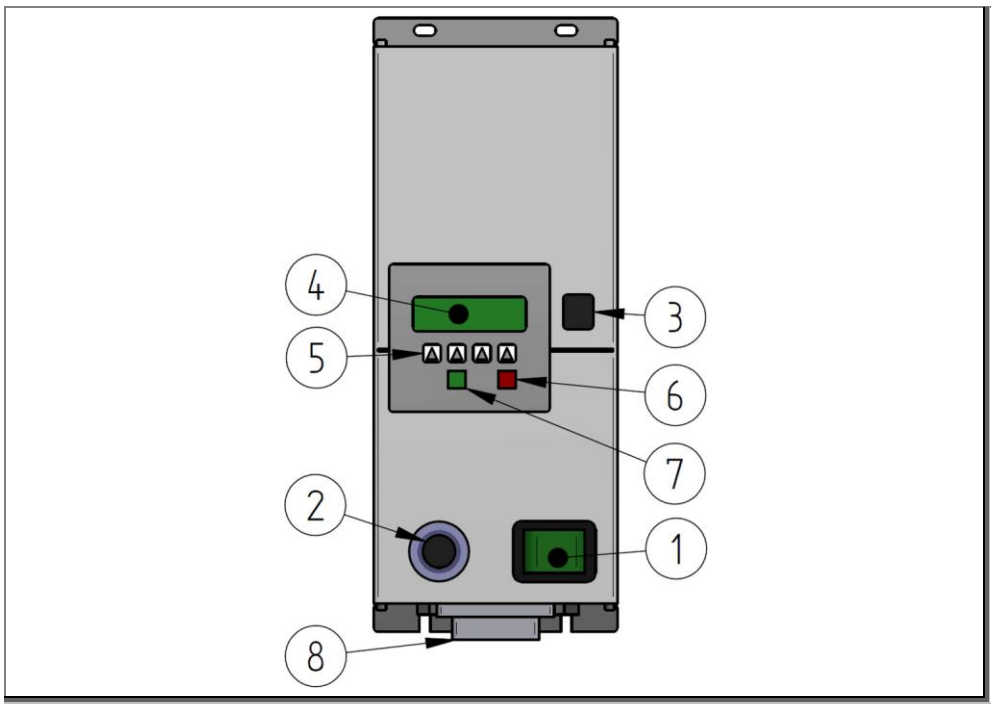


Fig. 61: Combi-control unit

No.	Control	Function
1	Mains switch (green)	Switch on/switch off
2	Rotary knob (black)	Speed adjustment
3	Operating lights	• Green - Operation • Red - Fault
4	Display	
5	Multi-function buttons	Function is shown on the display
6	Push-button	No function ex works
7	Push-button	No function ex works
8	Sub-D-9 socket	**NOTE** • Plug in sub-D-9 plug prior to start-up

Tab. 9: Operating elements of the combi-control unit

External reference

The combi-control unit is provided by a third-party supplier. Further information about operation of and the circuit diagram for the combi-control unit can be found in the operating instructions provided by the third-party supplier.

8 Troubleshooting

8.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

⚠ DANGER

Entanglement and crushing hazard

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause severe injuries.

- Never operate the machine without chain protective cover.
- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Tie up long hair.
- Maintenance work: Check machine is completely voltage-free and secure to prevent switching back on. Only then remove protective covers. Prior to starting up again, fit the protective covers.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ DANGER

Danger to life

Transporting of persons is dangerous and can cause fatal injuries.

- Transporting of persons is expressly forbidden.

⚠ DANGER

Lack of avoidability of dangers

Avoidance and reduction of personal injury will not be possible if switching off devices are rendered inaccessible.

- Do not block or otherwise render inaccessible switching off devices.

⚠ WARNING

Fall hazard when working at height

Work at height may cause slipping, falling, and serious injuries.

- Wear personal protective equipment.
- Ensure safe working conditions in time.
- Always use fall protection equipment when secure footing cannot be guaranteed.
  - Use, for example, work platforms, scaffolds, personnel elevators, or cherry pickers.
- Protect the installation area against falling objects.
- Never work alone.

⚠ WARNING

Entanglement, shearing and crushing hazard

Fingers can be drawn in on the cleats, the corrugated side walls or the longitudinal guide in the inlet area

- Do not grip the cleats, corrugated side wall or longitudinal guide.

⚠ WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

⚠ CAUTION

Risk of crushing (with drive positioned underneath and cleated belt)

On the lower belt run there is a risk of crushing between the motor and cleats as they pass by.

- Never reach into the area below the drive motor for as long as the motor is switched on or is not secured to prevent switching back on.

⚠ CAUTION

Risk of crushing and scraping

The conveyor inlet area is reached into from the covers or hoppers, limbs can be crushed or scraped.

- Do not reach into the inlet area.

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Entanglement and scraping hazard in the conveyor inlet and outlet as well as on the return idler on the lower belt run

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause injuries.

- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Knot long hair together and wear a hair net as necessary.
- Do not reach into the danger areas.
- Maintain a sufficient distance from the danger points/areas.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Sharp edges

Sharp edges may cause cutting.

- Wear personal protective equipment.
- Be careful when handling objects with sharp edges.

ATTENTION

Damage to the equipment due to incorrect voltage

If the equipment is connected to an incorrect voltage supply, the electrical equipment may be destroyed.

- The voltage supply should be connected by skilled electricians only.
- Observe the local rules and regulations concerning the energy supply. The electrical equipment complies with the European safety standards.

ATTENTION

Damage to the equipment due to an incorrect direction of rotation of the motors

Prolonged movement of the belt in the wrong direction may damage the system.

- Work on the system should be performed by authorized and specialized personnel only.
- Check the direction of movement of the conveyor belt by visual inspection.
- If necessary, change the direction of rotation of the motors. To do so, change the phases of the power supply.
- Attach a conveying direction arrow.

ATTENTION

Damage to the equipment due to an incorrect alignment of the belt

Lateral mistracking or slipping of the belt may cause equipment damage.

- Work on the system should be performed by authorized and specialized personnel only.
- Adjust the belt alignment.
- Adjust the belt tension.

ATTENTION

Damage to the machine due to unsuitable cleaning agents

The conveyor and belt may be damaged if solvents are used for cleaning.

- Do not use solvents for cleaning.
- Remove normal dirt with lukewarm water.
- Remove greasy stains with white spirit.
- Contact the manufacturer if you have any questions concerning suitable cleaning agents.

8.2 Procedures in the event of malfunctions

The following fundamental rules apply at all times:

1. In the case of malfunctions or faults presenting a direct danger to persons or property, switch the system off immediately.

   The operator is responsible for the integration of the system into the safety system of the overall system.
2. Determine the cause of the malfunction or fault.
3. If work must be performed in the hazard area in order to eliminate the malfunction or fault, switch the system off and lock it so that it cannot be switched on again.
4. The person at charge on site must be informed about the malfunction or fault immediately.
5. Depending on the type of malfunction or fault, it must be eliminated by authorized personnel with a qualification in the respective field.
6. If components need to be replaced, ensure that they are installed correctly.
   - Adhere to standard-compliant tightening torques.
   - Observe the required lock washers.

8.3 Preparations for troubleshooting

1. Switch the main switch off prior to performing any work on the system.
2. Do not perform any work on the system unless it is at a complete stop.
   - Disconnect the system from the power supply.
3. Lock the system so that it cannot be switched on again.
   - Padlock the main switch.
   - Set up a warning sign.
   - Close a wide area off.
4. Empty the conveying line or remove transported material

8.4 Restart after a malfunction

Do no use the system if there are defects that compromise the safe operation of the system.

1. Ensure that all of the protective covers and guards are in place.
2. Check the safety devices and guards.

NOTE

Follow the instructions and information provided in the supplier documentation.

8.5 Troubleshooting

NOTE

- Do not perform any work on the machine unless it is at a complete stop. To do so, disconnect the machine from the power supply.
- Prior to commencing any tasks, ensure that the machine cannot be switched on by mistake or by unauthorized persons.
- Please contact our after-sales service if you encounter malfunctions or faults that are not described in this manual.

Malfunctions or faults in the form of unsatisfactory conveyance and/or noise variations can be eliminated based on the following troubleshooting table:

Malfunction/fault	Possible cause	Remedy
Belt alignment incorrect	• Belt alignment is set incorrectly.	• Set the belt alignment and belt tension correctly
	• Belt is dirty and therefore slides on the drive pulley	• Clean the belt surface (running side)
	• Dirt deposits on the drive pulley and deflection pulley	• Clean drive pulley and deflection pulley.
	• Coefficient of friction between drive pulley and belt is too low	• Increase the belt tension
	• Run marks/damage on the belt	• Replace the belt
	• Rolling bearing is damaged.	• Repair the rolling bearing.
Alignment of the transported material is incorrect	• The angle of inclination of the conveyor has changed.	• Adjust the angle of inclination of the conveyor
	• Misalignment of the angle of the lateral guides (optional)	• Adjust the angle of the side guides
Transported material is not correctly transported on the belt	• Belt surface (carrying side) is dirty	• Clean the belt surface (carrying side)
	• Belt surface (carrying side) is worn	• Replace the belt

Tab. 10: Troubleshooting table

Malfunction/fault	Possible cause	Remedy
The system does not start or remains stationary	• No power supply.	• Check the position of the main switch • Check the RCD • Check the external fuse • Check whether the mains cable is damaged or improperly connected • Check the mains supply • Check the fuses • Check the terminal boxes for signs of moisture
	• Motor defective	• Replace the motor
	• Overload (there is too much transported material on the conveyor)	• Reduce the load (clear transported material from the conveyor)
	• Transported material has, for example, become clamped between belt and lateral guide	• Carefully remove transported material
	• Cleat collides with a component or the ground	• Free the cleats • Maintain the ground clearance
	• Chain is severely stretched	• Replace component
	• Chain links are stiff	• Adjust the chain tension
System stationary, but the motor is turning	• Drive pulley spins under the belt	• Increase the belt tension
	• Sprocket has come loose on the motor shaft	• Check the sprocket seating on the motor and, if necessary, align the sprocket and tighten the screw
	• Sprocket is worn	• Replace component
	• Chain cracked	• Replace chain
Damage to electrical components. Malfunctions of the machine.	• Damaged cables, switches, or motors • Exposed live components • Damaged electrical components	• Shut the system down immediately and repair it.

Tab. 11: Continued: Troubleshooting table

9 Maintenance

9.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

⚠ DANGER

Entanglement and crushing hazard

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause severe injuries.

- Never operate the machine without chain protective cover.
- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Tie up long hair.
- Maintenance work: Check machine is completely voltage-free and secure to prevent switching back on. Only then remove protective covers. Prior to starting up again, fit the protective covers.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ DANGER

Danger to life

Transporting of persons is dangerous and can cause fatal injuries.

- Transporting of persons is expressly forbidden.

⚠ DANGER

Lack of avoidability of dangers

Avoidance and reduction of personal injury will not be possible if switching off devices are rendered inaccessible.

- Do not block or otherwise render inaccessible switching off devices.

⚠ WARNING

Fall hazard when working at height

Work at height may cause slipping, falling, and serious injuries.

- Wear personal protective equipment.
- Ensure safe working conditions in time.
- Always use fall protection equipment when secure footing cannot be guaranteed.
  - Use, for example, work platforms, scaffolds, personnel elevators, or cherry pickers.
- Protect the installation area against falling objects.
- Never work alone.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

⚠ WARNING

Entanglement, shearing and crushing hazard

Fingers can be drawn in on the cleats, the corrugated side walls or the longitudinal guide in the inlet area

- Do not grip the cleats, corrugated side wall or longitudinal guide.

⚠ WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

⚠ CAUTION

Risk of crushing (with drive positioned underneath and cleated belt)

On the lower belt run there is a risk of crushing between the motor and cleats as they pass by.

- Never reach into the area below the drive motor for as long as the motor is switched on or is not secured to prevent switching back on.

⚠ CAUTION

Risk of crushing and scraping

The conveyor inlet area is reached into from the covers or hoppers, limbs can be crushed or scraped.

- Do not reach into the inlet area.

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Entanglement and scraping hazard in the conveyor inlet and outlet as well as on the return idler on the lower belt run

Loose clothing, loose jewelry or long unfastened hair can become entangled and cause injuries.

- Wear tight-fitting clothes.
- Do not wear any loose jewelry.
- Knot long hair together and wear a hair net as necessary.
- Do not reach into the danger areas.
- Maintain a sufficient distance from the danger points/areas.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Sharp edges

Sharp edges may cause cutting.

- Wear personal protective equipment.
- Be careful when handling objects with sharp edges.

ATTENTION

Damage to the equipment due to incorrect voltage

If the equipment is connected to an incorrect voltage supply, the electrical equipment may be destroyed.

- The voltage supply should be connected by skilled electricians only.
- Observe the local rules and regulations concerning the energy supply. The electrical equipment complies with the European safety standards.

ATTENTION

Damage to the equipment due to an incorrect direction of rotation of the motors

Prolonged movement of the belt in the wrong direction may damage the system.

- Work on the system should be performed by authorized and specialized personnel only.
- Check the direction of movement of the conveyor belt by visual inspection.
- If necessary, change the direction of rotation of the motors. To do so, change the phases of the power supply.
- Attach a conveying direction arrow.

ATTENTION

Damage to the equipment due to an incorrect alignment of the belt

Lateral mistracking or slipping of the belt may cause equipment damage.

- Work on the system should be performed by authorized and specialized personnel only.
- Adjust the belt alignment.
- Adjust the belt tension.

ATTENTION

Damage to the machine due to unsuitable cleaning agents

The conveyor and belt may be damaged if solvents are used for cleaning.

- Do not use solvents for cleaning.
- Remove normal dirt with lukewarm water.
- Remove greasy stains with white spirit.
- Contact the manufacturer if you have any questions concerning suitable cleaning agents.

NOTE

The manufacturer does not accept any liability for damage resulting from faulty maintenance, repair or overhaul.

9.2 Maintenance instructions

The purpose of maintenance, repair and overhaul is to maintain the functionality of the machine or to restore it after a malfunction or failure.

The machine must be maintained regularly. Inadequate maintenance may cause malfunctions or damage which in turn will lead to downtimes and repair costs.

The section on maintenance, repair and overhaul includes information about the necessary inspections, maintenance and repairs.

The section on maintenance, repair and overhaul includes information that is intended for trained, qualified, and specialized personnel.

Contact the manufacturer immediately in the event of problems or if anything is unclear.

When submitting a query, please provide the following:

- You can find the information on the type plate of the machine (see chapter "**3.1.1 Type plate**", page 30)
  - **Serial no.**
  - **Type designation**
  - **Year of manufacture**
- **A precise description of the fault/malfunction.**
- **Troubleshooting measures taken so far.**

If the machine is sent in to the manufacturer, refer to the chapters "Shutdown", "Disassembly" and "Transport".

9.3 Prior to any maintenance, repair and overhaul

Prior to performing any maintenance, repair, or overhaul tasks on the system, observe the following points:

1. Inform the operating personnel prior to commencing the tasks.

   A supervisor must be appointed.
2. Comply with the maintenance intervals that are stated in the maintenance plan.
3. The working area must be closed off against unauthorized access and marked with a warning sign.
4. Do not perform any work on the system unless it is at a complete stop.
   – Disconnect the system from the power supply.
5. In order to perform the necessary tasks, switch the system or the affected part of the system off and then lock it so that it cannot be switched on again.
   – Padlock the main switch.
   – Set up a warning sign.
   – Close a wide area off.
6. To avoid electric shock, do not open any electric components, housings or covers. Do not touch any damaged or live parts.
7. Work on the electrical system must be performed exclusively by an authorized and qualified person who has undergone special training in this field.
8. If it is necessary to remove any of the safety devices or guards, they must be reinstalled and checked for correct operation immediately after the completion of the work.
9. If parts of the system or large assemblies need to be replaced, fasten and secure them thoroughly on the lifting devices. Use only suitable lifting devices and load-handling attachments and ensure that they are in a perfect technical state and have a sufficient load-bearing capacity.
10. Use adequate climbing aids and working platforms, which are in line with the safety requirements, when performing overhead installation work. Do not climb or step on any parts of the system.

9.4 Maintenance plan

NOTE

- Do not perform any maintenance or repairs unless the machine/system is switched off and at a complete stop. Adjustment of the belt alignment is the only task that may be performed while the belt is running. For all other maintenance tasks, ensure that the machine cannot be switched on by mistake or by unauthorized persons. Failure to do so presents a risk of injury or damage.
- We recommend maintaining the machine/system at the specified intervals. The intervals are based on normal, average operating conditions. Depending on the actual ambient conditions and operating conditions, other intervals may be necessary. Please contact MTF-Technik in these cases.
- The intervals apply to single-shift operation (8 hours/day). In the case of more shifts, the intervals must be shortened accordingly.
- To achieve a long service life and optimized operating conditions, the maintenance tasks in the table must be performed at the specified intervals.

Intervals	Component	Measures	Measures in the event of a defect
	Drives	• See the manual provided by the manufacturer.	
Daily	Overall machine	• General visual inspection.	• Shutdown of the machine. Elimination of the defect.
	Safety equipment	• General visual inspection.	• Shutdown of the machine. Elimination of the defect.
	Conveyor body	• Transported material build-up	• Readjust the angle of inclination • Adjust the conveying speed • Optimize the transported material feeding
		• Check the belt alignment	• Adjust the belt alignment
Weekly	Belt	• Visual inspection for soiling	• Clean belt
		• Check the belt tension	• Retension the belt
		• Visual check of the belt alignment	• Readjust the belt
		• Check the belt for damage and wear.	• Replace the belt
	Mechanical components	• General inspection for signs of damage	• Replace component

Tab. 12:Maintenance plan

Intervals	Component	Measures	Measures in the event of a defect
Monthly	Mechanical components	• Check all screws and nuts for tightness and retighten if necessary	• Replace component
		• Check drive, return, deflection and carrying pulleys/idlers for smooth running	• Replace component
	Electrical installation	General inspection, in particular for damaged cables, connectors, light barriers	• Replace component
	Overall machine	• Visual inspection for soiling	• Clean the overall machine
Every six months	Drive, return, deflection and carrying pulleys/idlers	• General inspection, in particular for rolling bearing/slide bearing wear	• Replace rolling bearing/slide bearing
	Drive	• Check chain tension	• Retension chain
		• Check chain lubrication	• Lubricate chain
		• Check chain and sprocket for wear	• Replace component

Tab. 13:Continued: Maintenance plan

9.5 Repairs and overhauls

9.5.1 Belt adjustment options

The following figure shows an overview of the designations of the conveyor:

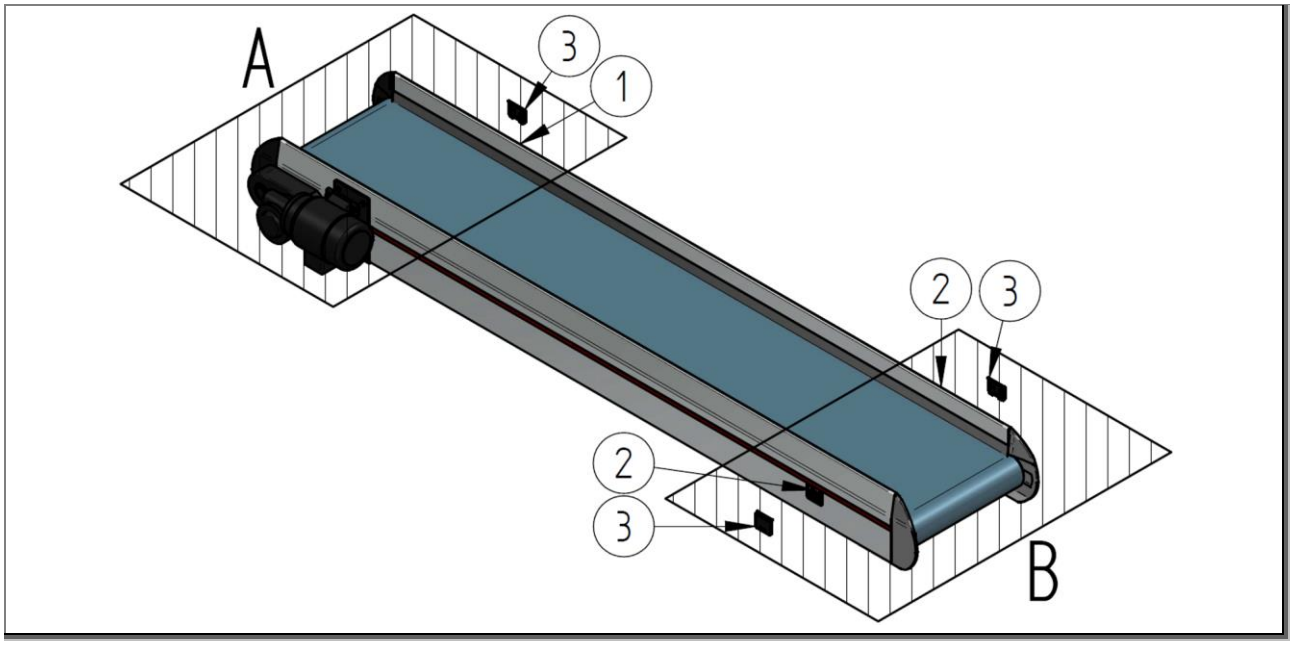


Fig. 62: Adjustment ranges and component designations

A Drive unit area
- Adjustable belt alignment

B Deflection area
- Adjustable belt alignment
- Adjustable the belt tension

1 Alignment tensioner

2 Belt tensioner

3 Cover cap

9.5.1.1 Checking the belt alignment on the conveyor

NOTE

- Before starting work, examine both the belt alignment in the drive unit area as well as the deflection area of the conveyor.
- Note that each adjustment can effect the opposing area.
- After adjustment of the belt alignment, reexamine both areas.
- Correct belt alignment is critical in achieving a long belt life.

9.5.1.2 Adjusting the belt alignment in the drive unit area

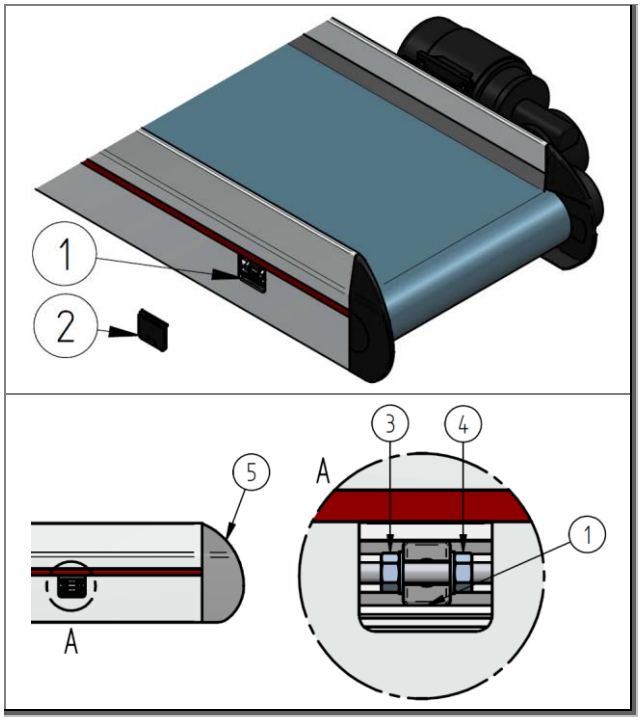
NOTE

Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you can adjust the belt alignment in the drive unit area of the conveyor.

Prerequisites:

- The belt tension must be set.
- The conveyor must run continuously during adjustment.
- Provided the speed controller is present, allow the conveyor to run at the maximum conveying speed
- Provided a clock control is present, set the mode of operation to “Continuous”.
- The belt alignment is unsatisfactory



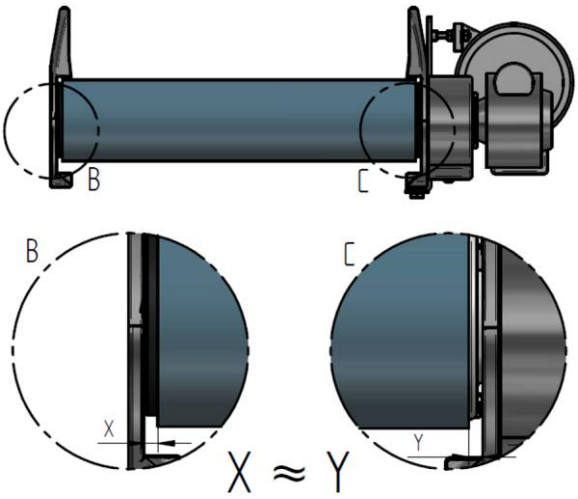
Perform the following steps to adjust the belt:

1. Remove the cover cap (2) from the conveyor body, so that the alignment tensioner (1) is open.

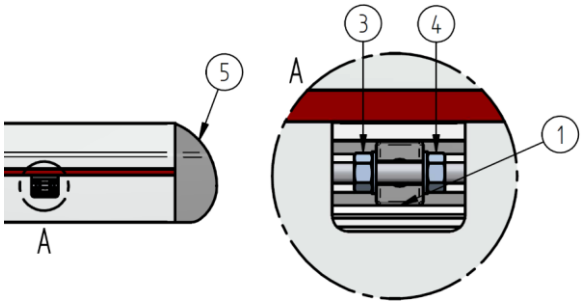
2. Undo the locknut (3).

1	Alignment tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

Fig. 63: Preparations for adjusting the belt alignment (drive unit area)



X, Y Distance between belt and end piece



1	Alignment tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

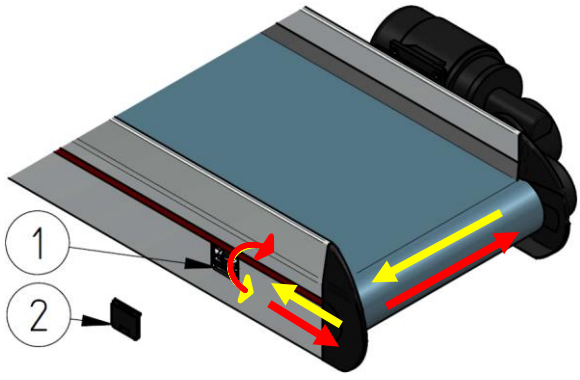


Fig. 64: Adjusting the belt alignment in the drive unit area

3. Observe the belt alignment (X≈Y).

NOTE

- **It is sufficient if the belt does not contact any end piece.** Here it is unimportant whether the belt runs precisely in the center.

4. Using the adjusting nut (4), adjust the alignment tensioner (1) by one nut rotation (approx. 3 to 5 stops) in the desired direction.

   In doing so, the following rules apply:

   - If the alignment tensioner is pushed towards the end piece, the belt moves away from this end piece (red arrows).
   - If the alignment tensioner is pushed away the end piece, the belt moves towards this end piece (yellow arrows).

5. Observe the belt alignment (X/Y) over multiple complete circulations full circulations of the belt.

NOTE

- Note that with conveyors running at low conveying speed, the full belt circulation can take a certain amount of time.

   - If the belt alignment is constant, approximately central, tighten the locknut (3) on the alignment tensioner.
   - If the belt alignment is not constant, but approximately central, repeat step 4.

6. Close the conveyor body with the cover cap (2).

Result: The belt alignment in the drive unit area is set.

9.5.1.3 Adjusting the belt alignment in the deflection area

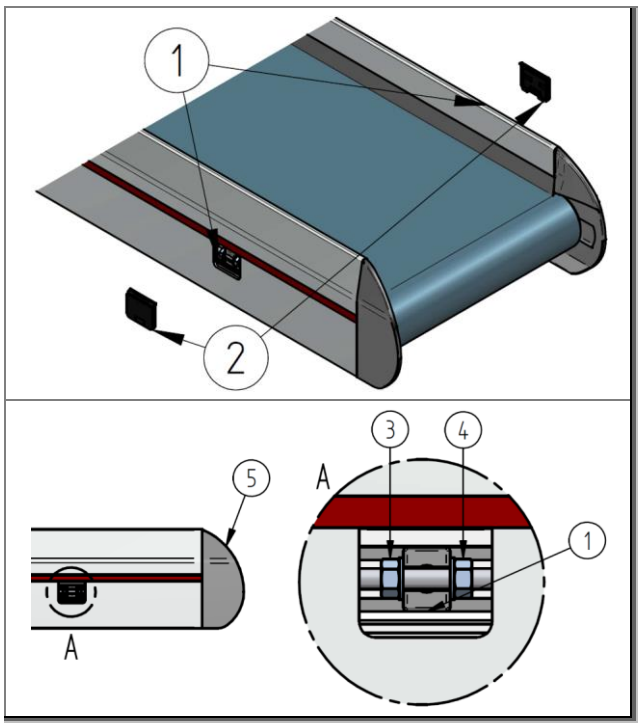
NOTE

Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you can adjust the belt alignment in the deflection area of the conveyor.

Prerequisites:

- The belt tension must be set.
- The conveyor must run continuously during adjustment.
- Provided the speed controller is present, allow the conveyor to run at the maximum conveying speed.
- Provided a clock control is present, set the mode of operation to “Continuous”.
- The alignment is unsatisfactory.



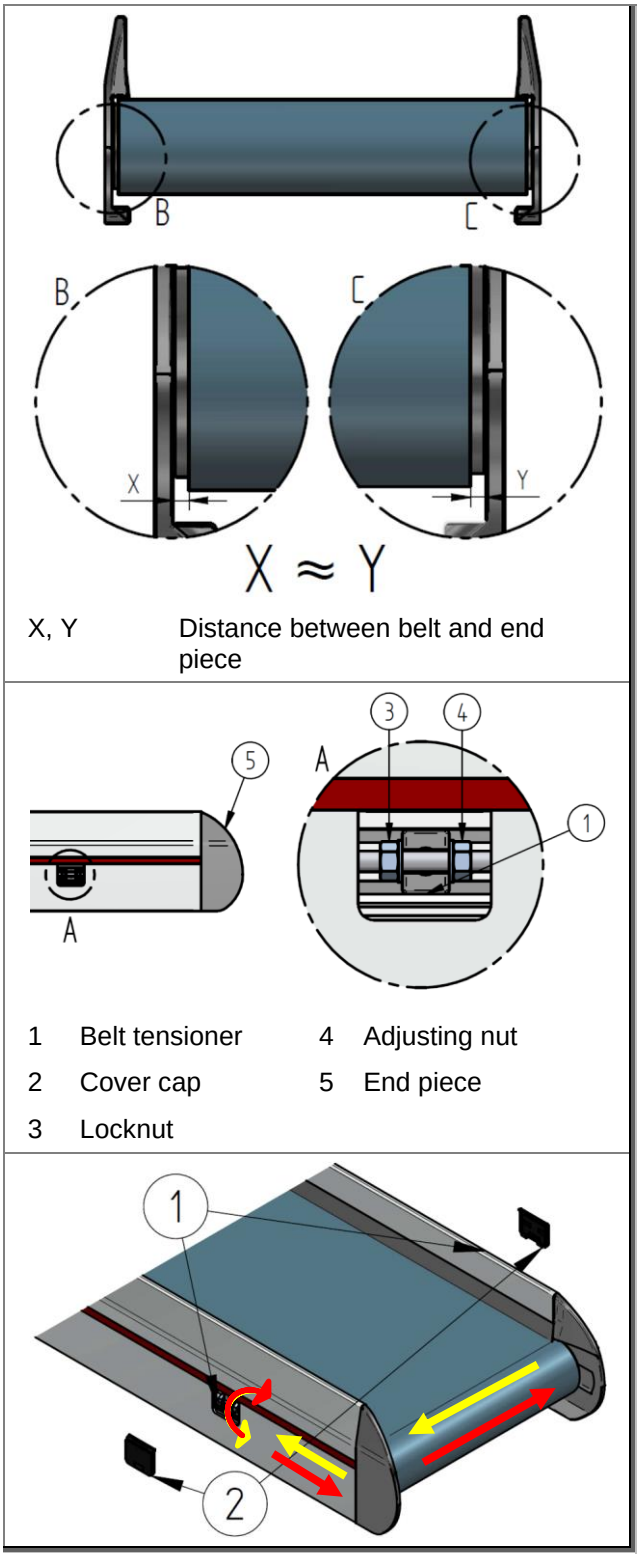
Perform the following steps to adjust the belt:

1. Remove the cover caps (2) from the conveyor body, so that the belt tensioners (1) are open.

2. Undo the locknuts (3).

1	Belt tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

Fig. 65: Preparations for adjusting the belt alignment (deflection area)



X, Y	Distance between belt and end piece

1	Belt tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

Fig. 66: Adjusting the belt alignment in the deflection area

3. Observe the belt alignment (X≈Y).

NOTE

It is sufficient if the belt does not contact any end piece. Here it is unimportant whether the belt runs precisely in the center.

4. Using the adjusting nut (4), adjust the belt tensioner (1) by one nut rotation (approx. 3 to 5 stops) in the desired direction.

   In doing so, the following rules apply:

   - If the belt tensioner is pushed towards the end piece, the belt moves away from this end piece (red arrows).
   - If the belt tensioner is pushed away the end piece, the belt moves towards this end piece (yellow arrows).

5. Observe the belt alignment (X/Y) over multiple complete circulations full circulations of the belt.

NOTE

- Note that with conveyors running at low conveying speed, the full belt circulation can take a certain amount of time.

   - If the belt alignment is constant, approximately central, tighten the locknut (3) on the belt tensioner.
   - If the belt alignment is not constant, but approximately central, repeat step 4.

6. Close the conveyor body with the cover caps (2).

Result: The belt alignment in the deflection area is set.

9.5.1.4 Checking the drive pulley for perpendicularity and adjusting

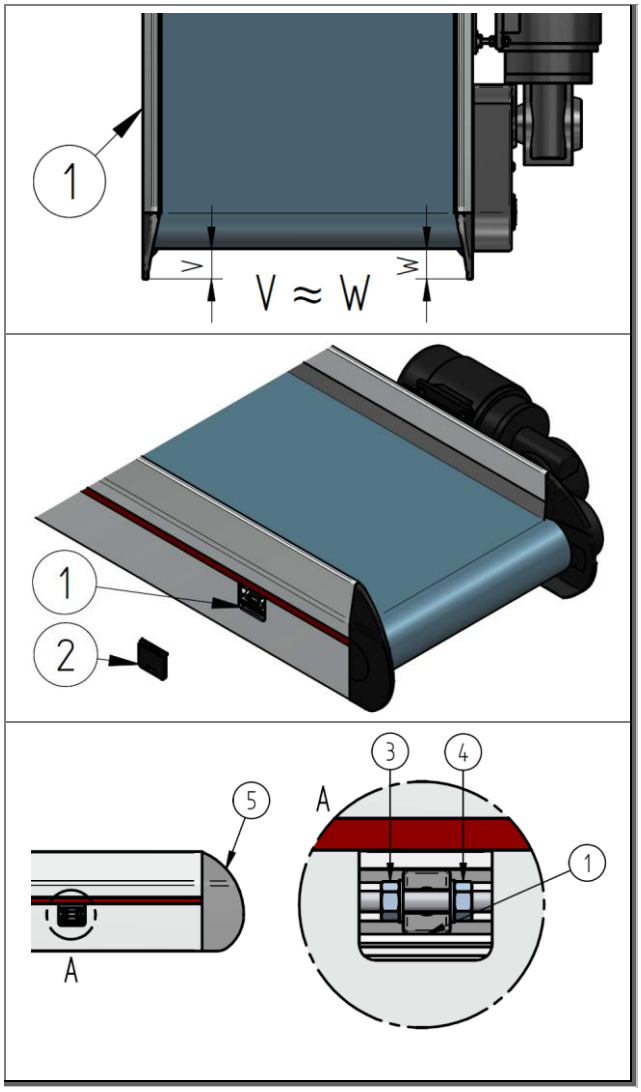
NOTE

Read the maintenance instructions completely prior to commencing the tasks.

