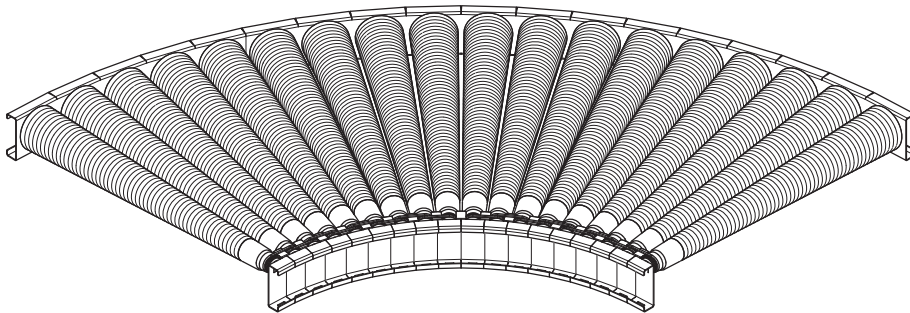


INSPIRED BY EFFICIENCY



## **Installation and Operating Instructions**

### **Interroll Roller curve**

**SH 1210**

**Rated width 405 mm (S), 710 mm (M), 862 mm (L)**

**Manufacturer's address**

Interroll Trommelmotoren GmbH  
Center of Excellence Hygienic Solutions  
Opelstraße 3  
41836 Hueckelhoven/Baal (Germany)  
www.interroll.com

**Interroll Service**

Our Service Team will gladly provide advice in case of questions or problems:

Hotline: +49 (0) 2193 - 23 222

E-mail: ceu.service@interroll.com

**Contents**

We strive for the information presented to be correct, up to date and complete. We have carefully developed the contents of this document. Nevertheless, errors and changes are expressly subject to change.

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### Introduction

#### Notes about working with the installation and operating instructions

The Interroll Rollenkurve product is generally referred to as "module" in this document.

These installation and operating instructions contain important notes and information about the various operating phases of the module:

- Transport, assembly and startup
- Safe operation, required maintenance tasks, removal of any faults
- Spare parts, supplementary accessories

The installation and operating instructions describe the module at the time of its initial delivery after manufacturing.

In addition to these installation and operating instructions, special contractual agreements and technical documents apply to special versions of the module and its additional equipment.

- ▶ To ensure trouble-free and safe operation, as well as the settlement of possible warranty claims, always read these installation and operating instructions first and observe all information contained herein.
- ▶ Keep the installation and operating instructions close to the module.
- ▶ Pass the installation and operating instructions on to any subsequent operator or occupant. Interroll does not accept any liability for faults or defects due to non-observance of these installation and operating instructions.
- ▶ If you have any questions after reading the installation and operating instructions, please contact Interroll customer service. Contact persons near you can be found on the Internet under: [www.interroll.com/contact](http://www.interroll.com/contact).

**Contents of these  
installation and operating  
instructions**

**Integrated part of the  
product**

**Installation and operating  
instructions are part of the  
module**

## Interroll Roller curve SH 1210

---

### Introduction

### Warning notices in this document

The warning notices refer to risks which may arise while using the module. They are available in four danger levels identified by the signal word:

Signal word	Meaning
DANGER	Identifies a danger with high risk that will result in death or serious injury if it is not avoided.
WARNING	Identifies a danger with medium risk that could result in death or serious injury if it is not avoided.
CAUTION	Identifies a danger with low risk that may result in minor or medium injury if it is not avoided.
NOTICE	Identifies a danger that results in property damages.

### Symbols



This symbol marks useful and important information.

Requirement:

- This symbol represents a prerequisite to be met prior to installation and maintenance work.
- ▶ This symbol marks the steps to be carried out.

### Safety

#### State of the art

The module has been built to comply with the state of the art. Nevertheless, users may encounter hazards during its use.



Disregarding the notices in these installation and operating instructions may lead to life-threatening injuries!

- ▶ Carefully read the installation and operating instructions and follow their content.
- ▶ Observe local accident prevention regulations and general safety regulations that apply in the area of use.

#### Intended use

The module may only be used for industrial applications and in an industrial environment to convey roller conveyor-ready goods, such as all types of boxes, packaged food or beverage units.

The module is an incomplete machine and must be integrated into a complete system prior to operation.

#### Field of use

The module is dimensioned only for a certain field of use and may not be operated outside of these specific limits. For additional information, see the chapter "Technical Data".

Any other use is considered inappropriate. Deviating operating conditions require additional clarifications, a special release of the module and new contractual agreements.

#### Changes to the module

Any modifications that affect the safety are not permitted.



## Interroll Roller curve SH 1210

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### Safety

#### Unintended use

Any use beyond the intended use is considered inappropriate or, if required, must be authorized by Interroll Trommelmotoren GmbH. Setup and operation in explosive atmospheres is prohibited. The use in a medical-pharmaceutical area requires the approval from Interroll.

The transport of persons is prohibited.

The transport of hazardous or damaging goods is prohibited.

The transport of hot or hygroscopic goods is prohibited.

Installation in unprotected rooms exposed to the weather or in areas where the technology deteriorates and can fail due to the prevailing climatic conditions is considered inappropriate use.

Use of the module is not intended for private end customers! Use in a residential area is prohibited without additional assessment and without the use of EMC protective measures that have been adapted accordingly!

#### Personnel qualification

Unqualified personnel cannot recognize risks and, as a result, is subject to greater dangers.

- ▶ Authorize only qualified personnel to perform the activities described in these instructions.
- ▶ The operating company must ensure that personnel follow locally applicable regulations and rules about safety and hazards while working.

The following target groups are addressed in these instructions:

<b>Operators</b>	Operators have been instructed in the operation and cleaning of the module and follow the safety guidelines.
<b>Service personnel</b>	The service personnel features a technical training and performs the maintenance and repair tasks.
<b>Electricians</b>	Persons working on electrical installations must have pertinent technical training.

## Interroll Roller curve SH 1210

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### Safety

### Personal protective equipment



- ▶ For all work, such as assembly, maintenance and cleaning tasks, wear personal protective equipment that is suitable and appropriate for the hazard situation.



Close-fitting work clothing



Protective gloves



Safety shoes



Hard hat



Hearing protection

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## Interroll Roller curve SH 1210

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### Safety

### Dangers



The following list informs you about the various types of danger or damage that may occur while working with the module.

#### Safety devices

- ▶ Perform any maintenance and repair work on the module only when it is powered down and ensure that it cannot be started accidentally.
- ▶ In an area frequented by people or if people can reach between conveying goods, take additional protective measures.
- ▶ Do not remove protective covers or housing.
- ▶ Regularly check the safety devices.

#### Heat

- ▶ Do not touch the motor/RollerDrive during operation. Risk of burns.

#### Electricity

- ▶ Reach into the module only if the module is de-energized.
- ▶ Always keep the control cabinet closed. Before opening the control cabinet: Main power switch to "OFF".

#### Rotating parts

- ▶ Never wear loose clothing.
- ▶ Never wear jewellery, such as necklaces or bracelets.
- ▶ If you have long hair, always wear a hair net.

#### Parts lying around or falling off

- ▶ Remove equipment or material which is not required from the workspace.
- ▶ Wear safety shoes.
- ▶ Specify and monitor careful placement of the goods on the conveyor.

#### Risk of injury due to faults during operation

- ▶ Regularly check the module for visible damage.
- ▶ Stop the module at once and ensure that it cannot be started accidentally in case of: Smoke from a fire, unusual noise, blocked or defective conveying good, defective supports, side guides or accessory devices, unauthorized removal of safety covers.
- ▶ Promptly have qualified personnel determine the cause of the fault.
- ▶ Immediately remove any escaping gear oil.
- ▶ Do not step onto the module during operation.

#### Insufficient hygiene

- ▶ Clean the module regularly.
- ▶ Follow all notices relevant to hygiene in these instructions.

### Maintenance intervals

- ▶ Regularly perform maintenance and inspection work.
- ▶ Use only OEM spare parts.

## Interroll Roller curve SH 1210

### Safety

#### Interfaces to other devices

Hazard locations may occur while integrating the module into a complete system. These are not part of this manual and have to be analyzed during the installation and startup of the complete system.

- ▶ When combining the module with other modules or machinery, check for new hazard locations before startup.
- ▶ If necessary, take further construction measures.

#### Operating modes

**Normal mode** The module is installed at the customer in a complete system and operated as part of the system.

**Special mode** Special operation refers to all operating modes that are required to guarantee and maintain regular operation.

Special operating mode	Explanation	Comment
Transport/storage	Loading and unloading, transport and storage	-
Assembly/initial startup	Installation at the end customer and performing the test run	-
Cleaning	External cleaning without removing protective devices	When powered down
Maintenance/repairs	Maintenance and inspection tasks	When powered down
Troubleshooting	Troubleshooting in the event of a fault	-
Fault elimination	Eliminating the fault	When powered down
Decommissioning	Removal from the complete system	When powered down
Disposal	Removal from the complete system and disassembly	When powered down

## Interroll Roller curve SH 1210

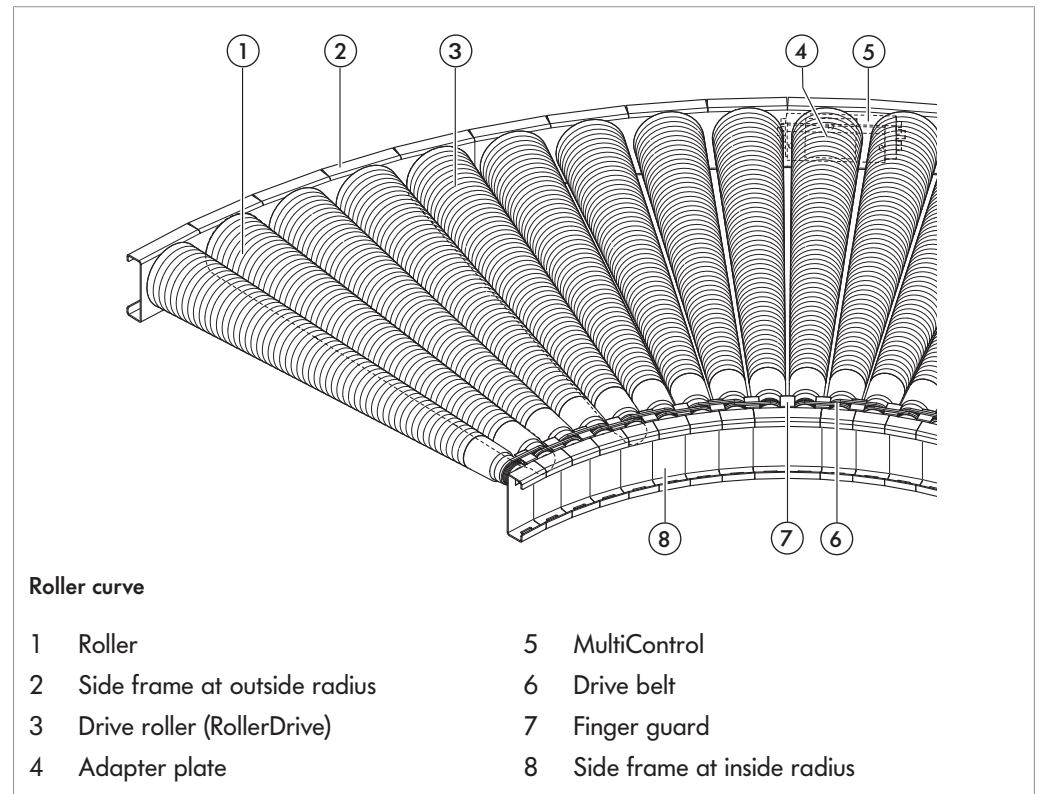
### Product identification

#### Roller curve (SH 1210)

The Interroll roller curve is available in the following rated widths (BF):

- S: 405 mm
- M: 710 mm
- L: 862 mm

#### Components



#### Property

The module changes the direction of transport of roller conveyor-capable goods, such as parcels, cardboard cartons or boxes.

Depending on the size of the module, the rated width is 405 mm (S), 710 mm (M) or 862 mm (L). The module's rollers are driven by several PolyVee belts running from roller to roller. The drive is provided by an Interroll RollerDrive EC5000.

Using the Interroll RollerDrive allows for a compact design. Since the drive is located within the side profiles, the individual modules can be installed very close to each other. Together with MultiControl, it is very easy to implement a zero-pressure accumulation conveyor.

The base frame of the conveyor consists of stainless steel profiles with adjustable feet. As a result, the transfer dimensions to adjacent modules are variably adjustable and the module can be adjusted for uneven floors.



## Interroll Roller curve SH 1210

### Product identification

#### Technical data

	<b>SH 1210</b>
Rated width (BF)	405 mm (S)
Conveying width (CW)	710 mm (M) 862 mm (L)
Dimensions of conveying good	Max.: 700 x 800 mm
Max. load capacity per zone	35 kg
Conveyor speed	0.1 – 0.8 m/s
Ambient temperature	-5 to +40 °C
Incline/decline	Not suitable
Motor type	RollerDrive EC5000
Max. electrical power per zone	35 W
Rated voltage	24 V
Rated current	2.4 A
Starting current	5.5 A
Drive medium	PolyVee belt
Control variants	MultiControl Bus Interface (IPX5 housing)
Roller type	IP55 roller
Roller diameter	50 mm
Roller material	Stainless steel
Max. number of rollers	6 for 30° 9 for 45° 12 for 60° 18 for 90°
Cam angle	30° 45° 60° 90°
Inside radius	660 mm
Direction of rotation	Clockwise / counterclockwise
Side guide	Without, fixed, left or right
Electrical system side	Left or right (preselected in the layouter)
Drive side	Left or right (preselected in the layouter)
Protection rating	RollerDrive: IP 66

## Interroll Roller curve SH 1210

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### Product identification

### Scope of supply

The module is delivered completely assembled.

The scope of delivery includes:

- Frame including side frames
- Drive (RollerDrive)
- Rollers (drive rollers, carrying idlers)
- Finger guards
- End plates

Optional:

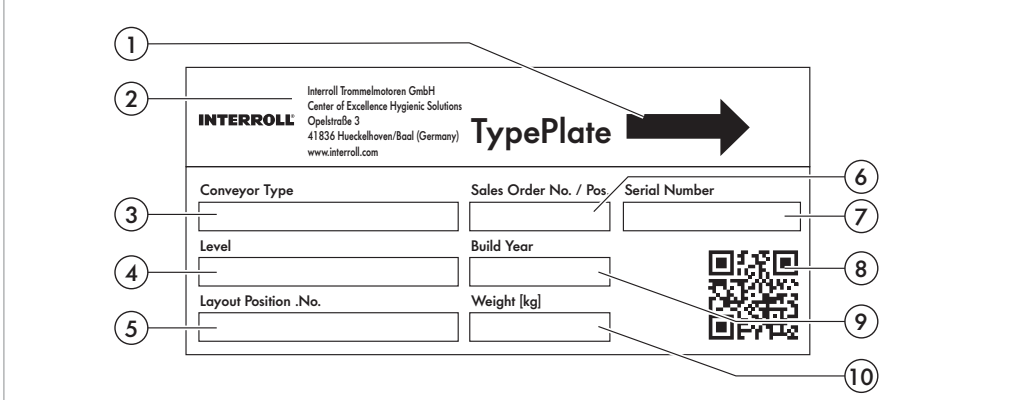
- MultiControl
- Photo cell and reflector, sensor holder and universal support
- Side guides, side guide brackets and universal support
- Connector sets incl. module connectors and contact guards
- Electronics
- Supports

The side guide profiles and sensors are delivered installed (if ordered).

## Interroll Roller curve SH 1210

### Product identification

### Nameplate



**Nameplate**

1	Interroll Trommelmotoren GmbH Center of Excellence Hygienic Solutions Opelstraße 3 41836 Hueckelhoven/Baal (Germany) www.interroll.com			2
3	Conveyor Type	Sales Order No. / Pos	Serial Number	6
4	Level	Build Year	QR code	7
5	Layout Position .No.	Weight [kg]		8
				9
				10

**Nameplate**

1	Arrow in transport direction	6	Machine number
2	Company address	7	Serial number
3	Type designation	8	QR code
4	Level	9	Year of manufacture
5	Layout item no.	10	Weight in kg

The information on the nameplate is used to identify the conveyor. The type designation is required to use the conveyor according to its intended use.



The nameplate is located on the right side frame.

### Determining permissible dimensions

Between frames (BF) is the measure between the side frames.

Lane width (LW) is the measure between the side guides.

With fixed side guides,  $LW = BF$ . With flexible side guides, the LW dimension can be changed by  $-90/+120$  mm.

$$\Rightarrow BF - 90 \leq LW \leq BF + 120$$

The lane width of the conveyor for straight paths is at least the width of the transport material + 20 mm:  $LW = W + 20$  mm



## Interroll Roller curve SH 1210

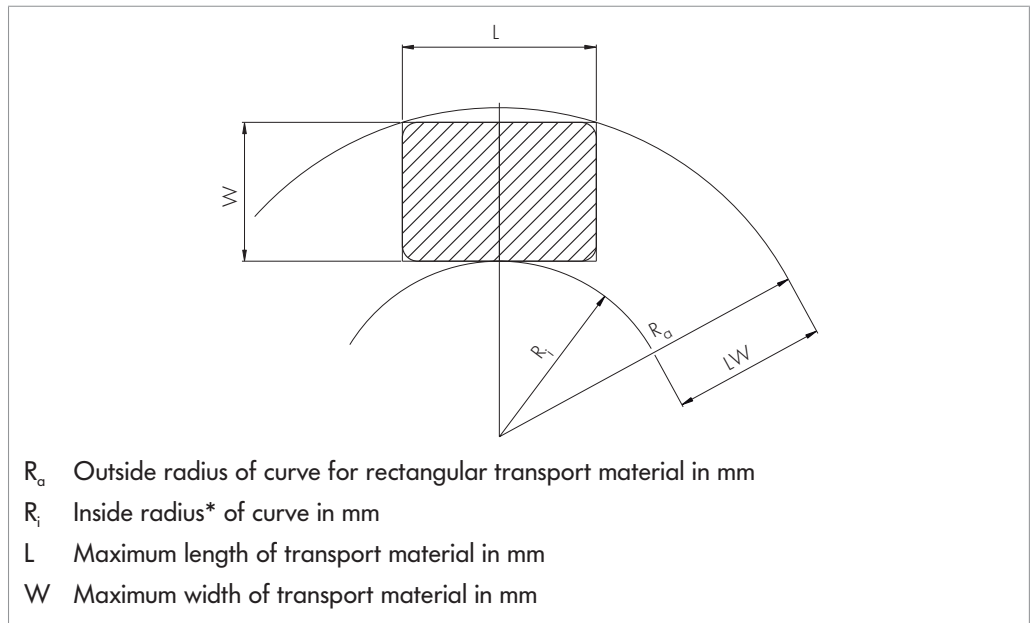
### Product identification

### NOTICE

#### Damage to the module or material!

Transport only material with permissible dimensions.

- ▶ Determine the dimension between frames (BF) based on ordering documents. Check dimensions, if necessary.
- ▶ Select chart with matching lane width (LW).
- ▶ Check whether the dimensions of the material are located below the characteristic curve for the lane width (LW).
- ▶ The lane width can also be determined with the formula:  $R_o = \sqrt{R_i + W^2} + (L / 2)^2$ .
- ▶ If necessary, adjust lane width using the flexible side guides according to the dimensions of the material.



\* The inside radius for our curves is always 825 mm (deep freeze 791 mm) and is measured at the inside edge of the profile.

### Transport and storage

#### Transport

---

##### **WARNING**

###### **Risk of injury during transport**

- ▶ Fasten the module securely and slip-proof for transport.
  - ▶ Ensure that the lifting device (e.g. fork lift) is rated for the weight of the module.
  - ▶ Ensure that there are no persons under the suspended load while lifting and moving the module.
- 

- ▶ Have any persons leave the danger zone.
- ▶ Wear safety shoes.
- ▶ Check correct fastening for transport.
- ▶ Avoid strong impacts during transport.
- ▶ Do not expose the module to strong temperature fluctuations since these could damage the electrical components.

Loosen the transport locks around the package. The crossbeams above the top module can then be removed, thereby exposing the module. The individual module is lifted out of the package using a suitable lifting device.

#### **After the delivery**

- ▶ Inspect module for transport damages.
- ▶ Immediately notify the carrier and manufacturer in case of damages to avoid losing any claims for compensation.

#### Storage

---

##### **WARNING**

###### **Risk of injury due to improper storage**

- ▶ Do not stack modules. Do not place any other objects on the module.
  - ▶ Check module for stability.
- 

- ▶ If the module is not immediately placed in operation, store it at a location protected against humidity and dust.

## Interroll Roller curve SH 1210

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### Installation

---

#### **WARNING**

##### **Risk of injury due to improper assembly**

- ▶ Mechanical assembly tasks should be performed only by service personnel. Observe the safety information.
  - ▶ Electrical assembly tasks should be performed only by authorized electricians. Observe the safety information.
  - ▶ Carefully install all terminals and connections, such as cables, hoses and pipework, and check for correct fit.
- 

The module is delivered to the installation site as a pre-assembled unit and must be set up, connected and integrated into a system on site.

If available, photo cell and reflector are already pre-assembled and connected. The side guides (universal support, side guide brackets and side guide profiles) are also delivered assembled.

The installation tasks are divided into two sections:

- Setting up the module
- Integrating the module into a complete system

#### **To be observed during installation**

---

##### **Electrical installation**



#### **DANGER**

##### **Danger - energized cable ends!**

- ▶ Electrical installation should only be performed by qualified electricians.
  - ▶ Ensure that the device is powered down.
  - ▶ Minimum bending radii of cables, hoses and lines must be maintained.
- 



#### **WARNING**

##### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.
-

## Interroll Roller curve SH 1210

---

### Installation

The module is provided with voltage either via CEE plug or direct installation in the control cabinet.

- ▶ Check cables and components for damage before installation.
- ▶ The connection values of the module are listed on the nameplate of the RollerDrive EC5000. It is located on the cable output side of the RollerDrive. In addition, the RollerDrive may feature a label for the documentation. Connect the RollerDrive EC5000 according to its own operating instructions.



Static electricity

Take proper measures for grounding and potential equalization.



Use only original fuses with specified amperage.

#### Torque

When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard screw lockers should be replaced as needed.

#### Grounding

During installation of the module, its grounding must be ensured. A grounding connection, which is fastened at the supports, is intended for this purpose. It is recommended to connect a grounding connection with grounding cable every 20 m.

#### Orientation

- ▶ Align the module using the height-adjustable feet of the support. The roller top edge (for roller conveyors) or the module conveyor top edge (for module belt conveyors) is the relevant height for aligning the modules. Use suitable tools for the alignment (spirit level or rotation laser).
- ▶ Secure the adjusted height.
- ▶ During alignment of the module, ensure that no moving parts are touching.

#### Connection

- ▶ Connect the individual modules with each other using the profile connector.
- ▶ During the setup of the module, check the passageways for the personnel. Install transitions as necessary.

#### Anchoring

- ▶ Anchor or fasten the module torsion-free, e.g. to the floor or to adjacent components.

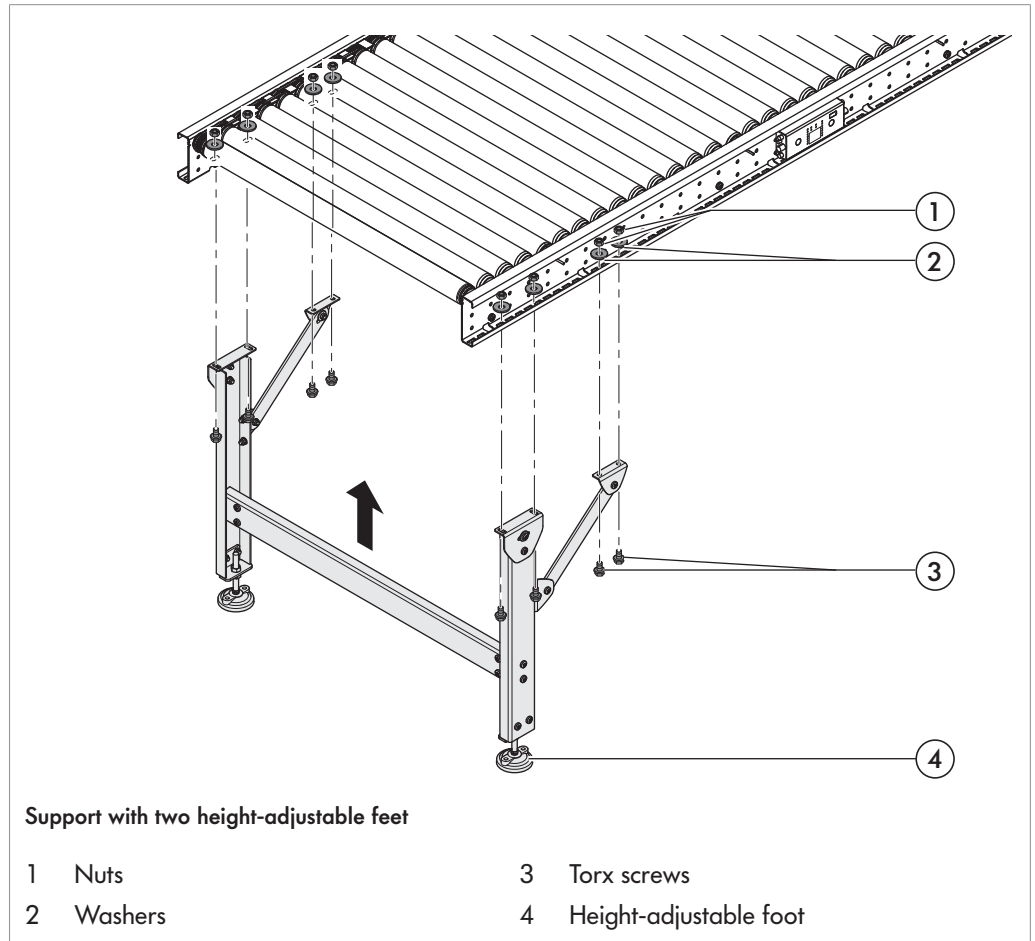
#### Integration into complete system

- ▶ When integrating the module into the complete system, consider possible danger spots, particularly infeed locations and interfaces.

## Interroll Roller curve SH 1210

### Installation

#### Installing supports



### **⚠ CAUTION**

#### **Risk of injury when lifting heavy loads**

- ▶ During the installation and replacement of conveyor modules or heavy spare parts, always work in pairs or use suitable lifting devices.



Fasten screws with a tightening torque of 19 Nm.

The module sits on at least one support. Each support has two height-adjustable feet (4).

- ▶ Place the module on the supports.
- ▶ Position the supports underneath the module.
- ▶ Fasten the rack with screws (3) and washers (2) from below as well as washers (2) and nuts (1) inside in the side profile.