NOTE

- The drive pulleys are adjusted in the factory.
- After a belt replacement, checking of the perpendicularity with possible subsequent adjustment is necessary.

This chapter describes how you can check the perpendicularity of the drive pulley in the drive unit area of the conveyor.



1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Measure the distance from the deflection unit to the end of the end piece. The distances (V≈W) should be nearly the same.

V, W	Distance between deflection unit and end of the end piece

4. If the distances differ greatly, continue with the next step.
5. Remove the cover cap (2) from the conveyor body, so that the alignment tensioner (1) is open.
6. Undo the locknut (3).

1	Alignment tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

7. With the aid of the adjusting nut (4) adjust the alignment tensioner (1) until the distances are the same.
8. Tighten the locknut (3) on the alignment tensioner (1) and fit the cover cap.

Result: The drive pulley has been checked for perpendicularity.

Fig. 67: Checking the drive pulley for perpendicularity and adjusting

9.5.1.5 Adjusting the belt tension in the deflection area

NOTE

Read the maintenance instructions completely prior to commencing the tasks.

NOTE

- The belt tension is set in the factory
- The belt tension is only adjusted in the deflection area
- After a belt replacement, checking of the belt tension with possible subsequent adjustment is necessary.
- The conveyor must run continuously during adjustment
- Monitor the belt alignment

This chapter describes how you adjust the belt tension in the deflection area of the conveyor.

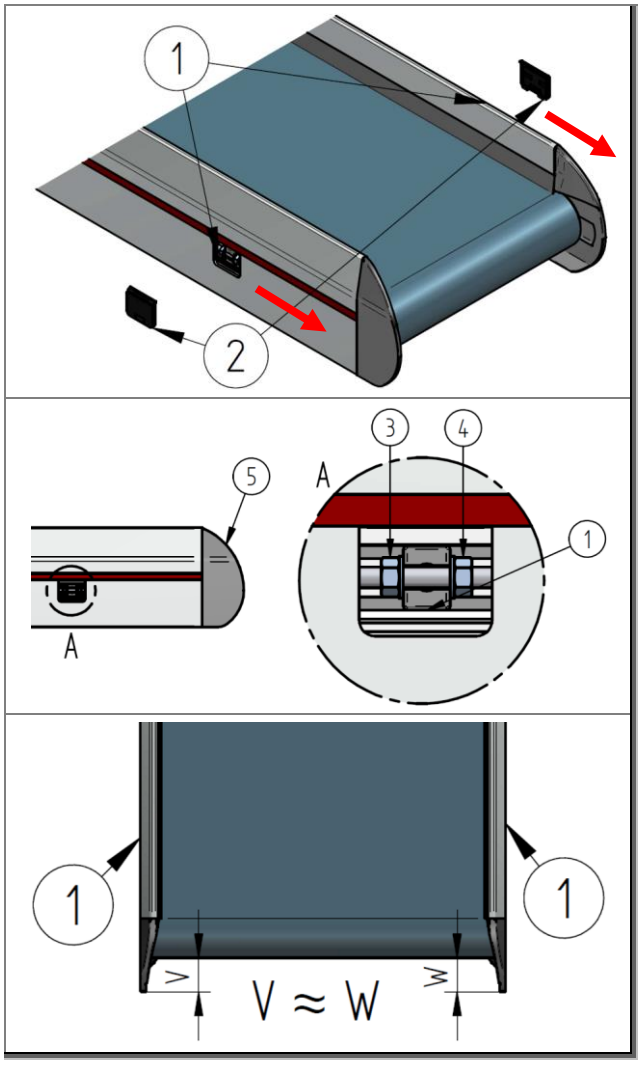


Fig. 68: Adjusting the belt tension in the deflection area

1. Check whether the belt tension is sufficient by visually checking that there is no slip between belt and deflection pulley. If this is not the case, perform the following steps:
2. Remove the cover caps (1) from the conveyor body, so that the belt tensioners are open.
3. Undo the locknuts (3).

1	Belt tensioner	4	Adjusting nut
2	Cover cap	5	End piece
3	Locknut		

4. Tension the belt uniformly and in an alternating manner on both sides (in this way, the distances (V≈W) remain approximately the same). To do so, adjust, with the aid of the adjusting nuts (4), the belt tensioners (1) by moving the deflection pulley relative to the conveyor end (red arrow).

V, W	Distance between deflection unit and end of the end piece

5. Check whether the belt tension is sufficient by visually checking that there is no slip between belt and deflection pulley. Otherwise repeat the preceding step.
6. Tighten the locknuts (3) and fit the cover caps.

Result: The belt tension is set.

9.5.2 Belt replacement

NOTE

Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes the replacement of the belt of a straight conveyor.

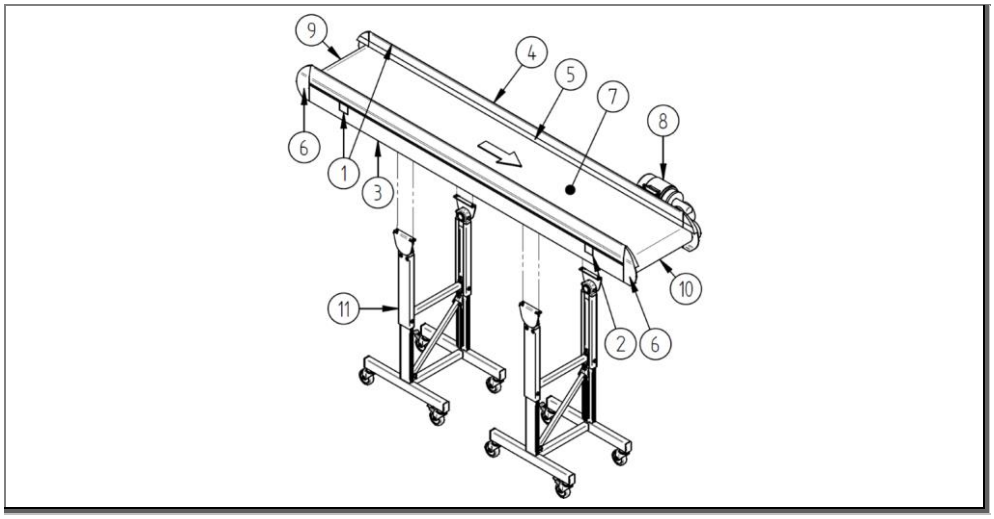


Fig. 69: Conveyor designations

1	Belt tensioner	7	Belt
2	Alignment tensioner	8	Drive unit
3	Guiding profile (drive-free-side)	9	Deflection pulley
4	Guiding profile (drive-side)	10	Drive pulley
5	Sealing strip (if fitted)	11	Support
6	End piece (drive-free-side)		

Perform the following steps to replace the belt:

1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Remove all of the components, attachments and accessory parts from the guiding profiles (separation attachments, hoppers, discharge chutes, separator plates, etc.). The drive unit does not need to be removed.
4. Relieve the weight on the support and secure it to prevent lowering.
5. Remove the support from the conveyor body.
6. Release the tension in the **belt (7) completely only** via the two **belt tensioners (1)** in the deflection area. To do so, move the **deflection pulley (9)** towards the middle of the belt.

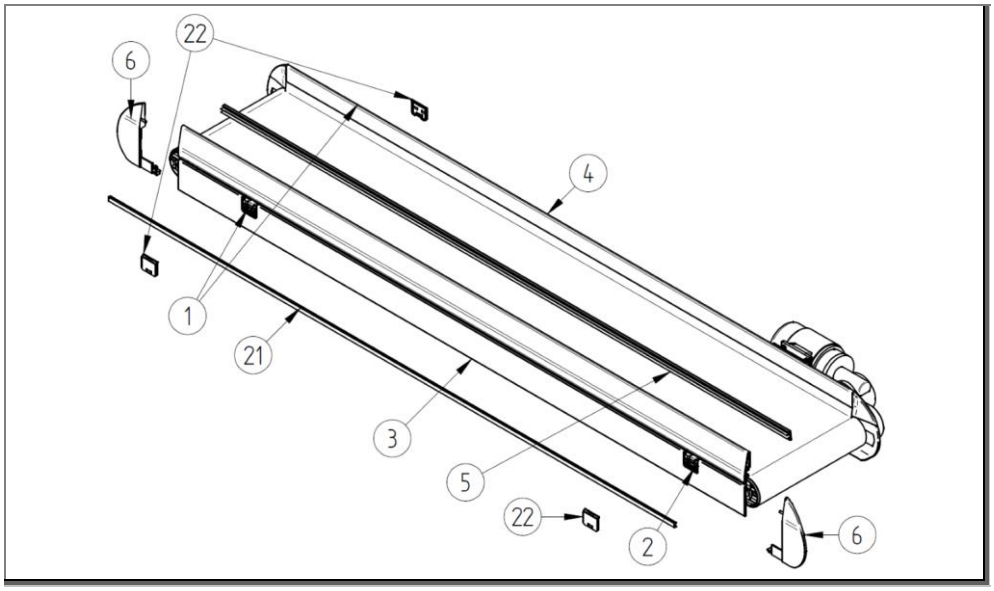


Fig. 70: Exploded drawing: Conveyor body

1	Belt tensioner	5	Sealing strip (if fitted)
2	Alignment tensioner	6	End piece (drive-free-side)
3	Guiding profile (drive-free-side)	21	Groove cover
4	Guiding profile (drive-side)	22	Cover

7. Undo the grub screws of the 2 **end pieces (6)** in the lower guiding profile groove of the drive-free guiding profile and then remove this.
8. If **sealing strips (5)** are fitted, remove these carefully.
9. Remove the red groove cover (PVC) from the groove (**21**) of the drive-free guiding profile (**3**).

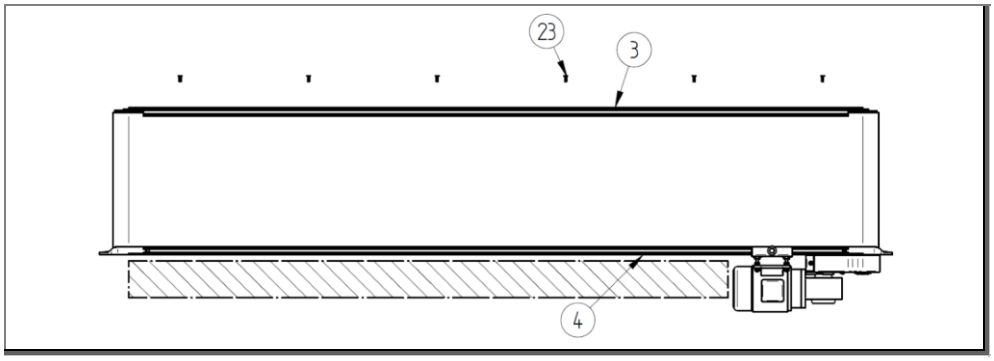


Fig. 71: Disassembly: Guiding profile

3	Guiding profile (drive-free-side)	23	Screw
4	Guiding profile (drive-side)		

10. Tilt the entire conveyor body until it is upright and rests on the outer surface of the guide profile (**4**) of the drive-side. In doing so, ensure that the body does not rest on the drive. Secure the conveyor to prevent falling down.
11. Remove all screws (**23**) in the side groove of the drive-free guiding profile (**3**).

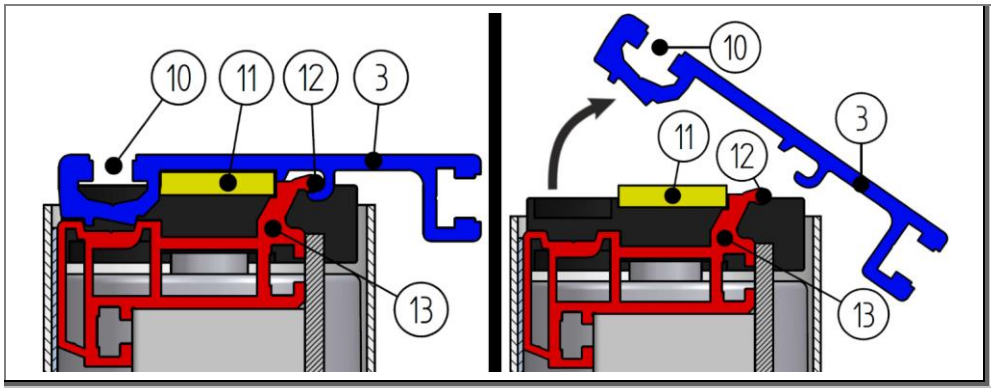


Fig. 72: Guide profile removal

3	Guiding profile (drive-free-side)	12	Pivot point between rail profile/guiding profile
10	Side groove of the guiding profile (drive-free-side)	13	Rail profile
11	Belt/alignment tensioner		

12. Rotate the drive-free guiding profile (**3**) about the pivot point of the rail profile (**12**) upwards/towards the conveyor underside and remove it from the conveyor body.

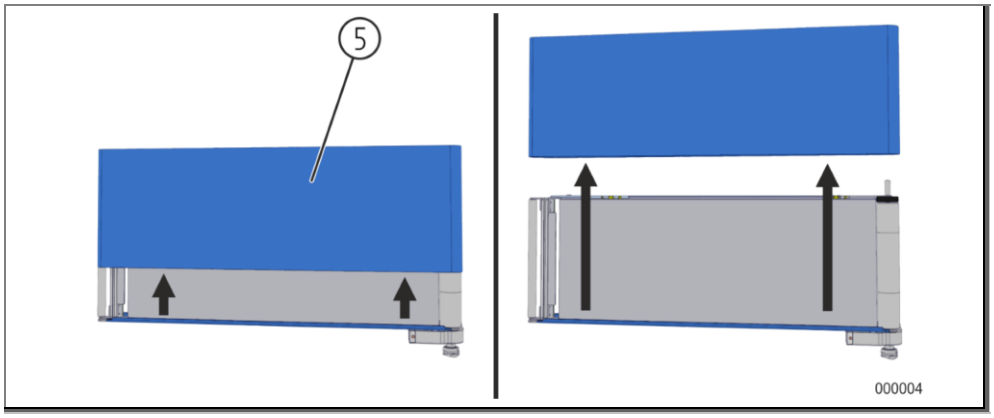


Fig. 73: Pulling the belt

5 Belt

13. Pull the belt (**5**) off the conveyor body (do not loosen any other of the bolted joints in the conveyor frame during belt replacement). Check the screws and tighten them, if necessary).

NOTE

- Note the conveying direction of the belt, if this is marked. The conveying direction can be determined by an arrow (→) on the belt surface (running side).

14. Push the new belt in an upright position over the conveyor body.

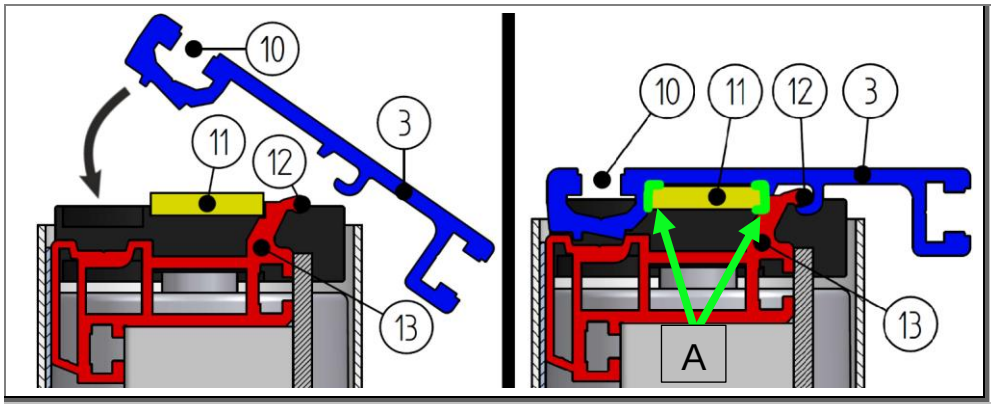


Fig. 74: Fitting the guiding profile

3	Guiding profile (drive-free-side)	12	Pivot point between rail profile/guiding profile
10	Side groove of the guiding profile (drive-free-side)	13	Rail profile
11	Belt/alignment tensioner		

NOTE

- Ensure that the belt and belt tensioner lie flat in the guiding profile (A - green marking), so that the guiding profile is not tilted during fitting.

15. Fit the drive-free guiding profile (**3**), by rotating it into position via the pivot point of the rail profile (**12**).
16. Screw the guiding profile with the rail profile in the side guiding profile groove.
17. Correctly fit the 2 end pieces on the guiding profile.
18. Uniformly adjust the basic belt tension using the two belt tensioners.
19. Uniformly adjust the fine belt tension using the two belt tensioners. (See chapter "9.5.1.5 Adjusting the belt tension in the deflection area", page 118)
20. Press the (PVC) groove cover into the T-groove.
21. Correctly fit the conveyor body on the support.
22. Position the conveyor with support on a level and sufficiently load bearing surface.
23. Reinstall all of the attachments on the conveyor body.
24. Adjust the belt alignment in the drive unit area.
    (See chapter "9.5.1.2 Adjusting the belt alignment in the drive unit area", page 113)
25. Adjust the belt alignment in the deflection area.
    (See chapter "9.5.1.3 Adjusting the belt alignment in the deflection area", page 115)

Result: The belt has been changed.

9.5.3 Checking the belt run for smooth running

Possible causes of a sticking belt run

- Sticking of the belt on the carrying sheet (e.g. with resinous oils)
- Transported material is jammed
- Belt runs to the side
- Gap between belt and lateral guide is too narrow
  - E.g. due to arching upwards of the carrying sheet
- Belt tension too high (belt stretches/shortens due to water adsorption)
- Damage to the drive pulley or deflection pulley

9.5.3.1 Chain drive: checking the belt run for smooth running

NOTE

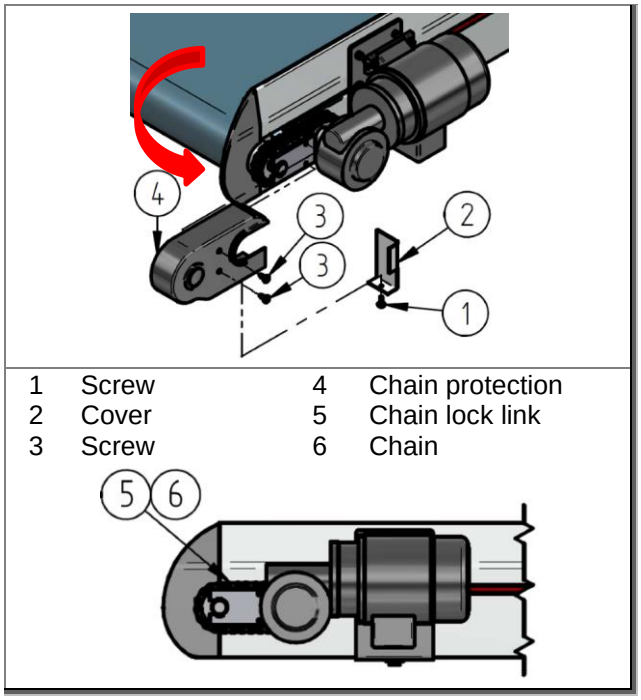
Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you can check the ease of running of the belts, if the conveyor has a chain drive.

NOTE

- First check whether there is transported material between belt and sealing strip, which could impair the belt run.

See also chapter: "**9.5.3.2 Flange drive unit: checking the belt** run for smooth running", page 124)



1	Screw	4	Chain protection
2	Cover	5	Chain lock link
3	Screw	6	Chain

Perform the following steps:

1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Remove the screw (1) and the cover (2).
4. Remove the screws (3) and the chain protection (4).
5. Undo the chain lock link and remove the chain.
6. Now manually rotate the belt through the drive unit area so that the total belt circumference passes through several times. No unusual resistance should be apparent.
7. Correctly fit the chain with the chain lock link.
8. Correctly fit the chain protection and cover.

Result: The smooth running of the belt run has been checked.

Fig. 75: Chain drive: checking the belt run for smooth running

9.5.3.2 Flange drive unit: checking the belt run for smooth running

NOTE

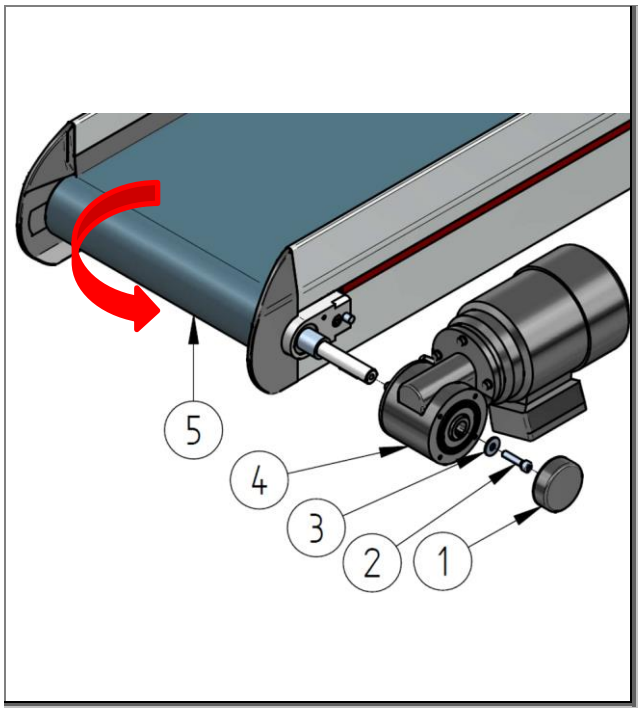
Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you can check the ease of running of the belts, if the conveyor has a flange drive unit.

NOTE

- First check whether there is transported material between belt and sealing strip, which could impair the belt run.

See also chapter: “**9.5.3.1 Chain drive: checking the belt run** for smooth running", page 123)



Perform the following steps:

1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Remove lid (1), screw (2)
4. Remove the flange motor (4)

1	Lid	4	Flange motor
2	Hexagon socket head cap screw with low head	5	Drive pulley
3	Washer		

5. Now manually rotate the belt through the drive unit area so that the total belt circumference passes through several times. No unusual resistance should be apparent.
6. Fit the flange motor in the inverse sequence

Result: The smooth running of the belt run has been checked.

Fig. 76: Flange drive unit: checking the belt run for smooth running

9.5.4 Lubricating the chain

NOTE

Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you lubricate a drive chain.

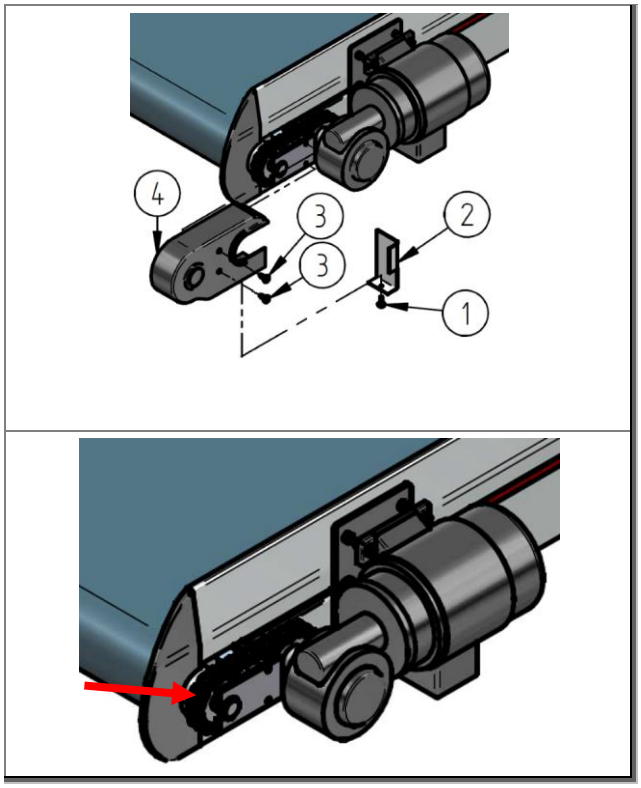


Fig. 77: Lubricating the chain

Perform the following steps to lubricate the chain:

1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Remove the screw (1) and the cover (2).
4. Remove the screws (3) and the chain protection (4).

1	Screw	3	Screw
2	Cover	4	Chain protection

5. Lubricated the chain with grease or a chain spray lubricant.
6. Fit the chain protection and cover.

Result: The chain is lubricated.

9.5.5 Adjusting the chain tension

NOTE

Read the maintenance instructions completely prior to commencing the tasks.

This chapter describes how you tension the chain of a drive.

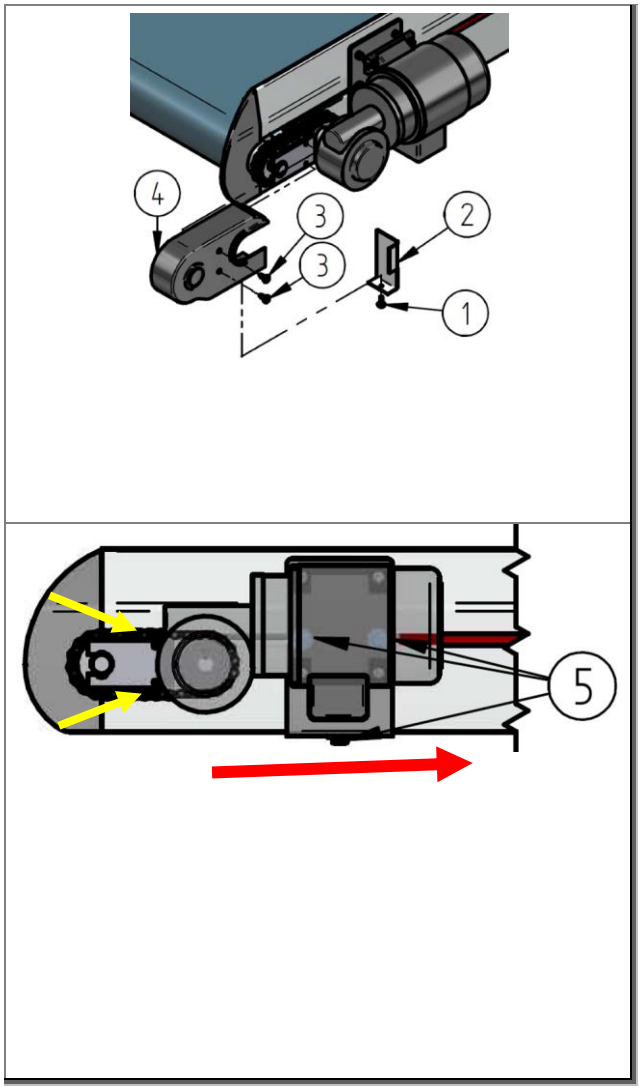


Fig. 78: Adjusting the chain tension

Perform the following steps to check the chain tension:

1. Disconnect the mains cable from the mains and secure the conveyor to prevent switching back on.
2. Remove all transported material from the conveyor.
3. Remove the screw (1) and the cover (2).
4. Remove the screws (3) and the chain protection (4).

1	Screw	4	Chain protection
2	Cover	5	Screw
3	Screw		

5. Check the chain tension
   - The top and bottom parts of the chain should have a maximum play of about 3 mm.
6. Slightly undo the three screws (5), that secure the drive unit on the guiding profile.
7. Push the drive towards the conveyor middle (red arrow) so that the top and bottom parts of the chain (yellow arrows) are uniformly and moderately tensioned. If necessary, turn the drive pulley up to the cusp so that the top and bottom chain parts are of the same length.
8. Tighten the screws.
9. Fit the chain protection and cover.

Result: The chain is tensioned.

9.6 Restart after maintenance, repair and overhaul

Do not use the machine if there are defects that compromise the safe operation of the machine. After the completion of maintenance and prior to starting the machine, the following points must be observed:

1. Check whether all of the screw connections are tight.
2. Ensure that all of the safety devices, guards and covers that had to be removed are properly reinstalled.
3. Ensure that all of the tools, material and other equipment have been removed from the working area.
4. Clean the working area and remove any fluids or similar substances that may have leaked out.
5. Check whether all of the safety devices and guards of the machine operate correctly.
6. Check the safety devices and guards.

10 Shutdown and storage

10.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

There is a risk of injury and damage to property if the operator fails to shut the system down in due form and in line with the applicable regulations.

NOTE

The shutdown must be performed by the operator or by persons who are appointed by the operator.
Compliance with the applicable local regulations and laws is mandatory for the shutdown of the system.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ WARNING

Hazards caused by rotating or moving components

Rotating and moving components may crush or sever limbs and cause serious injuries.

- Stay within the defined working area.
- Keep a safe distance to the components.
- Heed any warning signs in the working area.
- Wear personal protective equipment.
- Wear tight-fitting clothes.
- Knot long hair together and wear a hair net as necessary.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

⚠ WARNING

Risk of injury due to machine toppling over

Risk of tipping due to insufficient floor fixation.

- If available, always screw the floor clips of the floor fixation systems securely to the floor in the correct manner. Otherwise do not start-up!
- Ensure there is uniform loading!
- Use screws of sufficient strength!
- Do not exceed the floor strength!
- Before removing the floor fixation systems, ensure there is a low center of gravity, adjust as necessary:
  - Set the lowest support position
  - Check the stability, if necessary, remove the support

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

ATTENTION

Damage to property due to improper load handling

Improper handling of the load during loading or unloading may cause damage to property.

- Use suitable lifting devices.
- Loads that can be dismounted or mounted and that are too heavy to be carried manually must be kept in place using suitable devices (ropes or a block and tackle).
- Chafing of ropes and webbing slings on sharp edges and corners must be prevented by way of special devices, e.g. intermediate layers of a softer material, corner protectors or edge protectors.
- Components and their attachments must not be compressed by ropes or chains pulling at angles.
- Avoid strong impacts when setting the load down.
- Loads may be set down only on firm and level ground.

10.2 Shutting the machine down

If the machine remains unused for more than three days, observe the following points:

1. When it is used for the last time before the period of nun-utilization, let the machine run until there are no longer any goods for conveyance in or on the machine.
2. Switch the machine off via the main switch.
3. Disconnect the machine from the line power supply.
4. Remove any coarse soiling and dust from the machine with water.
5. Apply a preserving agent, e.g. a corrosion prevention agent, to any uncoated metal parts.
6. Cover the machine if it is set up outdoors.
7. Treat the drive unit in line with the information provided by the manufacturer.

11 Disassembly

11.1 Safety

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

There is a risk of injury and damage to property if the operator fails to disassemble the system in due form and in line with the applicable regulations.

NOTE

The disassembly must be performed by the operator or by persons who are appointed by the operator.
Compliance with the applicable local regulations and laws is mandatory for the disassembly of the machine.

⚠ DANGER

Danger to life due to electric current

There is danger to life in the event of contact with live components.
Active electrical components may perform uncontrolled movements. Serious injuries or even death may result.

- All work on the electrical components of this machine must only be carried out by qualified specialist personnel (electricians or persons trained in electrical engineering in accordance with DIN EN 60204-1).
- Switch the machine off during maintenance and repair work and secure to prevent unexpected switching back on.
- Close the working area off and mark it with a warning sign.

⚠ DANGER

Suspended loads

Tipping or falling loads may cause serious or even fatal injuries.

- Never step or stand under suspended loads.
- Only use approved lifting devices and lifting accessories that are rated for the total weight of the suspended load.
- Keep the suspension points and the center of gravity of the load in mind.
- Only use lifting accessories and load-handling equipment that are in a perfect technical state.
- Secure the loads with suitable means.
- If transport locks are used, do not remove them until the assembly is complete.
- Close the loading areas off against unauthorized access.
- Ensure sufficient lighting of the loading areas.
- Move loads only under supervision.
- Set the load down when leaving the workplace.

⚠ WARNING

Fall hazard when working at height

Work at height may cause slipping, falling, and serious injuries.

- Wear personal protective equipment.
- Ensure safe working conditions in time.
- Always use fall protection equipment when secure footing cannot be guaranteed.
  - Use, for example, work platforms, scaffolds, personnel elevators, or cherry pickers.
- Protect the installation area against falling objects.
- Never work alone.

⚠ WARNING

Risk of crushing and impacts

During adjustment work on the support, the conveyor may lower due to insufficient safeguards.

- Secure the conveyor with suitable load handling equipment (crane, etc.) to prevent unintentional and sudden lowering.
- The retaining screws may only be released, if the conveyor has been correctly secured to prevent the aforementioned hazard.
- Never remain under suspended loads when loosening/fastening the retaining screws.
- Maintain a sufficient distance from the danger locations.
- Carry out height adjustment using several persons.
- Wear personal protective equipment.

⚠ WARNING

Hazards caused by rotating or moving components

Rotating and moving components may crush or sever limbs and cause serious injuries.

- Stay within the defined working area.
- Keep a safe distance to the components.
- Heed any warning signs in the working area.
- Wear personal protective equipment.
- Wear tight-fitting clothes.
- Knot long hair together and wear a hair net as necessary.

⚠ CAUTION

Risk of crushing and shearing

Danger due to sudden swiveling movement of the casters when changing the machine location.

- During positioning of the conveyor, do not reach in close to the swivel casters.
- After completed positioning of the conveyor, always apply all arresters of the swivel casters.

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

⚠ CAUTION

Risk of injury due to moveable support

When moving the conveyor, the casters on the support can roll over feet or other body parts.

- Wear sturdy shoes with steel toecaps
- When moving do not step in the moving area of the casters

⚠ CAUTION

Sharp edges

Sharp edges may cause cutting.

- Wear personal protective equipment.
- Be careful when handling objects with sharp edges.

ATTENTION

Damage to property due to improper load handling

Improper handling of the load during loading or unloading may cause damage to property.

- Use suitable lifting devices.
- Loads that can be dismounted or mounted and that are too heavy to be carried manually must be kept in place using suitable devices (ropes or a block and tackle).
- Chafing of ropes and webbing slings on sharp edges and corners must be prevented by way of special devices, e.g. intermediate layers of a softer material, corner protectors or edge protectors.
- Components and their attachments must not be compressed by ropes or chains pulling at angles.
- Avoid strong impacts when setting the load down.
- Loads may be set down only on firm and level ground.

11.2 Prerequisites for the disassembly

ATTENTION

Risk of environmental damage

Damage to the environment due to leaking process fluids (oil, grease and other chemical substances).

- Clean soiled components prior to removing them.
- Collect any harmful substances in suitable collecting vessels and ensure their proper disposal.
- Comply with the local regulations and statutory provisions for disposal.

NOTE

The manufacturer does not accept any liability for damage resulting from improper disassembly.

1. Shut the machine down prior to the disassembly and comply with the relevant shutdown procedures.
2. Switch the main switch off and lock it so that it cannot be switched on again.
3. Disconnect the machine from the energy supply and secure this state.
4. Disconnect the entire machine physically from the power supply.
5. Remove any coarse soiling from the machine parts.
6. Disconnect any connections, e.g. pipes.
7. Collect any process fluids (oil, grease, and chemical substances) and other hazardous substances.
8. Seal any open connections, e.g. pipes.

11.3 Disassembly of the electrical system

1. Switch the machine off via the main switch.
2. Ensure that the operator’s grid power supply is deactivated.
3. Check whether the machine is completely voltage-free.
4. Disconnect the machine from the line power supply.

11.4 Disassembly of the mechanical system

Based on the assembly drawing and set-up plan:

1. Install the transport locks.
2. Release the floor anchors of the machine.
3. Disassemble and remove the modules of the machine based on their respective dimensions and other data.
4. Be aware of low center of gravity, adjust as necessary:
   - Set the lowest support position
   - Check the stability, if necessary, remove the support
5. See chapters “Packaging and transport” and “Set-up and Assembly” if the machine needs to be transported to another location.

12 Disposal

12.1 Safety

⚠ CAUTION

Risk of tripping and falling

There is a risk of tripping and falling at the supports due to projecting frame parts.

- The machine, and in particular the support, must not be set up and operated near to walkways.
- If necessary, existing walkways must be changed accordingly.

ATTENTION

Risk of environmental damage

The environment will be harmed if the disposal is not performed properly.

– Comply with the local regulations and statutory provisions for the disposal.

Only specialized personnel with proven qualification are authorized to perform work on the system. Compliance with the following is mandatory:

- this instruction manual
- all other instruction manuals pertaining to the system (further applicable documents, including the documents provided by the suppliers)
- the applicable local regulations and laws.

Knowingly or unknowingly using used/worn components, e.g. rolling bearings, toothed belts, etc., may present a hazard to persons, the environment and the system.

The following points must be observed:

- The operator is responsible for proper disposal.
- Only specialized and qualified personnel are authorized to perform the disposal.
- Drain any process fluids (oils, greases, chemical substances) and other consumables off into suitable collecting vessels and ensure their proper disposal.
- At the end of its life cycle, separate the machine into different recyclable materials and hand them over to a professional recycling company.

13 Spare parts

13.1 Spare part orders

NOTE

The manufacturer does not accept any liability for damage resulting from the use of third-party parts.

- If parts need to be replaced, use only original parts. The use of third-party parts may cause damage.
- Please contact the service department if you want to order spare parts. Orders can be submitted by e-mail, fax, or phone.
- Please have the data of the type plate (e.g. serial number), order confirmation and/or spare parts list ready.
- MTF Technik recommends keeping the spare parts and wear parts, which are stated on the spare parts list, in stock on site in order to reduce or avoid waiting times and downtimes in the event of faults or malfunctions.
- In all other cases, spare parts should be ordered in good time in order to ensure that they are available for the next scheduled maintenance. Spare parts have varying delivery times. This is why an extensive spare parts order based on the longest delivery time is recommended.

13.1.1 Abbreviations in the spare parts list

The following is a list of the abbreviations used in the spare parts list.

Abbreviation	Designation
Unit	Unit
Qty	Quantity
Pos.	Position number
pcs.	Pieces

Tab. 14: Abbreviations

13.2 Viewing the spare parts list

The spare parts list for the described conveyor can be viewed online via the following link.

https://mtf-technik.de/de/service/download

Fig. 79: Spare parts list: GL conveyor

13.3 Spare parts - explanation of the portrayal

The spare parts are subdivided into 2 groups:

13.3.1 Independent from technical data

– Can be directly selected and ordered

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Component		XXXXXX	XX.XX.XXXX

Tab. 15: Parts list: Independent from technical data (typical)

13.3.2 Dependent on technical data (see also order confirmation)

– Are labeled with a star “*”
– The selection is made based on at least one technical attribute that is specified in the order confirmation
– For example in the ID no. or drawing no. field there is a reference to a table

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Component		Table	Table

Tab. 16: Parts list: Dependent on technical data (see also order confirmation) (typical)

– The Selection attribute is found on the left side in the table
– The corresponding ID no./drawing no. are read off in the right side of the table

Pos. 1* selection: Motor bracket		
Motor power	**Motor bracket 1**	**Motor bracket 2**
	T.800.XXXX	**T.800.XXXX**
	ID no.	ID no.
180 W	XXXX	-
250 W	-	XXXX

Tab. 17 Attribute selection of a component (typical)

13.4 Spare parts and wear parts

13.4.1 Conveyor body

13.4.1.1 Parts list: Conveyor body

Selection of the parts list	
Lateral guide (guiding profile)	**Drawing no.**
GL0	U.116.0002.00
GL7	U.116.0002.00
GL40	U.116.0003.00
GL80	U.116.0003.00
GL80A	U.116.0003.00

Tab. 18: Selection of the parts list of the conveyor body

13.4.1.2 Parts list: Conveyor bodies GL0 and GL7 - U.116.0002.00

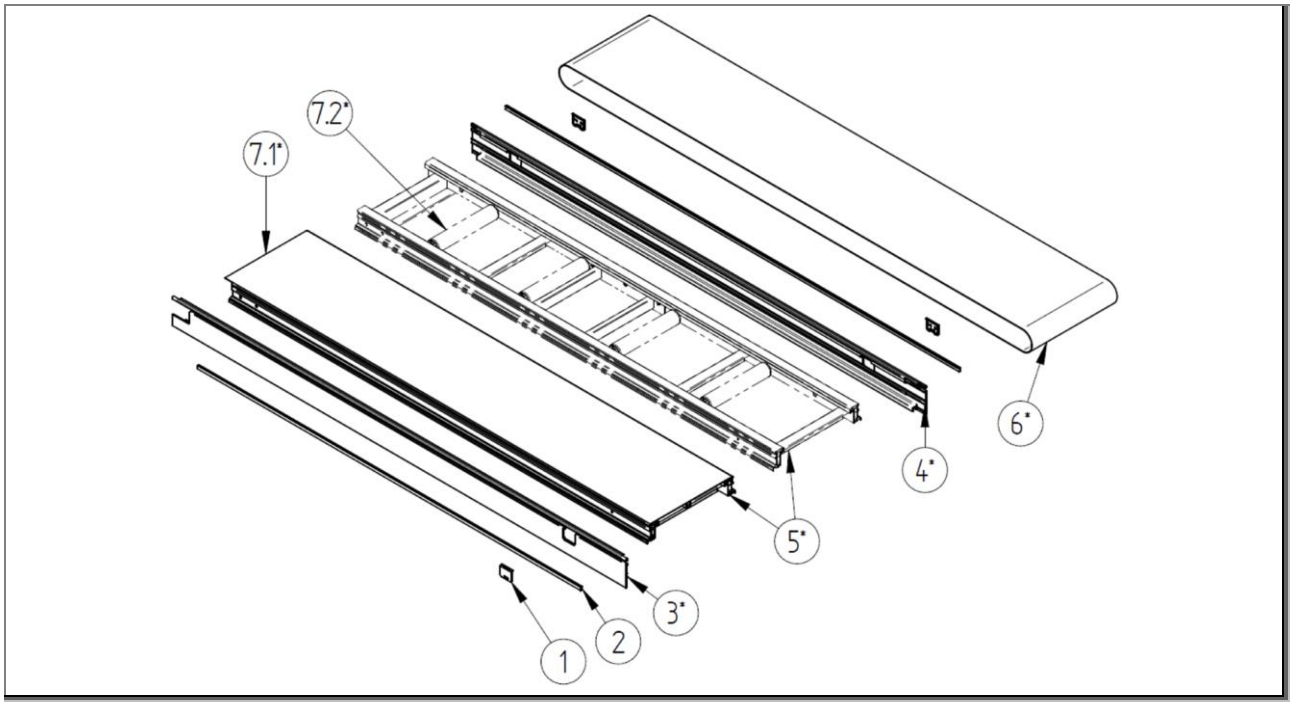


Fig. 80: Parts list: Conveyor bodies GL0 and GL7 - U.116.0002.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	3	pcs.	Cover	Tensioner hole	1000274	E.800.0188
2	2	pcs.	Groove cover	RAL 3020 red	1000648	E.918.0029

Tab. 19: Parts list: Conveyor bodies GL0 and GL7 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
3*	1	pcs.	Guiding profile	Side profile BG1	Specify the serial number of the type plate	
4*	1	pcs.	Guiding profile	Side profile BG2		
5*	1	pcs.	Base frame			
6*	1	pcs.	Belt			
7.1*	X	pcs.	Metal plate under the upper (load-carrying) side of the belt		Table	Table
7.2*	X	pcs.	Carrying idler		Table	Table

Tab. 20: Parts list: Conveyor bodies GL0 and GL7 - 2

Pos. 7.1* selection: Metal plate under the upper (load-carrying) side of the belt		
Material	**Surface**	**ID no.**
Steel	uncoated	1006026
Stainless steel	uncoated	1006710
Stainless steel	pattern-rolled 5WL 5SE5	1006760

Tab. 3: Selection: Metal plate under the upper (load-carrying) side of the belt

Pos. 7.2* selection: Carrying idler				
Nominal width [mm]	**ML [Steel - uncoated]** M.910.0700.02 **ID no.**		**Nominal width [mm]**	**ML [Steel - uncoated]** M.910.0700.02 **ID no.**
200	1000091		1100	1000627
230	1000626		1200	1000628
250			1250	1011898
300	1000092		1300	1000492
350	1000793		1400	1005787
400	1000093		1500	1005295
450	1000794		1600	1006511
500	1000094		1650	1009439
550	1006509		1700	1004270
600	1000095		1750	1010290
650	1006510		1800	1004320
700	1000096		1900	1006529
750	1010487		2000	1005869
800	1000097			
900	1000098			
1000	1000099			

Tab. 21: Selection: Carrying idler

About Pos. 7.2* selection: Number of carrying idlers				
Nominal length [mm]	**ML [Steel - uncoated]**		**Nominal length [mm]**	**ML [Steel - uncoated]**
	ZZ.800.0059.00			**ZZ.800.0059.00**
	Nominal width <=1000 mm			Nominal width <=1000 mm
<=	Number		<=	Number
500	1		7000	16
750	1		7250	17
1000	2		7500	17
1250	2		7750	18
1500	3		8000	18
1750	4		8250	19
2000	4		8500	19
2250	5		8750	20
2500	5		9000	21
2750	6		9250	21
3000	7		9500	22
3250	7		9750	22
3500	8		10000	23
3750	8		10250	24
4000	9		10500	24
4250	9		10750	25
4500	10		11000	25
4750	11		11250	26
5000	11		11500	27
5250	12		11750	27
5500	12		12000	28
5750	13			
6000	14			
6250	14			
6500	15			
6750	15			

Tab. 22: Selection: Number of carrying idlers

(*see also T.800.0130.00; T.800.0131.00; T.800.0132.00)

13.4.1.3 Parts list: Conveyor bodies GL40; GL80; GL80A - U.116.0003.00

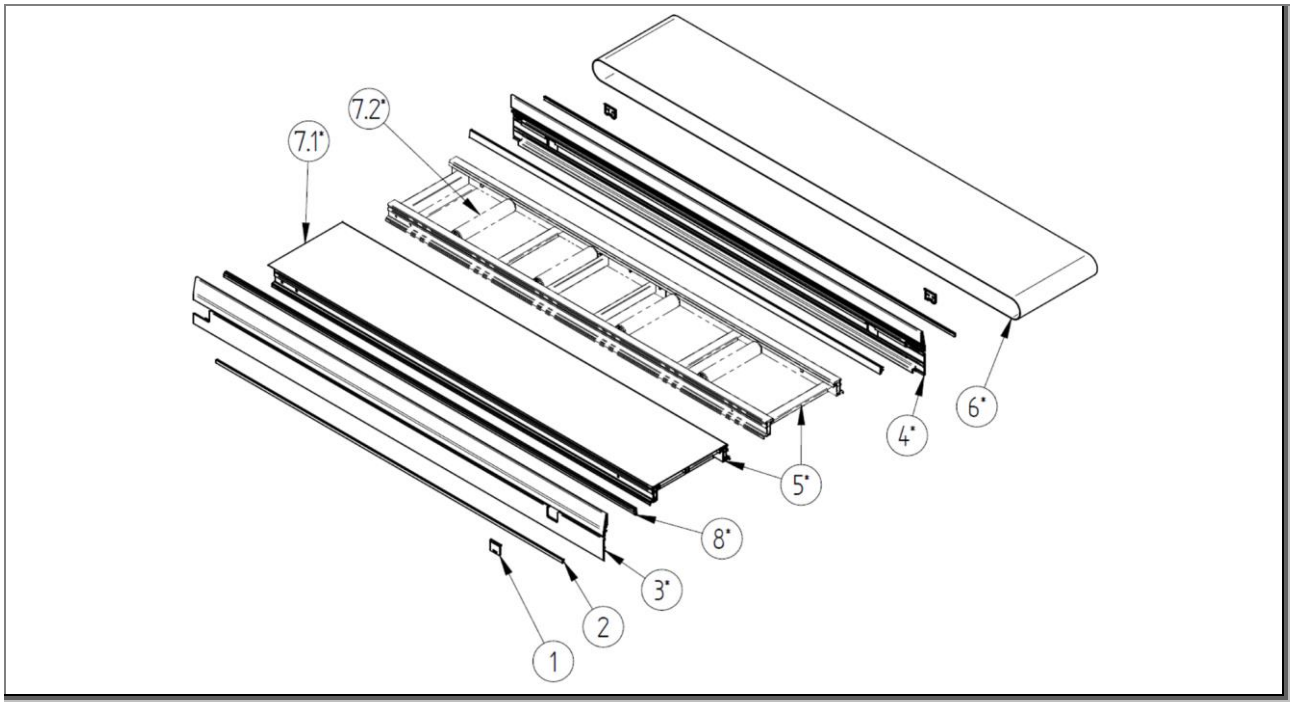


Fig. 81: Parts list conveyor bodies GL40 and GL80A - U.116.0003.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	3	pcs.	Cover	Tensioner hole	1000274	E.800.0188
2	2	pcs.	Groove cover	RAL 3020 red	1000648	E.918.0029

Tab. 23: Parts list: Conveyor bodies GL40; GL80; GL80A - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
3*	1	pcs.	Guiding profile	Side profile BG1	Specify the serial number of the type plate	
4*	1	pcs.	Guiding profile	Side profile BG2		
5*	1	pcs.	Base frame			
6*	1	pcs.	Belt			
7.1*	X	pcs.	Metal plate under the upper (load-carrying) side of the belt		1006026	U.800.0213
7.2*	X	pcs.	Carrying idler		Table	Table
8*	2	pcs.	Sealing strip	Clip	Table	Table

Tab. 24: Parts list: Conveyor bodies GL40; GL80; GL80A - 2

NOTE

Spare part Pos. 7.2 selected according to nominal length and nominal width from parts list U.116.0002.00:

About Pos. 8* selection: Sealing strip	
Height [mm]	**Sealing strip**
	M.918.0001.10
25.5	1000206
27.2	1007028
28.0	1011479
28.5	1000205
29.4	1011480

Tab. 25: Selection: Sealing strip

13.4.2 Deflection units

13.4.2.1 Parts list: Multi-Tech deflection unit Ø80– ZZ.800.0216.00

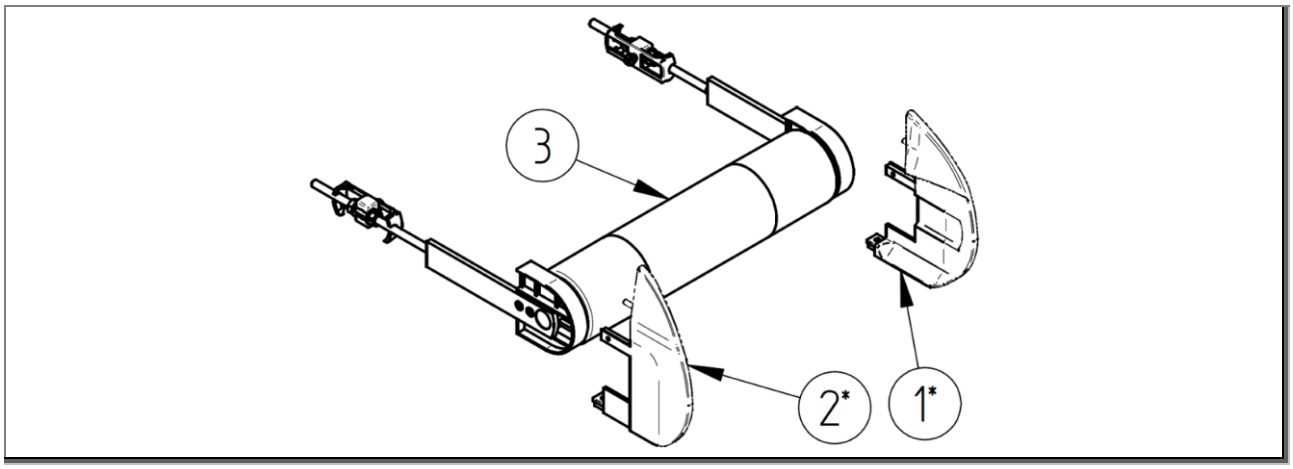


Fig. 82: Parts list: Multi-Tech deflection unit Ø80– ZZ.800.0216.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3	1	pcs.	Return unit		See following pages	

Tab. 26: Parts list: Multi-Tech deflection unit Ø80

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece 14		**End piece 23**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1005545	E.800.0104.01	1005547	E.800.1073.00
GL7	1000885	E.800.1188.00	1000877	E.800.1189.00
GL40	1005541	E.800.0103.02	1005543	E.800.1070.00
GL80/GL80A	1000129	E.800.0100.04	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece 14		**End piece 23**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0		E.800.1205.00		E.800.1209.00
GL7		E.800.1206.00		E.800.1210.00
GL40		E.800.1207.00		E.800.1211.00
GL80/GL80A		E.800.1208.00		E.800.1212.00

Tab. 27: Selection: End piece for deflection unit Ø80

13.4.2.2 Parts list: Multi-Tech deflection unit Ø80– ZZ.800.0093.03

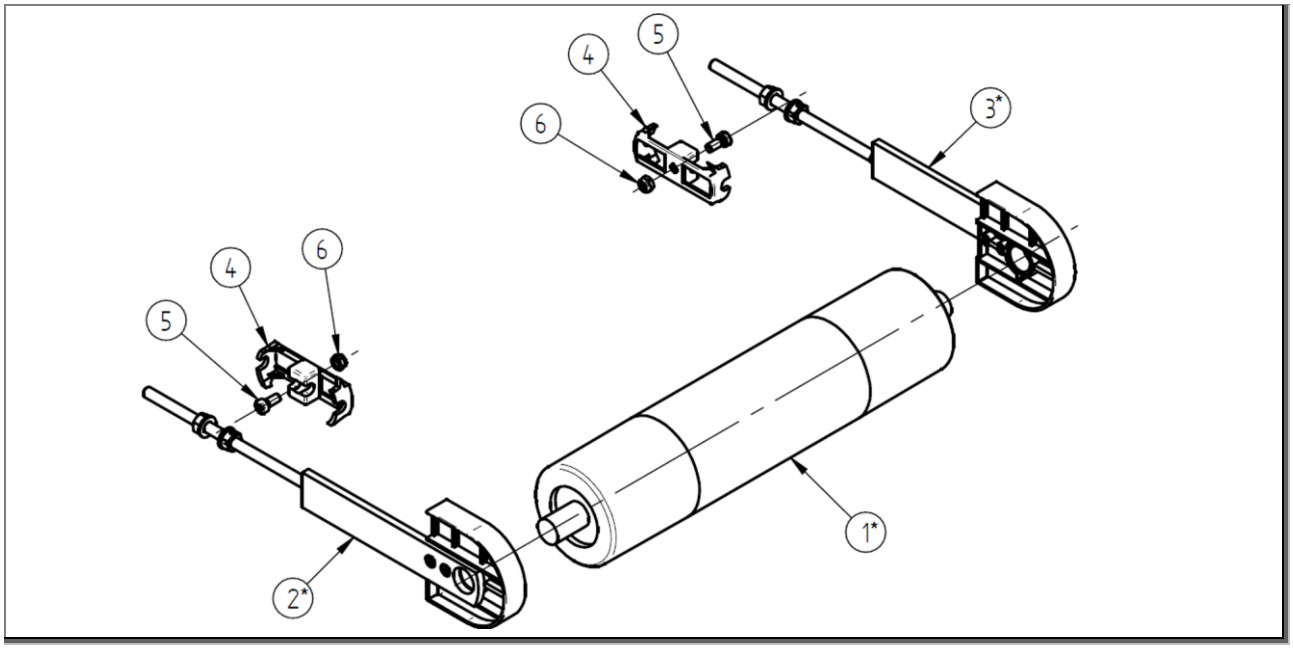


Fig. 83: Parts list: Multi-Tech deflection unit Ø80– ZZ.800.0093.03

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
4	2	pcs.	Counter-holder	M	1000019	E.800.0001
5	2	pcs.	Hexagon socket head cap screw with low head	DIN 7984-M6x14	1000493	
6	2	pcs.	Hexagon nut	DIN 985-M6	975113	

Tab. 28: Parts list: Multi-Tech deflection unit Ø80 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Deflection pulley	ML	Table	Table
2*	1	pcs.	Tensioner unit	ML-14	Table	Table
3*	1	pcs.	Tensioner unit	ML-23	Table	Table

Tab. 29: Parts list: Multi-Tech deflection unit Ø80 - 2

Pos. 1* selection: Deflection pulley	
Nominal width [mm]	**ML [Steel - uncoated]**
	M.910.0020.08
	ID no.
150	1007852
200	1000042
230	1000453
250	1003924
300	1000043
350	1000787
400	1000044
450	1000788
500	1000045
550	1002402
600	1000046
650	1002425
700	1000047
800	1000048
900	1000049
1000	1000050
Nominal width [mm]	**ML-B1 [Steel - uncoated]**
	M.910.0022.04
1100	1001125
1200	1001126
1300	1001127
1400	1001128
1500	1001129
1600	1003908
1700	1004271
1800	1004317
1900	1006451
2000	1005874

Tab. 30: Selection: Deflection pulley Ø80

Pos. 2*; Pos. 3* selection: Tensioner unit				
Nominal length [mm]		**Lateral guide (Guiding profile)**	**ID no.**	
			Pos. 2*	**Pos. 3***
			ML 14 (steel)	ML 23 (steel)
from	to		U.800.0002.04	U.800.0001.03
600	1000	GL0		
1000	9000	GL0	1011623	1011622
9000	18000	GL0		
600	1000	GL7; GL40; GL80; GL 80A	1003461	1001064
1000	9000	GL7; GL40; GL80; GL 80A	1003465	1001066
9000	18000	GL7; GL40; GL80; GL 80A	1003470	1001068

Tab. 31: Selection: Deflection unit Ø80 - tensioner unit

13.4.2.3 Parts list: Multi-tech rolling knife edges Ø80– ZZ.800.0217.00

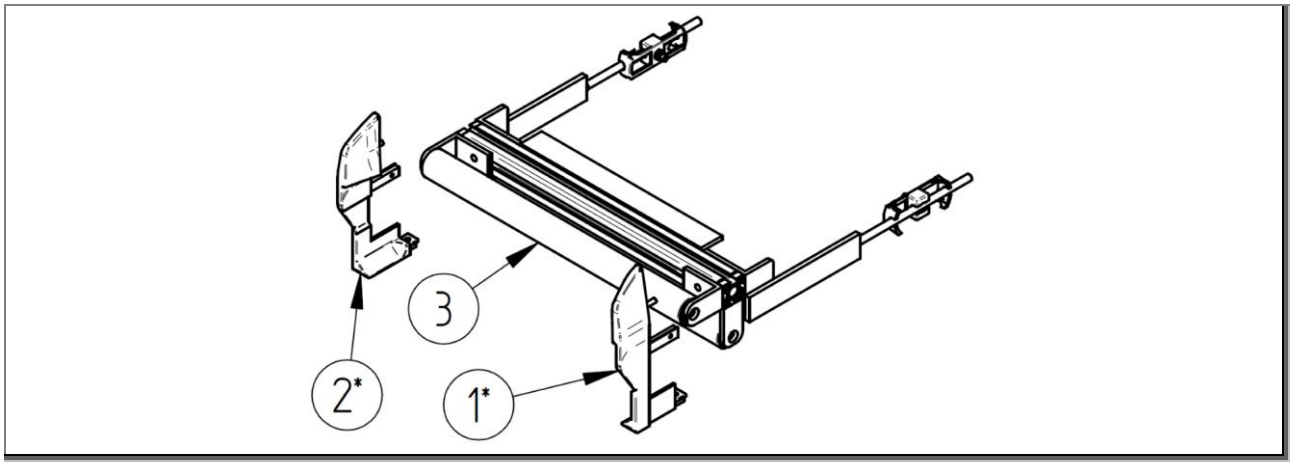


Fig. 84: Parts list: Multi-tech rolling knife edges Ø80– ZZ.800.0217.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3	1	pcs.	Rolling knife edge		See following pages	

Tab. 32: Parts list: Rolling knife edges

Pos. 1*; Pos. 2* selection:				
End piece rolling knife edge Ø 32				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece 14		**End piece 23**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0		M.800.0180.00		M.800.0184.00
GL7		M.800.0181.00		M.800.0185.00
GL40		M.800.0182.00		M.800.0186.00
GL80/GL80A		M.800.0183.00		M.800.0187.00
End piece rolling knife edge Ø 16				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece 14		**End piece 23**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0		M.800.0180.00		M.800.0184.00
GL7		M.800.0181.00		M.800.0185.00
GL40		M.800.0182.00		M.800.0186.00
GL80/GL80A		M.800.0183.00		M.800.0187.00

Tab. 33: Selection: End piece for rolling knife edges Ø32 and Ø16

Pos. 1*; Pos. 2* selection:				
End piece rolling knife edge Ø 08				
Lateral guide (Guiding profile)	Pos. 1*		Pos. 2*	
	End piece 14		End piece 23	
	ID no.	Drawing no.	ID no.	Drawing no.
GL0		M.800.0180.00		M.800.0184.00
GL7		M.800.0181.00		M.800.0185.00
GL40		M.800.0182.00		M.800.0186.00
GL80/GL80A		M.800.0183.00		M.800.0187.00

Tab. 34: Selection: End piece for rolling knife edges Ø8

13.4.2.4 Parts list: Multi-tech rolling knife edge Ø32– ZZ.995.0189.02-1

NOTE

Valid for nominal widths up to and including 600 mm.

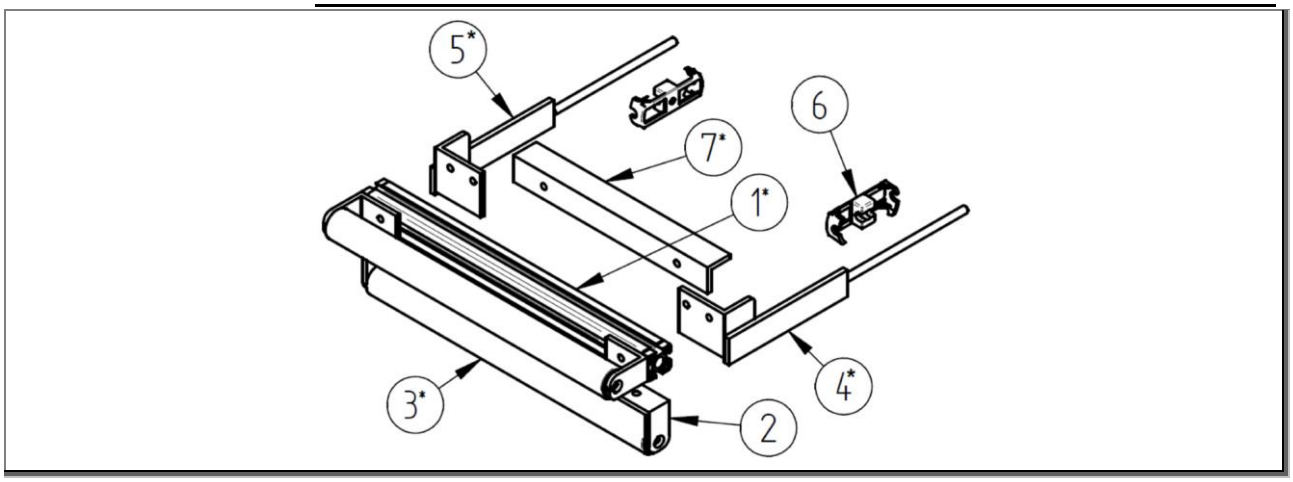


Fig. 85: Parts list: Multi-tech rolling knife edge Ø32– ZZ.995.0189.02-1

Parts list: Independent from technical data						
Pos.	Qty	Unit	Name 1	Name 2	ID no.	Drawing no.
2	4	pcs.	Bracket			E.995.1312
6	2	pcs.	Counter-holder	M	1000019	E.800.0001

Tab. 35: Parts list: Multi-tech rolling knife edge Ø32 to nominal width 600 mm- 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	Qty	Unit	Name 1	Name 2	ID no.	Drawing no.
1*	1	pcs.	Traverse		Table	Table
3*	2	pcs.	Deflection pulley	ML	Table	Table
4*	1	pcs.	Tensioner unit	ML-23	Table	Table
5*	1	pcs.	Tensioner unit	ML-14	Table	Table
7*	1	pcs.	Cross link		Table	Table

Tab. 36: Parts list: Multi-tech rolling knife edge Ø32 to nominal width 600 mm- 2

Selection:			
	Pos. 1*	Pos. 3*	Pos. 7*
Nominal width [mm]	Traverse	Deflection pulley ML [Steel - uncoated]	Cross link
	M.995.0038.00	U.910.0020.00	M.995.0039.02
	ID no.		
200		1010133	
250		1010134	
300		1010135	
350		1010136	
400		1010137	
450		1010138	
500		1010139	
550		1010140	
600		1010141	

Tab. 37: Selection: Rolling knife edge Ø32 - transverse components

Pos. 4*; Pos. 5* selection: Tensioner unit			
Nominal length [mm]		Pos. 4*	Pos. 5*
		ML 23 (steel)	ML 14 (steel)
		T.995.0584	T.995.0585
from	to	ID no.	
600	1000		
1000	9000		
9000	18000		

Tab. 38: Selection: Rolling knife edge Ø32 - tensioner unit

13.4.2.5 Parts list: Multi-tech rolling knife edge Ø32– ZZ.995.0189.02-2

NOTE

Valid for nominal widths from 601 mm up to and including 2000 mm.