## Interroll Roller curve SH 1210

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### Installation

### Integrating the module in a complete system

---

#### CAUTION

##### **Risk of crushing and injuries from cuts**

- ▶ When integrating the module into a complete system, consider possible danger spots, particularly infeed locations and interfaces.
- 

The module is delivered pre-assembled, but integration into a complete system may still require individual installation tasks:

- Install the universal support, see "*Installing the universal support*", page 23
- Fasten the side guide, see "*Installing the side guide*", page 25
- Install photo cell and reflector, see "*Lichtschranke und Reflektor montieren*", page 27
- Attach the module connectors and contact guards, see "*Connecting the modules*", page 30

Integrating the module in a complete system may require installing other components. The corresponding instructions are available in the chapter "Maintenance and Repair".

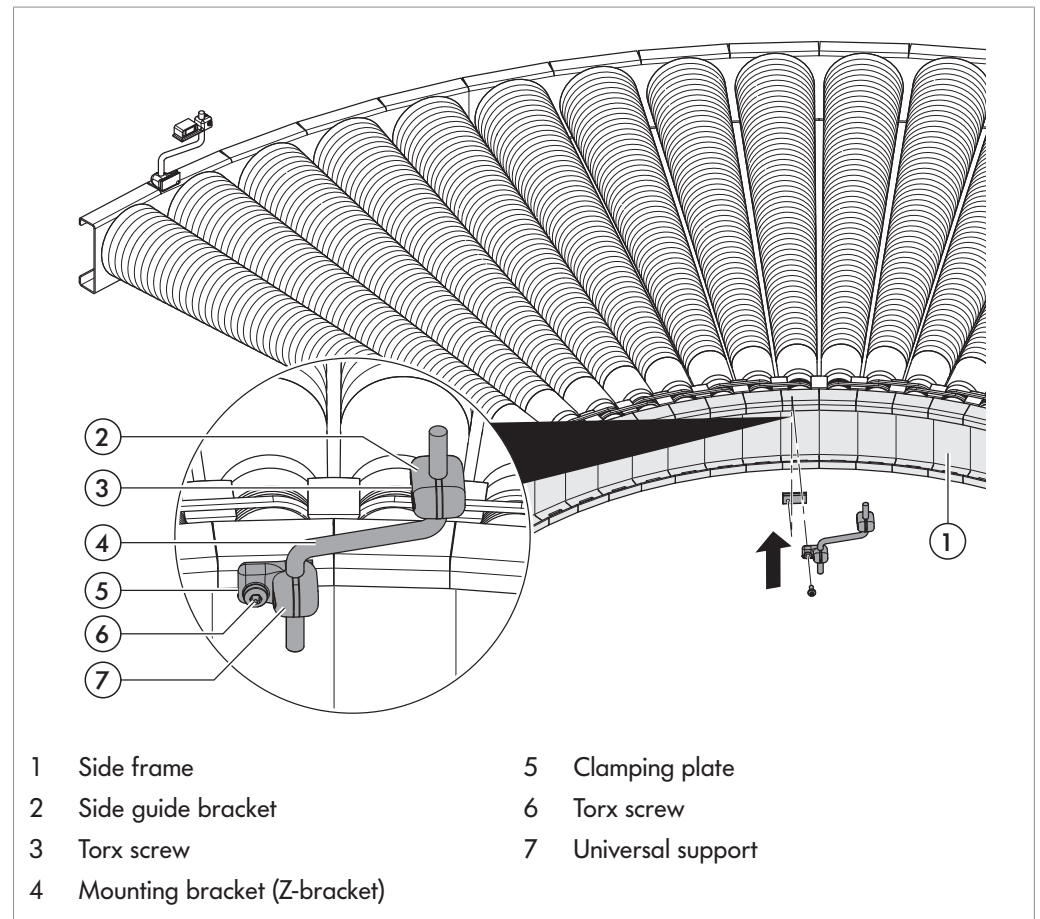
## Interroll Roller curve SH 1210

### Installation

#### Installing the universal support



The universal supports are delivered pre-assembled, with Z or U mounting brackets depending on the selection. The universal supports are turned towards the conveyor center for transport and still must be positioned before startup depending on their use (for the installation of adjustable side guide, photo cell or reflector).



### **WARNING**

#### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



Fasten screws with a tightening torque of 19 Nm.

The universal support (7) is installed at the top on the profile of the side frame (1).

## Interroll Roller curve SH 1210

---

### Installation

Requirement:

- ☑ The module is shut down.
- ▶ Loosen screw (6) in the universal support, but do not remove it.
- ▶ Bring clamping plate (5) with universal support (7) from below into position at the profile of the side frame.  
The profile of the side frame is located between clamping plate and universal support.
- ▶ Tighten the screw (6) at the desired location.
- ▶ Push side guide bracket (2) onto the mounting bracket (4) of the universal support (7).



Fasten screws with a tightening torque of 6 Nm.

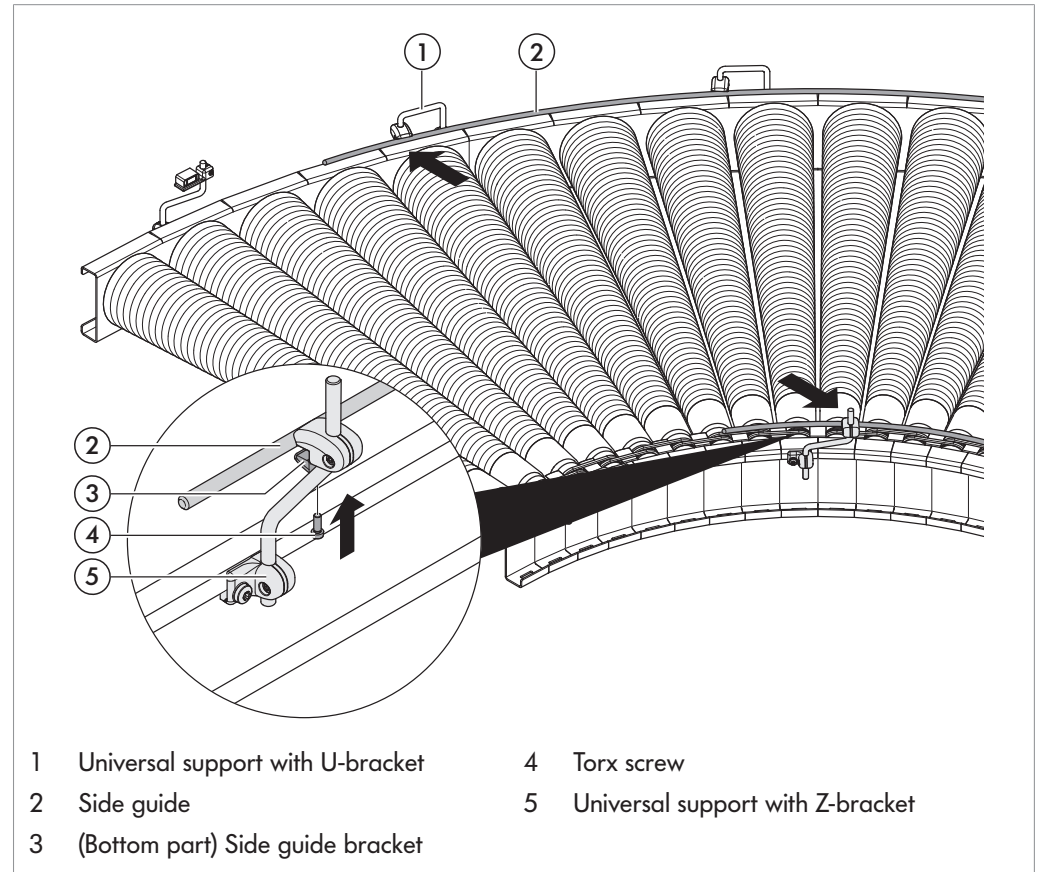
- ▶ Position side guide bracket and firmly tighten screw (3) in the side guide bracket.



## Interroll Roller curve SH 1210

### Installation

#### Installing the side guide



#### **WARNING**

##### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.

#### **NOTICE**

##### **Damage to PolyVee belts from the conveying goods**

- ▶ Adjust side guide profiles at the roller curve at inside radius towards the center so that the conveying good cannot contact the PolyVee belts.



Fasten screws with a tightening torque of 6 Nm.



## Interroll Roller curve SH 1210

---

### Installation

Requirement:

- ☑ The module is shut down.
- ▶ Install the universal support, see *"Installing the universal support"*, page 23.
- ▶ Loosen screw (4) slightly.  
The bottom part of side guide bracket (3) loosens.
- ▶ Place side guide (2) in the opening created and position it.
- ▶ Tighten the screws (4).
- ⇒ Screw is secured. The side guide bracket sits firmly on the universal support.

## Interroll Roller curve SH 1210

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### Installation

#### Installing the photo cell and reflector

The photo cell and reflector are each delivered as a complete unit:

- The photo cell is in the photo cell housing.
- The reflective tape is affixed to the reflector.

---

#### **WARNING**



##### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



Photo cell and reflector can be installed along the C-profile of the side frame. The flexible universal support enables adjusting the sensors with respect to height and distance and correctly align them to each other.



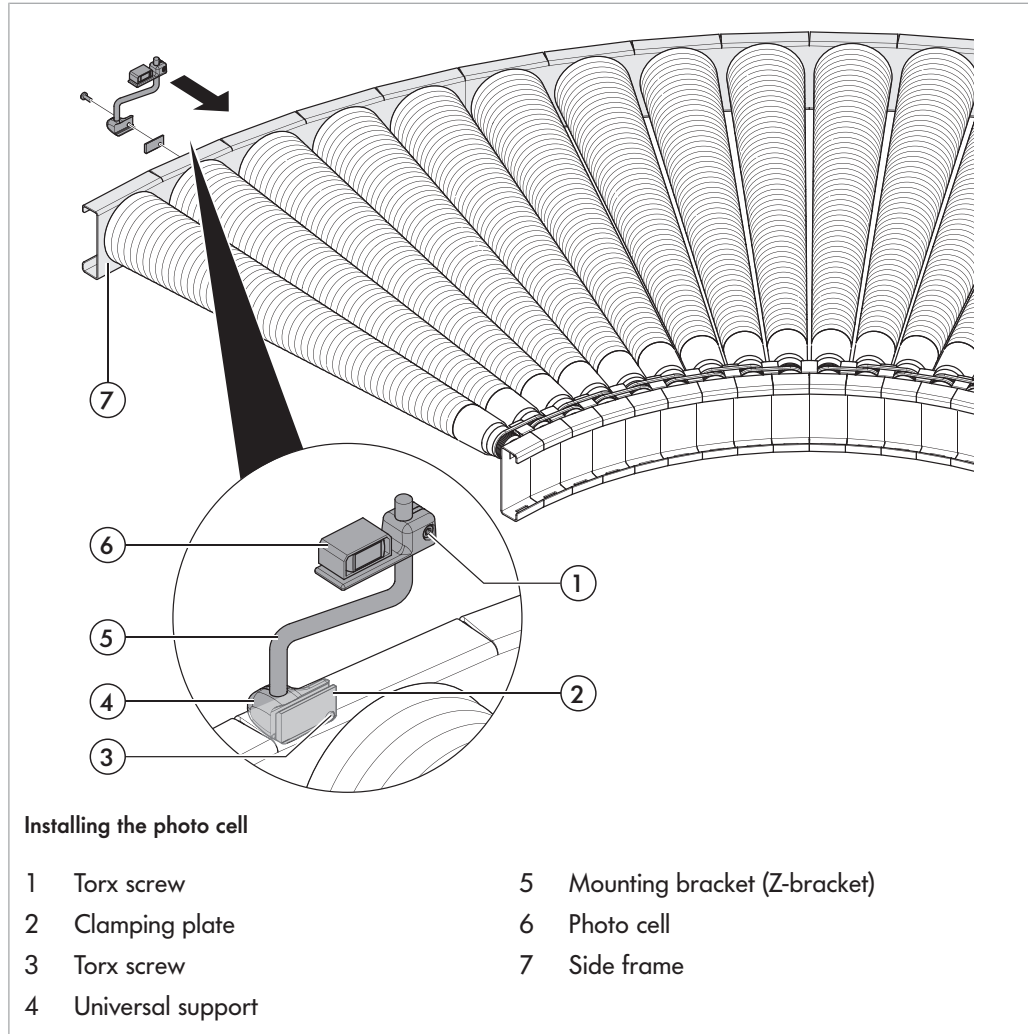
Fasten screws with a tightening torque of 19 Nm.

Photo cell and reflector must be installed exactly facing each other:

## Interroll Roller curve SH 1210

### Installation

#### Installing the photo cell



**i** The fine adjustment of the photo cell is done with the vertical adjustment of the sensor holder on the mounting bracket until it "sees" the reflector.