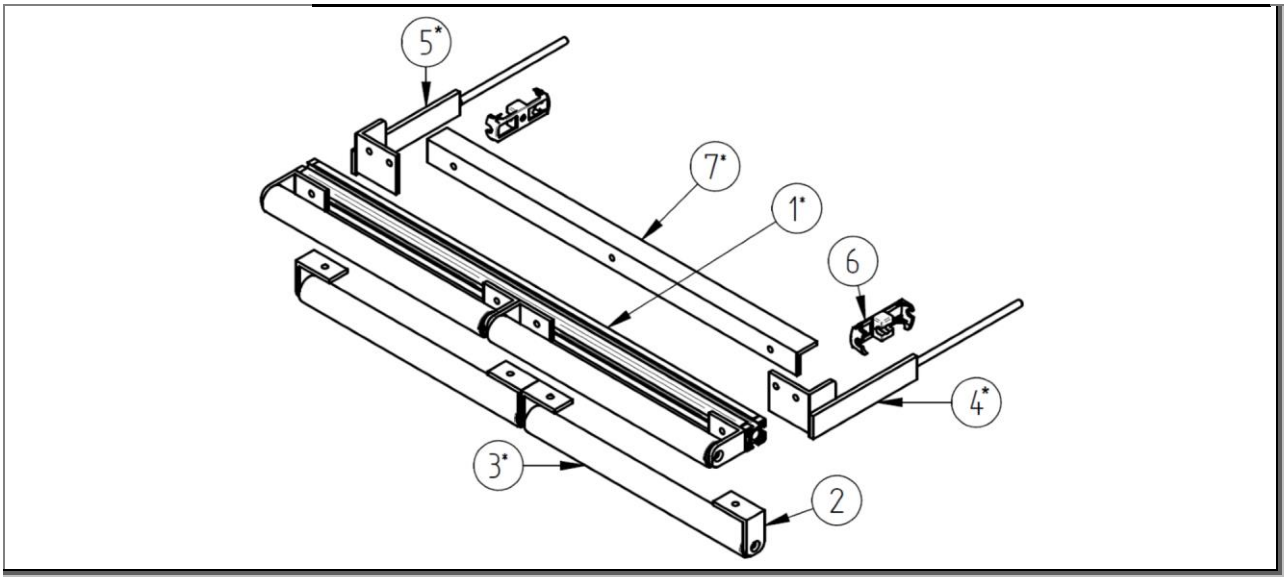


Fig. 86: Parts list: Multi-tech rolling knife edge Ø32– ZZ.995.0189.02-2

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	8	pcs.	Bracket			E.995.1312

Tab. 39: Parts list: Multi-tech rolling knife edge Ø32 - nominal width 601 to 2000 mm- 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
3*	4	pcs.	Deflection pulley	ML	Table	Table

Tab. 40: Parts list: Multi-tech rolling knife edge Ø32 - nominal width 601 to 2000 mm- 2

Pos. 3* selection: Deflection pulley	
Nominal width [mm]	**ML [Steel - uncoated]**
	U.910.0019.00
	ID no.
650	1010183
700	1010184
750	1010185
800	1010186
850	1010187
900	1010188
950	1010189
1000	1010190

Tab. 41: Selection: Rolling knife edge Ø32 - deflection unit 601 to 2000 mm

13.4.2.6 Parts list: Multi-tech rolling knife edge Ø16/Ø08 – ZZ.800.0171.00/ZZ.800.0172.00

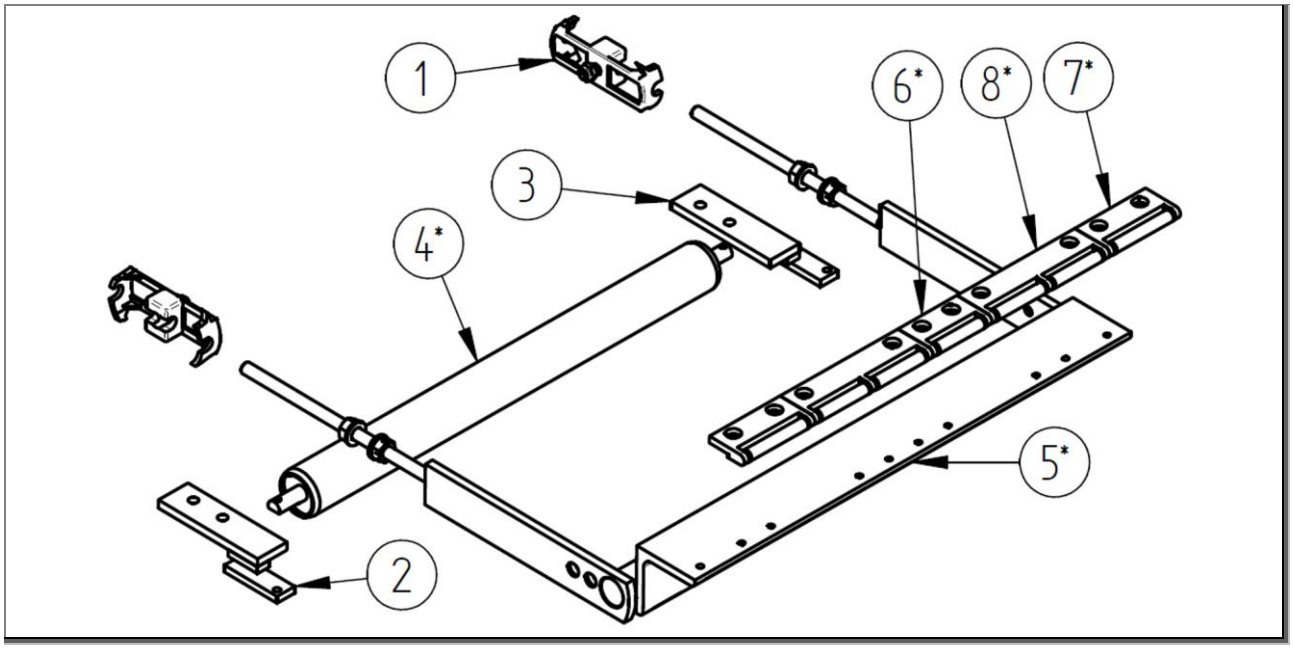


Fig. 87: Parts list: Multi-tech rolling knife edge Ø16/Ø08 – ZZ.800.0171.00/ZZ.800.0172.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	2	pcs.	Counter-holder	M	1000019	E.800.0001
2	1	pcs.	Bracket			T.800.0292
3	1	pcs.	Bracket	mirror-inverted		T.800.0292

Tab. 42: Parts list: Rolling knife edge Ø16/Ø08 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
4*	1	pcs.	Return idler	GL	Table	Table
5*	1	pcs.	Tensioner unit		Table	Table
6*	Tab.	pcs.	Knife edge pulley	50	Table	Table
7*	Tab.	pcs.	Knife edge pulley	60	Table	Table
8*	Tab.	pcs.	Knife edge pulley	100	Table	Table

Tab. 43: Parts list: Rolling knife edge Ø16/Ø08 - 2

Pos. 4* selection: Return idler		Pos. 5* selection: Tensioner unit	
Nominal width [mm]	GL [Steel - uncoated]	Rolling knife edge Ø08	Rolling knife edge Ø16
	M.910.0800.07	U.800.0120.00	U.800.0121.00
	ID no.	ID no.	ID no.
150	1000614		
200	1000615		
230	1000616		
250	1009801		
300	1000617		
350	1002378		
400	1000618		
450	1002379		
500	1000619		
550	1008132		
600	1000620		
650	1002424		
700	1000621		
800	1000622		
900	1000623		
1000	1000624		
1100	1000625		
1200	1001033		
1300	1001034		
1400	1003909		
1500	1003910		
1600	1003911		
1650	1009438		
1700	1004269		
1800	1004319		
1900	1006763		
2000	1005868		

Tab. 44: Selection: Rolling knife edge Ø16/Ø08 - transverse components

Pos. 6* Pos. 7*; Pos. 8* selection:			
	Knife edge pulley [Steel - uncoated]		
	Pos. 6*	Pos. 7*	Pos. 8*
RMK Ø 16	1010120	1010119	1010121
RMK Ø 08			
Nominal width [mm]	**Number [pcs]**		
200	1	2	0
250	0	2	1
300	1	2	1
350	0	2	2
400	1	2	2
450	0	2	3
500	1	2	3
550	0	2	4
600	1	2	4
650	0	2	5
700	1	2	5
750	0	2	6
800	1	2	6
900	0	2	7
1000	1	2	7
1100	0	2	8
1200	1	2	8
1300	0	2	9
1400	1	2	9
1500	0	2	10
1600	1	2	10
1700	0	2	11
1800	1	2	11
1900	0	2	12
2000	1	2	12

Tab. 45: Selection: Knife edge pulley

13.4.3 External drive unit

13.4.3.1 Parts list: External drive unit - position of drive unit 14 - ZZ.900.0142.00

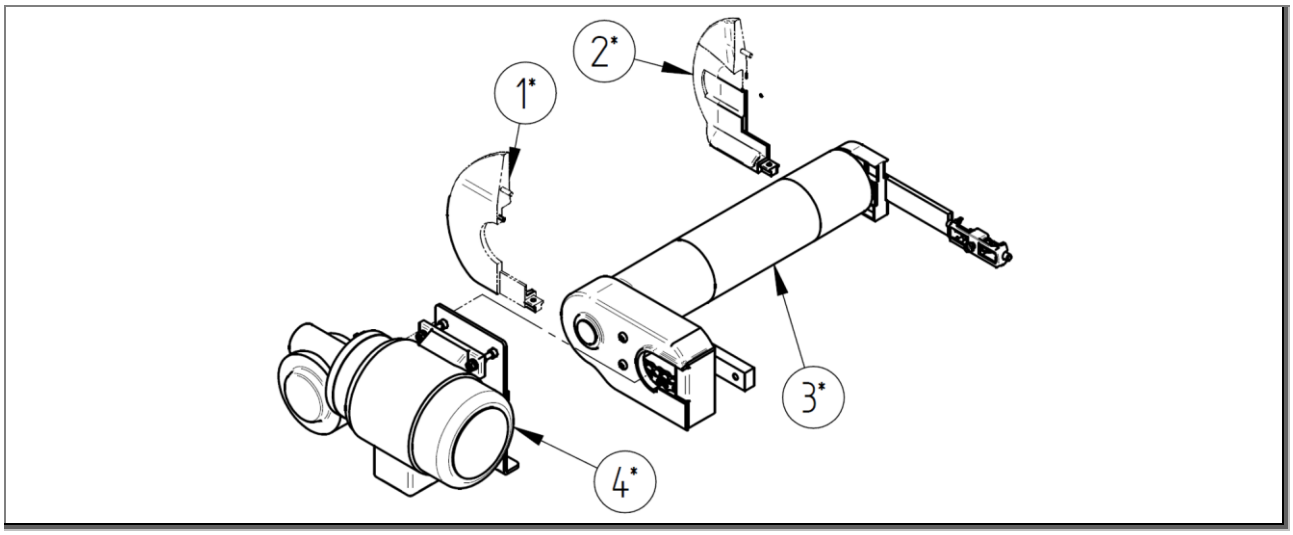


Fig. 88: Parts list: External drive unit - position of drive unit 14 - ZZ.900.0142.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 46: Parts list: End pieces for drive 1- position of drive unit 14

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1003637	E.800.0277.02	1005547	E.800.1073.00
GL7			1000877	E.800.1189.00
GL40	1000891	E.800.0275.01	1005543	E.800.1070.00
GL80/GL80A	1000132	E.800.0108.03	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1209.00
GL7				E.800.1210.00
GL40				E.800.1211.00
GL80/GL80A				E.800.1212.00

Tab. 47: Selection: End pieces for drive 2- position of drive unit 14

13.4.3.2 Parts list: External drive unit - drive unit - position of drive unit 14 - ZZ.900.0023.01

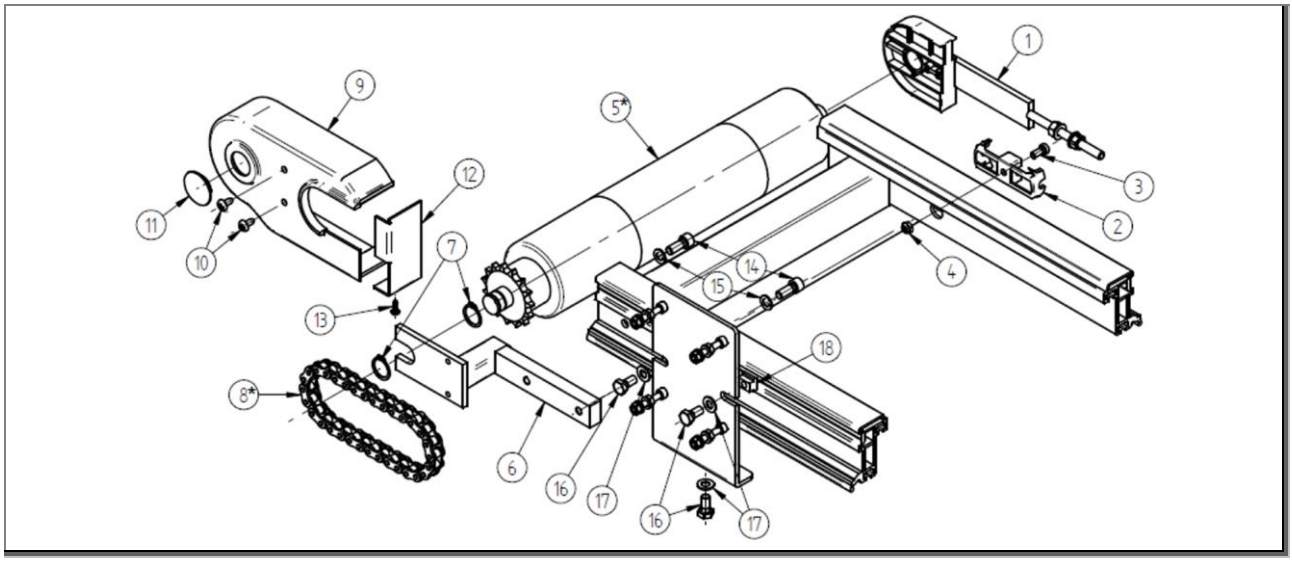


Fig. 89: Parts list: External drive unit - drive unit - position of drive unit 14 - ZZ.900.0023.01

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Counter-holder	M	1000019	E.800.0001
3	1	pcs.	Hexagon socket head cap screw with low head	DIN 6912 - M6x14 galv.	1000493	
4	1	pcs.	Hexagon nut	DIN 985-M6 galv.	975113	
6	1	pcs.	Axle holder	As-ML-14, cons.-KIT	1001538	T.800.0011
7	2	pcs.	Retaining ring	DIN 471 A20	1002337	
9	1	pcs.	Chain protection	As	1003942	E.800.0116
10	2	pcs.	Oval head self-tapping screw	DIN 7516 - M6x12 galv.	1010026	
11	1	pcs.	Cover cap	30/25/5	1004088	
12	1	pcs.	Cover chain protection	As	1004388	E.800.0712
13	1	pcs.	Oval head self-tapping screw	DIN 7981F 3.9x9.5 galv.	1000812	
14	2	pcs.	Hexagon socket head cap screw with low head	DIN 912 - M8x20 galv.	975124	
15	4	pcs.	Lock washer	Schnorr S8	1000587	
16	3	pcs.	Hexagon head screw	DIN 933 - M8x16 galv.	1000716	
17	3	pcs.	Lock washer	with ribs 8.4-ST	1011175	
18	3	pcs.	Slot nut	M8x15 T-form galv.	1000089	E.800.0006

Tab. 48: Parts list: External drive unit - drive unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT	Table	Table
5*	1	pcs.	Drive pulley		Table	Table
8*	1	pcs.	Chain		Table	Table

Tab. 49: Parts list: External drive unit - drive unit - position of drive unit 14 - 2

Pos. 1* selection: Tensioner unit	
U.800.0002.01	
Lateral guide (guiding profile)	ID no.
GL0	1011621
GL7; GL40; GL80; GL 80A	1003459

Tab. 50: Selection: Tensioner unit - position of drive unit 14

Pos. 5* selection: Drive pulley		
Nominal width [mm]	MLK [Steel - uncoated]	MLK-G [Steel - rubberized]
	M.910.0120.10	M.910.0121.03
	ID no.	ID no.
200	1000054	1001008
230	1000454	1001141
250	1003923	1006346
300	1000055	1000967
350	1000799	1001140
400	1000056	1001038
450	1000800	1001139
500	1000057	1001135
550	1002401	1006348
600	1000058	1000968
650	1002423	1006350
700	1000059	1000969
800	1000060	1001136
900	1000061	1000970
1000	1000062	1001137

Tab. 51: Selection: Drive pulley

Pos. 5* selection: Drive pulley		
Nominal width [mm]	MLK-B1 [Steel - uncoated]	MLK-G-B1 [Steel - rubberized]
	M.910.0124.05	M.910.0126.01
1100	1001154	1005450
1200	1001155	1005451
1300	1001156	1006373
1400	1001157	1006375
1500	1001158	1006377
1600	1003907	1006379
1700	1004273	1004272
1800	1004318	1006501
1900	1006500	1006502
2000	1005873	1006503

Tab. 52: Continued: Selection: Drive pulley

Pos. 8* selection: Chain		
Conveying speed [m/min]		ID no.
Constant	Continuous From – to	
3.3	0.7 – 3.3	1000362
4.6	0.9 – 4.6	1000362
5.0	1.0 – 5.0	1000363
5.6	1.1 – 5.6	1000364
6.9	1.4 – 6.9	1000363
7.9	1.6 – 7.9	1000364
9.2	1.8 – 9.2	1000362
13.9	2.8 – 13.9	1000363
15.7	3.1 – 15.7	1000364

Tab. 53: Selection: External drive unit - chain

13.4.3.3 Parts list: External drive unit - motor unit - position of drive unit 14 - T.900.0001.02

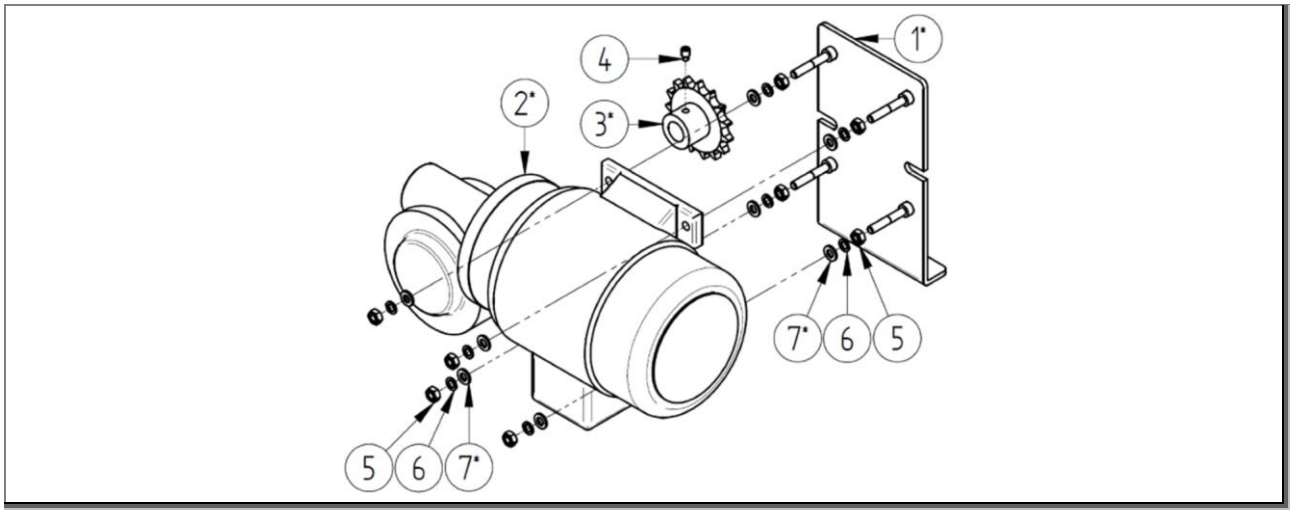


Fig. 90: Parts list: External drive unit - motor unit - position of drive unit 14 - T.900.0001.02

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
4	1	pcs.	Grub screw	DIN 915-M6x10	1000931	
5	8	pcs.	Hexagon nut	DIN 934-M6 galv.	975107	
6	4	pcs.	Lock washer	Schnorr S6	975401	

Tab. 54: Parts list: External drive unit - motor unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Motor bracket	As	Table	Table
2*	1	pcs.	Motor		Table	Table
3*	1	pcs.	Sprocket	Aso; 1/2x5/16"; z = XX	Table	Table
7*	4	pcs.	Washer		Table	Table

Tab. 55: Parts list: External drive unit - motor unit - position of drive unit 14 - 2

Pos. 1* selection: Motor bracket		
Motor power	**Motor bracket As-1 180 W**	**Motor bracket As-2 250 W / 370 W**
	T.800.0008	**T.800.0009**
	ID no.	ID no.
180 W	1000388	-
250 W	-	1001461
370 W	-	1001461

Tab. 56: Selection: External drive unit - Motor bracket - RG-SN9

Pos. 2*; Pos. 3* selection: Motor and sprocket					
Conveying speed [m/min]		ID no.			
		Pos. 2*			Pos. 3*
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W	Sprocket
3.3	0.7 – 3.3	1002274	1002275	1002265	1000698
4.6	0.9 – 4.6	1002267	1002269	1002264	1000698
5.0	1.0 – 5.0	1002274	1002275	1002265	1000699
5.6	1.1 – 5.6	1002274	1002275	1002265	1000700
6.9	1.4 – 6.9	1002267	1002269	1002264	1000699
7.9	1.6 – 7.9	1002267	1002269	1002264	1000700
9.2	1.8 – 9.2	1002266	1002268	1002263	1000698
13.9	2.8 – 13.9	1002266	1002268	1002263	1000699
15.7	3.1 – 15.7	1002266	1002268	1002263	1000700

Tab. 57: Selection: External drive unit - motor unit - position of drive unit 14 - motor and sprocket - RG-SN9

Pos. 7* selection: Washer		
Motor power	**DIN 125-6.4 galvanized**	**DIN 9021-6.4 galv.**
	ID no.	ID no.
180 W	975200	-
270 W	-	1000427
360 W	-	1000427

Tab. 58: Selection: External drive unit - washer

Pos. 3* information: Sprocket			
Name 1	**Name 2**	**ID no.**	**Drawing no.**
Sprocket	Aso; 1/2x5/16"; z = 10	1000698	E.916.0007
Sprocket	Aso; 1/2x5/16"; z = 15	1000699	E.916.0008
Sprocket	Aso; 1/2x5/16"; z = 17	1000700	E.916.0009

Tab. 59: Information: External drive unit - sprocket

13.4.3.4 Parts list: External drive unit - position of drive unit 23 - ZZ.900.0143.00

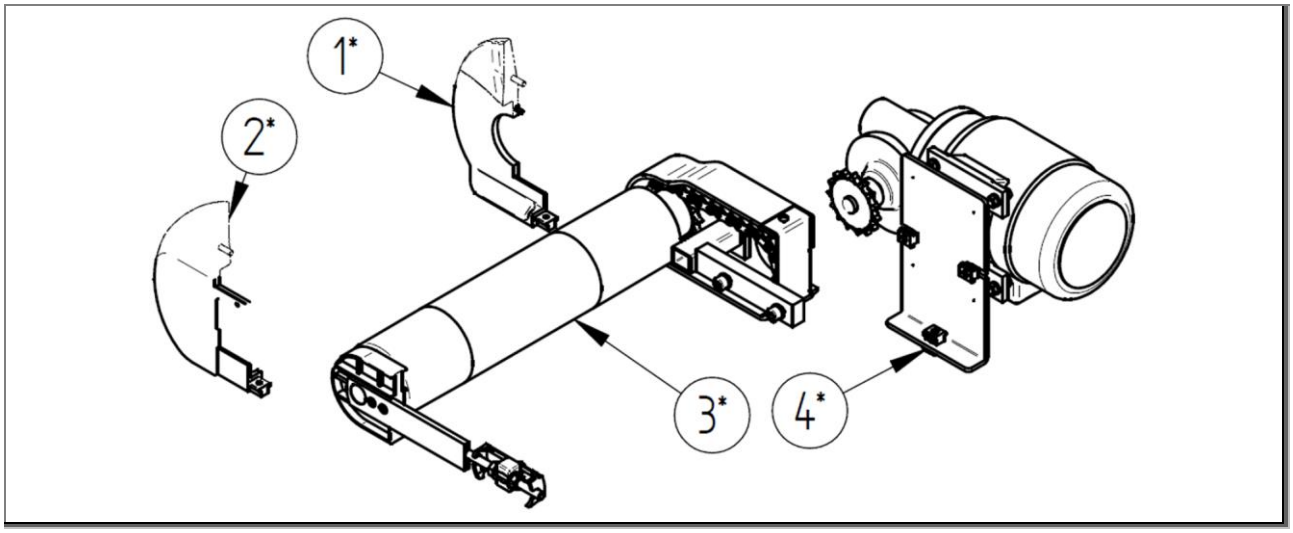


Fig. 91: Parts list: External drive unit - position of drive unit 23 - ZZ.900.0143.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 60: Parts list: End pieces for drive 1- position of drive unit 23

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1008302	E.800.1075.01	1005545	E.800.0104.01
GL7			1000885	E.800.1188.00
GL40	1006294	E.800.1071.00	1005541	E.800.0103.02
GL80/GL80A	1008300	E.800.1069.00	1000129	E.800.0100.04
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1205.00
GL7				E.800.1206.00
GL40				E.800.1207.00
GL80/GL80A				E.800.1208.00

Tab. 61: Selection: End pieces for drive 2- position of drive unit 23

13.4.3.5 Parts list: External drive unit - drive unit - position of drive unit 23 - ZZ.900.0032.00

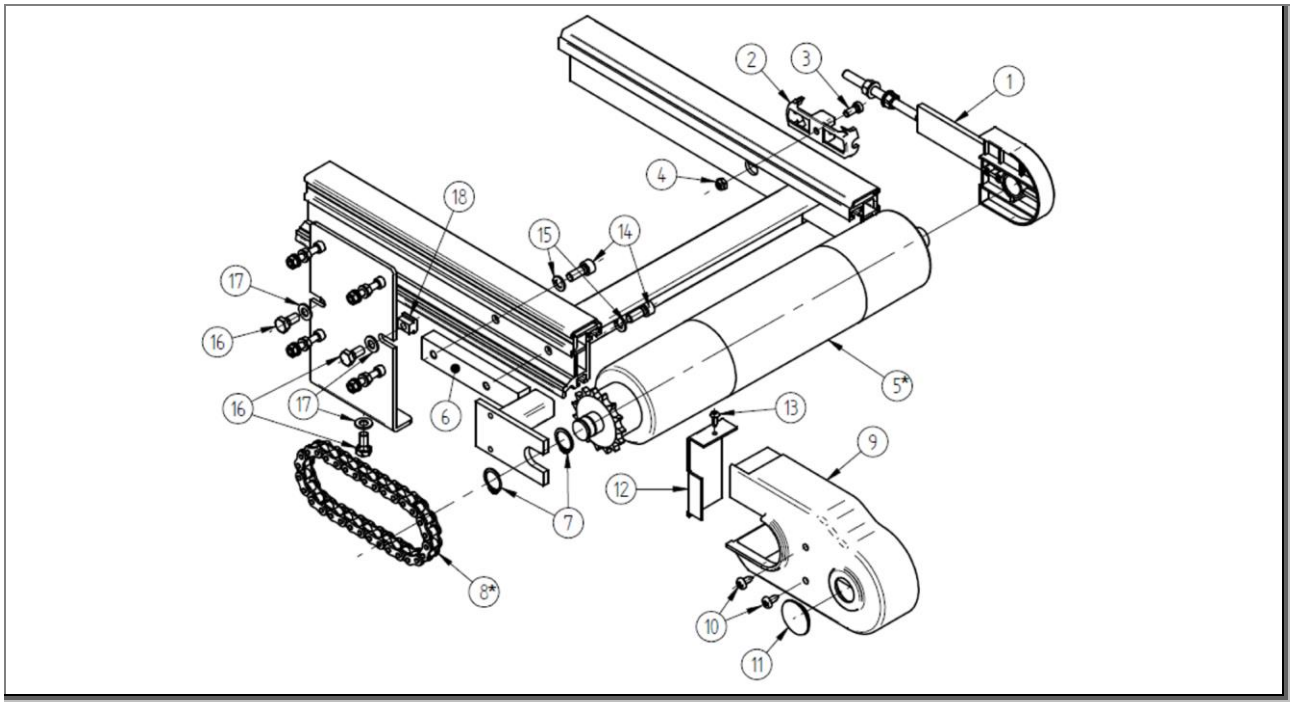


Fig. 92: Parts list: External drive unit - drive unit - position of drive unit 23 - ZZ.900.0032.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
Take pos. 2 to 5 from “Parts list: external drive unit - drive unit - position of drive unit 14 ZZ.900.0023.01”!						
6	1	pcs.	Axle holder	As-ML-23, cons.-KIT	1001538	T.800.0011
Take pos. 7 to 18 from “Parts list: external drive unit - drive unit - position of drive unit 14 ZZ.900.0023.01”!						

Tab. 62: Parts list: External drive unit - drive unit - position of drive unit 23 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT, ML-23-140/97	Table	Table

Tab. 63: Parts list: External drive unit - drive unit - position of drive unit 23 - 2

Pos. 1* selection: Tensioner unit	
U.800.0001.01	
Lateral guide (guiding profile)	**ID no.**
GL0	1011620
GL7; GL40; GL80; GL 80A	1001063

Tab. 64: Selection: Tensioner unit - position of drive unit 23

13.4.3.6 Parts list: External drive unit - motor unit - position of drive unit 23 - T.900.0002.02

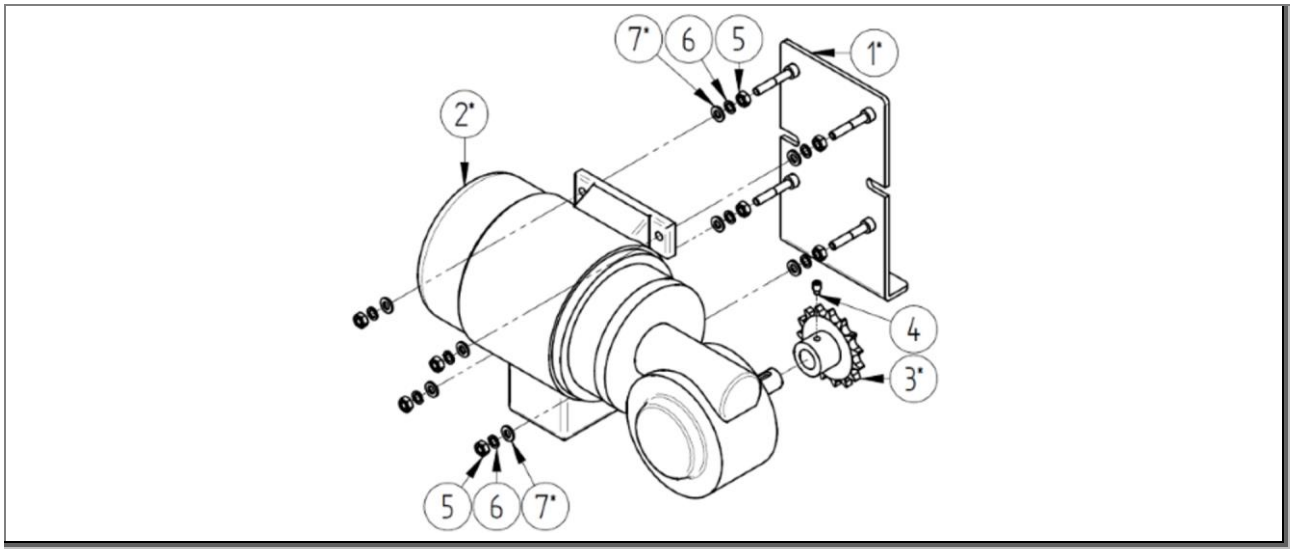


Fig. 93: Parts list: External drive unit - motor unit - position of drive unit 23 - T.900.0002.02

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
Take pos. 1 from “Parts list: external drive unit - motor unit - position of drive unit 14 T.900.0001.01”!						
2*	1	pcs.	Motor		Table	Table
3*	1	pcs.	Sprocket	Aso; 1/2x5/16"; z = XX	Table	Table
Take pos. 4 to 7 from “Parts list: external drive unit - motor unit - position of drive unit 14 T.900.0001.01”!						

Tab. 65: Parts list: External drive unit - motor unit - position of drive unit 23 - 1

Pos. 2*; Pos. 3* selection: Motor and sprocket					
Conveying speed [m/min]		ID no.			
		Pos. 2*			Pos. 3*
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W	Sprocket
3.3	0.7 – 3.3	1006160	1006525	1006528	1000698
4.6	0.9 – 4.6	1006253	1005969	1006527	1000698
5.0	1.0 – 5.0	1006160	1006525	1006528	1000699
5.6	1.1 – 5.6	1006160	1006525	1006528	1000700
6.9	1.4 – 6.9	1006253	1005969	1006527	1000699
7.9	1.6 – 7.9	1006253	1005969	1006527	1000700
9.2	1.8 – 9.2	1006191	1006281	1006526	1000698
13.9	2.8 – 13.9	1006191	1006281	1006526	1000699
15.7	3.1 – 15.7	1006191	1006281	1006526	1000700

Tab. 66: Selection: External drive unit - motor unit - position of drive unit 23 - motor and sprocket - RG-SN9

13.4.4 External drive unit (positioned underneath)

13.4.4.1 Parts list: External drive unit (positioned underneath) - position of drive unit 14 - ZZ.900.0144.00

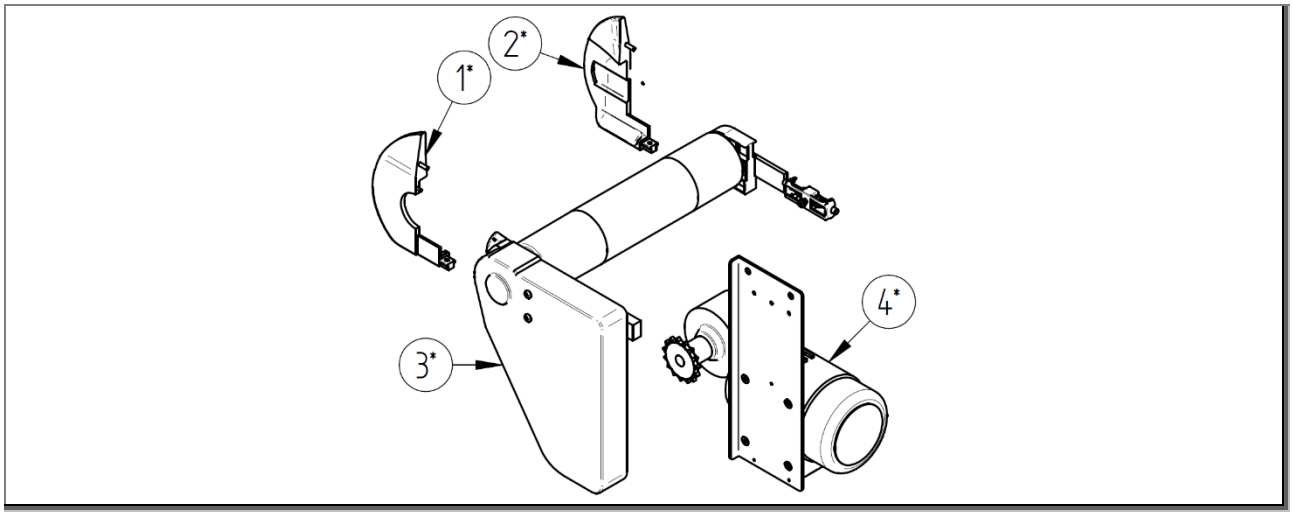


Fig. 94: Parts list: External drive unit (positioned underneath) - position of drive unit 14 - ZZ.900.0144.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 67: Parts list: End pieces for drive 1- position of drive unit 14

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1003637	E.800.0277.02	1005547	E.800.1073.00
GL7			1000877	E.800.1189.00
GL40	1000891	E.800.0275.01	1005543	E.800.1070.00
GL80/GL80A	1000132	E.800.0108.03	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1209.00
GL7				E.800.1210.00
GL40				E.800.1211.00
GL80/GL80A				E.800.1212.00

Tab. 68: Selection: End pieces for drive 2- position of drive unit 14

13.4.4.2 Parts list: External drive unit (positioned underneath) - drive unit - position of drive unit 14 - ZZ.900.0072.00

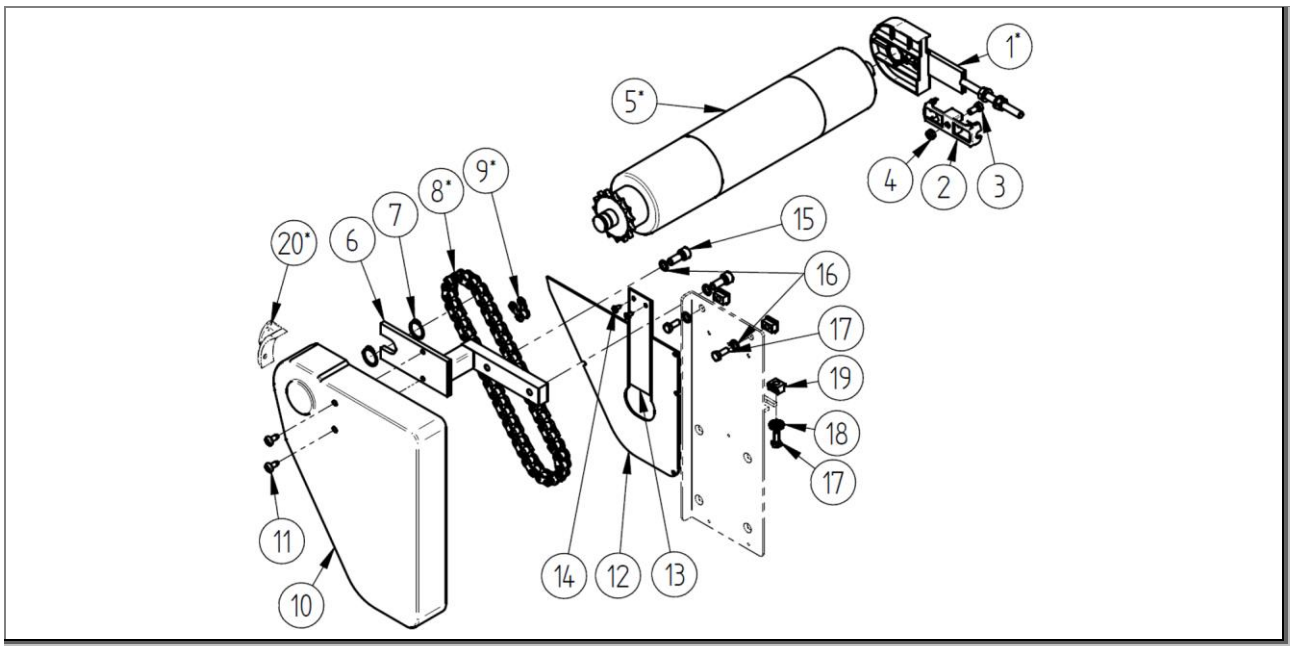


Fig. 95: Parts list: External drive unit (positioned underneath) - drive unit - position of drive unit 14 - ZZ.900.0072.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Counter-holder	M	1000019	E.800.0001
3	1	pcs.	Hexagon socket head cap screw with low head	DIN 6912 - M6x14 galv.	1000493	
4	1	pcs.	Hexagon nut	DIN 985-M6 galv.	975113	
6	1	pcs.	Axle holder	Au-ML-14	1000379	T.800.0155
7	2	pcs.	Retaining ring	DIN 471 A20	1002337	
10	1	pcs.	Chain protection		1000004	E.800.0126
11	2	pcs.	Oval head self-tapping screw	DIN 7516 - M6x12 galv.	1010026	
12	1	pcs.	Chain protection cover	Inner part	1007657	E.800.0288
13	1	pcs.	Chain protection sheet metal	Inner part	1008459	M.800.0077
14	2	pcs.	Cross-recessed pan head tapping screw	ISO 7049 - ST3.5x9.5	1000812	
15	2	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x20	975124	
16	4	pcs.	Lock washer	Schnorr S8	1000587	
17	3	pcs.	Hexagon head screw	DIN 933 M6x16	1000716	
18	1	pcs.	Lock washer	with ribs 8.4-ST	1011175	
19	3	pcs.	Slot nut	M8x15 T-form	1000086	E.800.0006
20	1	pcs.	End piece connector		1000248	

Tab. 69: Parts list: External drive unit (positioned underneath) - drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT, ML-14-140/97	Table	Table
5*	1	pcs.	Drive pulley		Table	Table
8*	1	pcs.	Chain	1/2"2x5/16"	Table	Table
9*	1	pcs.	Chain link	1/2"2x5/16"	Table	Table

Tab. 70: Parts list: External drive unit (positioned underneath) - drive unit 14 - 2

Pos. 1* selection: Tensioner unit	
U.800.0002.01	
Lateral guide (guiding profile)	**ID no.**
GL0	1011621
GL7; GL40; GL80; GL 80A	1003459

Tab. 71: Selection: Tensioner unit - position of drive unit 14

Pos. 5* selection: Drive pulley		
Nominal width [mm]	**MLK [Steel - uncoated]**	**MLK-G [Steel - rubberized]**
	M.910.0120.10	**M.910.0121.03**
	ID no.	**ID no.**
200	1000054	1001008
230	1000454	1001141
250	1003923	1006346
300	1000055	1000967
350	1000799	1001140
400	1000056	1001038
450	1000800	1001139
500	1000057	1001135
550	1002401	1006348
600	1000058	1000968
650	1002423	1006350
700	1000059	1000969
800	1000060	1001136
900	1000061	1000970
1000	1000062	1001137

Tab. 72: Selection: Drive pulley

Pos. 5* selection: Drive pulley		
Nominal width [mm]	MLK-B1 [Steel - uncoated]	MLK-G-B1 [Steel - rubberized]
	M.910.0124.05	M.910.0126.01
1100	1001154	1005450
1200	1001155	1005451
1300	1001156	1006373
1400	1001157	1006375
1500	1001158	1006377
1600	1003907	1006379
1700	1004273	1004272
1800	1004318	1006501
1900	1006500	1006502
2000	1005873	1006503

Tab. 73: Continued: Selection: Drive pulley

Pos. 8*; Pos. 9* selection: Chain			
Conveying speed [m/min]		Chain	Chain link
Constant	Continuous From – to	Pos. 8*	Pos. 9*
3.3	0.7 – 3.3	1000367	-
4.6	0.9 – 4.6	1000367	-
5.0	1.0 – 5.0	1000368	1000372
5.6	1.1 – 5.6	1000369	-
6.9	1.4 – 6.9	1000368	1000372
7.9	1.6 – 7.9	1000369	-
9.2	1.8 – 9.2	1000367	-
13.9	2.8 – 13.9	1000368	1000372
15.7	3.1 – 15.7	1000369	-

Tab. 74: Selection: External drive unit (positioned underneath) - chain - 1

Pos. 8* information: Chain			
Name 1	**Name 2**	**ID no.**	**Drawing no.**
Chain with chain lock	44 pcs. chain links	1000367	
Chain with chain lock	46 pcs. chain links	1000368	
Chain with chain lock	48 pcs. chain links	1000369	

Tab. 75: Information: External drive unit (positioned underneath) - chain - 2

13.4.4.3 Parts list: External drive unit (positioned underneath) - motor unit - position of drive unit 14 - T.900.0007.02

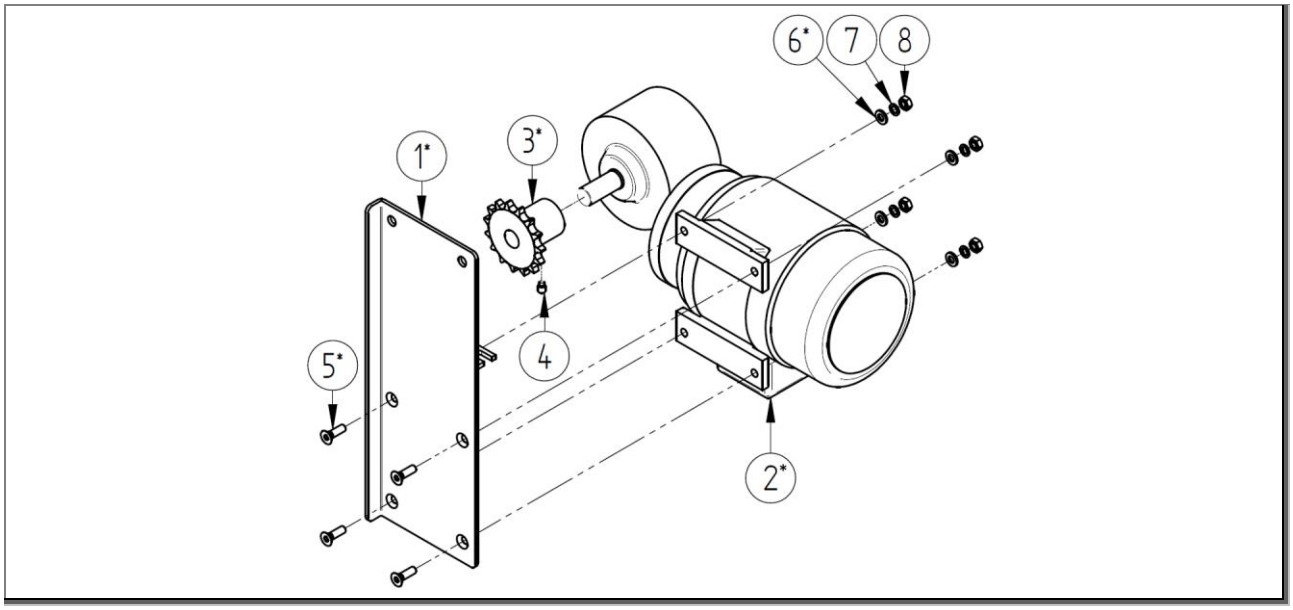


Fig. 96: Parts list: External drive unit (positioned underneath) - motor unit - position of drive unit 14 - T.900.0007.02

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
4	1	pcs.	Grub screw	DIN 915-M6x10	1000931	
7	4	pcs.	Hexagon nut	DIN 934-M6 galv.	975107	
8	4	pcs.	Lock washer	Schnorr S6	975401	

Tab. 76: Parts list: External drive unit (positioned underneath) - motor unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Motor bracket AU		Table	Table
2*	1	pcs.	Motor		Table	Table
3*	1	pcs.	Sprocket	Auo; 1/2x5/16"; z = XX	Table	Table
5*	4	pcs.	Hexagon head screw	DIN 7991-M6 galv.	Table	
6*	4	pcs.	Washer	DIN 125-6.4 galvanized	Table	

Tab. 77: Parts list: External drive unit (positioned underneath) - motor unit - position of drive unit 14 - 2

Pos. 1* selection: Motor bracket		
Motor power	**Motor bracket AU-1 assy. 180W**	**Motor bracket AU-2 assy. 250 W / 370 W**
	T.800.0262	**T.800.0291**
	ID no.	ID no.
180 W	1010130	-
250 W	-	1010112
370 W	-	1010112

Tab. 78: Selection: External drive unit (positioned underneath) - Motor bracket - RG-SN9

Pos. 2*; Pos. 3* selection: Motor and sprocket						
Conveying speed [m/min]		ID no.				
		Pos 2*	Pos 3*	Pos 2*		Pos 3*
Constant	Continuous From – to	Motor 180W	Sprocket 180W	Motor 250W	Motor 370W	Sprocket 250W / 370W
3.3	0.7 – 3.3	1007329	1000701	1007585	1007379	1000704
4.6	0.9 – 4.6	1007327	1000701	1007390	1008094	1000704
5.0	1.0 – 5.0	1007329	1000702	1007585	1007379	1000705
5.6	1.1 – 5.6	1007329	1000703	1007585	1007379	1000706
6.9	1.4 – 6.9	1007327	1000702	1007390	1008094	1000705
7.9	1.6 – 7.9	1007327	1000703	1007390	1008094	1000706
9.2	1.8 – 9.2	1007328	1000701	1007896	1007427	1000704
13.9	2.8 – 13.9	1007328	1000702	1007896	1007427	1000705
15.7	3.1 – 15.7	1007328	1000703	1007896	1007427	1000706

Tab. 79: Selection: External drive unit (positioned underneath) - motor and sprocket - RG-SN9

Pos. 6* selection: Washer		
Motor power	**DIN 125-6.4 galvanized**	**DIN 9021-6.4 galv.**
	ID no.	ID no.
180 W	975200	-
270 W	-	1000427
360 W	-	1000427

Tab. 80: Selection: External drive unit (positioned underneath) - washer

Pos. 6* selection: Hexagon head screw		
Motor power	**Hexagon head screw .**	**Hexagon head screw .**
	DIN 7991 M6x20	**DIN 7991 M6x25**
	ID no.	ID no.
180 W	1000644	-
250 W	-	975344
370 W	-	975344

Tab. 81: Selection: External drive unit (positioned underneath) - screw

Pos. 3* information: Sprocket			
Name 1	**Name 2**	**ID no.**	**Drawing no.**
Sprocket	Auo-46; 1/2x5/16"; z = 10	1000701	E.916.0010
Sprocket	Auo-46; 1/2x5/16"; z = 15	1000702	E.916.0011
Sprocket	Auo-46; 1/2x5/16"; z = 17	1000703	E.916.0012
Sprocket	Auo-54; 1/2x5/16"; z = 10	1000704	E.916.0013
Sprocket	Auo-54; 1/2x5/16"; z = 15	1000705	E.916.0014
Sprocket	Auo-54; 1/2x5/16"; z = 17	1000706	E.916.0015

Tab. 82: Information: External drive unit (positioned underneath) (clarification)

13.4.5 Internal drive unit

13.4.5.1 Parts list: Internal drive unit - position of drive unit 14 - ZZ.900.0145.00

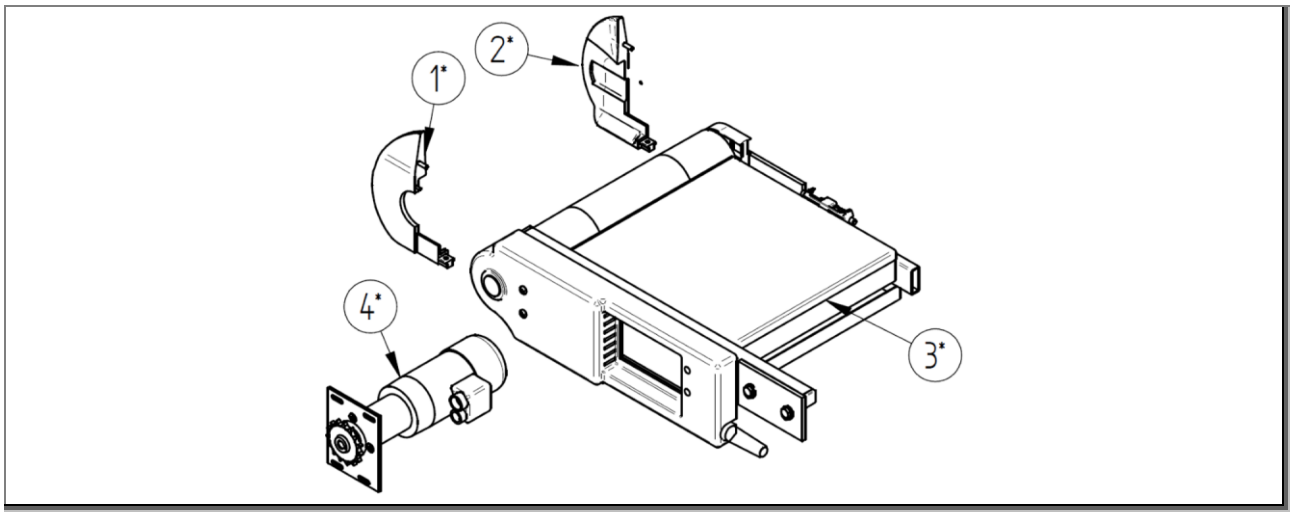


Fig. 97: Parts list: Internal drive unit - position of drive unit 14 - ZZ.900.0145.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 83: Parts list: End pieces for drive 1- position of drive unit 14

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1003637	E.800.0277.02	1005547	E.800.1073.00
GL7			1000877	E.800.1189.00
GL40	1000891	E.800.0275.01	1005543	E.800.1070.00
GL80/GL80A	1000132	E.800.0108.03	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1209.00
GL7				E.800.1210.00
GL40				E.800.1211.00
GL80/GL80A				E.800.1212.00

Tab. 84: Selection: End pieces for drive 2- position of drive unit 14

13.4.5.2 Parts list: Internal drive unit - drive unit - position of drive unit 14 - ZZ.900.0148.00

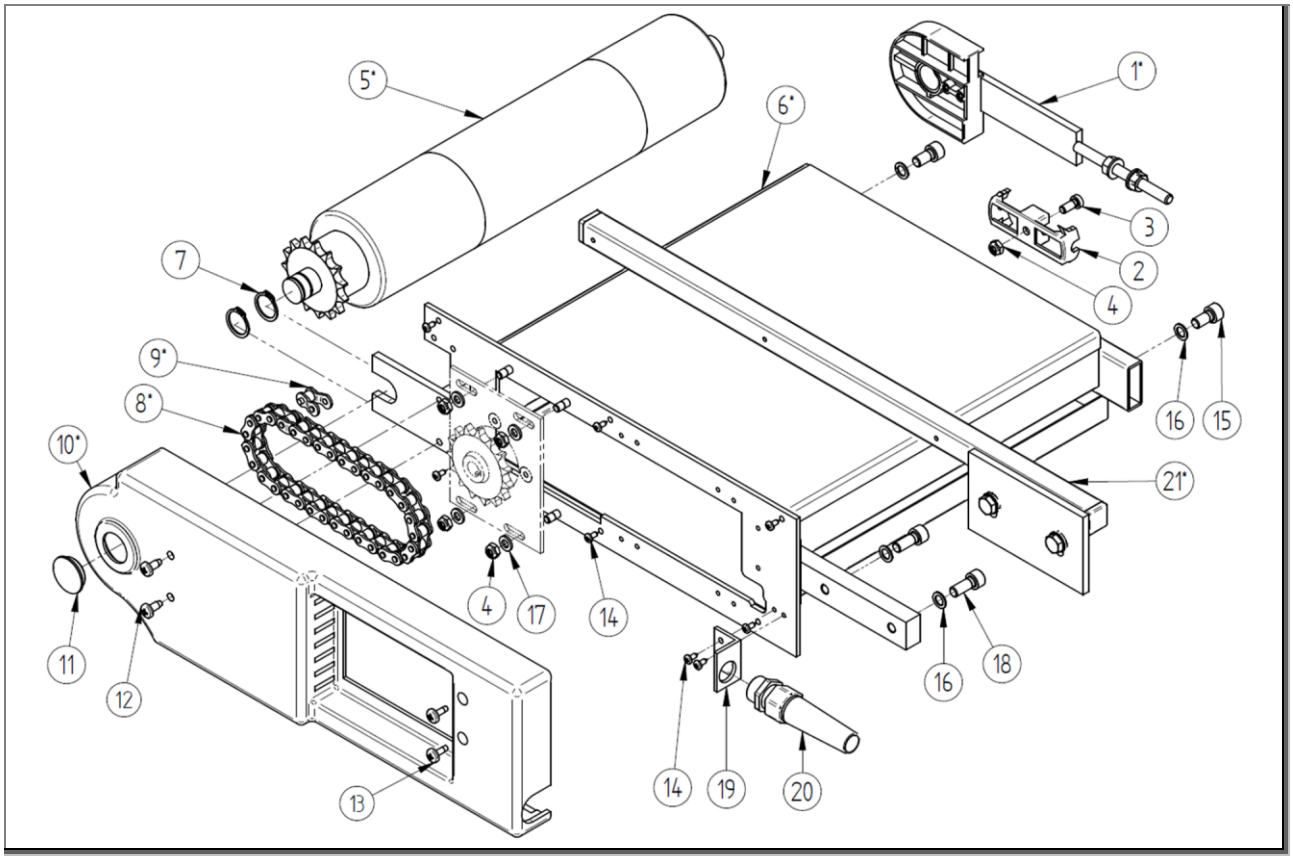


Fig. 98: Parts list: Internal drive unit - drive unit - position of drive unit 14 - ZZ.900.0148.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Counter-holder	M	1000019	E.800.0001
3	1	pcs.	Hexagon socket head cap screw with low head	DIN 6912 - M6x14 galv.	1000493	
4	1	pcs.	Hexagon nut	DIN 985-M6 galv.	975113	
7	2	pcs.	Retaining ring	DIN 471 A20	1002337	
11	1	pcs.	Cover cap	Ø 30/25x5	1004088	
12	2	pcs.	Oval head self-tapping screw	DIN 7516 - M6x12 galv.	1010026	
13	2	pcs.	Cross-recessed pan head tapping screw	ISO 7049 - ST4.2x13	1000720	
14	8	pcs.	Cross-recessed pan head tapping screw	ISO 7049 - ST3.5x9.5	1000812	
15	2	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x16	975058	
16	4	pcs.	Lock washer	Schnorr S8	1000587	
17	4	pcs.	Washer	DIN 125 - 6.4	975200	
18	2	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x20	975124	
19	1	pcs.	Angle for strain relief		1004650	E.800.0756
20	1	pcs.	Cable gland	with bend protection and strain relief	1008855	

Tab. 85: Parts list: Internal drive unit - drive unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT, ML-14-140/97	Table	Table
5*	1	pcs.	Drive pulley		Table	Table
6*	1	pcs.	I-drawer		Table	Table
8*	1	pcs.	Chain	1/2"2x5/16"	Table	Table
9*	1	pcs.	Chain link	1/2"2x5/16"	Table	Table
10*	1	pcs.	Chain protection		Table	Table
21*	1	pcs.	Bracket	I-drawer	Table	Table

Tab. 86: Parts list: Internal drive unit - drive unit - position of drive unit 14 – 2

Pos. 1* selection: Tensioner unit	
U.800.0002.01	
Lateral guide (guiding profile)	**ID no.**
GL0	1011621
GL7; GL40; GL80; GL 80A	1003459

Tab. 87: Selection: Tensioner unit - position of drive unit 14

Pos. 5* selection: Drive pulley		
Nominal width [mm]	**MLK [Steel - uncoated]**	**MLK-G [Steel - rubberized]**
	M.910.0120.10	**M.910.0121.03**
	ID no.	**ID no.**
200	1000054	1001008
230	1000454	1001141
250	1003923	1006346
300	1000055	1000967
350	1000799	1001140
400	1000056	1001038
450	1000800	1001139
500	1000057	1001135
550	1002401	1006348
600	1000058	1000968
650	1002423	1006350
700	1000059	1000969
800	1000060	1001136
900	1000061	1000970
1000	1000062	1001137

Tab. 88: Selection: Drive pulley

Pos. 5* selection: Drive pulley		
Nominal width [mm]	MLK-B1 [Steel - uncoated]	MLK-G-B1 [Steel - rubberized]
	M.910.0124.05	M.910.0126.01
1100	1001154	1005450
1200	1001155	1005451
1300	1001156	1006373
1400	1001157	1006375
1500	1001158	1006377
1600	1003907	1006379
1700	1004273	1004272
1800	1004318	1006501
1900	1006500	1006502
2000	1005873	1006503

Tab. 89: Continued: Selection: Drive pulley

Pos. 6* selection: I-drawer GL	
Nominal width [mm]	[Steel]
	U.800.0004.04
	ID no.
230	1002704
250	1002705
300	1002707
350	1002708
400	1002709
450	1002710
500	1002705
550	1002711
600	1002712
650	1002208
700	1002714
800	1002715
900	1002716
1000	1002717
1100	1002718
1200	1002719
1300	1002206
1400	1002721
1500	1002722

Tab. 90: Selection: Internal drive unit - I-drawer

Pos. 8*; Pos. 9* selection: Chain			
Conveying speed [m/min]		Chain	Chain link
Constant	Continuous From – to	Pos. 8*	Pos. 9*
1.5	0.2 – 1.5	1000362	1000372
2.3	0.2 – 2.3	1000363	1000372
2.6	0.3 – 2.6	1000364	
4.8	0.5 – 4.8	1000362	1000372
7.2	0.7 – 7.2	1000363	1000372
8.1	0.8 – 8.1	1000364	
8.7	0.9 – 8.7	1000362	1000372
13.1	1.3 – 13.1	1000363	1000372
14.8	1.5 – 14.8	1000364	

Tab. 91: Selection: Internal drive unit - chain

Pos. 8* information: Chain			
Name 1	**Name 2**	**ID no.**	**Drawing no.**
Chain with chain lock	30 pcs. chain links	1000362	
Chain with chain lock	32 pcs. chain links	1000363	
Chain with chain lock	34 pcs. chain links	1000364	

Tab. 92: Information: Internal drive unit - chain (clarification)

Pos. 10* selection: Chain protection		
Operating mode	**ID no.**	**Drawing no.**
without	1000010	E.800.0149.01
constant	1000012	E.800.0151.01
continuously variable	1000010	E.800.0149.01
clocked	1000010	E.800.0149.01
continuously variable and clocked	1000010	E.800.0149.01

Tab. 93: Selection: Internal drive unit - chain protection

Pos. 21* selection: Bracket		
Lateral guide (Guiding profile type)	**ID no.**	**Drawing no.**
Only with GL0/GL7	1006013	T.800.0040.01

Tab. 94: Selection: Internal drive unit - bracket

13.4.5.3 Parts list: Internal drive unit - motor unit - position of drive unit 14 - T.900.0004.00/T.900.0005.00

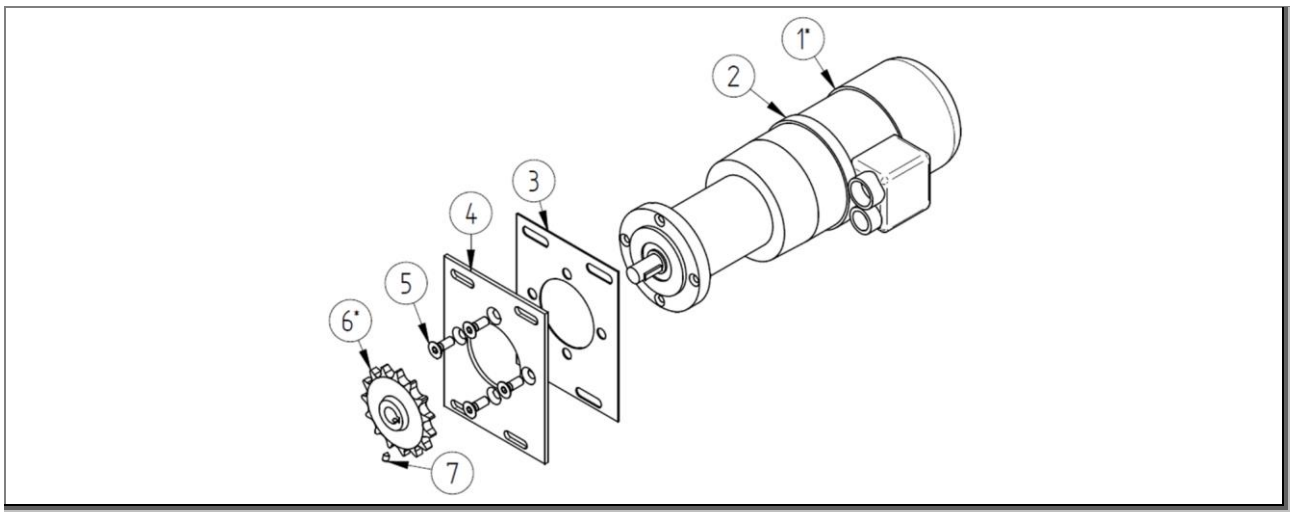


Fig. 99: Parts list: Internal drive unit - motor unit - position of drive unit 14 - T.900.0004.00/T.900.0005.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Cable tie		1000851	
3	1	pcs.	Rubber blank		1002586	E.800.0032.03
4	1	pcs.	I-motor bracket		1000146	E.800.0031.02
5	4	pcs.	Countersunk screw	DIN 7991-M6x16	975311	
7	1	pcs.	Grub screw	DIN 914-M4x06	1001915	

Tab. 95: Parts list: Internal drive unit - motor unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Motor		Table	Table
6*	1	pcs.	Sprocket	I; 1/2x5/16"; z = XX	Table	Table

Tab. 96: Parts list: Internal drive unit - motor unit - position of drive unit 14 - 2

Pos. 1*; Pos. 6* selection: Motor and sprocket				
Conveying speed [m/min]		Pos. 1*		Pos. 6*
		Nominal width <=250	Nominal width >=300	-
Constant	Continuous From – to	Motor 42W	Motor 87W	Sprocket
1.5	0.2 – 1.5	-	898049	1000695
2.3	0.2 – 2.3	-	898049	1000696
2.6	0.3 – 2.6	-	898049	1000697
4.8	0.5 – 4.8	-	898047	1000695
7.2	0.7 – 7.2	-	898047	1000696
8.1	0.8 – 8.1	-	898047	1000697
8.7	0.9 – 8.7	1000927	898043	1000695
13.1	1.3 – 13.1	1000927	898043	1000696
14.8	1.5 – 14.8	1000927	898043	1000697

Tab. 97: Selection: Internal drive unit - motor and sprocket

Pos. 3* information: Sprocket			
Name 1	**Name 2**	**ID no.**	**Drawing no.**
Sprocket	I-46; 1/2x5/16"; z = 10	1000695	E.916.0001
Sprocket	I-46; 1/2x5/16"; z = 15	1000696	E.916.0002
Sprocket	I-46; 1/2x5/16"; z = 17	1000697	E.916.0003

Tab. 98: Information: Internal drive unit - motor unit - sprocket (clarification)

13.4.6 Flange drive unit

13.4.6.1 Parts list: Flange drive unit - position of drive unit 14 - ZZ.900.0149.00

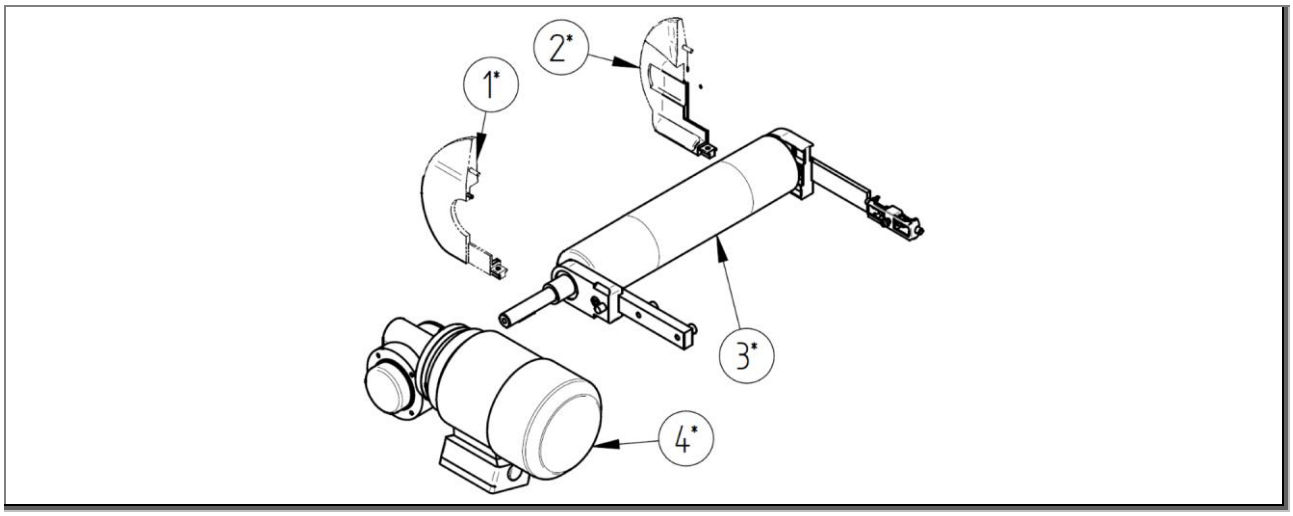


Fig. 100: Parts list: Flange drive unit - position of drive unit 14 - ZZ.900.0149.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 99: Parts list: End pieces for drive 1- position of drive unit 14

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1003637	E.800.0277.02	1005547	E.800.1073.00
GL7			1000877	E.800.1189.00
GL40	1000891	E.800.0275.01	1005543	E.800.1070.00
GL80/GL80A	1000132	E.800.0108.03	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1209.00
GL7				E.800.1210.00
GL40				E.800.1211.00
GL80/GL80A				E.800.1212.00

Tab. 100: Selection: End pieces for drive 2- position of drive unit 14

13.4.6.2 Parts list: Flange drive unit - drive unit - position of drive unit 14 - ZZ.900.0020.02

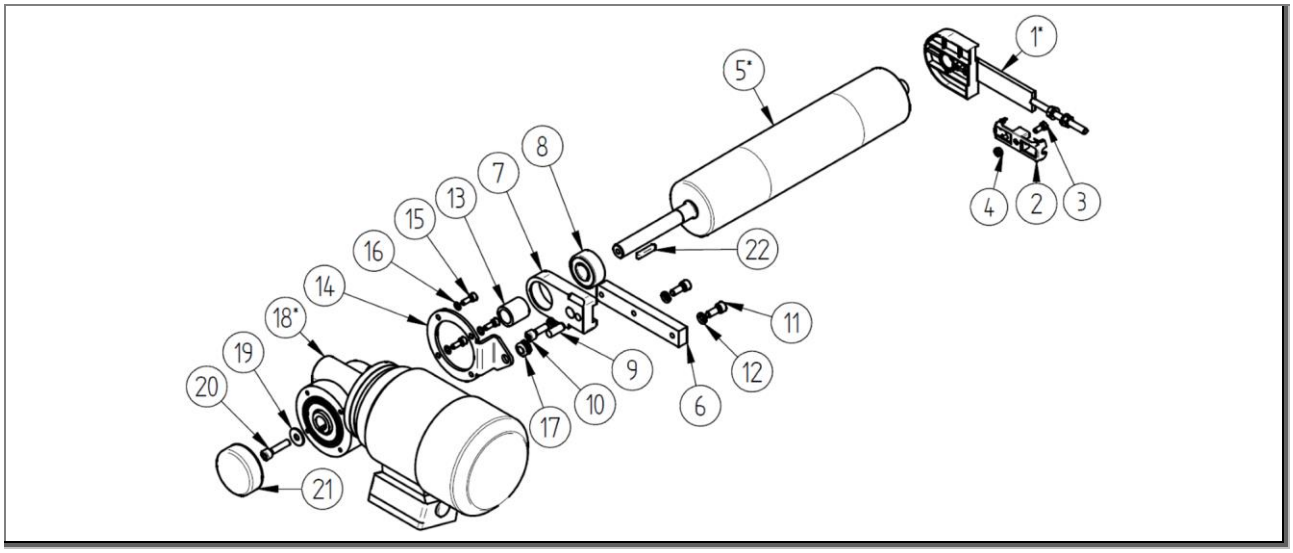


Fig. 101: Parts list: Flange drive unit - drive unit - position of drive unit 14 - ZZ.900.0020.02

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Counter-holder M		1000019	E.800.0001
3	1	pcs.	Hexagon socket head cap screw with low head	DIN 6912 - M6x14 galv.	1000493	
4	1	pcs.	Hexagon nut	DIN 985-M6 galv.	975113	
6	1	pcs.	Bracket	14	1004656	E.800.0693
7	1	pcs.	Axle holder	FK	1007786	E.800.0692
8	1	pcs.	Ball bearing	2204-E2RS1	1004309	
9	1	pcs.	Cylindrical pin	DIN 6325 - st. 10x26	1004692	E
10	1	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x25	975059	
11	2	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x20	975124	
12	3	pcs.	Lock washer	Schnorr S8	1000587	
13	1	pcs.	Spacer ring		1004277	E.800.0670
14	1	pcs.	Torque support		1005196	E.800.0753
15	4	pcs.	Hexagon socket head cap screw with low head	DIN 912-M6x14	1000471	
16	4	pcs.	Lock washer	Schnorr 6	975401	
17	1	pcs.	Cable penetration grommet	KD 704	1004386	
19	1	pcs.	Washer	DIN 9021-8.4 galv.	1000981	
20	1	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x35	1001921	
21	1	pcs.	Lid		1000084	
22	1	pcs.	Key	DIN 6885-A6 x 6 x 32	1009714	

Tab. 101: Parts list: Flange drive unit - drive unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT, ML-14-140/97	Table	Table
5*	1	pcs.	Drive pulley		Table	Table
18*	1	pcs.	Motor		Table	Table

Tab. 102: Parts list: Flange drive unit - drive unit - position of drive unit 14 - 2

Pos. 1* selection: Tensioner unit	
U.800.0002.01	
Lateral guide (guiding profile type)	**ID no.**
GL0	1011621
GL7; GL40; GL80; GL 80A	1003459

Tab. 103: Selection: Flange drive unit - drive unit - position of drive unit 14

Pos. 5* selection: Drive pulley		
Nominal width [mm]	**MLF [Steel - uncoated]**	**MLF-G [Steel - rubberized]**
	M.910.0030.03	**M.910.0036.03**
	ID no.	**ID no.**
200	1006452	1006463
250	1006453	1006474
300	1006454	1006475
350	1006455	1006476
400	1006020	1006477
450	1006456	1006478
500	1006457	1006479
550	1006458	1006480
600	1006459	1006481
650	1006460	1006482
700	1006461	1006483
800	1005861	1006484
900	1006332	1006485
1000	1006462	1006486
Nominal width [mm]	**MLF-B1 [Steel - uncoated]**	**MLF G-B1 [Steel - rubberized]**
	M.910.0035.04	**M.910.0057.06**
1100	1006463	1006487
1200	1006464	1004908
1300	1006465	1006488
1400	1006466	1006489
1500	1006467	1006490
1600	1006468	1006491
1700	1006469	1006492
1800	1006470	1006493