**i** The electrical installation of the photo cell takes place after installing the reflector.

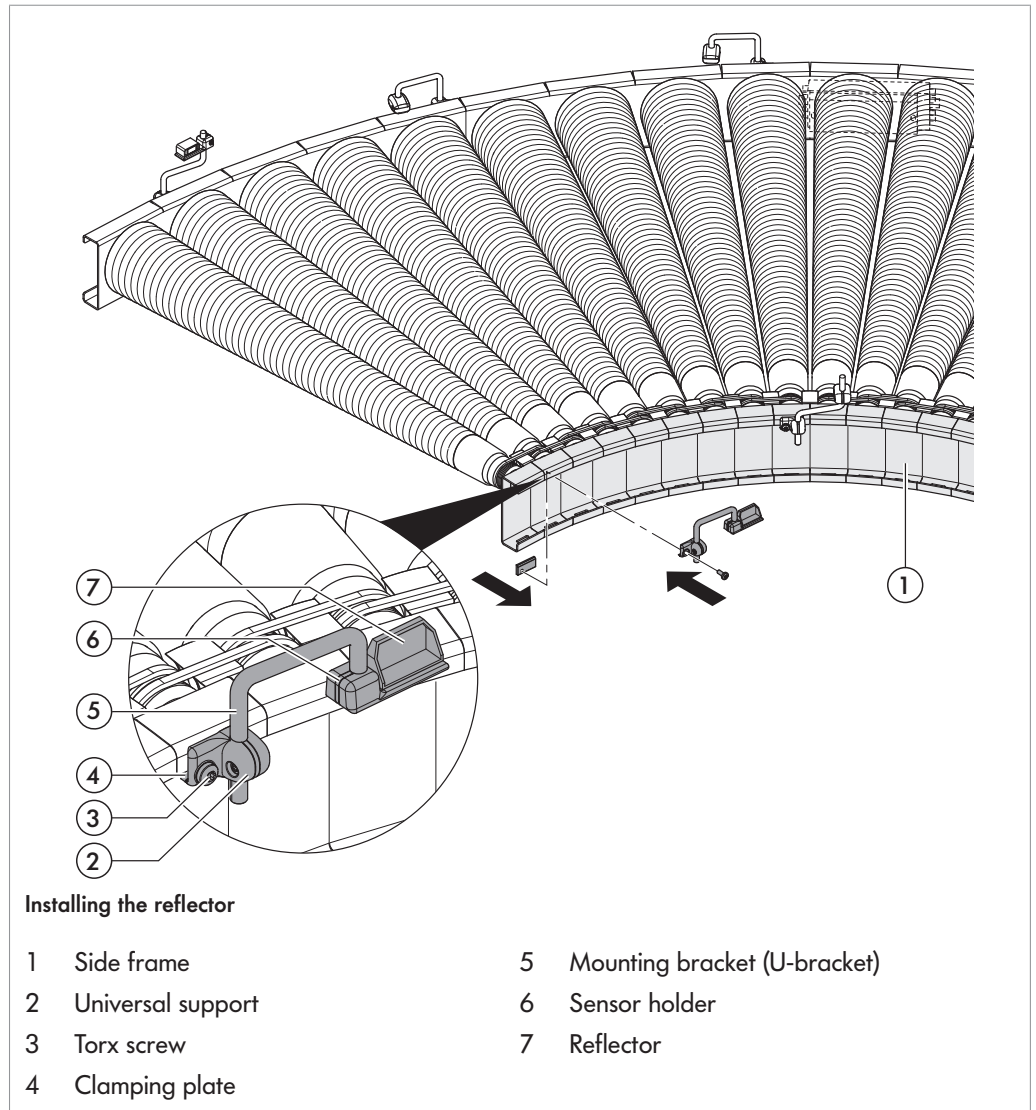
#### Requirement:

- The module is shut down.
- ▶ Loosen screw (3) in the universal support (4), but do not remove it.
- ▶ Bring clamping plate (2) with universal support (4) from below into position at the profile of the side frame (7).  
The profile of the side frame is located between the clamping plate and the universal support.
- ▶ Tighten the screw (3) at the desired location.

## Interroll Roller curve SH 1210

### Installation

#### Installing the reflector



- ▶ Install the reflector (7) opposite the photo cell.
- ▶ Loosen screw (3) in the universal support (2), but do not remove it.
- ▶ Bring clamping plate (4) with universal support (2) from below into position at the profile of the side frame (1).  
The profile of the side frame is located between clamping plate and universal support.
- ▶ Tighten the screw (3) at the desired location.
- ▶ After installing the photo cell and reflector: Connect the photo cell to the control of the module with a cable.
- ▶ Check whether both LEDs are lit.
- ▶ If the yellow LED flashes, position reflector and photo cell relative to each other.

## Interroll Roller curve SH 1210

---

### Installation

LED green	LED yellow	Meaning
On	Off	Photo cell is operational. No signal from reflector.
On	On	Photo cell is correctly adjusted. Light beam is well reflected.
On	Flashing	Photo cell is operational. Weak signal. Reflector is dirty, damaged or not correctly adjusted.





### Connecting the modules

---

#### CAUTION

##### Risk of crushing and injuries from cuts

- ▶ When integrating the module into a complete system, consider possible danger spots, particularly infeed locations and interfaces.
- 

-  The profile connectors are also used for grounding between modules.  
If no profile connectors are used, alternative measures must be taken for grounding.
-  The modules are aligned based on the top edge of the roller conveyor or module conveyor.  
Suitable tools for alignment are a spirit level or rotation laser.
-  During setup of the conveyor system, check for passageways for personnel. Install crossings as necessary.
-  Fasten screws with a tightening torque of 19 Nm.

The individual modules of a complete conveyor system are screwed together using connector sets. The following module connectors are available for this module:

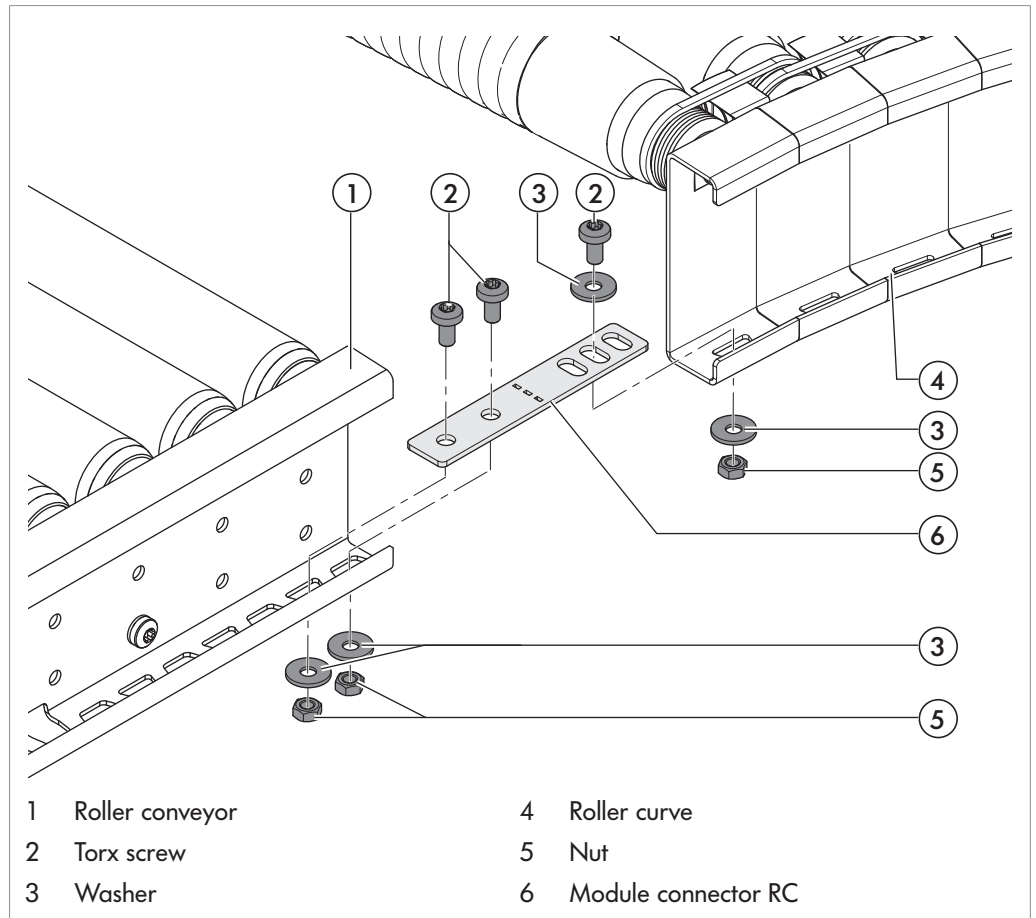
## Interroll Roller curve SH 1210

### Installation

#### Straight roller conveyor - roller curve

The modules can be connected with each other in different ways:

- Horizontal
- Up to max. 4° ascending
- Up to max. 4° descending

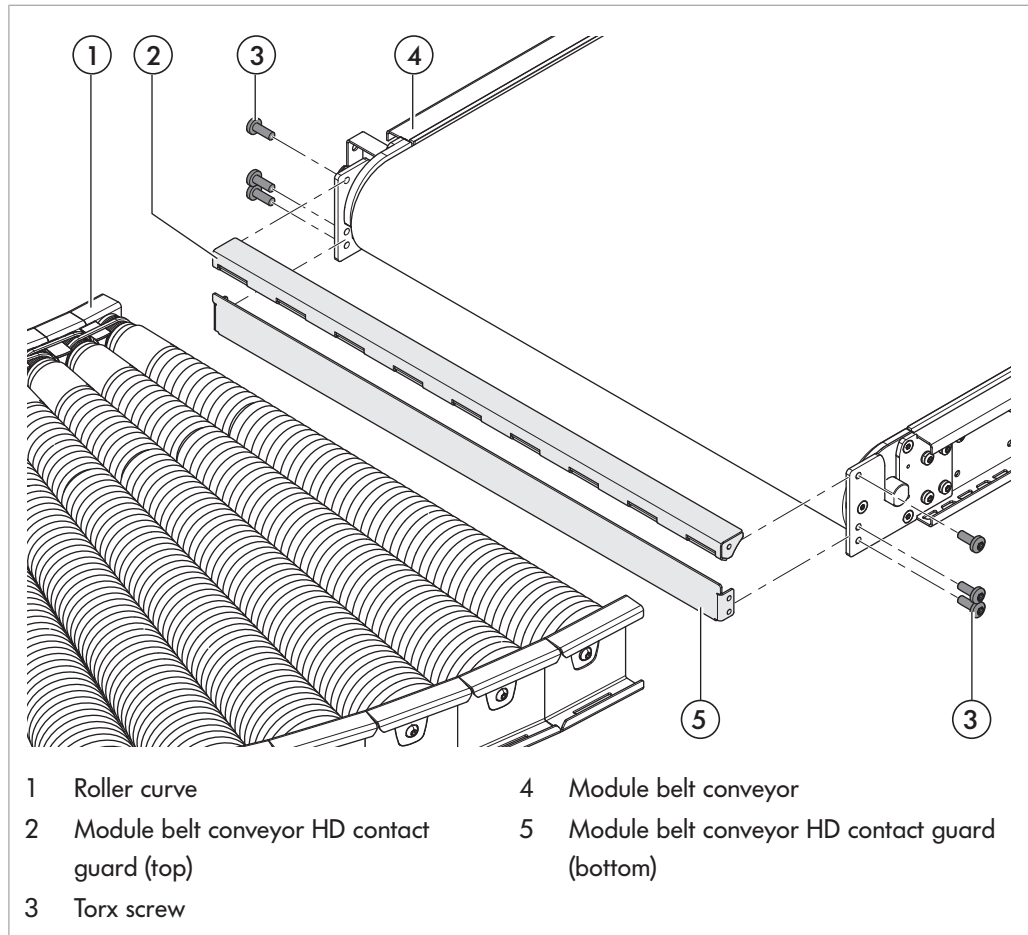


- ▶ If present, disassemble end plate at roller conveyor (1).
- ▶ Position the modules to be connected (1, 4) in such a way that the side profiles are aligned.
- ▶ Align the top edges of the module by using the height-adjustable feet of the supports.
- ▶ Secure the adjusted height.
- ▶ Check alignment with a spirit level or rotation laser.
- ▶ Connect the side profiles of the modules (1, 4) each with one module connector (6) form-fit with each other on the right and left and fasten them with screws (2), nuts (5) and two washers (3) each in the hole pattern of the side profiles.
- ▶ Fasten the module torsion-free, e.g., by anchoring it to the floor or to adjacent components.

## Interroll Roller curve SH 1210

### Installation

#### Roller curve - straight module belt conveyor (80)



This connection does not allow incline or decline.

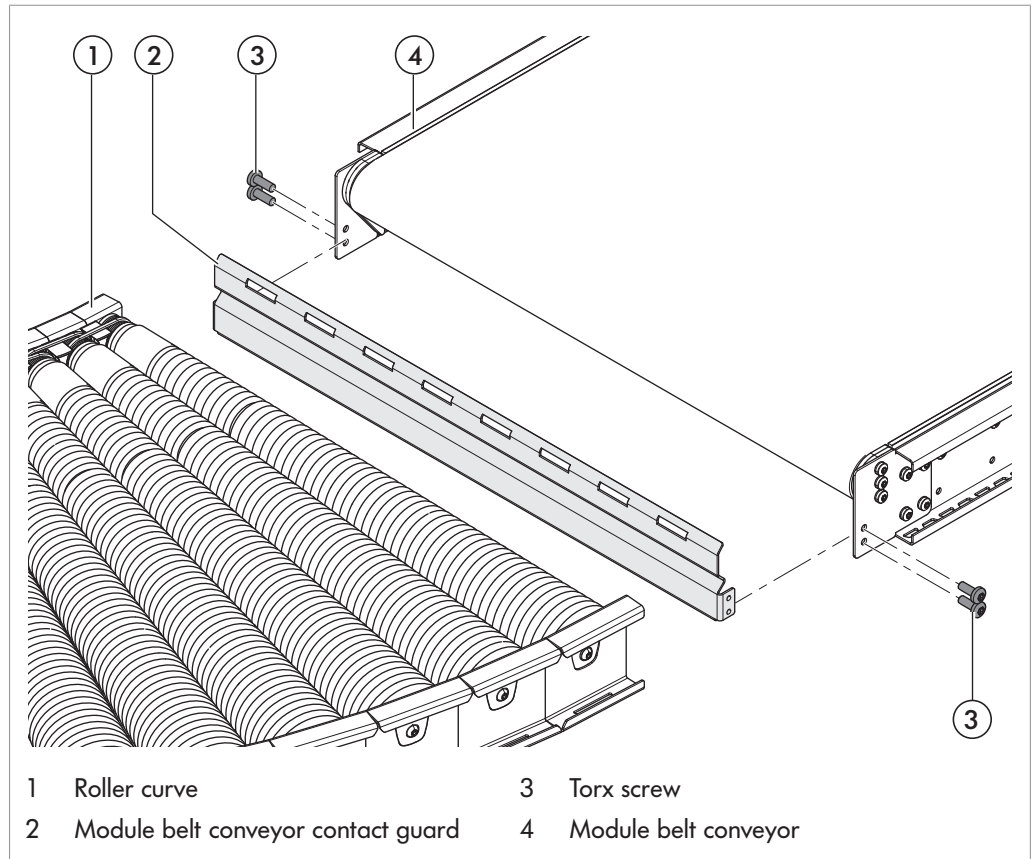
- ▶ Position the modules to be connected (1, 4) in such a way that the side profiles are aligned.
- ▶ Align the top edges of the module by using the height-adjustable feet of the supports.
- ▶ Check horizontal alignment with a spirit level or rotation laser.
- ▶ Secure the adjusted height.
- ▶ Attach contact guard (5) at the bottom at side profile of module belt conveyor (4) and fasten it with screws (3).
- ▶ Attach contact guard (2) at the top at side profile of module belt conveyor (4) and fasten it with screws (3).
- ▶ Fasten the module torsion-free, e.g., by anchoring it to the floor or to adjacent components.



## Interroll Roller curve SH 1210

### Installation

**Straight module belt conveyor (50) - roller curve**



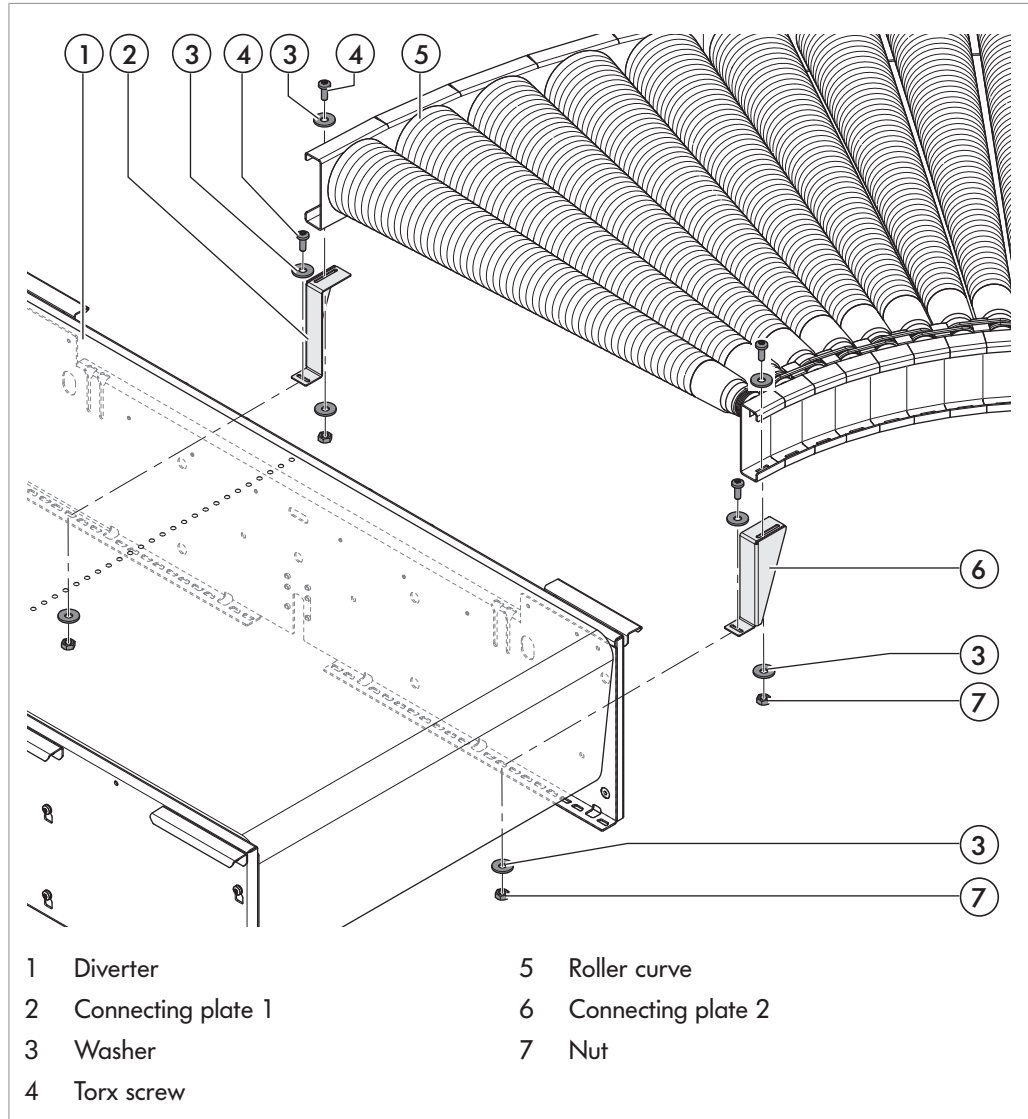
This connection does not allow incline or decline.

- ▶ Position the modules to be connected (1, 4) in such a way that the side profiles are aligned.
- ▶ Align the top edges of the modules by using the height-adjustable feet of the supports.
- ▶ Check horizontal alignment with a spirit level or rotation laser.
- ▶ Secure the adjusted height.
- ▶ Attach contact guard (2) at side profile of module belt conveyor (4) and fasten it with screws (3).
- ▶ Fasten the module torsion-free, e.g., by anchoring it to the floor or to adjacent components.

## Interroll Roller curve SH 1210

### Installation

#### Roller curve - lateral diverter

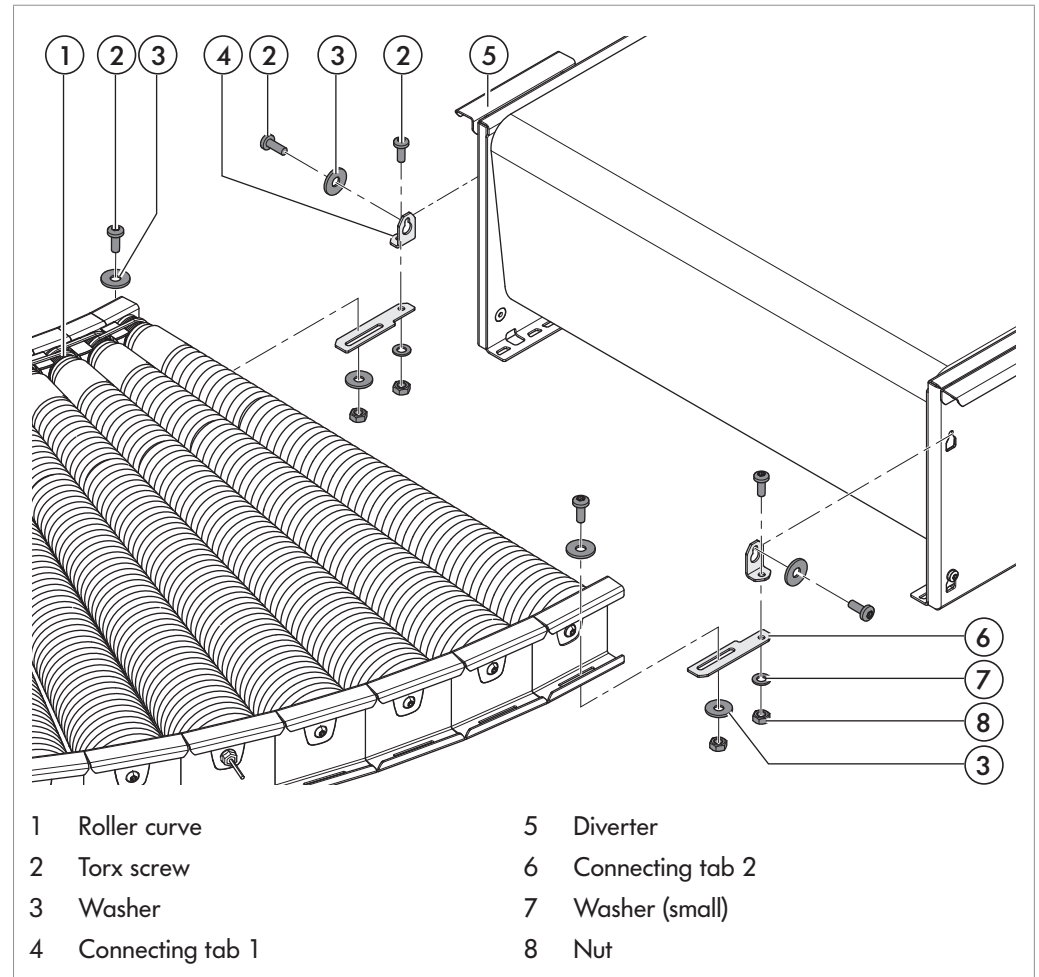


- ▶ Position the modules to be connected (1, 5) in such a way that the side profiles are aligned.
- ▶ Align the top edges of the modules by using the height-adjustable feet of the supports.
- ▶ Check horizontal alignment with a spirit level or rotation laser.
- ▶ Secure the adjusted height.
- ▶ Use the connecting plate 1 (2) to connect the two modules at the underside of the side profile at the diverter (1) and at the outside radius of the roller curve (5) with screws (4), washers (3) and nuts (7).
- ▶ Use the connecting plate 2 (6) to connect the two modules at the underside of the side profile at the diverter (1) and at the inside radius of the roller curve (5) with screws (4), washers (3) and nuts (7).
- ▶ Fasten the module torsion-free, e.g., by anchoring it to the floor or to adjacent components.

## Interroll Roller curve SH 1210

### Installation

#### Roller curve - front diverter



- ▶ Position the modules to be connected (1, 5) in such a way that the side profiles are aligned.
- ▶ Align the top edges of the modules by using the height-adjustable feet of the supports.
- ▶ Check horizontal alignment with a spirit level or rotation laser.
- ▶ Secure the adjusted height.
- ▶ Fasten connecting tab 1 (4) on the right and left at the side profile of the diverter (5) with screws (2) and washers (3).
- ▶ Fasten connecting tab 2 (6) at the inside and outside radius of the roller curve (1) with screws (2), washers (3) and nuts (8).
- ▶ Fasten connecting tabs (4, 6) with screws (2), small washers (7) and nuts (8) to one another.
- ▶ Fasten the module torsion-free, e.g., by anchoring it to the floor or to adjacent components.

### Initial startup and operation

#### Initial startup

---

#### **WARNING**

##### **Risk of injuries due to incorrect handling**

- ▶ Check electrical connections and protective devices.
  - ▶ Remove the materials from the module.
  - ▶ Remove unauthorized persons from the danger zone.
  - ▶ Wear safety shoes and work clothing.
- 

The module has been checked at the factory.

## Interroll Roller curve SH 1210

---

### Initial startup and operation

#### Operation

##### Before every operation start

- ▶ Check the module for visible damage.
- ▶ Ensure that all safety devices operate flawlessly.
- ▶ Ensure that only authorized persons are in the operating area of the module.
- ▶ Ensure that the module is running freely and that no parts are jammed.
- ▶ Remove equipment or material that is not required from the operating area.
- ▶ Specify and monitor correct placement of the conveying good.

##### During operation

---

### WARNING

#### Danger from rotating parts

Crushing and serious injuries due to parts of the body and clothing being pulled into the module!



- ▶ Do not remove the protective covers.
- ▶ Wear personal protective equipment.
- ▶ Avoid jewelry and bracelets.

---

### CAUTION

#### Risk of shearing between product and rollers or product and universal support of the side guide



- ▶ Do not reach inside from below or from the side.
- ▶ Take additional protective measures, e.g. secure the gap of rollers at workplaces using fillers or covers with a gap of maximum 5 mm.

##### Procedure in case of accident or fault

- ▶ If material is jammed between side guides, switch off the module and ensure that it cannot be started accidentally, then remove the fault.
- ▶ Press the Emergency Stop pushbutton, power it down and ensure that it cannot be switched on accidentally.
- ▶ In case of an accident: Provide first aid and make an emergency call, if necessary.
- ▶ Inform qualified personnel.
- ▶ Have the fault corrected by qualified personnel.
- ▶ Restart the module only after this has been approved by qualified personnel.

### Cleaning

---

#### CAUTION

##### **Risk of injury due to improper handling or accidental motor starts**

- ▶ Maintenance work and cleaning must only be performed by qualified and authorized persons.
  - ▶ Perform maintenance work only after switching off the power. Ensure that the conveyor cannot be switched on accidentally.
  - ▶ Set up signs indicating that maintenance work is in progress.
- 

#### CAUTION

##### **Risk of infections due to non-observance of hygiene regulations for the food industry!**

When conveying damaged products, dangerous bacteria can be deposited at the conveyor. They could lead to health risks for the end consumer.

- ▶ Observe all legal regulations and hygiene regulations for food safety.
  - ▶ Use solely food-safe lubricants as well as cleaning and disinfecting agents.
  - ▶ Observe the cleaning intervals.
- 



#### CAUTION

##### **Risk of injury from slipping on the floor!**

Slipping on a wet floor can lead to a fall. The fall can cause injuries.

- ▶ Immediately pick up leaking and spilled fluids using suitable means.
- 

The conveyor platform is generally designed for protection rate IP55.

IP identifier	Definition
5 - dust protection	Dust is not completely prevented from entering, but dust may not enter at a magnitude that would impair the function of the module.
5 - Protected against water jets	A water jet from a nozzle (6.3 mm (0.25 in)), that is directed at the module from all directions, may not have any damaging effect. Test duration: 1 m <sup>2</sup> /min for at least 3 minutes Water volume: 12.5 l/min Pressure: 30 kPa (4.4 psi or 0.3 bar) at a distance of 3 m (9.8 ft)

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## Interroll Roller curve SH 1210

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### Cleaning

The module is designed specifically for use in the food sector that does not require daily intensive cleaning, such as the area behind packaging equipment where the food is protected by packaging. Should food packaging leak, the conveyor can still be cleaned dry or with soft water. For this purpose, use low-pressure water, e.g., with a water hose with water pressure, or by splashing water over the conveyor, e.g., using a bucket.