Tab. 104: Selection: Flange drive unit - drive pulley

Pos. 18* selection: Motor				
Conveying speed [m/min]		ID no.		
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W
5.2	1.0 – 5.2	1002283	1002286	1002289
7.3	1.5 – 7.3	1002282	1002285	1002288
14.6	2.9 – 14.6	1002281	1002284	1002287
18.2	3.6 – 18.2	1002298	1002299	1002300

Tab. 105: Selection: Flange drive unit - motor -RG-SN9

13.4.6.3 Parts list: Flange drive unit - position of drive unit 23 - ZZ.900.0150.00

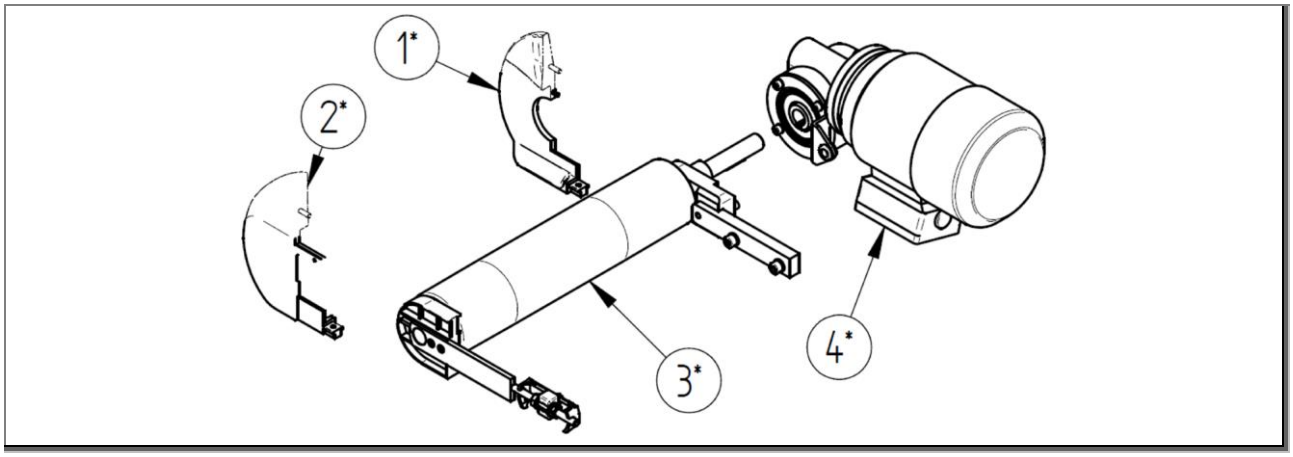


Fig. 102: Parts list: Flange drive unit - position of drive unit 23 - ZZ.900.0150.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 106: Parts list: End pieces for drive 1- position of drive unit 23

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1008302	E.800.1075.01	1005545	E.800.0104.01
GL7			1000885	E.800.1188.00
GL40	1006294	E.800.1071.00	1005541	E.800.0103.02
GL80/GL80A	1008300	E.800.1069.00	1000129	E.800.0100.04
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1205.00
GL7				E.800.1206.00
GL40				E.800.1207.00
GL80/GL80A				E.800.1208.00

Tab. 107: Selection: End pieces for drive 2- position of drive unit 23

13.4.6.4 Parts list: Flange drive unit - drive unit - position of drive unit 23 - ZZ.900.0034.00

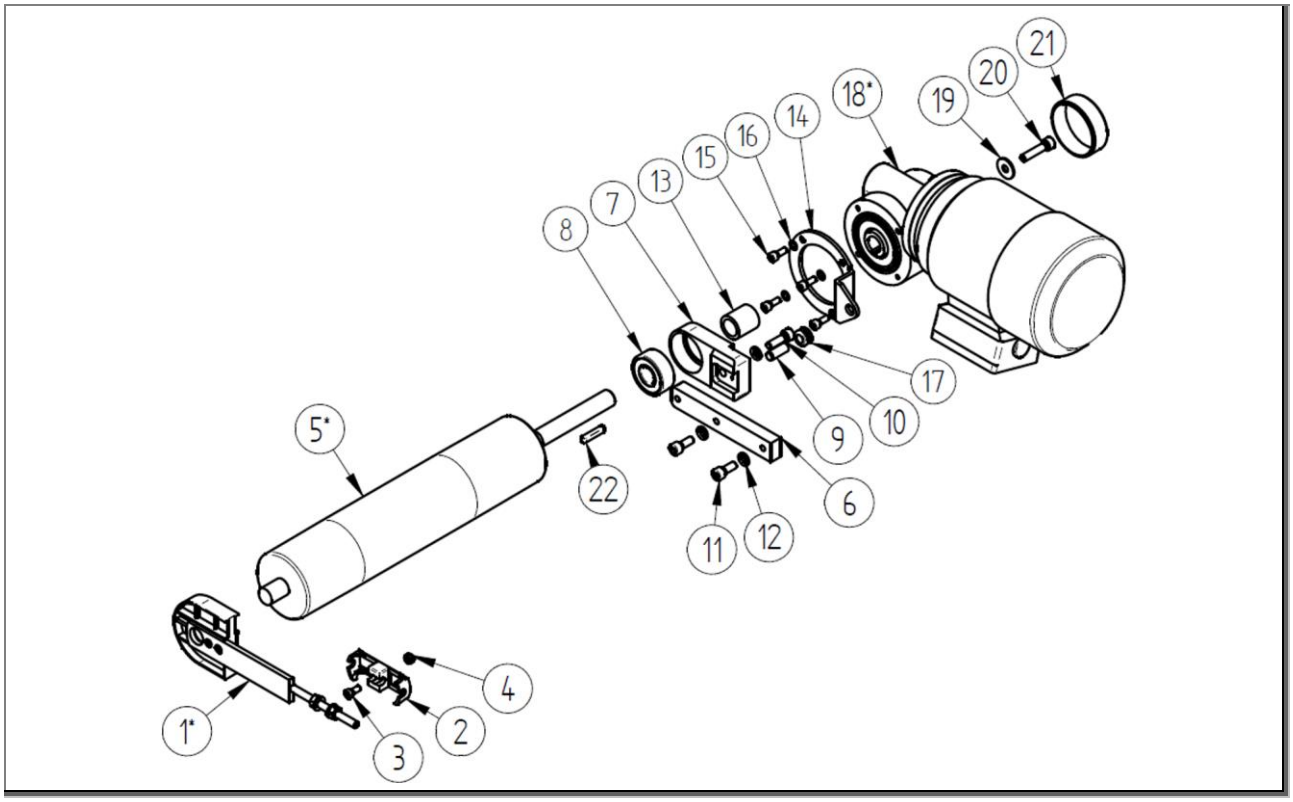


Fig. 103: Parts list: Flange drive unit - drive unit - position of drive unit 23 - ZZ.900.0034.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
Take pos. 2 to 22 from “Parts list - flange drive unit - drive unit - position of drive unit 14 ZZ.900.0020.02”!						

Tab. 108: Parts list: Flange drive unit - drive unit - position of drive unit 23 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Tensioner unit	Cons.-KIT, ML-23-140/97	Table	Table

Tab. 109: Parts list: Flange drive unit - drive unit - position of drive unit 23 - 2

13.4.7 Drum motor

13.4.7.1 Parts list: Drum motor - position of drive unit 14 - ZZ.900.0151.00

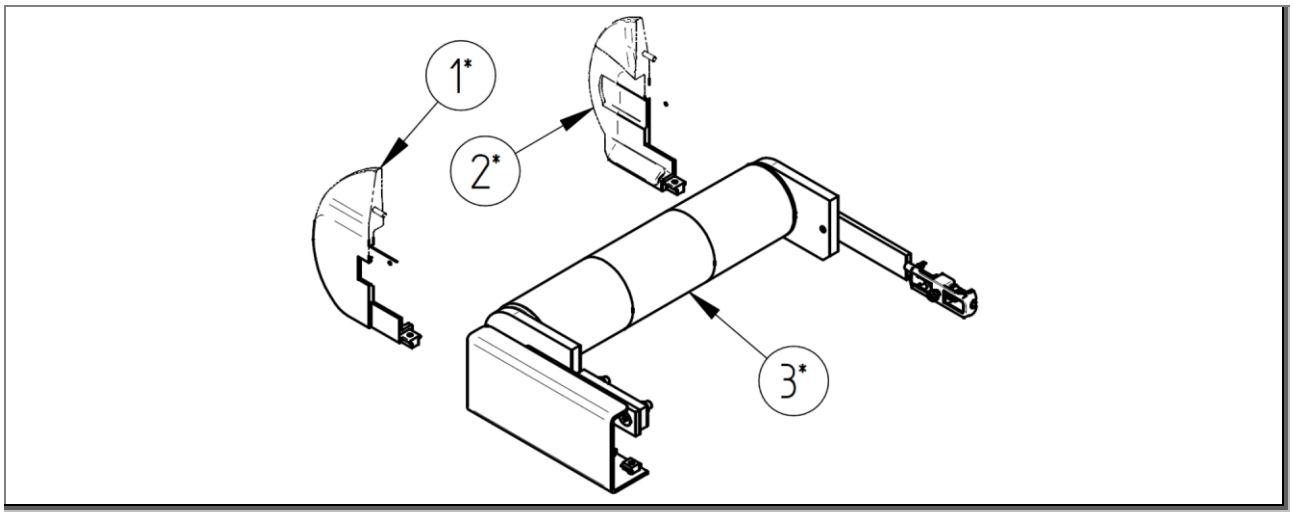


Fig. 104: Parts list: Drum motor - position of drive unit 14 - ZZ.900.0151.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 110: Parts list: End pieces for drum motor 1-position of drive unit 14

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1006533	E.800.1077.00	1005547	E.800.1073.00
GL7			1000877	E.800.1189.00
GL40	1006531	E.800.1076.00	1005543	E.800.1070.00
GL80/GL80A	1004636	E.800.0741.01	1000123	E.800.0193.02
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1209.00
GL7				E.800.1210.00
GL40				E.800.1211.00
GL80/GL80A				E.800.1212.00

Tab. 111: Selection: End pieces for drum motor 1-position of drive unit 14

13.4.7.2 Parts list: Drum motor - drive unit - position of drive unit 14 - ZZ.900.0094.01

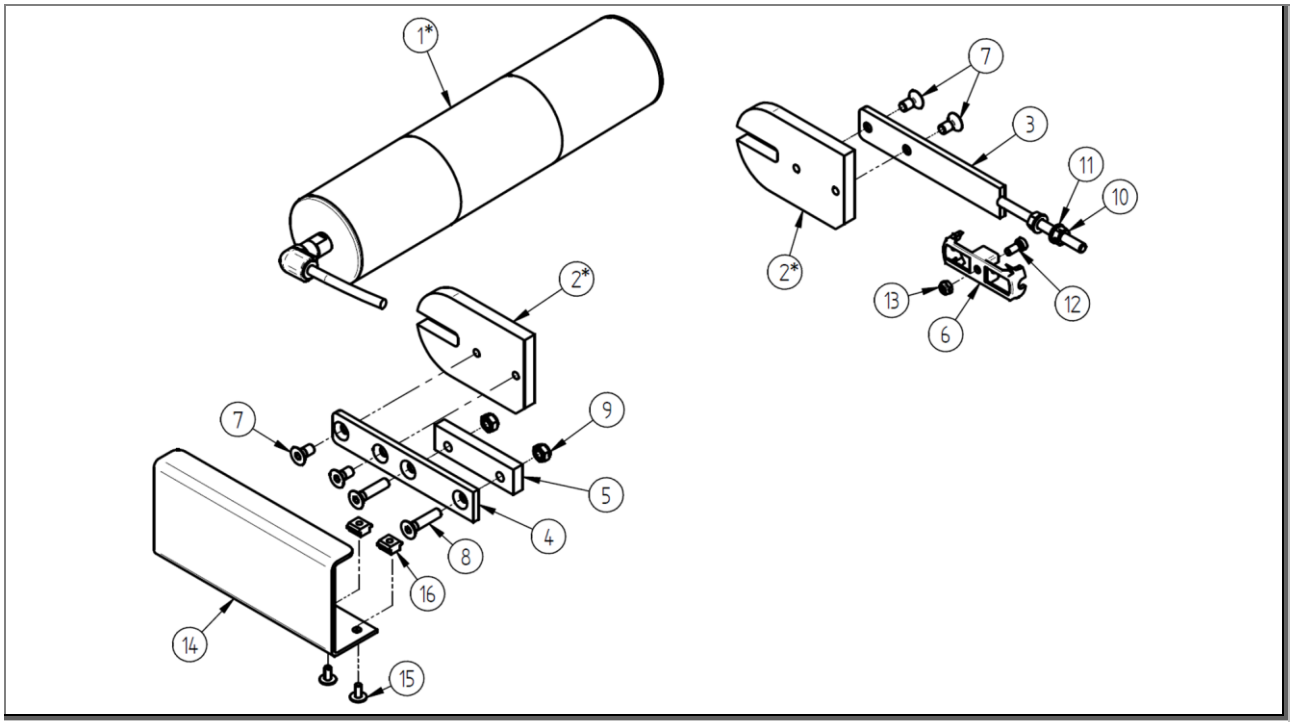


Fig. 105: Parts list: Drum motor - drive unit - position of drive unit 14 - ZZ.900.0094.01

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
3	1	pcs.	Tensioner unit 23	for drum motor	1004631	E.800.0705
4	1	pcs.	Bracket	for drum motor	1010167	E.800.1082
5	1	pcs.	Spacer		1010067	E.800.1083
6	1	pcs.	Counter-holder	M	1000019	E.800.0001
7	4	pcs.	Countersunk screw	DIN 7991-M8x16	1000596	
8	2	pcs.	Countersunk screw	DIN 7991-M8x35	1000415	
9	2	pcs.	Hexagon nut	DIN 985-M8	975114	
10	2	pcs.	Hexagon nut	DIN 934-M8	975108	
11	2	pcs.	Washer	DIN 125 - 8.4	975201	
12	1	pcs.	Hexagon socket head cap screw with low head	DIN 7984-M6x14	1000493	
13	1	pcs.	Hexagon nut	DIN 985-M6	975113	
14	1	pcs.	Protective cover	Drum motor MP14	1011536	E.800.1263
15	2	pcs.	Oval head screw	ISO 7380-2 - M6 x 12	1010809	
16	2	pcs.	Slot nut	M6x15 T-form	1009496	

Tab. 112: Parts list: Drum motor - drive unit - position of drive unit 14 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Drum motor		On request	
2*	2	pcs.	Holder		Table	Table

Tab. 113: Parts list: Drum motor - drive unit - position of drive unit 14 - 2

Pos. 2* selection: Holder	
Drive pulley	**ID no.**
uncoated	1007904
rubberized	1008014

Tab. 114: Selection: Drum motorholder

13.4.7.3 Parts list: Drum motor - position of drive unit 23 - ZZ.900.0152.00

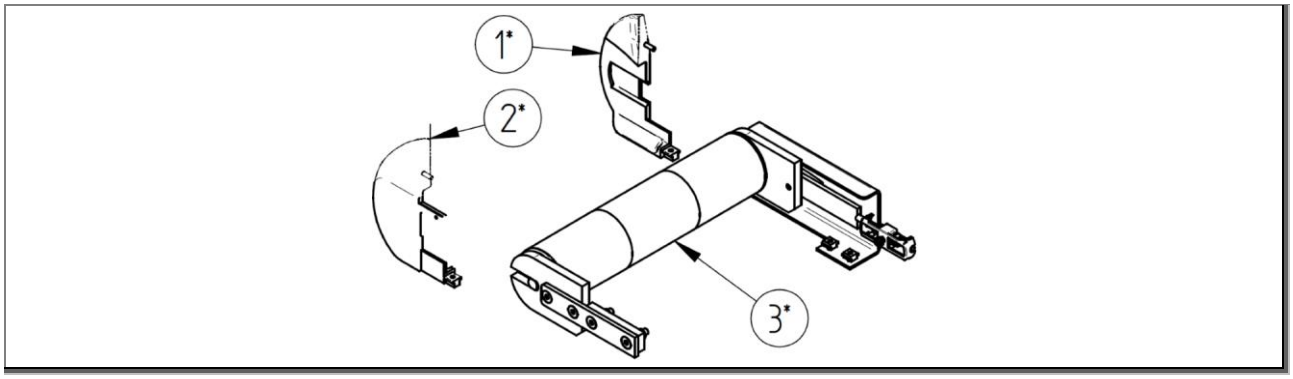


Fig. 106: Parts list: Drum motor - position of drive unit 23 - ZZ.900.0152.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	End piece		Table	Table
2*	1	pcs.	End piece		Table	Table
3*	1	pcs.	Drive unit		See following pages	

Tab. 115: Parts list: End pieces for drum motor 1-position of drive unit 23

Pos. 1*; Pos. 2* selection:				
End piece deflection unit Ø 80 (standard)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0	1006539	E.800.1079.00	1005545	E.800.0104.01
GL7			1000885	E.800.1188.00
GL40	1006537	E.800.1078.00	1005541	E.800.0103.02
GL80/GL80A	1006535	E.800.0828.01	1000129	E.800.0100.04
End piece deflection unit Ø 80 (flush)				
Lateral guide (Guiding profile)	**Pos. 1***		**Pos. 2***	
	End piece: Drive-side		**End piece: drive-free-side**	
	ID no.	**Drawing no.**	**ID no.**	**Drawing no.**
GL0				E.800.1205.00
GL7				E.800.1206.00
GL40				E.800.1207.00
GL80/GL80A				E.800.1208.00

Tab. 116: Selection: End pieces for drum motor 2-position of drive unit 23

13.4.7.4 Parts list: Drum motor - drive unit - position of drive unit 23 - ZZ.900.0094.01

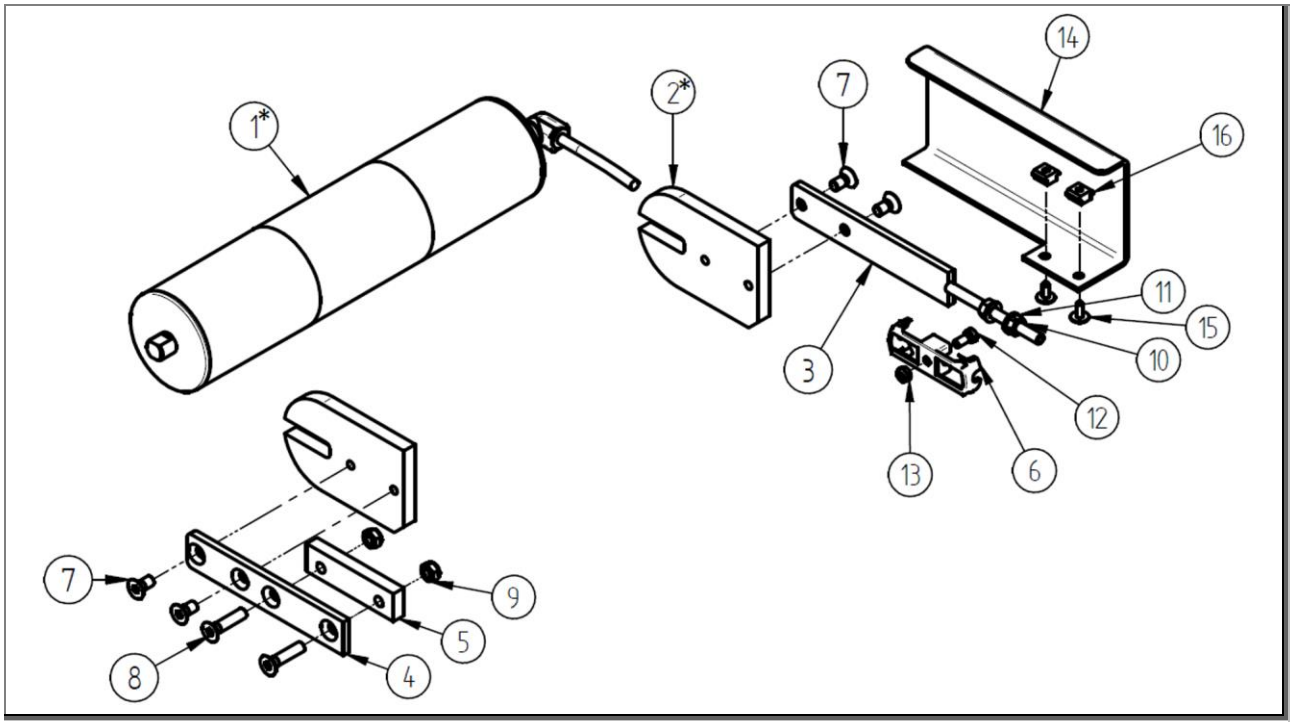


Fig. 107: Parts list: Drum motor - drive unit - position of drive unit 23 - ZZ.900.0094.01

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
Take pos. 1* to 13 from “Parts list: drum motor - drive unit - position of drive unit 14 ZZ.900.0094.01”!						
14	1	pcs.	Protective cover	for angle plug drum motor MP23	1011548	E.800.1263
Take pos. 15 to 16 from “Parts list: drum motor - drive unit - position of drive unit 14 ZZ.900.0094.01”!						

Tab. 117: Parts list: Drum motor - drive unit - position of drive unit 23 - 1

13.4.8 Central drive unit with flange-mounted motor

13.4.8.1 Parts list: central drive unit - position of drive unit 56 - ZZ.902.0000.01

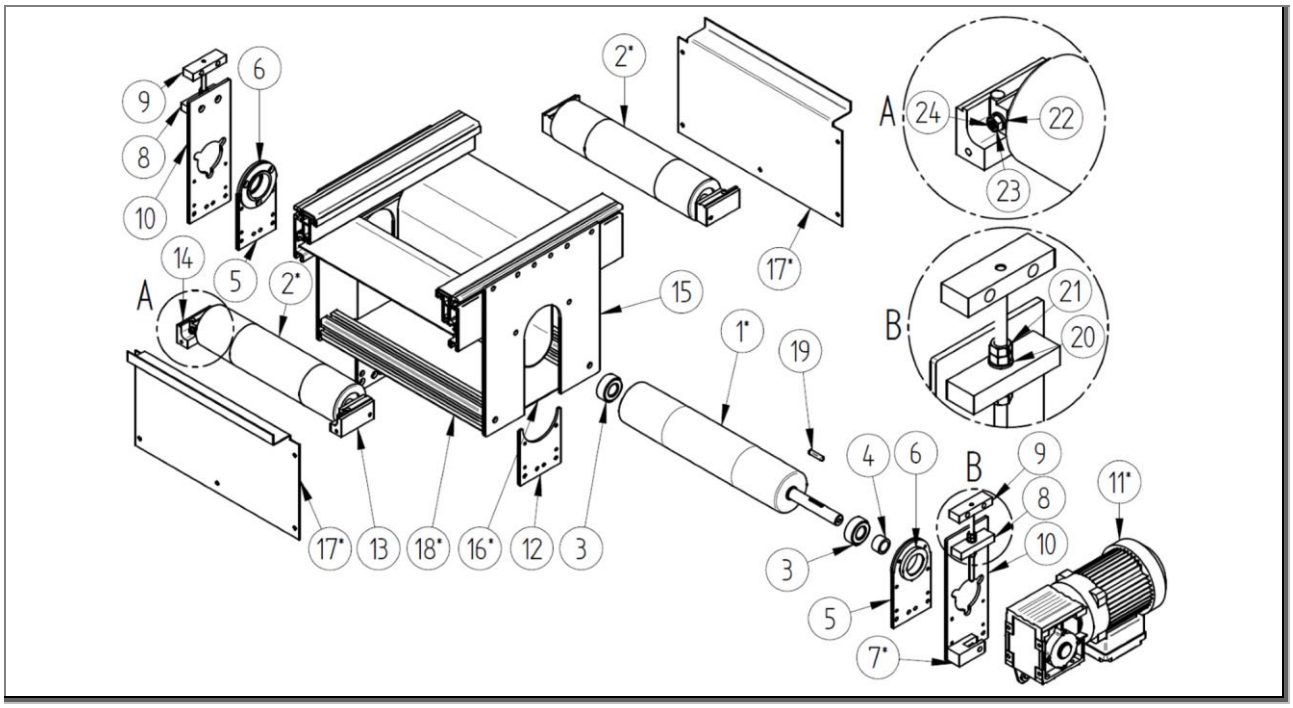


Fig. 108: Parts list: central drive unit - position of drive unit 56 - ZZ.902.0000.01 (typical)

NOTE

Dependent on the position of drive unit, the components (Pos. 1, 4, 7, 11) are fitted on the opposite side of the conveyor.

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
3	2	pcs.	Ball bearing	2204-E2RS1, 20x47x18	1004309	
4	1	pcs.	Spacer ring	16.5	1009009	E.800.0670
5	2	pcs.	Guide holder		1011327	E.902.0003
6	2	pcs.	Bearing housing		1010042	E.800.1089
8	2	pcs.	Bracket	for tensioner unit	1011041	E.800.1091
9	2	pcs.	Tensioner unit		1011579	T.800.0294
10	2	pcs.	Sheet metal	for tensioner unit	1011046	E.902.0000
12	2	pcs.	Side plate		1011325	E.902.0001
13	2	pcs.	Bracket	for deflection pulley	1011043	E.800.1090
14	2	pcs.	Mirror-inverted bracket	for deflection pulley		
15	2	pcs.	Side plate		1011324	E.902.0002
19	1	pcs.	Key	DIN 6885-A6x6x32	1009714	
20	4	pcs.	Washer	DIN 125 - 8.4	975201	
21	8	pcs.	Hexagon nut	DIN 934 - M8	975108	
22	4	pcs.	Washer	DIN 125 - 6.4	975200	
23	4	pcs.	Hexagon nut	DIN 934 - M6	975107	
24	4	pcs.	Grub screw	DIN 913 - M6x30	1010216	

Tab. 118: Parts list: Central drive unit 1 - position of drive unit 56

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Drive pulley	MLF	Table	M.910.1040
2*	2	pcs.	Deflection pulley	ML	Table	M.910.0020
7*	1	pcs.	Holder	for torque support	1011039	E.800.1092
11*	1	pcs.	Gear motor	Manufacturer, SEW	See order confirmation	
16*	1	pcs.	Cover	BELOW	Table	M.902.0001
17*	2	pcs.	Cover	FORWARD	Table	M.902.0000
18*	2	pcs.	Profile 40x40	with thread insert (both sides) M10, L=nominal width	Table	U.918.0026

Tab. 119: Parts list: Central drive unit 2 - position of drive unit 56

Pos. 1* selection: Drive pulley		
	[Steel - uncoated]	**[Steel - rubberized]**
Nominal width [mm]	**MLF**	**MLF-G**
	M.910.1040.00	
	ID no.	ID no.
200	1010633	
230		
250	1011329	
300	1010632	
350	1011330	
400	1010574	
450	1011331	
500	1010871	
550	1011332	
600	1010215	
650	1011333	
700	1010217	
800	1010531	
900	1011334	
1000	1011335	

Tab. 121: Selection: Central drive unit - drive pulley

Pos. 2* selection: Deflection pulley	
Nominal width [mm]	**ML [Steel - uncoated]**
	M.910.0020.08
	ID no.
150	1007852
200	1000042
230	1000453
250	1003924
300	1000043
350	1000787
400	1000044
450	1000788
500	1000045
550	1002402
600	1000046
650	1002425
700	1000047
800	1000048
900	1000049
1000	1000050

Tab. 120: Selection: Central drive unit - deflection pulley

Pos. 7* selection: Holder				
Conveying speed [m/min]		ID no.		
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W
4.4	0.9 – 4.4	1011039	-	-
6.9	1.4 – 6.9	1011039	-	-
13.5	2.7 – 13.5	1011039	-	-
4.4	0.9 – 4.4	-	1012499	-
6.8	1.4 – 6.8	-	1011039	-
13.3	2.7 – 13.3	-	1011039	-
4.6	0.9 – 4.6	-	-	1012499
7.2	1.4 – 7.2	-	-	1012499
14.2	2.8 – 14.2	-	-	1012499

Tab. 122: Selection: Central drive unit - holder - SEW

Pos. 11* selection: Motor				
Position of drive unit 5 – motor position 0°; Position of drive unit 6 – motor position 180°;				
Conveying speed [m/min]		ID no.		
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W
4.4	0.9 – 4.4	1012422	-	-
6.9	1.4 – 6.9	1012421	-	-
13.5	2.7 – 13.5	1012381	-	-
4.4	0.9 – 4.4	-	1012425	-
6.8	1.4 – 6.8	-	1012424	-
13.3	2.7 – 13.3	-	1012423	-
4.6	0.9 – 4.6	-	-	1012428
7.2	1.4 – 7.2	-	-	1012427
14.2	2.8 – 14.2	-	-	1012426
Position of drive unit 5 – motor position 180°; Position of drive unit 6 – motor position 0°;				
Conveying speed [m/min]		ID no.		
Constant	Continuous From – to	Motor 180W	Motor 250W	Motor 370W
4.4	0.9 – 4.4	1012431	-	-
6.9	1.4 – 6.9	1012430	-	-
13.5	2.7 – 13.5	1012429	-	-
4.4	0.9 – 4.4	-	1012434	-
6.8	1.4 – 6.8	-	1012433	-
13.3	2.7 – 13.3	-	1012432	-
4.6	0.9 – 4.6	-	-	1012437
7.2	1.4 – 7.2	-	-	1012436
14.2	2.8 – 14.2	-	-	1012435

Tab. 123: Selection: Central drive unit - motor - SEW

Nominal width [mm]	Pos. 16*	Pos. 17*	Pos. 18*
	Cover BELOW	Cover FORWARD	Profile 40x40
	M.902.0001	M.902.0000	U.918.0026
	ID no.	ID no.	ID no.
200			
230			
250			
300			
350			
400			
450			
500			
550			
600			
650			
700			
800			
900			
1000			

Tab. 124: Selection: Central drive unit - covers

13.4.9 Electronics

13.4.9.1 Electronics - control unit - general ZZ.982.0104.00

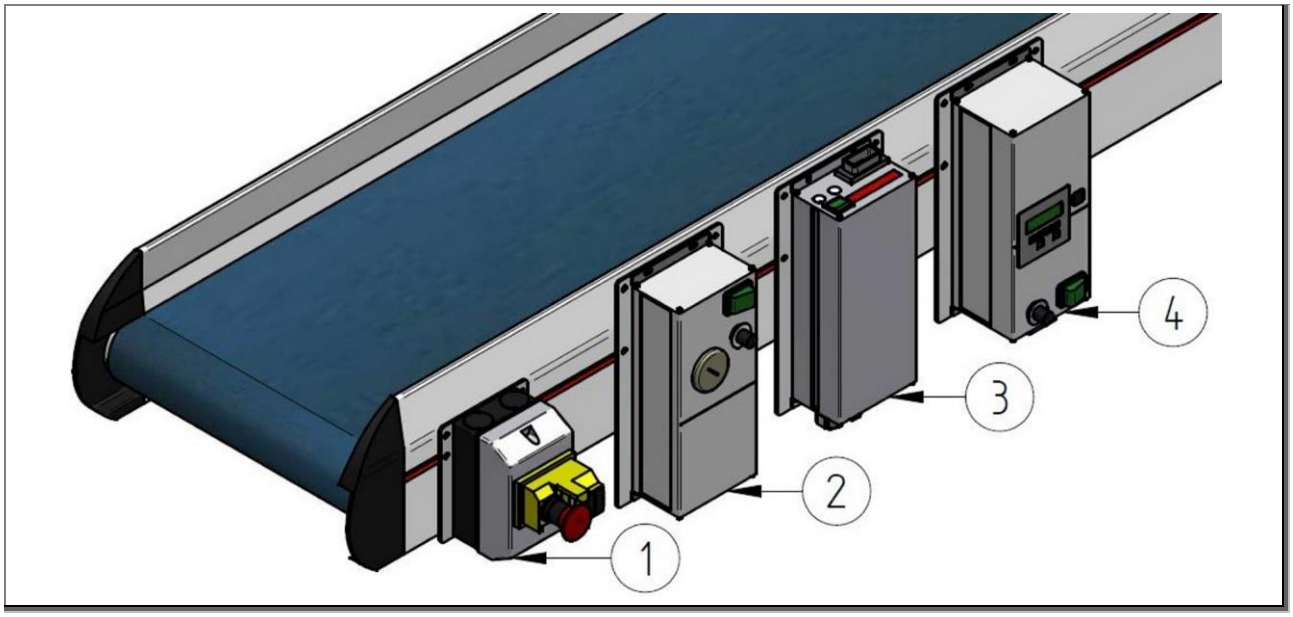


Fig. 109: Electronics - control unit - general ZZ.982.0104.00

Electronics - control unit - general						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Mains switch	Wired ready for connection	1004518	T.905.0050
2	1	pcs.	Frequency inverter Vector 370 KR	Including conversion kit	1007970	T.905.0051
3	1	pcs.	Clock timer DTSG4 - KR	Including conversion kit	1008625	T.905.0052
4	1	pcs.	Combi-control unit	Including conversion kit		T.905.0053

Tab. 125: Electronics - control unit - general

13.4.9.2 Electronics - control unit - internal drive unit ZZ.982.0104.00

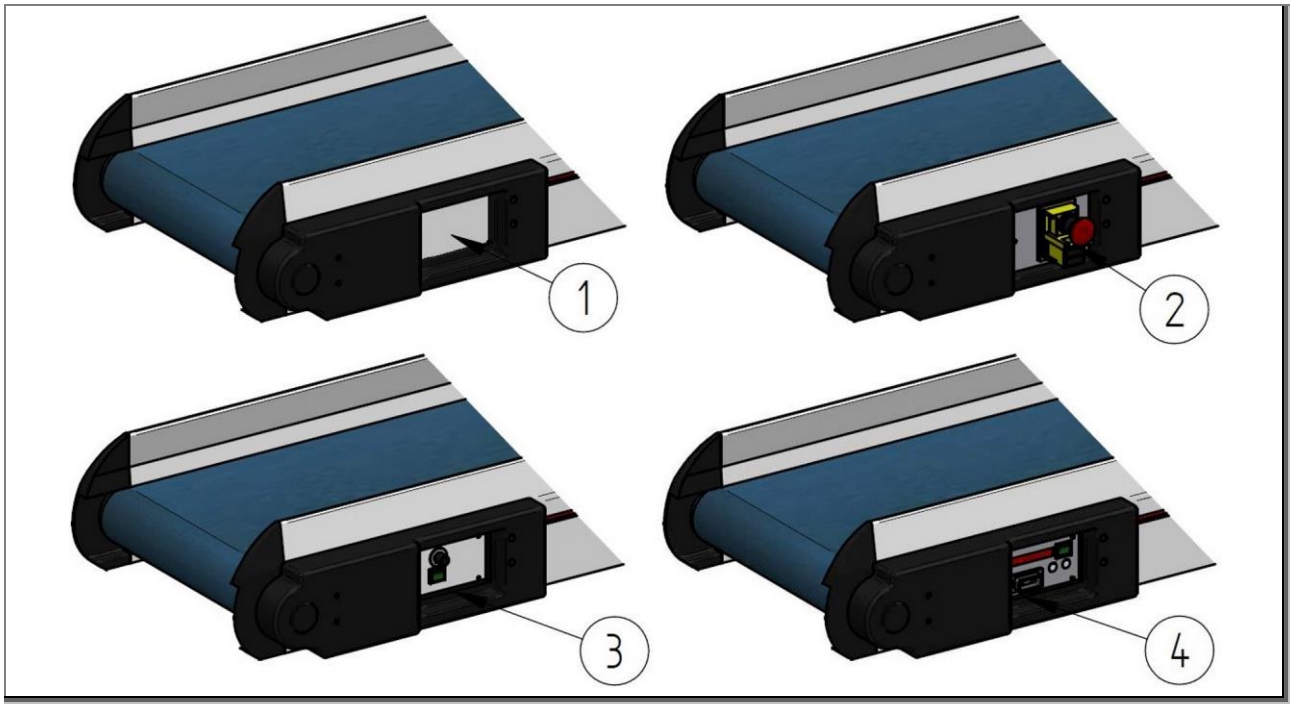


Fig. 110: Electronics - control unit - internal drive unit ZZ.982.0104.00

Electronics - control unit - internal drive unit						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Cover	For internal drive unit		T.905.0054
2	1	pcs.	Mains switch	Wired ready for connection	1004517	T.905.0055
3	1	pcs.	Frequency inverter Vector 370 i IS	Including conversion kit	1007969	T.905.0056
4	1	pcs.	Clock timer DTSG4 inner IT	Including conversion kit	1006857	T.905.0057