### Preparation for cleaning by hand

- ▶ Switch off the power supply to the conveyor.
- ▶ Switch off the main switch to de-energize all the drives.
- ▶ Open terminal box or distribution box and disconnect cables if there is no switch. Ensure that live components or cables are electrically insulated to prevent electrocution.
- ▶ Attach a sign to the control cabinet that maintenance work is in progress.
- ▶ Remove foreign materials from all accessible surfaces.
- ▶ Do not use sharp-edged tools to clean the module.
- ▶ Do not use a high-pressure cleaner for cleaning, particularly not for the roller conveyors.

### Manual cleaning



The conveyor platform is not designed for cleaning with alkaline or acidic cleaning agents. In particular, rollers and drive rollers should not be cleaned with cleaning agents, only dry or with water.

---

## NOTICE

### Seal not tight due to excessive pressure

- ▶ Do not direct the nozzle directly on the seals during cleaning.
- ▶ Observe a maximum water pressure of 8 bar (116 psi).
- ▶ Move the nozzle continuously and evenly over the entire module.
- ▶ Ensure that the distance between the nozzle of the water hose and the conveyor is at least 100 cm.

---

## NOTICE

### Risk of damage to the conveyor due to improper cleaning

- ▶ Never use an acidic cleaner together with a chlorinated cleaner since the resulting dangerous chlorine gases can damage stainless steel and elastomers.
  - ▶ Avoid temperatures over 35 °C so that no proteins can be deposited on the surface.
  - ▶ Remove greases at lower temperatures and with suitable cleaners.
  - ▶ Avoid water pressures over 8 bar so that no aerosols are created and to prevent damages.
  - ▶ Maintain a distance of 100 cm between the nozzle and the surface to be cleaned.
  - ▶ Do not direct the nozzle directly on the seals during cleaning, particularly in the area of the drive rollers.
-



## Interroll Roller curve SH 1210

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### Cleaning

- ▶ Wipe off larger, loose contamination.
- ▶ Pre-clean with water (8 bar, 35 °C).
- ▶ Direct the nozzle down onto the surfaces at an angle of 45°.
- ▶ For a more thorough cleaning, clean seals, grooves and other recesses with a soft brush.
- ▶ In case of heavy contamination, use a soft brush and/or a plastic scraper together with spraying water.
- ▶ Spray off with water (8 bar, 35 °C).
- ▶ After cleaning, check surfaces, grooves and other recesses for residues.
- ▶ Wipe the floor dry.
- ▶ Observe the corresponding certificates at [www.interroll.com](http://www.interroll.com).



## Interroll Roller curve SH 1210

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### Cleaning

### Resistance

The conveyor platform consists of various parts. Some parts are more resistant to cleaning agents than others. The rollers can be cleaned, e.g., with certain cleaning agents.

**Chemical resistance of the plastic modular belts** Polyoxymethylene (POM), polypropylene (PP) and polyamide (PA):

- Acidic acid, aqueous solution 5 %
- Calcium chloride, aqueous solution 10 %
- Dimethylformamide
- Dioctylphthalate
- Ethyl ether
- Isopropanol
- Soap solution, aqueous solution
- Sodium carbonate, aqueous solution 10 %
- Sodium chloride, aqueous solution 10 %
- Sodium nitrate, aqueous solution 10 %
- Sodium thiosulphate, aqueous solution 10 %
- Water, cold

The resistance of the polymers is affected by temperature, exposure to force, UV exposure, and the duration of exposure and concentration of the medium.

A thorough suitability test of the polymer to be used by the user is indispensable.

### Maintenance and repair

#### Observe the following for maintenance and repair

---



#### **⚠ DANGER**

##### **Danger to life from electrical voltage!**

- ▶ Switch off the power supply system, ensure that it cannot be switched on accidentally and check that there is no voltage.
- 

#### **⚠ WARNING**

##### **Risk of crushing and injuries**

- ▶ Ensure that the personnel involved in maintenance and repair have secure footing and sufficient room to move.
  - ▶ Mechanical maintenance and repair work should be performed only by service personnel. Observe the safety information.
  - ▶ Electrical maintenance and repair work should be performed only by authorized electricians. Observe the safety information.
  - ▶ Observe the weight of the module (see type plate), if necessary, work in pairs.
  - ▶ Use suitable loading and lifting equipment. Secure the module against falling or tipping.
- 

#### **⚠ CAUTION**

##### **Risk of injury due to improper handling or accidental motor starts**

- ▶ Maintenance work and cleaning must only be performed by qualified and authorized persons.
  - ▶ Perform maintenance work only after switching off the power. Ensure that the conveyor cannot be switched on accidentally.
  - ▶ Set up signs indicating that maintenance work is in progress.
- 



When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard thread lockers must be replaced as needed.



Torx screws and nuts used in elongated holes must have a washer so that they can be loosened again if necessary (e.g., for disassembly).

- ▶ Work on electrical equipment must only be performed by authorized electricians.
- ▶ Set up warning signs that indicate maintenance and repair work.
- ▶ Block off the area around the module.
- ▶ Inform persons who must enter the blocked-off area about the risks.

## Interroll Roller curve SH 1210

### Maintenance and repair

#### Maintenance intervals



If maintenance is not performed according to schedule, it may lead to damages and failures. If maintenance intervals are not followed, the warranty will be void.



All bearings of the module feature a life-time lubrication and are maintenance-free within the operating parameters.

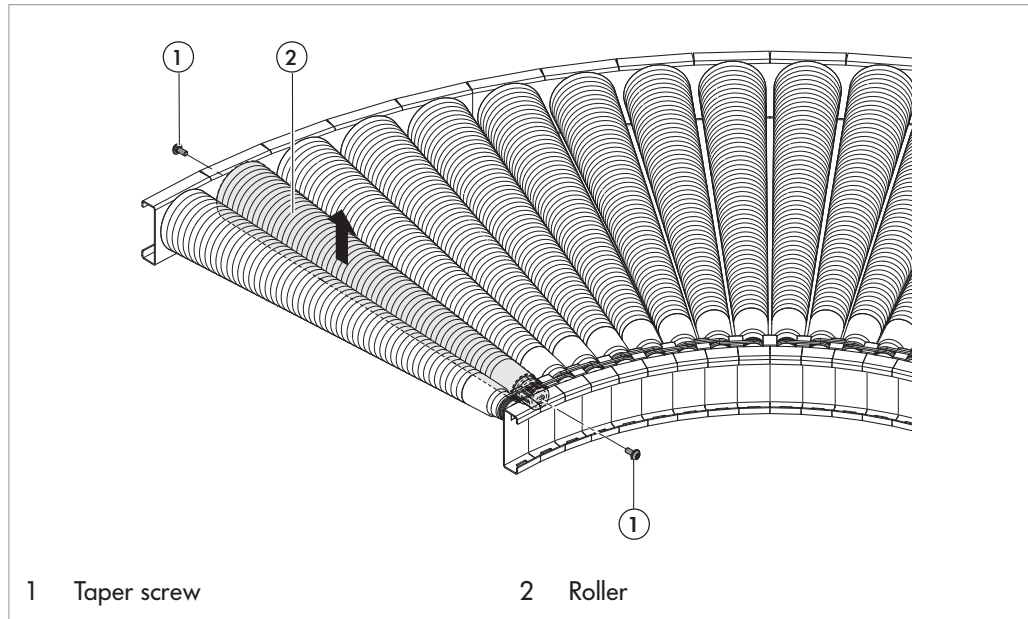
#### Maintenance and inspection list

Component	Interval	Task / check	Work to be performed	Performed by
Complete module	Daily	Check for contamination.	Clean and disinfect	
Complete module	Weekly	Perform an acoustic check.	Initiate further measures depending on the component	
Side guides	Monthly	Check attachment and fastening of side guides.	Readjust as necessary	
RollerDrive EC5000	1 month after installation of module	Check for firm seating in the side profile.	Retighten as required	
	Monthly	Check temperature.	Replace as required	
	Monthly	Check for noise.	Replace as required	
	Monthly	Check for damage.	Replace as required	
	Monthly	Check for true running.	Replace as required	
PolyVee drive belt	Quarterly	Check for wear/damage.	Replace as required	
Complete module	Every 6 months	Check moving parts for seating and wear.	Replace as required	
Rollers	Every 6 months	Check running behavior.	Replace as required	
		Check for wear/damage.	Replace as required	
Bearings	Every 6 months	Check for running noise.	Replace as required	
Complete module	Annually	Check screw connections.	Tighten to applicable standard as required	
RollerDrive EC5000	Annually	Ensure that the RollerDrive shaft is secured properly in the side profile.	Correct as required	

## Interroll Roller curve SH 1210

### Maintenance and repair

#### Replacing the roller



Replacing the roller is only necessary if the PolyVee heads show signs of wear or the roller is damaged.

### **WARNING**

#### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



Fasten screws with a tightening torque of 19 Nm.

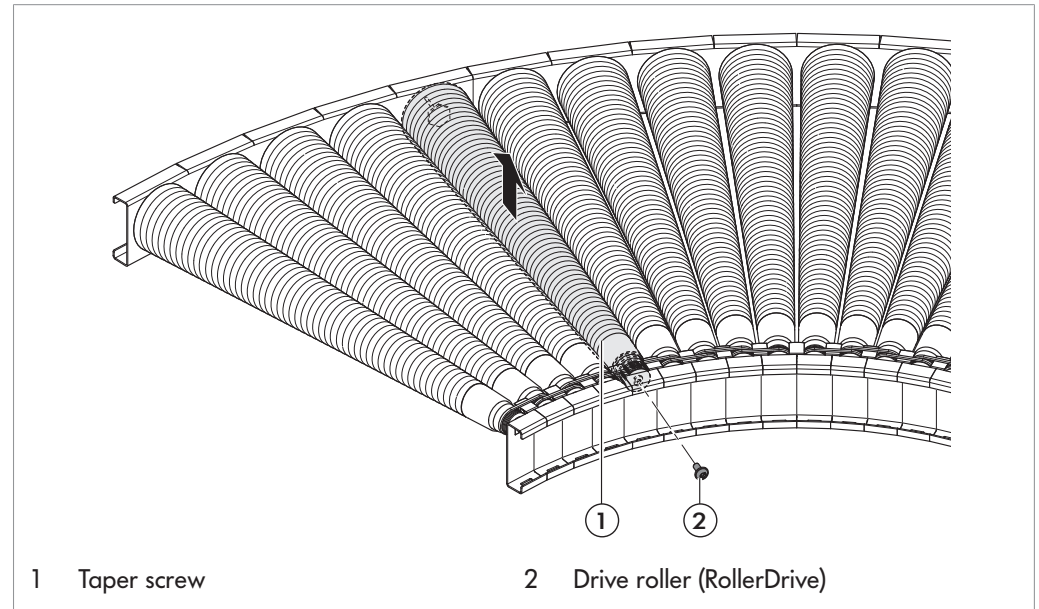
Requirement:

- The module is shut down.
  - ▶ Remove finger guard and PolyVee belt, see "*PolyVee-Riemen ersetzen*", page 48.
  - ▶ Unscrew taper screws (1) in roller (2) on the left and right from the C-profile of the side frames.
  - ▶ Pull the roller to the top out of the side frames at an angle. Remove drive belt from roller in the process.
  - ▶ Place a new roller in the open elongated hole. Pull the drive belt onto the roller in the process and observe the centering of the roller: Screw roller in the side frame with taper screws on the right and left.
  - ▶ Reinsert the finger guard and fasten it with screws.

## Interroll Roller curve SH 1210

### Maintenance and repair

### Replacing the RollerDrive



Replacing the RollerDrive is required only if the roller is damaged, or the drive is defective.

### **WARNING**

#### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



Fasten screws with a tightening torque of 19 Nm.

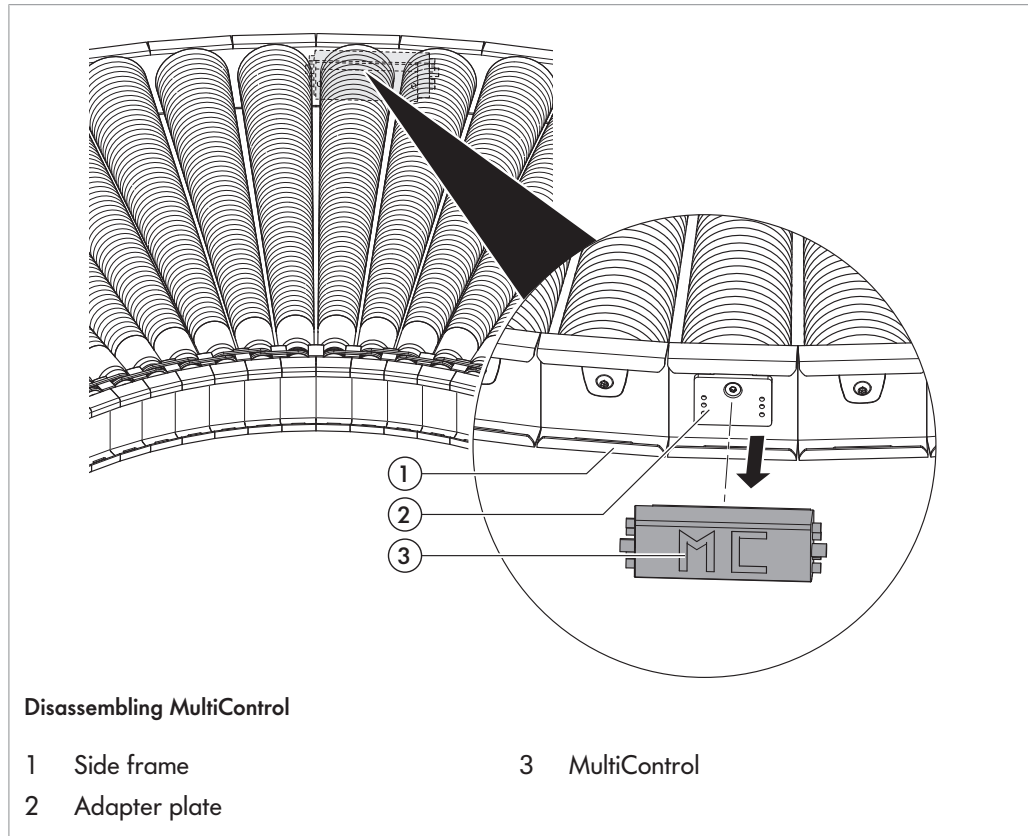
#### Requirement:

- The module is shut down.
  - ▶ Disconnect the motor connecting cable from the control system or from the extension cable.
  - ▶ Remove finger guard and PolyVee belt, see *"Replacing the finger guard and PolyVee belt"*, page 48.
  - ▶ Loosen the nut on the cable side of the RollerDrive.
  - ▶ Loosen the screw (1) of the RollerDrive (2) from the C-profile.
  - ▶ Pull the RollerDrive to the top out of the side frames at an angle.
  - ▶ Install new RollerDrive, thread it into the belt and fasten it with a screw.
  - ▶ Reinsert the finger guard and fasten it with screws.

## Interroll Roller curve SH 1210

### Maintenance and repair

### Replacing MultiControl



### **WARNING**

#### **Risk of injury from crushing and electrocution**

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



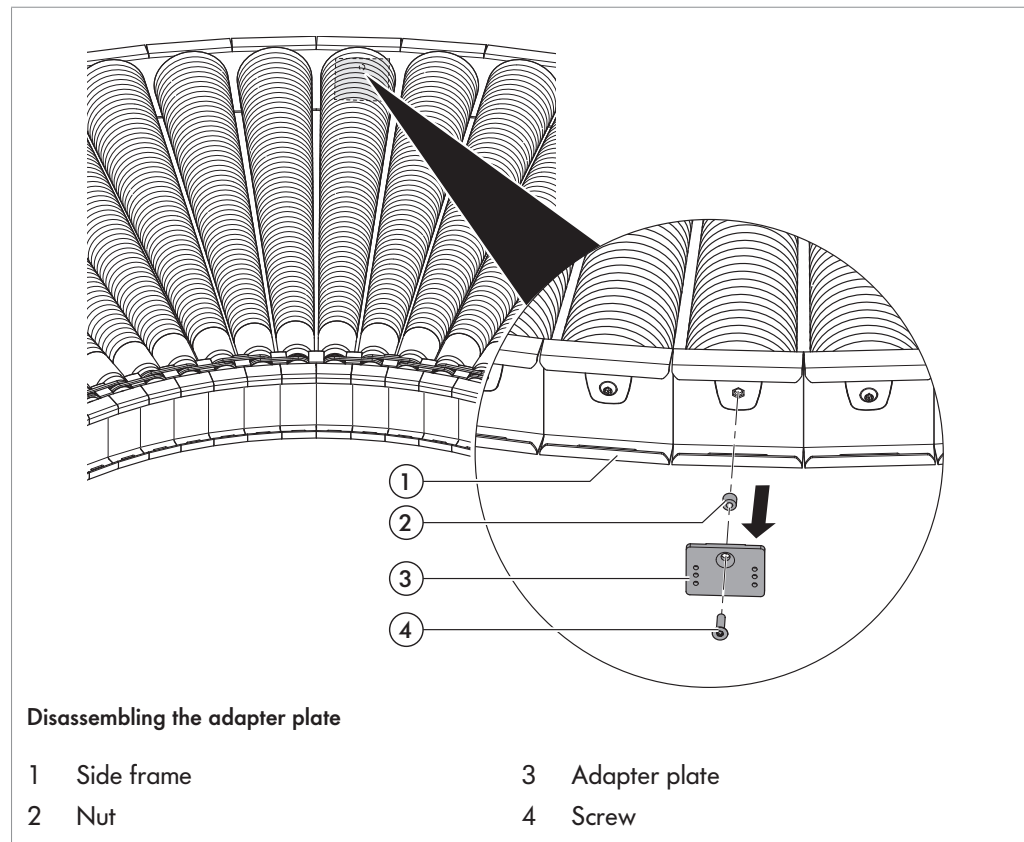
To simplify electrical installation, all MultiControl units should be assembled on the same side of the conveyor if possible. In the case of curves, wherever possible the MultiControl should be installed on the outside conveying radius as the RollerDrive connection is on this side.

Requirement:

- The module is shut down.
  - ▶ Detach cable from the MultiControl.
  - ▶ Loosen screws with which the MultiControl (3) is attached to the adapter plate (2) and pull off MultiControl.
  - ▶ Fasten new MultiControl with screws at the adapter plate.

## Interroll Roller curve SH 1210

### Maintenance and repair

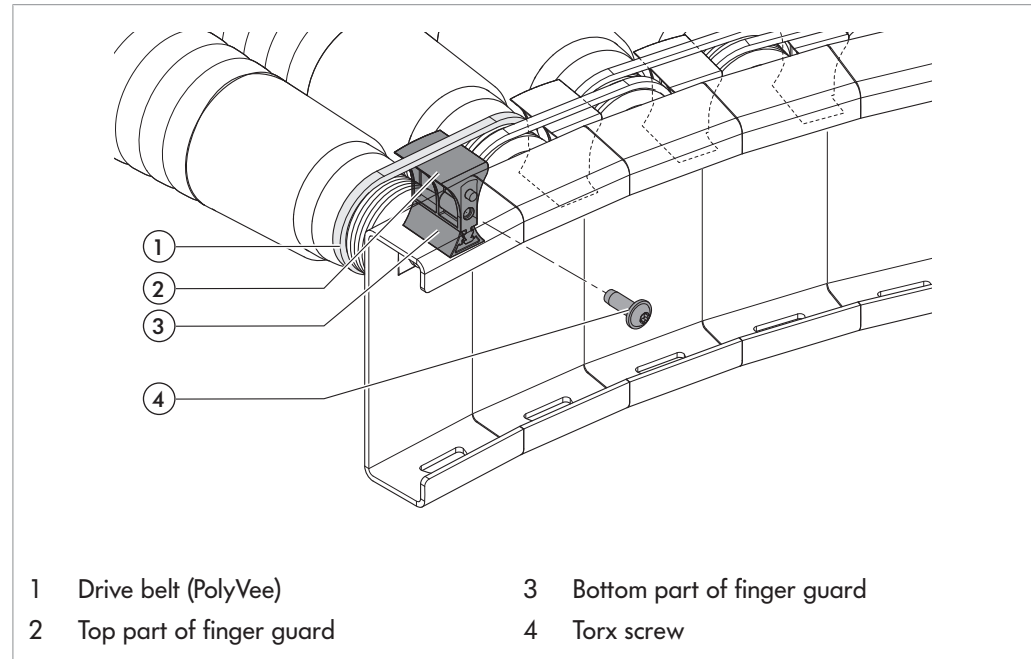


- If the MultiControl is to be completely disassembled or the adapter plate to be replaced, also loosen the screw (4) with which the adapter plate (3) is fastened at the side frame (1) and remove adapter plate with nut (2) from the side frame.

## Interroll Roller curve SH 1210

### Maintenance and repair

#### Replacing the finger guard and PolyVee belt



The finger guard protects against injuries as well as damage to the belt.



Ensure the drive is disconnected for the belt replacement.

### **⚠ WARNING**

#### **Risk of injury from crushing and electrocution**



Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.

#### Requirement:

- ☑ The module is shut down.
  - ▶ Remove finger guards at the respective rollers: To do so, unscrew the screw (4), remove the top part (2) and pull the bottom part (3) out from below.
  - ▶ Loosen taper screw in roller and lift the roller.
  - ▶ Remove the drive belt (1) from the roller.
  - ▶ Install new belt.
  - ▶ Tighten the roller with screws.
  - ▶ Insert the new finger guard: First, push in the bottom part (3) until it engages. This requires access to the conveyor belt from below.



## Interroll Roller curve SH 1210

### Maintenance and repair



Fasten screws with a tightening torque of 3.5 Nm.

- ▶ Then place the top part (2) on the belt side between the rollers in the centering hole on the bottom part and fasten it with the screw (4) from the outside at the C-profile of the side frame.

### Replacing the photo cell and reflector

#### ⚠ WARNING

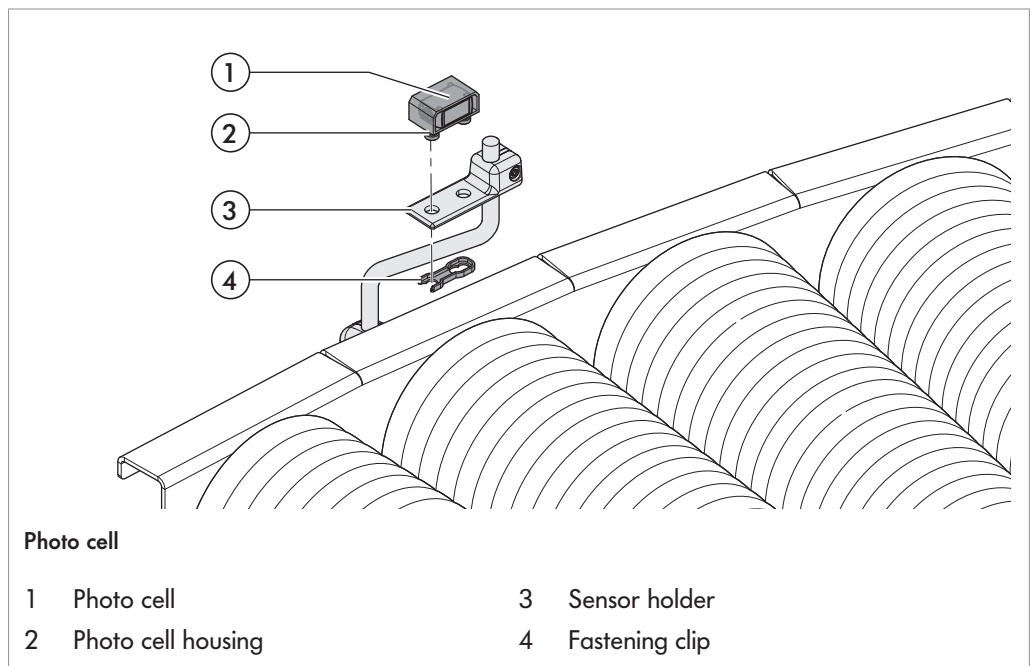
##### Risk of injury from crushing and electrocution

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Power down the entire conveyor module and ensure that it cannot be started accidentally.



#### Replacing the photo cell



The photo cell is replaced together with the photo cell housing and the fastening clip:



The fine adjustment of the photo cell is done with the vertical adjustment of the sensor holder on the mounting bracket until it "sees" the reflector.



The electrical installation of the photo cell takes place after installing the reflector.

- ▶ Loosen the fastening clip (4) under the sensor holder (3).
- ▶ Remove old photo cell (1) and housing (2) from the sensor holder.

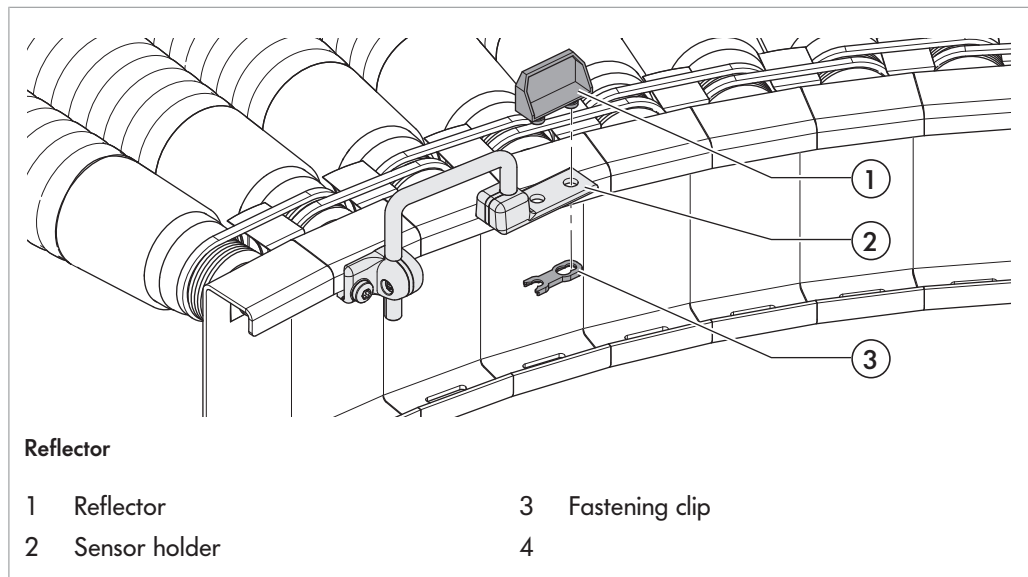
## Interroll Roller curve SH 1210

### Maintenance and repair

- ▶ Insert the new photo cell in the housing at the same location. The studs of the housing (2) are guided through the holes in the sensor holder (3) and secured with the fastening clip (4) from the opposite side. The clip engages noticeably through lateral movement and secures the photo cell in place.
- ▶ Connect the photo cell to the control of the module with a cable.
- ▶ Check whether both LEDs are lit.
- ▶ If the yellow LED flashes, position reflector and photo cell relative to each other.