Tab. 126: Electronics - control unit - internal drive unit

13.4.10 Electronics accessories

13.4.10.1 Holders for mains switch - ZZ.982.0104.00

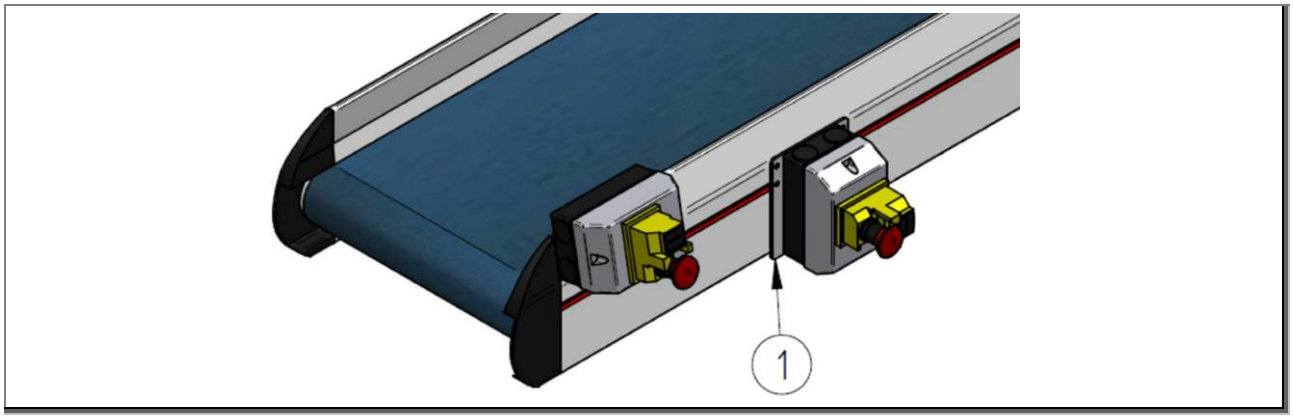


Fig. 111: Holders for mains switch - ZZ.982.0104.00

Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Bracket for mains switch	Installation position: vertical	1005418	E.907.0006

Tab. 127: Holders for mains switch

13.4.10.2 Holders for control units - ZZ.982.0104.00

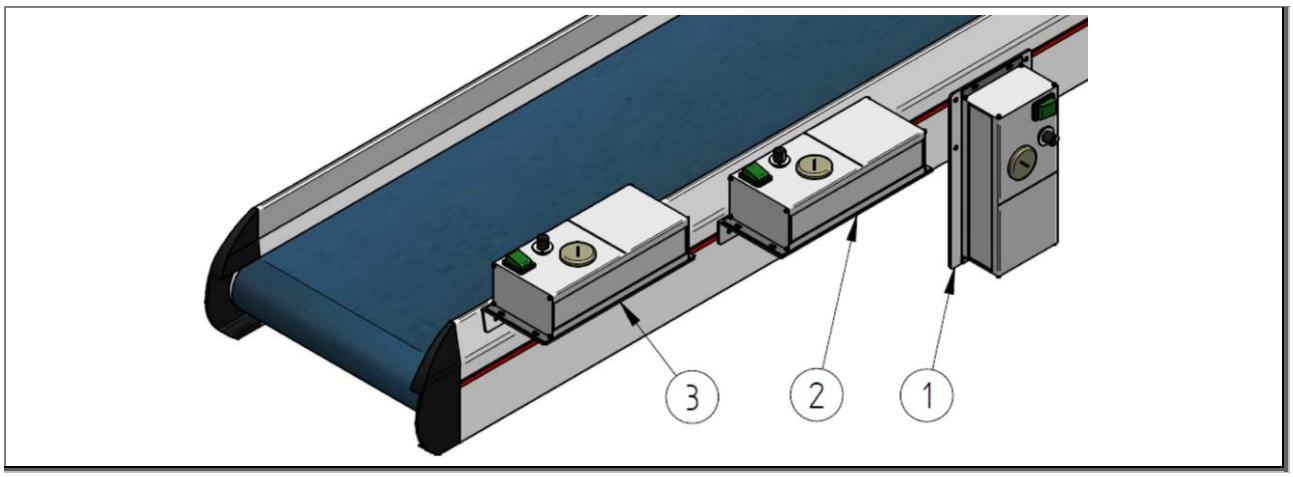


Fig. 112: Holders for control units - ZZ.982.0104.00

Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Bracket for control unit	Installation position: vertical	1001434	E.800.0676
2	1	pcs.	Bracket for control unit	Installation position: horizontal; angle 90°		E.907.0020
3	1	pcs.	Bracket for control unit	Installation position: horizontal; angle 100°	1006303	E.907.0005

Tab. 128: Holders for control units

13.4.11 Support

13.4.11.1 Parts list: Support EM 010 ZZ.982.0105.00

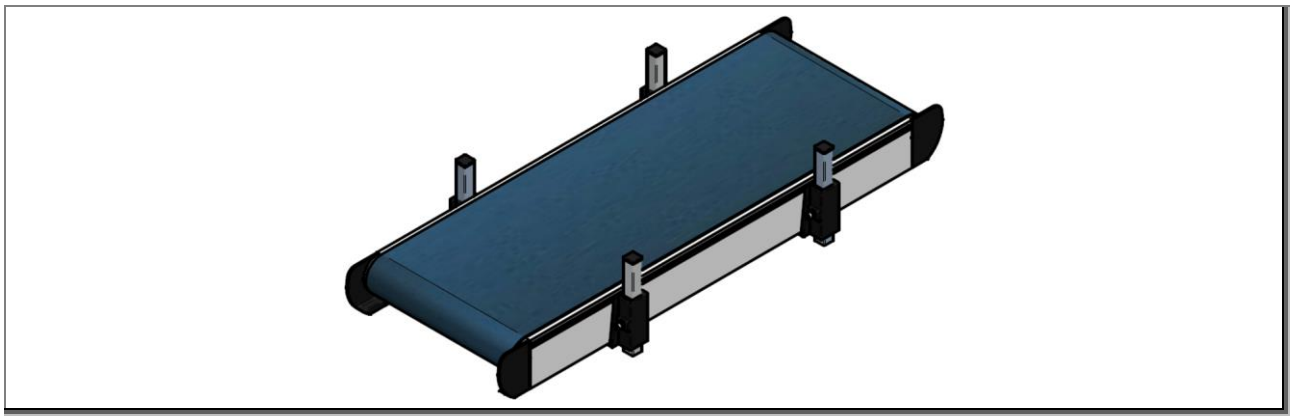


Fig. 113: Parts list: Support EM 010 ZZ.982.0105.00

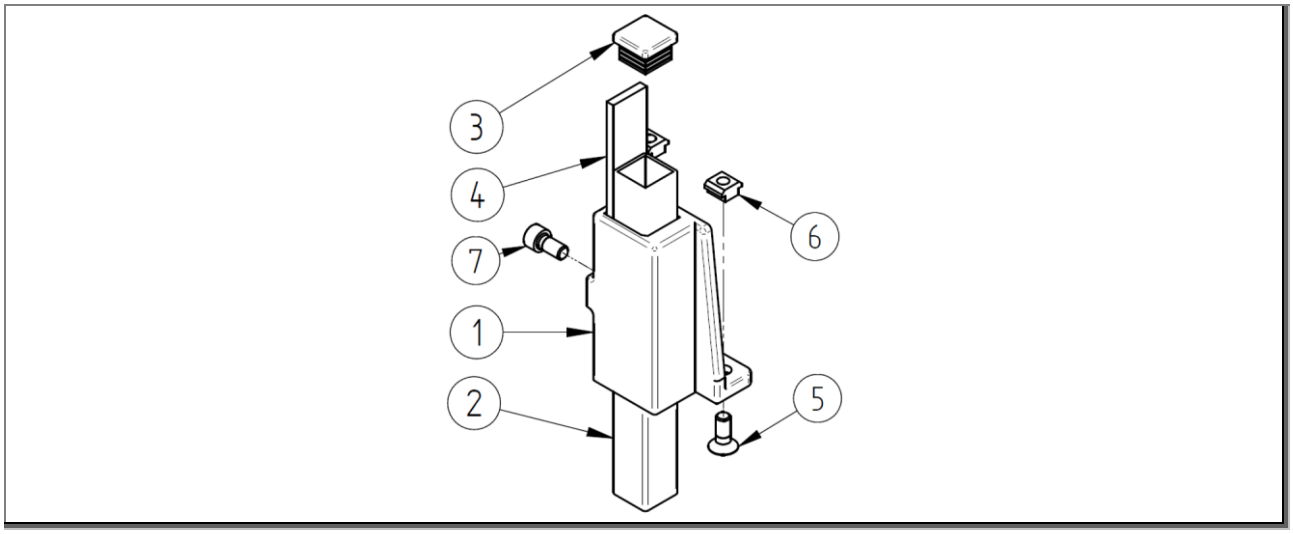


Fig. 114: Parts list: Conveyor support IK1 U.800.0182.00

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Clamping slider	F 25 - module 0060	1000500	E.800.0237
2	1	pcs.	Rectangular tube	25x25x2, 208 mm	1004992	E.800.1179
3	1	pcs.	Cover cap	25x25x2 (black)	1000831	
4	1	pcs.	Clamping plate	For clamping slider F 25 - module 0060	1002473	E.800.0243
5	2	pcs.	Countersunk screw	DIN 7991 - M8x20	1000596	
6	2	pcs.	Slot nut	M8x15 T-form	1009495	
7	1	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x16	975058	

Tab. 129: Parts list: Conveyor support IK1

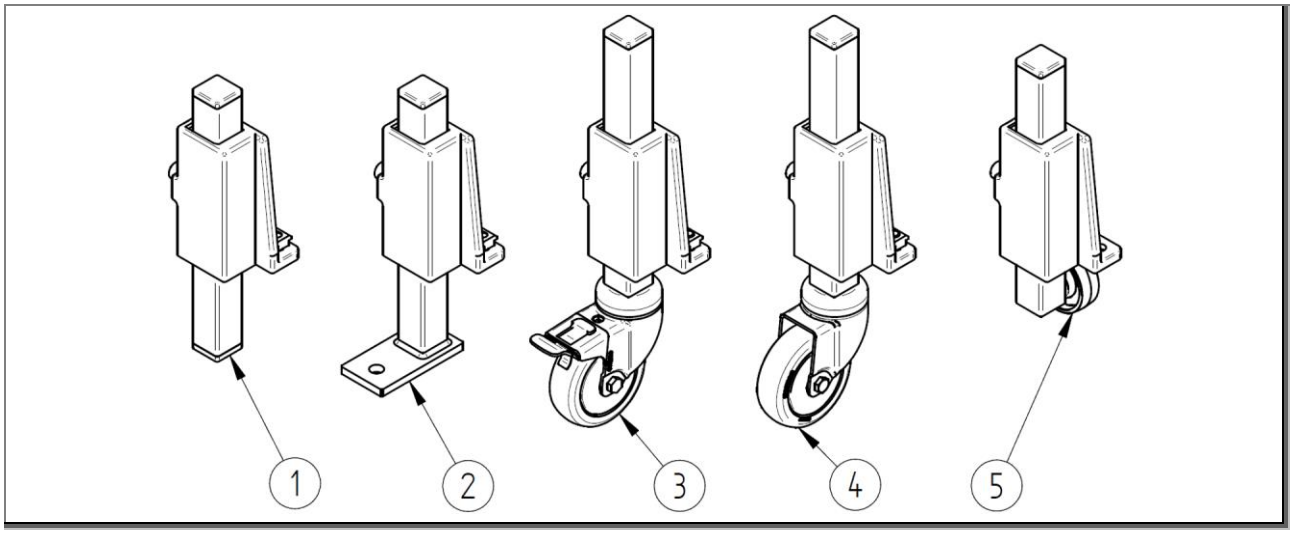


Fig. 115: Conveyor support parts list, cons.-KIT ZZ.982.0105.00

Selection: Conveyor support IK1 - cons.-KIT						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Stationary support	BE-ST-IK1		U.800.0149
2	1	pcs.	Support floor fixation	BE-BB-IK1-I/A		U.800.0191
3	1	pcs.	Support swivel caster with total lock	BE-FLAS-IK1-R75-M		U.800.0151
4	1	pcs.	Support, swivel caster without total lock	BE-FLOS-IK1-R75-M		U.800.0152
5	1	pcs.	Support, fixed caster	BE-FB-IK1-R50-I/A		T.800.0339

Tab. 130: Selection: Conveyor support IK1 - cons.-KIT

Selection: Conveyor support IK1 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Cover cap	25x25x2 (black)	1000831	
2	1	pcs.	Floor fixation	BB-IK1/IK2-A/I		M.800.0167
3	1	pcs.	Swivel caster with total lock	TPE Ø 75 mm - 60 kg	1004576	
4	1	pcs.	Swivel caster without lock	TPE Ø 75 mm - 60 kg	1004575	
5	1	pcs.	Wheel	Ø 50 mm	1011469	

Tab. 131: Selection: Conveyor support IK1 - components

13.4.11.2 Parts list: Support EM 120 ZZ.982.0105.00

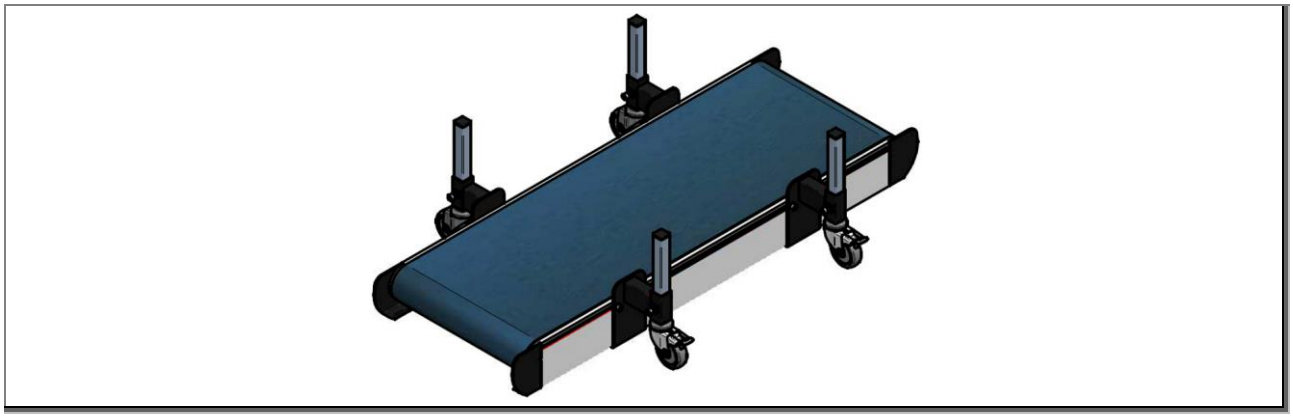


Fig. 116: Parts list, support EM 120 ZZ.982.0105.00

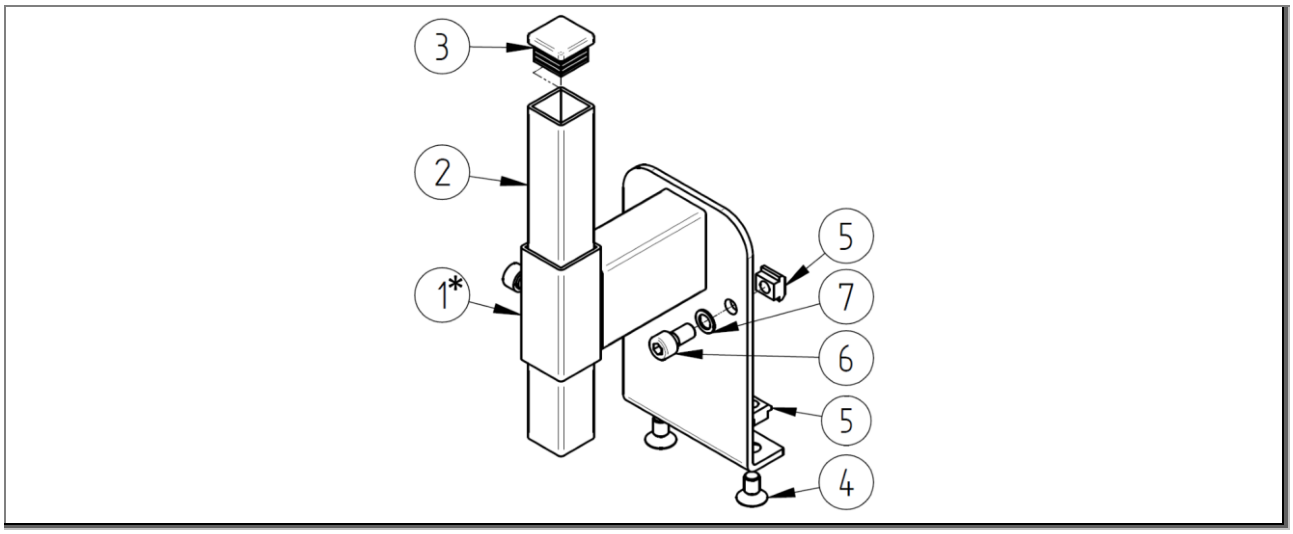


Fig. 117: Parts list, support EM

Parts list: Independent from technical data						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2	1	pcs.	Rectangular tube	25x25x2, Length = 208 mm	1004992	E.800.1179
3	1	pcs.	Cover cap	25x25x2 (black)	1000831	
4	2	pcs.	Countersunk screw	DIN 7991-M8x14	1012533	
5	4	pcs.	Slot nut	M8x15 T-form	1009495	
6	3	pcs.	Hexagon socket head cap screw with low head	DIN 912-M8x16	975058	
7	2	pcs.	Lock washer	Schnorr S8	1000587	

Tab. 132: Parts list: Conveyor support IK3/IK4 - 1

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Clamping slider		Table	Table

Tab. 133: Parts list: Conveyor support IK3/IK4 - 2

Pos. 1* selection: Clamping slider			
Dependent on	**Name**	**ID no.**	**Drawing no.**
Ø75 caster with total lock	Clamping slider module 0062 - K3	1001114	T.800.0036
Ø75 caster without total lock	Clamping slider module 0061 - K4	1001112	T.800.0032

Tab. 134: Selection: Conveyor support IK3/IK4 - 3

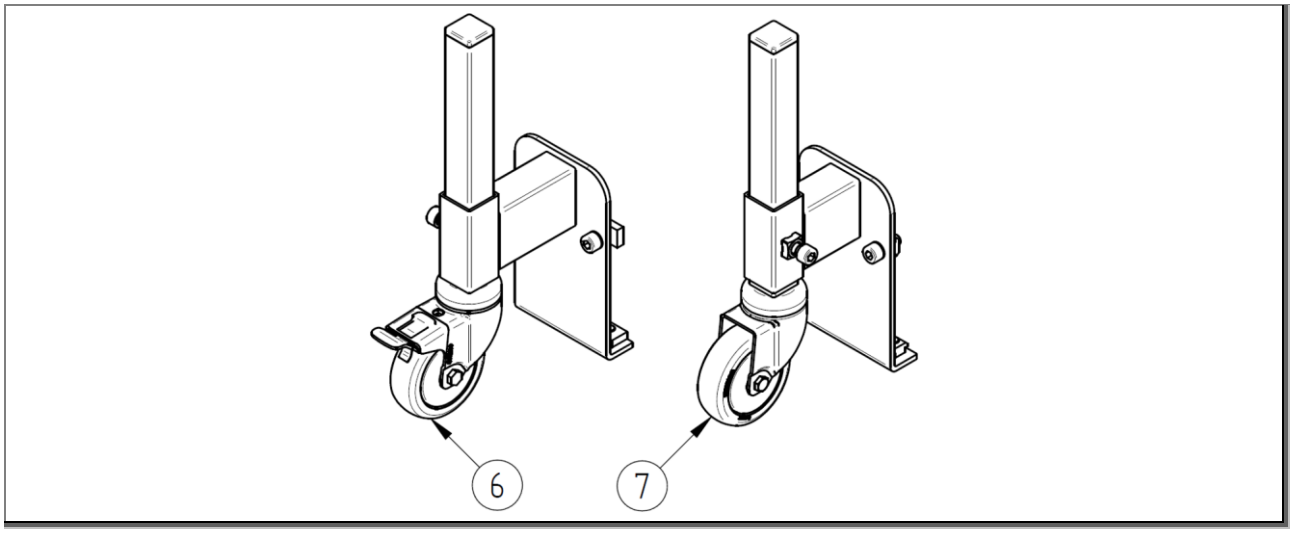


Fig. 118: Parts list, support EM U.800.0184.00 - U.800.0185.00

Selection: Conveyor support IK1 - cons.-KIT						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
6	1	pcs.	Support swivel caster with total lock	BE-FLAS-IK3-R75-M		U.800.0153
7	1	pcs.	Support, swivel caster without total lock	BE-FLOS-IK4-R75-M		U.800.0154

Tab. 135: Selection: Conveyor support IK3/IK4 - cons.-KIT

Selection: Conveyor support IK3/IK4 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
6	1	pcs.	Swivel caster with total lock	TPE Ø 75 mm - 60 kg	1004576	
7	1	pcs.	Swivel caster without lock	TPE Ø 75 mm - 60 kg	1004575	

Tab. 136: Selection: Conveyor support IK3/IK4 - components

13.4.11.3 Parts list: Support AM 010 ZZ.982.0106.00

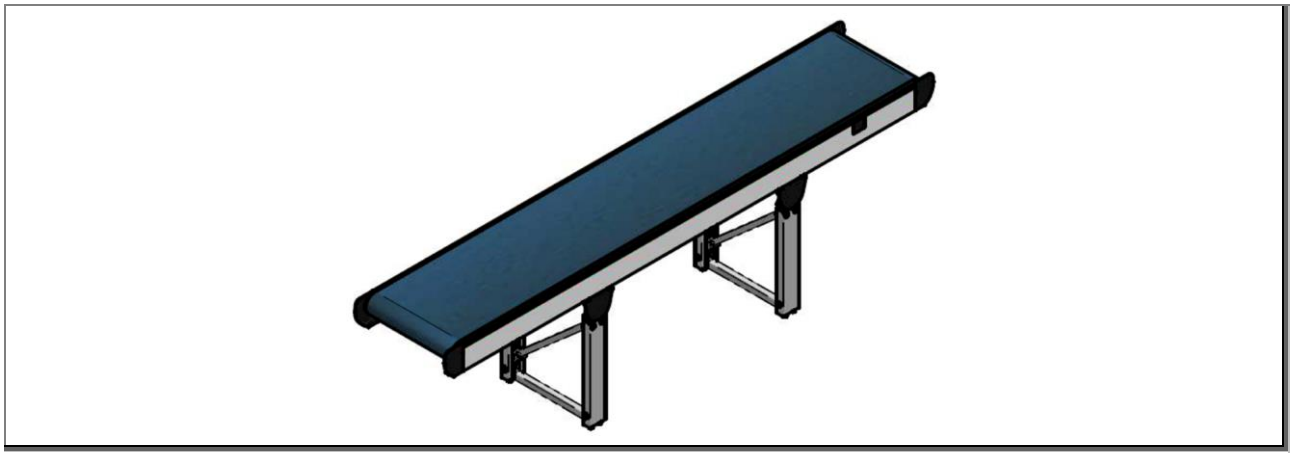


Fig. 119: Parts list: Support AM 010 ZZ.982.0106.00

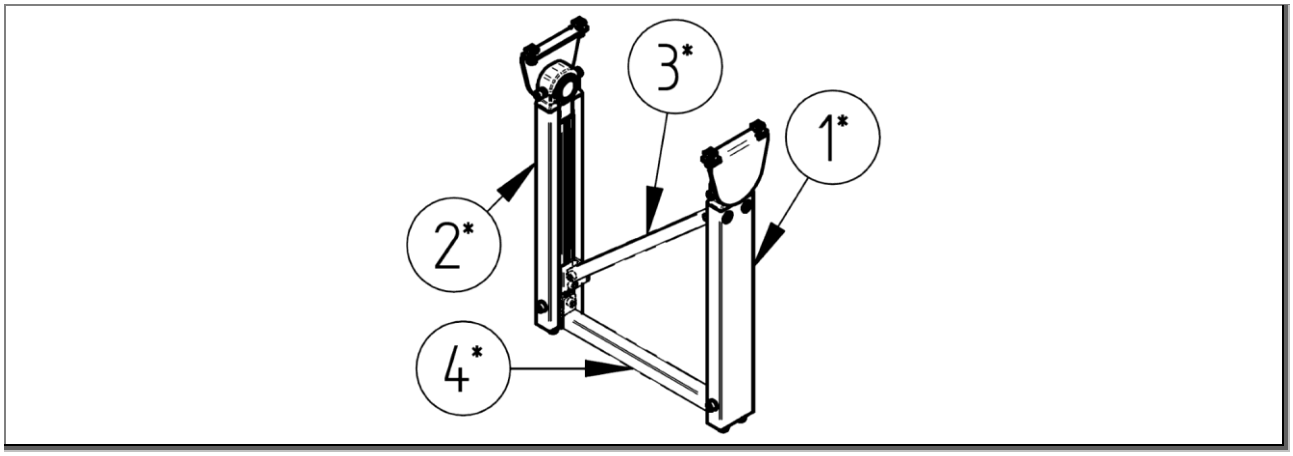


Fig. 120: Parts list: Conveyor support AM 010 ZZ.982.0106.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Module type IP1	left		U.800.0138
2*	1	pcs.	Module type IP1	right		U.800.0139
3*	1	pcs.	Diagonal strut, fixed	DV-2-W	Table	Table
4*	1	pcs.	Cross strut	Cons.-KIT, IP1	Table	Table

Tab. 137: Parts list: Support AM 010

Pos. 3* selection: Diagonal strut, fixed, cons.-KIT		
Length [mm]	DV-2 With 1 angle	DV-2-W With 2 angle
	U.800.0168.00	U.800.0174.01
	ID no.	
150		
200		
250		
300		
350		
400		
450		
500		
550		
600		
650		
700		
750		
800		
850		
900		
950		
1000		
1100		
1200		

Tab. 138: Selection: Diagonal strut, fixed, cons.-KIT

Pos. 4* selection: Cross strut cons.-KIT, IP1	
Nominal width [mm]	
	U.800.0134.00
	ID no.
200	
250	
300	
350	
400	
450	
500	
550	
600	
650	
700	
800	
900	
1000	
1100	
1200	
1300	
1400	
1500	
1600	
1700	
1800	
1900	
2000	

Tab. 139: Selection: Cross strut cons.-KIT, IP1

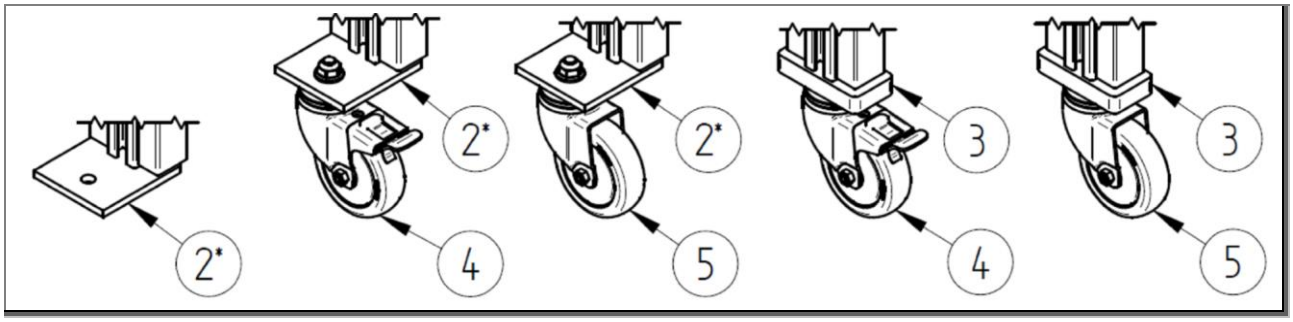


Fig. 121: Parts list: Conveyor support, components ZZ.982.0106.00

Selection: Support AM 010 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
2*	1	pcs.	Floor plate	Module type IP1, lateral	Table	Table
3	1	pcs.	Floor plate	Module type IP1, central		E.800.1178
4	1	pcs.	Swivel caster with total lock	TPE Ø 75 mm - 60 kg	1004574	
5	1	pcs.	Swivel caster without lock	TPE Ø 75 mm - 60 kg	1004573	

Tab. 140: Selection: Support AM 010 - components

Pos. 2* selection: Floor plate		
Alignment	**ID no.**	**Drawing no.**
left	1007840	E.800.0891.01
right	1011180	E.800.1162.01

Tab. 141: Selection: Support AM 010 - floor plate

13.4.11.4 Parts list: Support AM 140 ZZ.982.0106.00

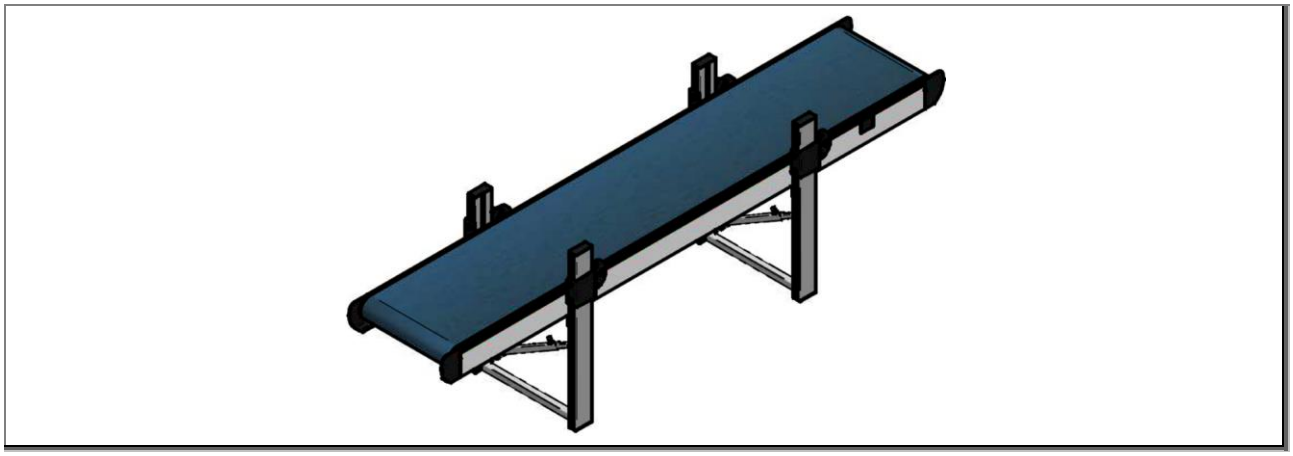


Fig. 122: Parts list: Support AM 140 ZZ.982.0106.00

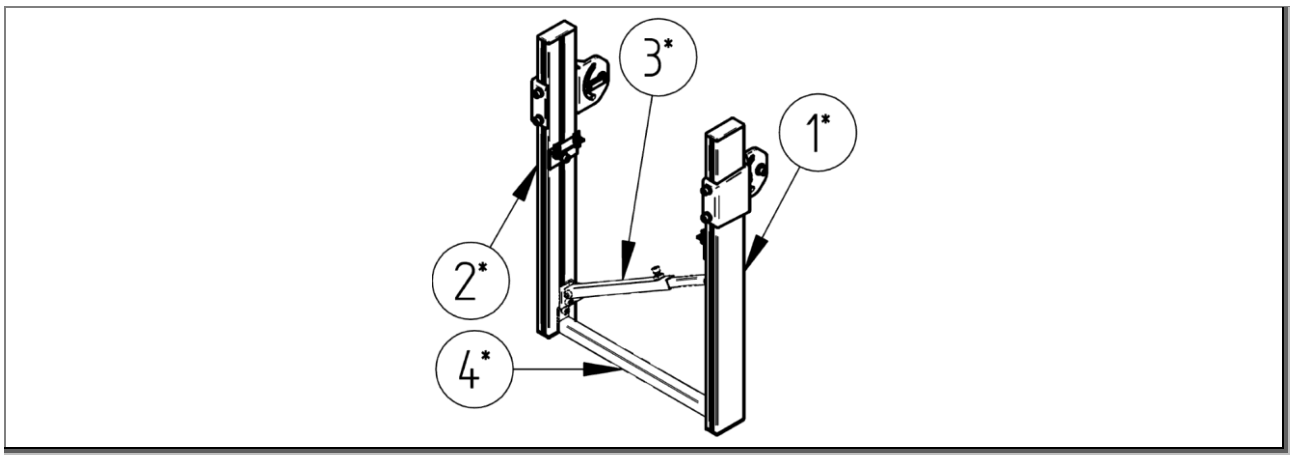


Fig. 123: Parts list: Conveyor support AM 140 ZZ.982.0106.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Module type IP2	left		U.800.0140
2*	1	pcs.	Module type IP2	right		U.800.0140
3*	1	pcs.	Diagonal strut, adjustable	DV-1-W	Table	Table
4*	1	pcs.	Cross strut	Cons.-KIT, IP2/IP3	Table	Table