LED green	LED yellow	Meaning
On	Off	Photo cell is operational. No signal from reflector.
On	On	Photo cell is correctly adjusted. Light beam is well reflected.
On	Flashing	Photo cell is operational. Weak signal. Reflector is dirty, damaged or not correctly adjusted.

### Replacing the reflector



The reflector is replaced in the same way as the photo cell:

Requirement:

- The module is shut down.
- ▶ Loosen the fastening clip (3) under the sensor holder (2).
- ▶ Remove old reflector (1) from sensor holder.
- ▶ Place new reflector at the same location. The studs of the reflector (1) are guided through the holes in the sensor holder (2) and secured with the fastening clip (3) from the opposite side. The clip engages noticeably through lateral movement and secures the reflector in place.

## Troubleshooting

### In case of a fault



#### **⚠ DANGER**

##### **Danger to life from electrocution**

- ▶ Only perform maintenance and repair work after you have switched off power.
- ▶ Faults on electrical equipment may be rectified only by a trained electrician!

- ▶ Immediately power down the module and ensure that it cannot be started accidentally.
- ▶ Remove material and objects that block the conveyor.
- ▶ Before switching it on again, ensure that no persons are at risk.
- ▶ Properly dispose of any gear oil that has leaked. Have the motor replaced by qualified personnel, if necessary.

### Troubleshooting

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Conveying goods jam between the side guides	Conveying goods sit on the module at an angle	Align conveying goods parallel to the side guide
	Center of gravity of the load is not centered	Align the center of gravity of the load
Transport process cannot be started and RollerDrive does not run	Main switch and/or control system turned off (is the LED on the MultiControl lit?)	Check the switch positions; if necessary, turn on the main switch and/or control
	Supply line damaged	Check supply line
	RollerDrive defective	Analyze error according to RollerDrive EC5000 Operating Instructions. Replace motor, if necessary, see "Replacing the RollerDrive", page 45
Conveying goods are not being transported	PolyVee drive belt defective	Replace the PolyVee drive belt, see "Replacing the finger guard and PolyVee belt", page 48
	Transport weight too high	Observe maximum weight
	MultiControl defective	Replace MultiControl, see "Replacing MultiControl", page 46



## Interroll Roller curve SH 1210

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### Troubleshooting

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
Motor circuit breaker is triggered due to excessive current consumption	Short circuit	Check electrical connections and replace defective parts
	Transport weight too high	Observe maximum weight
Noise development/ squeaking/whistling	Roller bearing defective	Replace the rollers, see <i>"Replacing the roller", page 44</i>
	Motor or gear box damaged	Analyze error according to RollerDrive EC5000 Operating Instructions. Replace motor, if necessary

## Interroll Roller curve SH 1210

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### Spare and wear parts

All spare and wear parts are available from Interroll. Maintenance and repair work may be performed only by qualified personnel. Interroll offers training sessions about required maintenance and repair tasks upon request.



The spare parts for the connector sets can be ordered from Interroll upon request. The different connector sets are matched to all available conveyor modules and include static connectors as well as safety-relevant protective devices.

### Ordering information

Ordering spare and wear parts requires the exact identification of the module, see type plate.

The following information is required for an order:

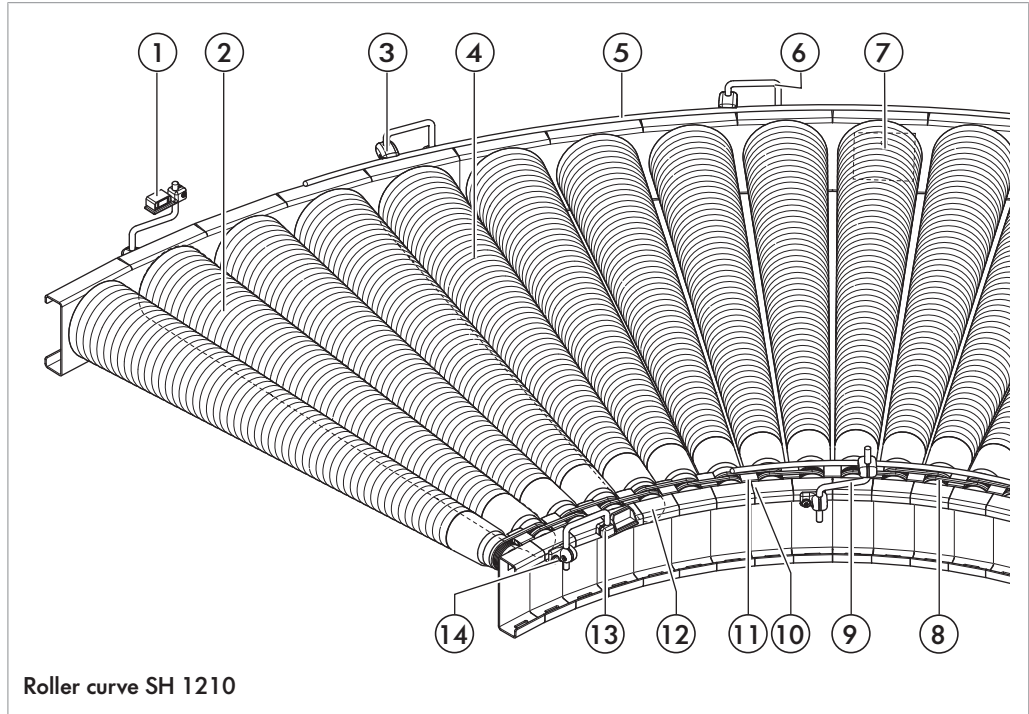
- Machine number
- Type
- Item number in spare parts list
- Designation
- Material number

For additional information about the spare parts portfolio, please contact your supplier.

## Interroll Roller curve SH 1210

### Spare and wear parts

### Spare parts drawing




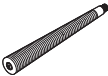

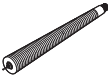







## Interroll Roller curve SH 1210

### Spare and wear parts

#### Spare parts list

S = spare part, W = wear part, T = tool

#### Type: 1210 (S, M, L)

Item No.:	Designation	Material number	S/W/T	
1	Photo cell incl. housing, fastening clip and cable	63104071	S	
2	Tapered roller, $\varnothing 50$ (S, M, L)	See project data	S	
3	Side guide bracket	63172677	S	
4	Tapered drive roller RollerDrive EC 5000 (S, M, L)	See project data	S	
5	Side guide	1129435	S	
6	Mounting bracket U	63172696	S	
7	Adapter plate (MC)	63170566	S	
8	PolyVee drive belt (Pitch distance 60 mm, 120 mm)	1001108 (60 mm), 1001111 (120 mm)	S	
9	Mounting bracket Z	63172672	S	
10	Self-threading screw (for finger guard)	1129142		
11	Finger guard (top part + bottom part)	64101223	S	
12	Taper screw (for roller and drive roller)	63172150		
13	Reflector incl. reflective tape and fastening clip	64000905	S	
14	Universal support	63172654	S	

### Decommissioning and disposal

- ▶ When disposing the motor oil, observe the disposal documents of the motor manufacturer.
- ▶ The packaging must be recycled to provide environmental relief.

### Environmental protection regulations

For all work on and with the module, the legal regulations concerning waste avoidance and proper disposal and recycling must be followed.

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### NOTICE



**Substances with a water hazard class, such as greases and oils, hydraulic oils, coolants or cleaning agents with solvents may not be allowed to come into contact with the ground or reach the sewer system!**

- ▶ Store, transport, catch and dispose these substances in suitable containers!
  - ▶ Observe the notices on the supply containers.
  - ▶ Observe any additional national regulations.
-



### Declaration of incorporation

In accordance with EC Machinery Directive 2006/42/EC, Appendix II 1 B

Manufacturer and person authorized to prepare the technical documents

Interroll Trommelmotoren GmbH

Center of Excellence Hygienic Solutions

Opelstraße 3

41836 Hueckelhoven/Baal (Germany)

herewith declares that the conveyor module described below is an incomplete machine in accordance with the EC Machinery Directive:

- Interroll roller curve SH 1210

The incomplete machine may only be started up if it has been determined that the complete machine/system into which the incomplete machine is to be installed meets the requirements of this directive.

The following safety and occupational health requirements as stated in Appendix I have been applied:

- 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.6, 1.3.7, 1.3.8, 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.5.4, 1.5.5, 1.5.6, 1.5.8, 1.5.9, 1.6.1, 1.6.2, 1.6.4, 1.7.1, 1.7.2, 1.7.3, 1.7.4

The special technical documents mentioned in Appendix VII B have been prepared and will be transmitted to the responsible authority if necessary. Transmission is performed electronically.

Applicable EC Directives:

- Machinery Directive 2006/42/EC
- EMC Directive 2014/30/EU

Applicable EC/EU regulations:

- Regulation 10/2011/EU
- Regulation 1935/2004/EU

Applied harmonized standards:

- EN 415-10:2014 "Safety of machinery - Ergonomic design principles - Part 1: Terminology and classification of packaging machines and associated equipment"
- EN 619:2011-02 "Continuous handling equipment and systems - Safety and EMC requirements for equipment for mechanical handling of unit loads"
- EN ISO 12100:2011-03 "Safety of machinery - General principles for design - Risk assessment and risk reduction"
- DIN EN 1672-1:2014-12 "Food processing machinery - Basic concepts - Part 1: Safety requirements"
- EN ISO 13854:2020-01 "Safety of machinery - Minimum gaps to avoid crushing of parts of the human body"
- EN ISO 13849-1:2016-06 "Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design"



## Interroll Roller curve SH 1210

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### Declaration of incorporation

Hueckelhoven/Baal, dated 16 May 2022

A handwritten signature in black ink, appearing to read 'H. Tiedemann'.

Dr. Hauke Tiedemann  
Managing Director

## Interroll Roller curve SH 1210

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### Declaration of incorporation

#### UK Supply of Machinery (Safety) Regulations 2008

##### The manufacturer

Interroll Trommelmotoren GmbH  
Opelstr. 3  
D - 41836 Hueckelhoven/Baal  
Germany

##### represented in the UK by

Interroll Limited  
Unit 1a, Orion Way Kettering, Northants  
NN15 6NL  
England

##### hereby declares that the "incomplete machine"

- Interroll Roller Conveyor SH1210

##### is an incomplete machine in the sense of the EC Machinery Directive (2006/42/EC), but complies with the following requirements according to Annex I of this Directive:

1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.6, 1.3.7, 1.3.8, 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.5.4, 1.5.5, 1.5.6, 1.5.8, 1.5.9, 1.6.1, 1.6.2, 1.6.4, 1.7.1, 1.7.2, 1.7.3, 1.7.4

The specific technical documentation according to Annex VII B has been prepared and will be submitted to the competent authority if required.

The commissioning of the incomplete machine is prohibited until the conformity of the overall machine/system in which it is installed with the UK Supply of Machinery (Safety) Regulations 2008 has been declared.

##### Further applied guidelines and resulting UKCA marking:

- UK Electromagnetic Compatibility Regulations 2016
- UK Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 212

##### Applied harmonized standards:

- EN ISO 12100:2011-03
- EN 60204-1:2019-06
- EN IEC 63000:2019-05
- EN 619:2011-02
- EN 1672-1:2014-12

##### Other standards applied:

- EN 60034-1:2011-02
- EN 60034-11:2005-04
- EN IEC 60034-14:2019-04
- EN IEC 60034-5:2021-05
- EN 60034-6:1996-08
- EN 61984:2009-11



## Interroll Roller curve SH 1210

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### Declaration of incorporation

- EN 61800-1:2018:11

The partly completed machine may only be put into operation when it has been established that the complete machine/system in which the partly completed machine is to be installed is to be installed, complies with the provisions of this directive.

### Authorised for compiling technical documentation:

Interroll Trommelmotoren GmbH, Opelstr. 3, Germany - 41836 Hueckelhoven  
Hueckelhoven, 16th May 2022

A handwritten signature in black ink, appearing to read 'H. Tiedemann'.

Dr. Hauke Tiedemann  
(Managing Director)

## Appendix

### Warranty for Interroll roller conveyors

Interroll grants a two-year warranty on its roller conveyor range; the warranty applies to manufacturing and material defects and starts with the delivery or pickup at the factory. The warranty period is based on the regular operation of the product eight hours per day, provided no written agreement to the contrary is in effect.

As part of this warranty, Interroll repairs or replaces any defective product, free of charge, that is returned to the factory before the warranty period expires. The warranty period shall not be extended by repairs performed within the framework of the warranty.

**Restrictions** Interroll and its dealers do not assume any liability for shutdowns or damage to the product that is due to the following causes:

- Non-observance of the installation or maintenance notes from Interroll
- Operation of the motor without suitable motor protection
- Not connecting the internal Interroll thermal circuit breaker (if available)
- Reversing the rotational direction before the motor has reached complete standstill
- Use of the roller conveyor outside the specifications stated on the nameplate and/or in the current Interroll catalog or quotation

Repairs, modifications or conversions to the product that are not performed by a qualified Interroll technician or service partner, void the warranty, unless such work was clarified beforehand with Interroll in writing.

**Exceptions** The Interroll warranty excludes any liability for the following damages:

- Damages caused by incorrect use or normal wear on materials used
- Costs for removal and return shipment of the product to Interroll as part of this warranty
- Damage to other systems that are used in conjunction with the product
- Loss of income, injuries or other costs in conjunction with the failure of the product

### Interroll Service

Do you any questions or issues?

Our Service Team will gladly provide support:

Hotline: +49 (0) 2193 - 23 222

E-mail: [ceu.service@interroll.com](mailto:ceu.service@interroll.com)



## Interroll Roller curve SH 1210

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## Interroll Roller curve SH 1210

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