Tab. 142: Parts list: Support AM 140

13.4.11.5 Parts list: Support AM 260 ZZ.982.0106.00

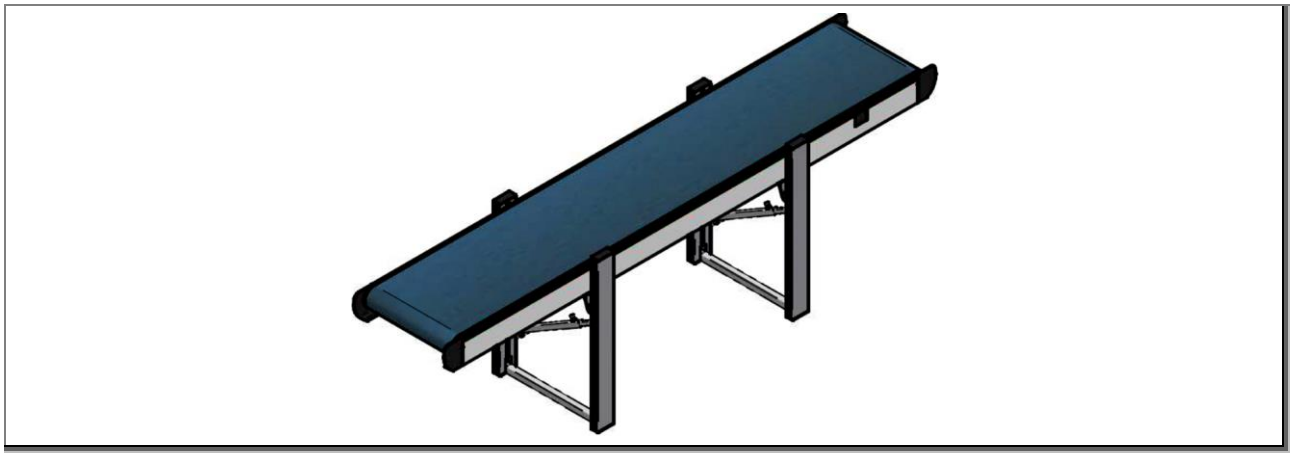


Fig. 124: Parts list: Support AM 260 ZZ.982.0106.00

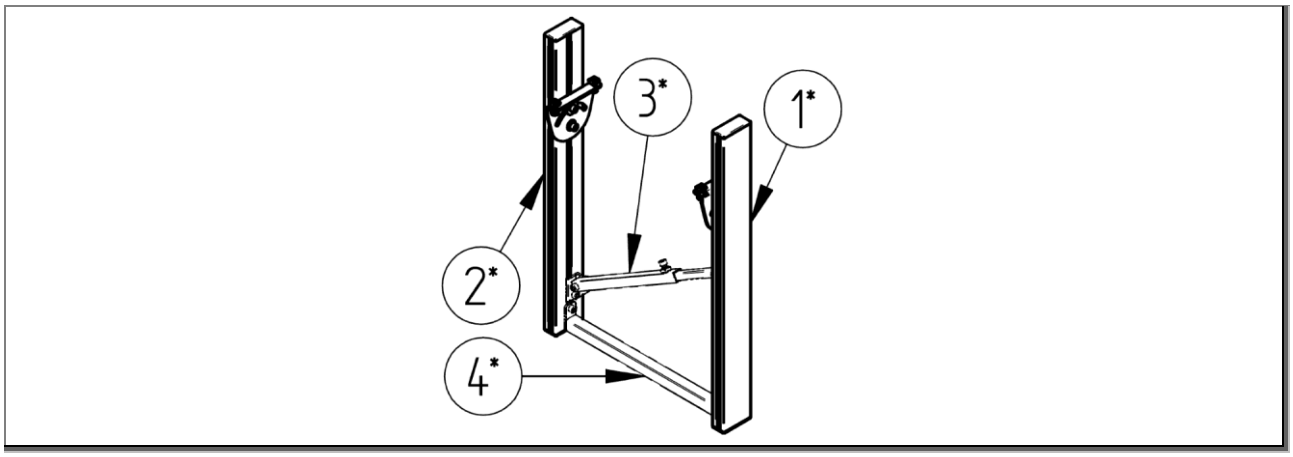


Fig. 125: Parts list: Conveyor support AM 260 ZZ.982.0106.00

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Module type IP3	left		U.800.0143
2	1	pcs.	Module type IP3	right		U.800.0167
3	1	pcs.	Diagonal strut, adjustable	DV-1-W	Table	Table
4	1	pcs.	Cross strut	Cons.-KIT, IP2/IP3	Table	Table

Tab. 143: Parts list: Support AM 260

Pos. 3* selection: Diagonal strut, adjustable, cons.-KIT		
Length [mm]	DV-1 With 1 angle	DV-1-W With 2 angle
	U.800.0131.00	U.800.0128.00
	ID no.	
200		
300		
400		
500		
600		
700		
800		
900		
1000		

Tab. 144: Selection: Diagonal strut, adjustable, cons.-KIT

Pos. 4* selection: Cross strut cons.-KIT, IP2/IP3	
Nominal width [mm]	
	U.800.0133.00
	ID no.
200	
250	
300	
350	
400	
450	
500	
550	
600	
650	
700	
800	
900	
1000	
1100	
1200	
1300	
1400	
1500	
1600	
1700	
1800	
1900	
2000	

Tab. 145: Selection: Cross strut, cons.-KIT, IP2/IP3

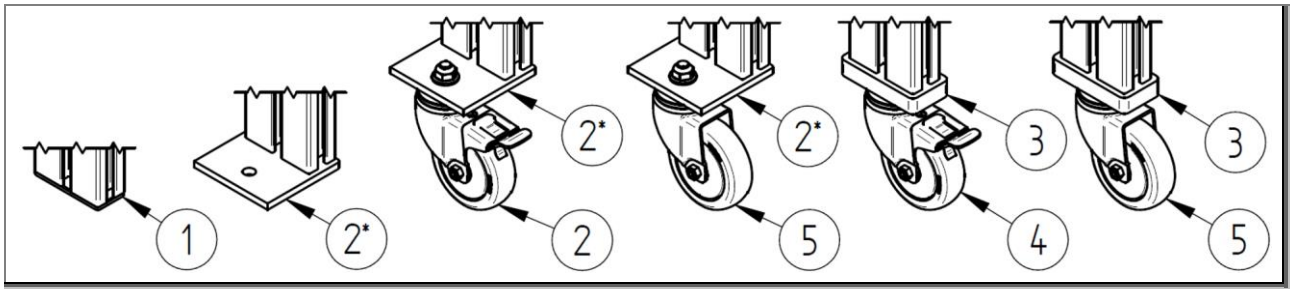


Fig. 126: Parts list conveyor support

Selection: Support AM 140 & AM 260 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1	1	pcs.	Cover cap	25x25x2 (black)	1000831	
2*	1	pcs.	Floor plate	Module type IP2/IP3, lateral	Table	Table
3	1	pcs.	Floor plate	Module type IP2/IP3, central		E.995.5053
4	1	pcs.	Swivel caster with total lock	TPE Ø 75 mm - 60 kg	1004574	
5	1	pcs.	Swivel caster without lock	TPE Ø 75 mm - 60 kg	1004573	

Tab. 146: Selection: Support AM 140 & AM 260 - components

Pos. 2* selection: Floor plate		
Alignment	**ID no.**	**Drawing no.**
left	1006921	E.800.0859.02
right	1006922	E.800.1161.02

Tab. 147: Selection: Support AM 140 & AM 260 - floor plate

13.4.11.6 Parts list: Support basic construction HE 010/HM 010

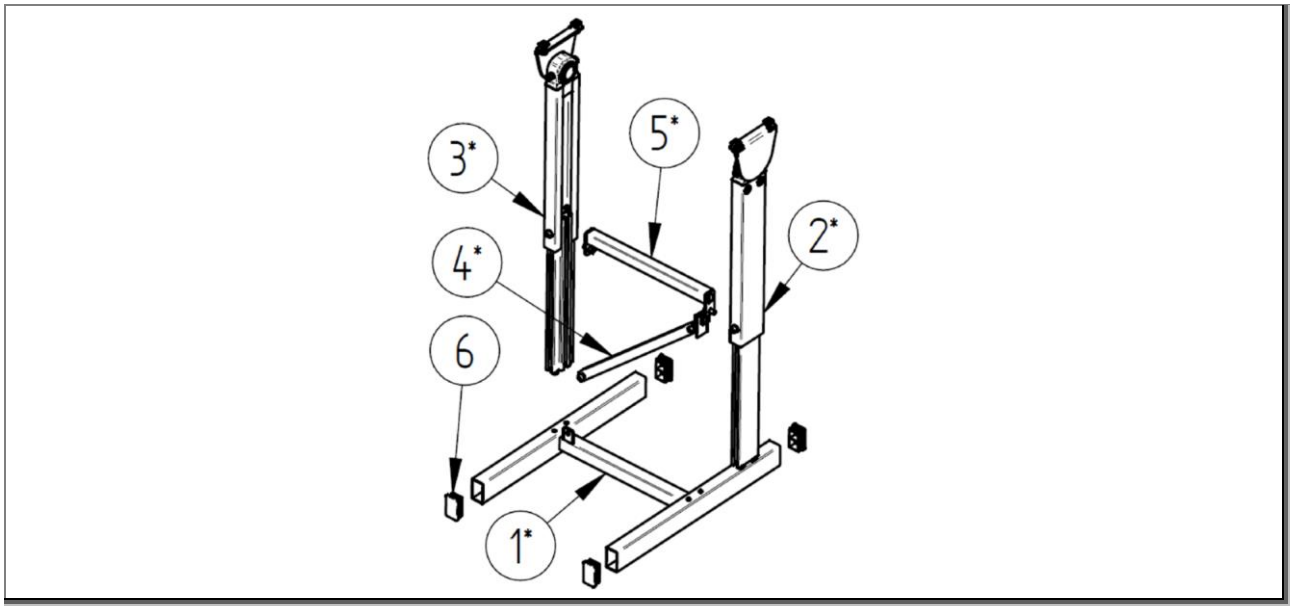


Fig. 127: Parts list: Support HE 010/HM 010 ZZ.800.0189

Parts list: Dependent on technical data (see also order confirmation)						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Base frame	Module type IP1	Table	U.800.0009
2*	1	pcs.	Module type IP1	left		U.800.0138
3*	1	pcs.	Module type IP1	right		U.800.0139
4*	1	pcs.	Diagonal strut, fixed	DV-2	Table	U.800.0168
5*	1	pcs.	Cross strut	Cons.-KIT, IP1	Table	U.800.0134
6	4	pcs.	Cover cap	50x30x2 (black)	1000679	

Tab. 148: Parts list: Support HE 010/HM 010

Pos. 1* selection:	
Nominal width [mm]	**Base frame**
	U.800.0009.06
200	1001214
250	1011451
300	1001215
350	1011452
400	1001216
450	1011453
500	1001217
550	1011454
600	1001218
650	1011455
700	1001219
800	1001220
900	1001221
1000	1001222
1100	1011565
1200	1006671
1300	1011566
1400	1011567

Pos. 1* selection:	
Nominal width [mm]	Base frame
	U.800.0009.06
1500	1011568
1600	1011569
1700	1011570
1800	1011571
1900	1011572
2000	1011573

Tab. 149: Selection: Support HE 010 - base frame

Pos. 4* selection: Diagonal strut, fixed, cons.-KIT		
Length [mm]	DV-2 With 1 angle	DV-2-W With 2 angle
	U.800.0168.00	U.800.0174.01
	ID no.	
150		
200		
250		
300		
350		
400		
450		
500		
550		
600		
650		
700		
750		
800		
850		
900		
950		
1000		
1100		
1200		

Tab. 150: Selection: Diagonal strut, fixed, cons.-KIT

Pos. 5* selection: Cross strut cons.-KIT, IP1	
Nominal width [mm]	
	U.800.0134.00
	ID no.
200	
250	
300	
350	
400	
450	
500	
550	
600	
650	
700	
800	
900	
1000	
1100	
1200	
1300	
1400	
1500	
1600	
1700	
1800	
1900	
2000	

Tab. 151: Selection: Cross strut cons.-KIT, IP1

13.4.11.7 Parts list: Support basic construction HE 020/HM 140

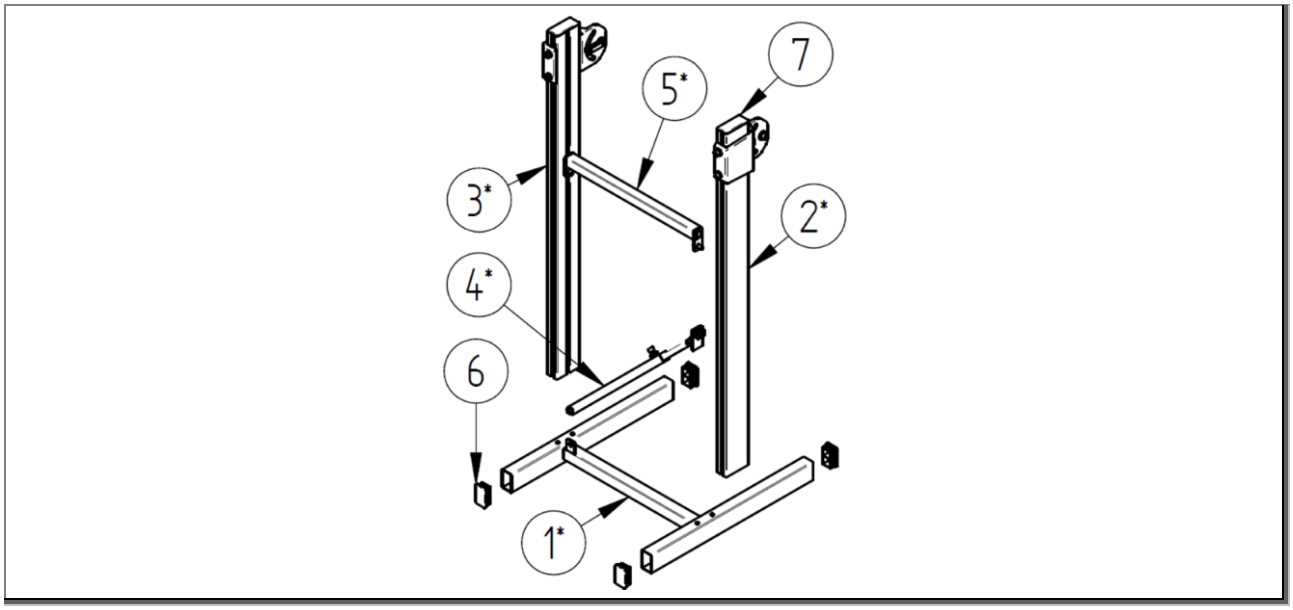


Fig. 128: Parts list: Support HE 020/HM 140 ZZ.800.0188

Selection: Support AM 140 & AM 260 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Base frame	Module type IP2/IP3	Table	U.800.0008
2*	1	pcs.	Module type IP2	left		U.800.0140
3*	1	pcs.	Module type IP2	right		U.800.0140
4	1	pcs.	Diagonal strut, adjustable	DV-1	Table	U.800.0131
5	1	pcs.	Cross strut	Cons.-KIT, IP2/IP3	Table	U.800.0133
6	4	pcs.	Cover cap	50x30x2 (black)	1000679	
7	2	pcs.	Cover cap	C73 for IP2/IP3	1000024	E.800.0197

Tab. 152: Parts list: Support HE 020/HM 140

13.4.11.8 Parts list: Support basic construction HE 030/HM 260

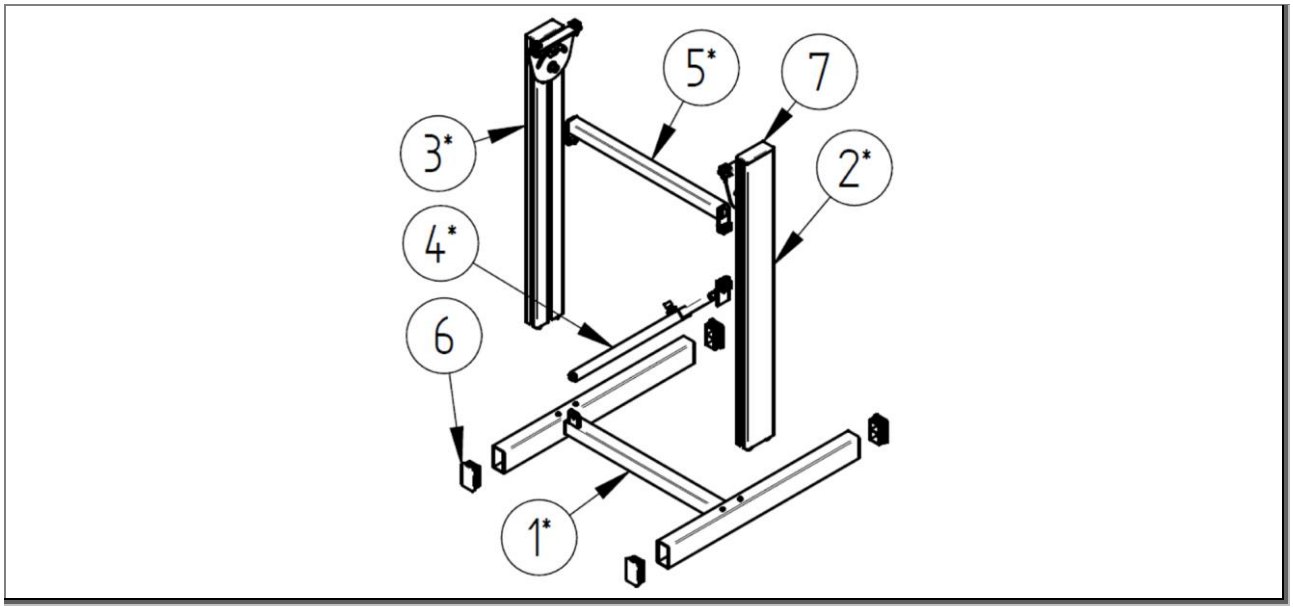


Fig. 129: Parts list: Support HE 030/HM 260 ZZ.800.0196

Selection: Support AM 140 & AM 260 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1*	1	pcs.	Base frame	Module type IP2/IP3		U.800.0008
2*	1	pcs.	Module type IP3	left		U.800.0143
3*	1	pcs.	Module type IP3	right		U.800.0167
4	1	pcs.	Diagonal strut, adjustable	DV-1		U.800.0131
5	1	pcs.	Cross strut	Cons.-KIT, IP2/IP3		U.800.0133
6	4	pcs.	Cover cap	50x30x2 (black)	1000679	
7	2	pcs.	Cover cap	C73 for IP2/IP3	1000024	E.800.0197

Tab. 153: Parts list: Support HE 030/HM 260

Pos. 4* selection: Diagonal strut, adjustable, cons.-KIT		
Length [mm]	DV-1 With 1 angle	DV-1-W With 2 angle
	U.800.0131.00	U.800.0128.00
	ID no.	
200		
300		
400		
500		
600		
700		
800		
900		
1000		

Tab. 154: Selection: Diagonal strut, adjustable, cons.-KIT

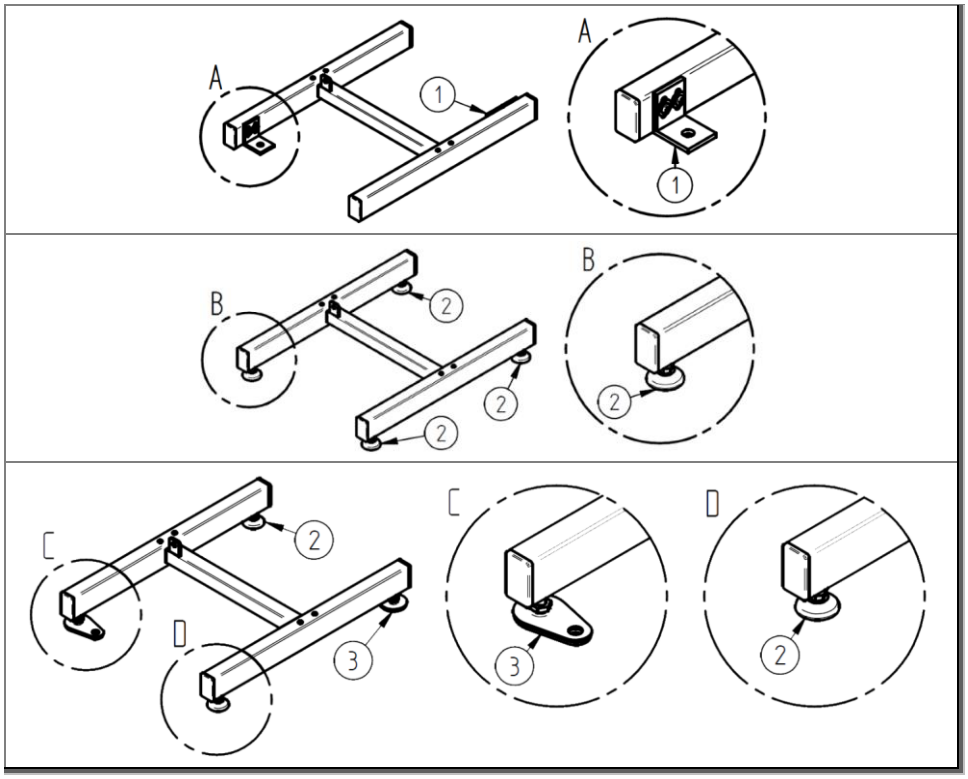
Pos. 5* selection: Cross strut cons.-KIT, IP2/IP3	
Nominal width [mm]	
	U.800.0133.00
	ID no.
200	
250	
300	
350	
400	
450	
500	
550	
600	
650	
700	
800	
900	
1000	
1100	
1200	
1300	
1400	
1500	
1600	
1700	
1800	
1900	
2000	

Tab. 155: Selection: Cross strut, cons.-KIT, IP2/IP3

Pos.1* Selection:			
Base frame			
U.800.0008.05			
Nominal width [mm]	ID no.	Nominal width [mm]	ID no.
200	1000854	900	1000861
250	1006652	1000	1000862
300	1000855	1100	1005593
350	1006653	1200	1004972
400	1000856	1300	1001004
450	1006654	1400	1005594
500	1000857	1500	1005595
550	1006665	1600	1011462
600	1000858	1700	1011463
650	1006656	1800	1011464
700	1000859	1900	1011465
800	1000860	2000	1011466

Tab. 156: Selection: Support HE 020 / HE 030 /HM 140/ HM260 - base frame

13.4.11.9 Parts list: Support placement options HE/HM ZZ.982.0068.01



Floor fixation

Stationary

Stationary with floor fixation

Fig. 130: Parts list: Support placement options HE/HM ZZ.982.0068.01

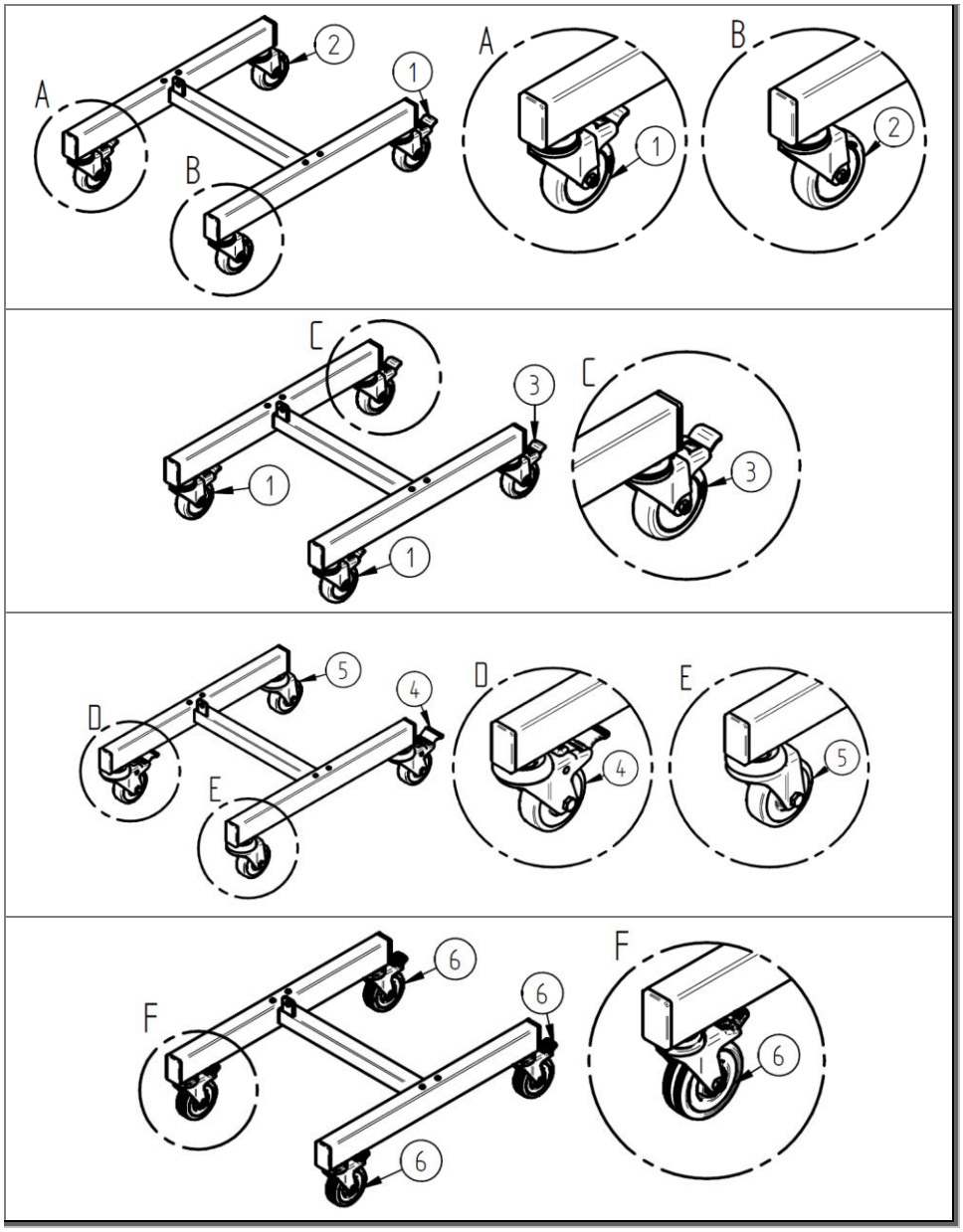
Selection: Support HE/HM - stationary/floor fixation - cons.-KIT						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Floor fixation	Cons.-KIT, type BF-3		U.800.0137
2		pcs.	Leveling foot	Cons.-KIT		T.800.0312
3		pcs.	Leveling foot with clip	Cons.-KIT, (floor fixation)		T.800.0313

Tab. 157: Selection: Support HE/HM - components - stationary/floor fixation - cons.-KIT

Selection: Support HE/HM - stationary/floor fixation - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Fastening angle		1007838	
2		pcs.	Leveling foot		1003490	
3		pcs.	Leveling foot	With fastening link	1010268	

Tab. 158: Selection: Support HE/HM - stationary/floor fixation - components

13.4.11.10 Parts list: Support placement options HE/HM ZZ.982.0068



Moveable
L Ø 75 TPE

Color: gray

Moveable
B Ø 75 TPE

Color: gray

Moveable
L Ø 75 PT

Color: white

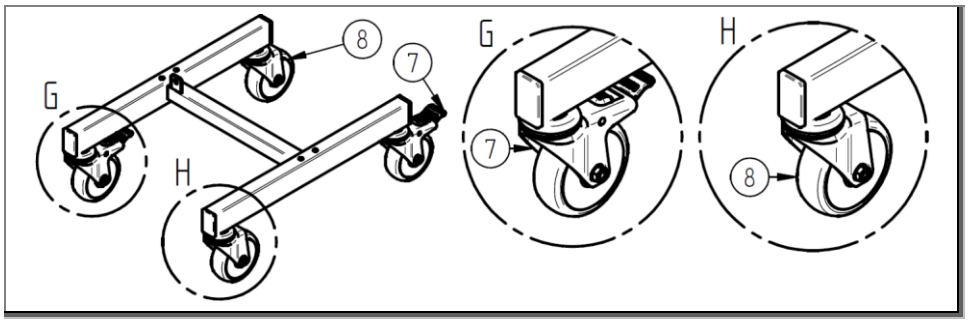
Moveable
L Ø 75 ESD

Color: black

Fig. 131: Parts list: Support placement option HE/HM casters with bolt hole ZZ.982.0068

Selection: Support HE/HM - casters Ø75- components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Swivel caster with total lock	TPE Ø 75 mm - 60 kg	1004574	
2		pcs.	Swivel caster without lock	TPE Ø 75 mm - 60 kg	1004573	
3		pcs.	Fixed caster with wheel lock	TPE Ø 75 mm - 60 kg	1001131	
4		pcs.	Swivel caster with total lock	PT Ø 75 mm - 60 kg	1009806	
5		pcs.	Swivel caster without lock	PT Ø 75 mm - 60 kg	1009807	
6		pcs.	Swivel caster with total lock	ESD Ø 75 mm - 60 kg	1009967	

Tab. 159: Selection: Support HE/HM - casters Ø75- components



Moveable
L Ø 100 TPE

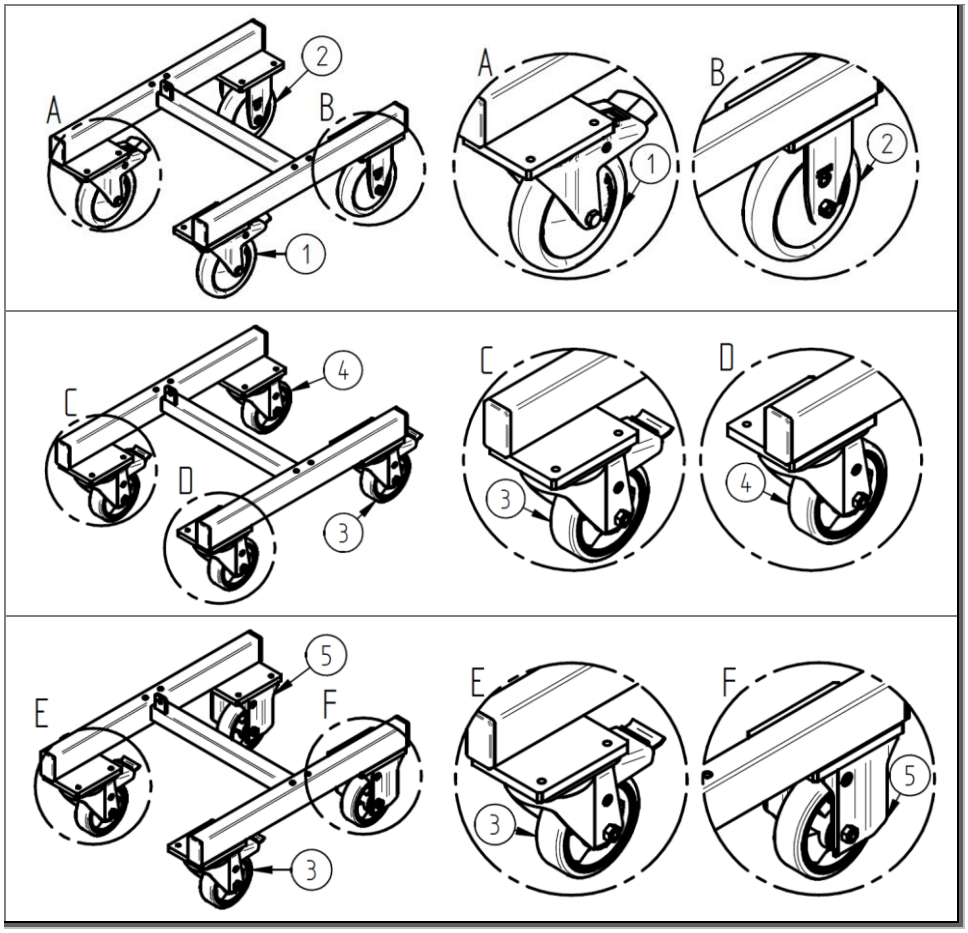
Color: gray

Fig. 132: Parts list: Support placement option HE/HM casters with bolt hole ZZ.982.0068

Selection: Support HE/HM - casters Ø100 - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Swivel caster without lock	TPE Ø 100 mm - 90 kg	1007209	
2		pcs.	Swivel caster with total lock	TPE Ø 100 mm - 90 kg	1007208	

Tab. 160: Selection: Support HE/HM - casters Ø100 - components

13.4.11.11 Parts list: Support placement options HE/HM ZZ.982.0068



Moveable
B Ø 125 PU

Color: blue

Moveable
L Ø 100 PU S

Color: sand yellow

Moveable
B Ø 100 PU S

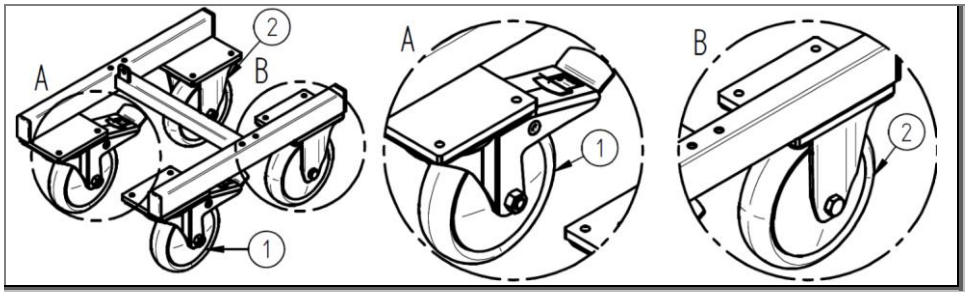
Color: sand yellow

Fig. 133: Parts list: Support placement option HE/HM casters with bolt hole ZZ.982.0068

Selection: Support HE/HM - casters Ø100/Ø125 with plate - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Swivel caster with total lock	PU Ø 125 mm - 200 kg	1011080	
2		pcs.	Fixed caster without lock	PU Ø 125 mm - 200 kg	1011081	
3		pcs.	Swivel caster with total lock	PU S Ø 100 mm - 250 kg	1007667	
4		pcs.	Swivel caster without lock	PU S Ø 100 mm - 250 kg	1007594	
5		pcs.	Fixed caster without lock	PU S Ø 100 mm - 250 kg	1011170	

Tab. 161: Selection: Support HE/HM - casters Ø100/Ø125 with plate - components

13.4.11.12 Parts list: Support placement options HE/HM ZZ.982.0068



Moveable
B Ø 160 PU

Color: blue

Fig. 134: Parts list: Support placement option HE/HM casters with bolt hole ZZ.982.0068

Selection: Support HE/HM - casters Ø160 with plate - components						
Pos.	**Qty**	**Unit**	**Name 1**	**Name 2**	**ID no.**	**Drawing no.**
1		pcs.	Swivel caster with total lock	PU Ø 160 mm - 250 kg	1010056	
2		pcs.	Fixed caster without lock	PU Ø 160 mm - 250 kg	1010057	

Tab. 162: Selection: Support HE/HM - casters Ø160 with plate - components

13.4.12 Accessories: Guiding- and storage structures (optional)

NOTE

Spare parts for guiding- and storage structures available by consultation with our sales team.

Parts list: Guiding- and storage structures			
Designation	**Type**	**ID no.**	**Drawing no.**
Catch flap with angle bracket	GL-FKW		ZZ.800.0115
Extension hopper	GL-A		ZZ.800.0107
Extension hopper	GL-B		ZZ.800.0112
Extension hopper	GL-C		ZZ.800.0110
Extension hopper	GL-D		ZZ.800.0114
Extension hopper	GL-E		ZZ.800.0113
Extension hopper	GL-F		ZZ.800.0111
Feeding hopper	GLD-G		ZZ.800.0203

Tab. 163: Parts list: Guiding- and storage structures

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This space is reserved for your notes: