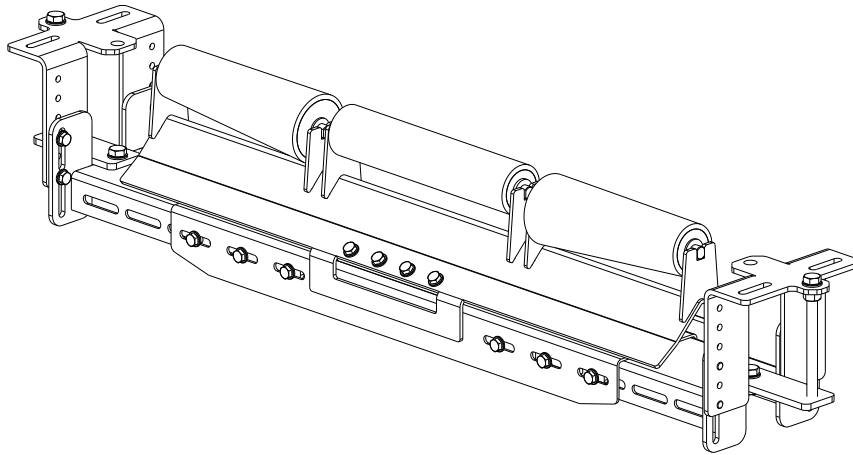


Installation and operating manual

CEN-TRAX belt tracker

Type SKO and SO



Version: July 2017

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1 Introduction

This manual provides the important and necessary information about the installation and maintenance of the CEN-TRAX belt trackers type SKO and SO. The manual applies to all CEN-TRAX belt trackers type SKO and SO. The standard type SKO is shown in the manual.



Read the manual carefully so that you are familiar with the entire contents. Follow the instructions in the manual carefully. Always perform the tasks in the correct order.

Keep this installation and operating manual with the machine documentation for future reference, and make sure the manual is available to the installation personnel and operators! If the manual is lost, a new copy can be requested from **TBK spillage control bv**.

1.1 Manufacturer, copyright

Manufacturer:

TBK spillage control bv
Groot Overeem 7
3927 GH Renswoude

Tel.: +31 (0) 318 745740
E-mail: info@tbkgroup.com

1.2 Copyright:

All rights reserved. Reprinting, reproducing or supplying this installation and operating manual to third parties, including storage and use on optical and electronic data carriers, other than for use by the owner for training and operating purposes, are only permitted with the manufacturer's written permission.

1.3 Disclaimer:

TBK spillage control bv is not liable for accidents or damages resulting from failure to heed the warnings or instructions provided on the belt tracker and in this manual, including:

- incompetent and/or incorrect use or maintenance
- use for other purposes or under other conditions than those specified in this manual
- the use of components other than those specified
- repairs or modifications made without the manufacturer's authorisation.

TBK spillage control bv cannot be held liable for indirect damage resulting from malfunctions or deficiencies of the belt tracker, such as downtime, slowdowns, etc.

TBK spillage control bv cannot be held liable for damage or injury as a result of failure to carefully comply with the instructions in this manual and lack of proper care during transport, installation, use and maintenance. In connection with our policy of continuous improvement, certain product details may differ from what is described in this manual. For this reason, the provided instructions only serve as a guideline for installation of the product for which this manual was written. This manual was prepared with all due care, but TBK spillage control bv cannot accept responsibility for any errors in this manual or for the consequences thereof.

2 Safety measures and warnings

2.1 Legend: (explanation of the symbols)



Warning: danger area / Particular attention is required, or read particularly attentively.



Do not switch on / Make sure the belt conveyor system cannot be switched on during installation.



Warning: potentially explosive atmosphere.



Warning: earthing / Make sure the system is properly earthed.



Warning: beware of risk of trapping of the hands.



Warning: beware of risk of hand injury.



Warning: beware of rotating parts and the risk of being pulled into the machine.

2.2 Required personal protective equipment

Always wear the proper personal protective equipment (work gloves, safety glasses, safety shoes, etc.) when performing the work.



Protective clothing required



Safety helmet required



Safety gloves required



Eye protection required



Safety shoes required



Hearing protection required

2.3 General safety instructions

Important:



- Please read the safety warnings and precautions before installing the CEN-TRAX belt trackers. Follow the instructions and guidelines described in this manual carefully during installation. Never change the order of the steps to be completed. If any aspect of the installation process is unclear, please contact TBK spillage control bv or its authorised representative.

- This operating manual is intended for skilled personnel who have been trained by the manufacturer or its representative, since these people have the qualifications, experience, additional training and knowledge of relevant standards, legislation, accident prevention regulations and operating conditions to perform the required tasks while recognising and avoiding potential hazards.
- Installation/commissioning must be performed by skilled personnel who have been trained by the manufacturer or its representative (minimum of two people); otherwise the warranty is void.



- The instructions in the operating manual must be observed without fail. In the event of non-compliance the manufacturer is not liable for any resulting damage to the machine or personal injuries.
- As CEN-TRAX belt trackers are generally integrated into belt conveyor systems, the stipulations of the relevant applicable machinery directives must be complied with by companies using these belt conveyor systems and operators who install the tracking systems.
- CEN-TRAX Belt tracker systems offered by TBK spillage control bv may only be used in accordance with their intended purpose: to correct conveyor belt mistracking at the locations provided for that purpose in the return strand.
- Check the delivery immediately upon receipt. In the event of damage or an incomplete delivery we request that you immediately contact TBK spillage control bv or its authorised representative.
- In order to ensure the system functions properly, in principle only the manufacturer's replacement parts may be used.
- When performing work of any kind, the relevant regulations issued by the local authorities and other relevant legislation must be followed.
- The CEN-TRAX belt trackers, type SKO and SO, meet the highest technical standards at the time of delivery.
- The systems may only be installed and operated in undamaged condition, and the operator must comply with the relevant accident-prevention regulations in order to ensure operating safety.
- There must be a suitable conveyor construction on which to mount the CEN-TRAX belt tracker. The frame must be flat, clean and dry.
- Additions, changes and conversion are not permitted, as they may impair the safety.
- Ensure that all the fasteners are tightened securely. Check that all fasteners are in the correct position. **ATTENTION:** the omission of fasteners has an adverse impact on the safety of the CEN-TRAX belt trackers and is therefore strongly discouraged!
- No claim is made as to the completeness of these safety instructions. If you have any questions or problems, contact the manufacturer or its authorised representative.

2.4 Special safety instructions

- Erect a barrier around the installation location with barrier tape to keep unauthorised persons at a safe distance.
- Keep the work area clean and free of obstacles.
- Make sure there is adequate ambient lighting during installation and maintenance.



- Switch off power and lock out/tag out the energy source to the belt conveyor installation and accessories before starting any work on CEN-TRAX belt trackers.



- During installation of CEN-TRAX belt trackers, compliance with the official regulations (explosion protection, fire protection, etc.) must be checked before the use of a welding torch and/or other welding equipment.



- When welding or cutting, components that are sensitive to heat, e.g. the conveyor belt, must be covered. In some cases, a fire protection officer may also need to be present.



- Warning: rotating parts and risk of being pulled into the machine. There is a risk of being pulled into the machine and being crushed. The operator must take appropriate precautions (fencing, warning signs).
- Never place your fingers/hands between the idlers and the conveyor belt if the conveyor belt is running or not locked-out in accordance with the lock-out procedures.
- Never run your hands over the idlers if the conveyor belt is running or not locked-out in accordance with the lock-out procedures.



- Make sure your fingers never come under/between the belt construction and the CEN-TRAX belt tracker.



- ATTENTION: Make sure fingers, feet and limbs do not get caught between the components and/or pivoting parts. Never place your fingers/hands between the stop and the central carrier.

- Be careful of the sharp edges and corners of the belt tracking system: risk of laceration.



- Make sure the earthing of the CEN-TRAX belt tracker is properly connected.

- Removal or covering of safety labels is not allowed.

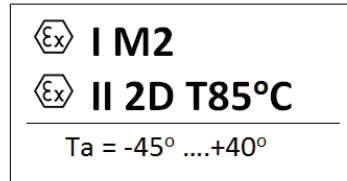
- The CEN-TRAX belt tracker is delivered in a wooden box. This box may weigh between 50 and 250 kg and is top-heavy. Only move this box with a forklift or trolleys with a lifting device.
- Place the box as close as possible to the installation location. If the installation location is difficult or impossible to reach with a forklift, remove the heavy parts (idlers, brackets) from the CEN-TRAX belt tracker and bring them to the installation location separately. Always use lifting assistance equipment and lift with the assistance of a second person when possible.
- Heed the applicable health and safety standards and directives when carrying and lifting the parts of the CEN-TRAX belt tracker. The maximum weight to be lifted by each person is 23 kg. When exceeding this maximum lifting weight always use lifting assistance equipment or lifting machinery.
- Consider the ergonomic aspects during activities such as lifting, bending over, reaching, etc. during work on the CEN-TRAX belt tracker.

2.5 Instructions for use in explosive atmosphere zones

- The user must specify the environment in which the belt tracker will be used (e.g. underground, in explosive atmosphere zones, etc.).



- CEN-TRAX belt trackers for use in explosive atmosphere zones are equipped with special idlers. These idlers can be recognised by the orange-coloured bearing housings.
- CEN-TRAX belt trackers that are suitable for use in explosive atmosphere zones are fitted with the following type plates:



CEN-TRAX® Belt tracker	
Model: _____	Weight: _____ kg.
Serial Nr.: _____	Month/year of prod.: _____/20_____
TBK spillage control bv – www.tbkgroup.com	

Requirements and basic principles for use in explosive atmosphere zones EX I M2 and EX II 2D



- CEN-TRAX belt trackers may only be used in combination with electrically conductive conveyor belts (surface resistance of the top and bottom of the belt <math>< 3.10^8 \Omega</math> at 23 °C and 50% rel. humidity, as well as a conductive resistance <math>< 10^9 \Omega</math> for multi-layer conveyor belts). At belt speeds > 5 m/s the use of mechanical fasteners is not allowed.



- The belt tracker must be fitted with special idlers that are approved for use in explosive atmosphere zones. These idlers can be recognised by the orange-coloured bearing housings.
- The idlers must be replaced at least as often as the intervals prescribed in section 6.3.
- Max. surface temperature +85°C.
- Temperature range -45° C to +40°C.
- Dust characteristics:
 - ignition temperature max. 128°C
 - glow temperature max. 160°C
 - ignition energy > 1mJ.
- Max. permitted belt speed:
 - type SK and SKO 3 m/s
 - type S and SO 6 m/s.



- The belt conveyor system must be earthed.
- The belt tracker must be earthed via the belt conveyor construction.
- The installation may only be put in operation after the user has determined that the installation in which the belt tracker is integrated meets the basic requirements of the directive.
- Use only original replacement parts.

2.6 Warning labels on product

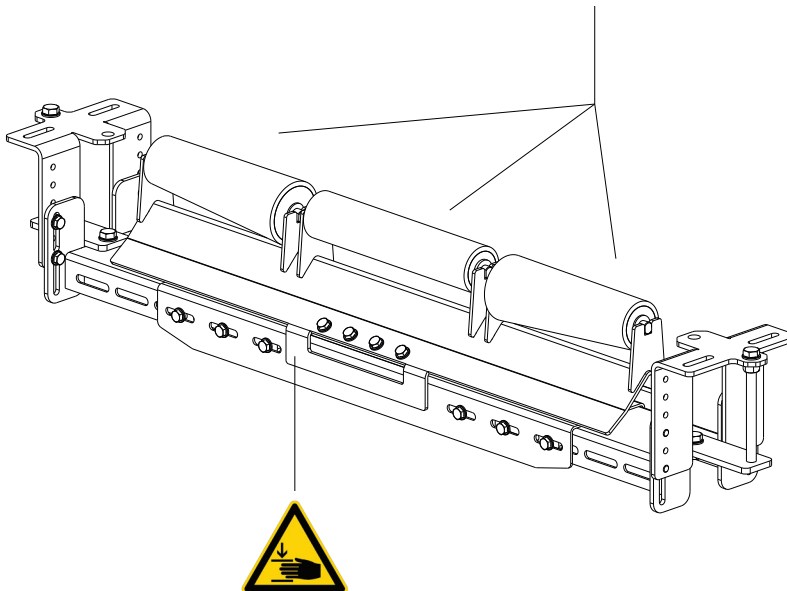
This page includes pictures of all major warning labels on the CEN-TRAX belt tracker. If any of these labels is no longer clearly readable, it must be replaced. Removal and covering of the labels is not allowed.



Warning: beware of risk of trapping of the hands.



Warning: beware of rotating parts and the risk of being pulled into the machine.



3 Product description

3.1 Purpose and function

The CEN-TRAX belt tracker is a belt tracking system for correcting mistracking of conveyor belts on the return strand and is also suitable for reversible belts.

3.2 Technical specifications

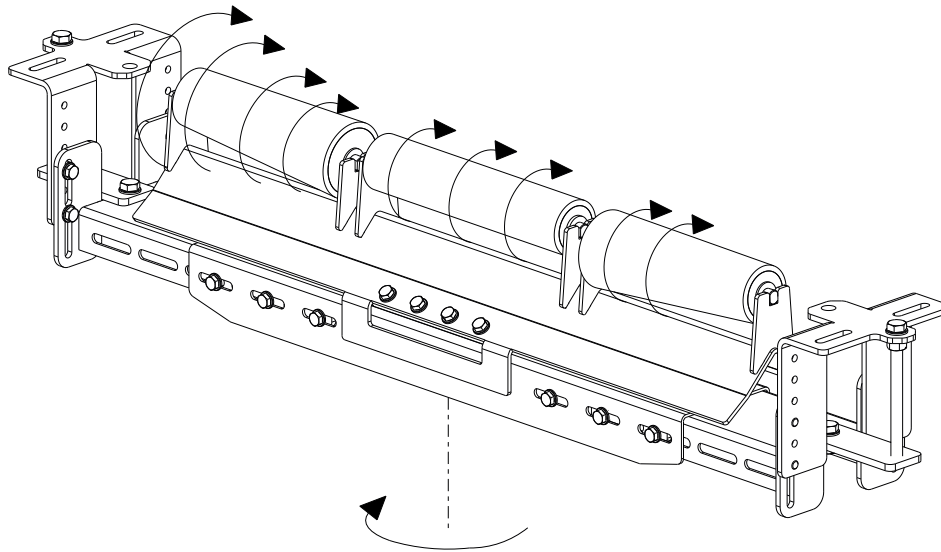
Belt width	650 to 1800 mm (from 1800 mm on request)
Belt speed	max. 6 m/sec.
Conveyor belt type	smooth rubber or PVC fabric belt* The requirements listed in section 2.5 apply for use in an ATEX zoned environment
Belt joint	vulcanised or mechanical
Ambient temperature	-45 °C tot +40 °C
Direction of belt travel	suitable for one and two directions of travel
Idler lining	wear-resistant rubber, ATEX-approved rubber, polyurethane

3.3 Operation and functional overview

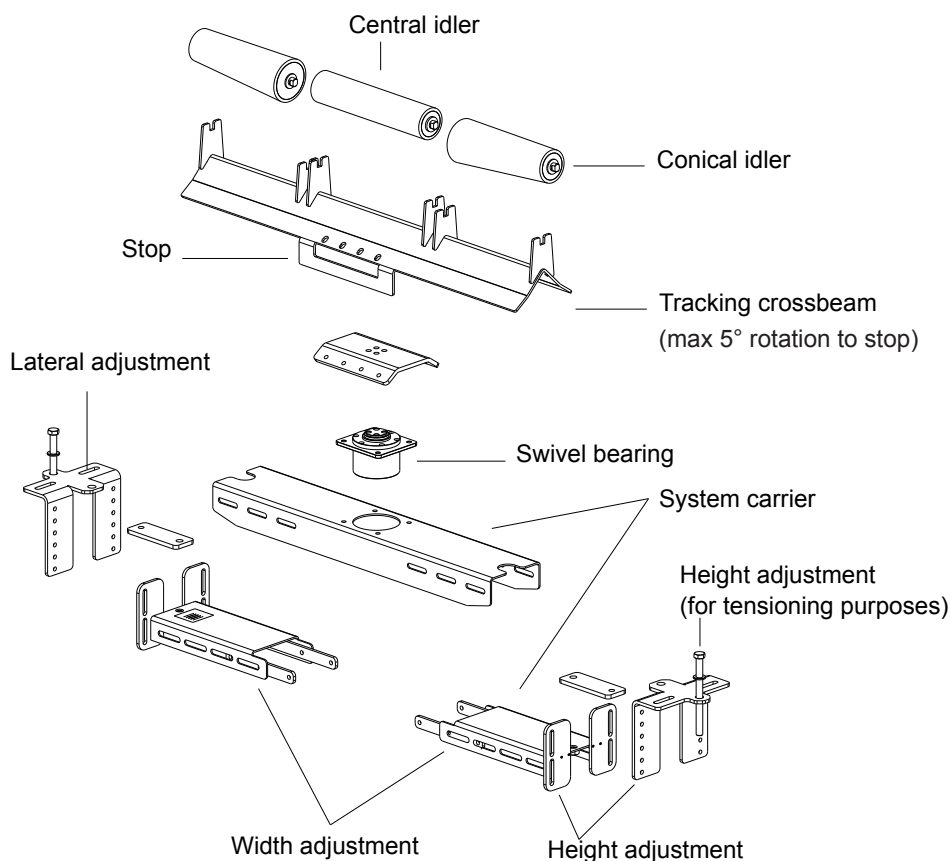
CEN-TRAX belt trackers, type SKO and SO, consist of a system carrier rigidly mounted on the belt construction and a tracking crossbeam fitted with a central idler and two conical idlers. The idlers are coated with profiled rubber or polyurethane. The tracking crossbeam is connected to the system carrier via a central swivel bearing arrangement.

Operation:

When the conveyor belt begins mistracking, the speed of the two conical idlers changes. The conical idler on the side towards which the belt is moving turns faster, and the conical idler on the opposite side begins to slow down. This difference in speed and friction causes the tracking crossbeam to rotate on its axis, out of alignment with the centre-line of the belt. The steering force generated by this misalignment guides the belt back to the centre. The greater the misalignment of the belt, the greater the guiding force exerted by the CEN-TRAX belt tracker.

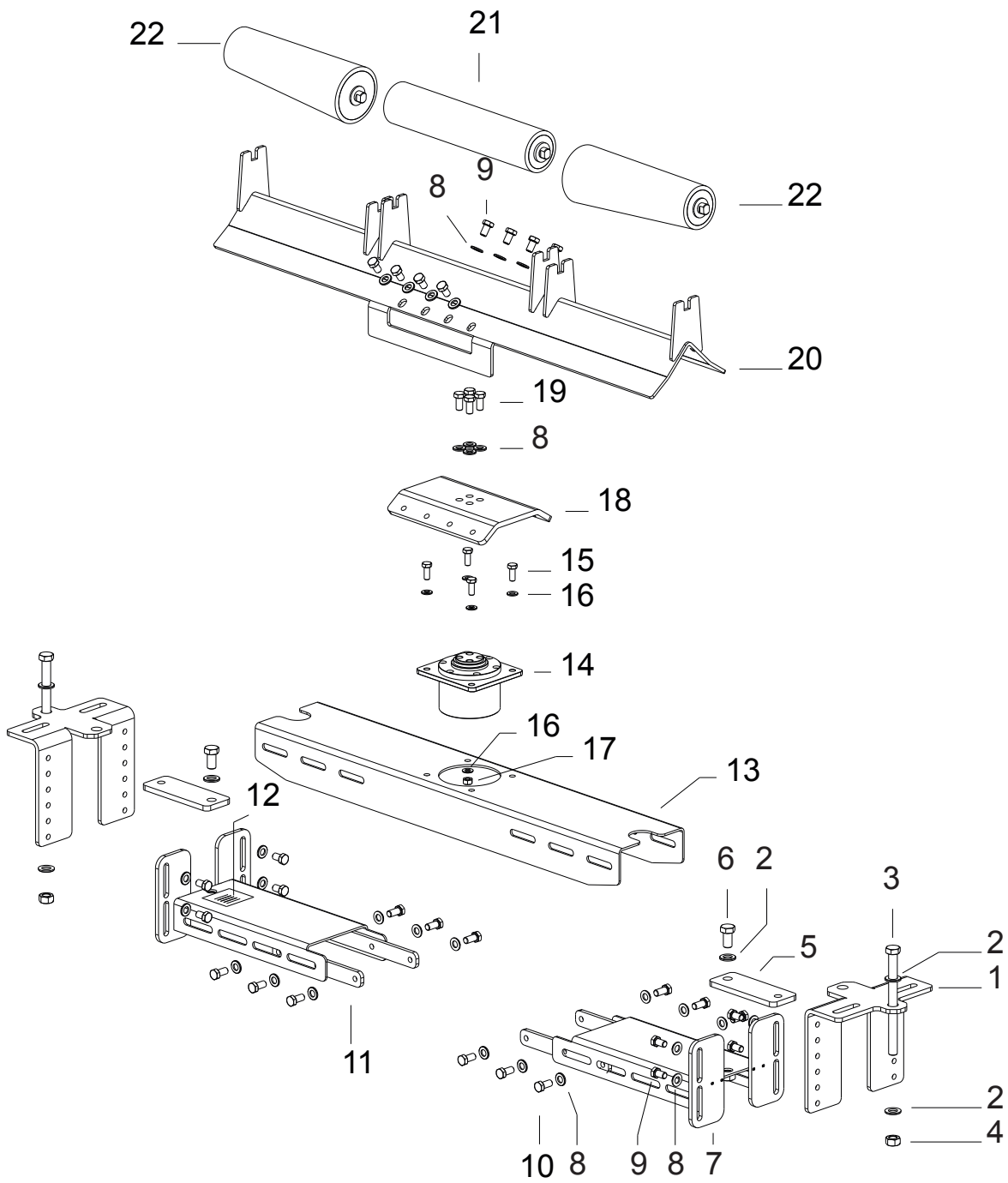


Functional overview



3.4 Component overview

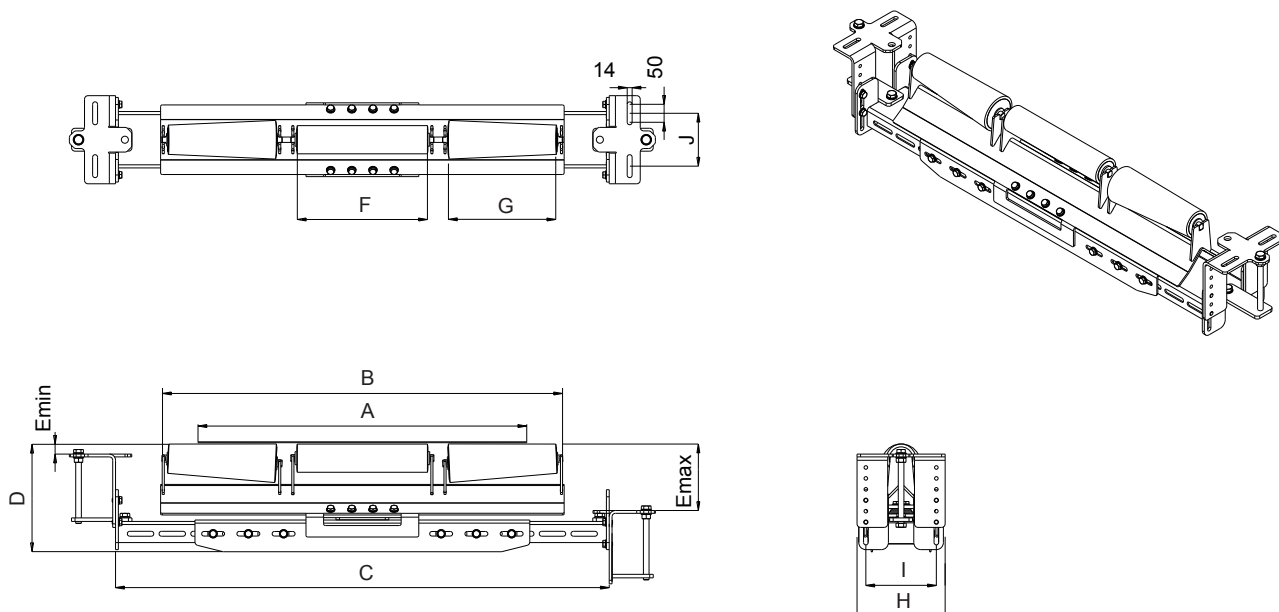
TYPE SKO & SO



3.5 Parts list

REF. NO.	QUANTITY	DESCRIPTION (TYPE SKO & SO)
1	2	Mounting plate L and R
2	2	ISO 4017 - M16 x 200
3	4	DIN 125 - A 17
4	2	ISO 4032 - M16
5	2	Height adjustment
6	2	ISO 4017 M16x35
7	2	End piece
8	38	DIN 125 - A 13
9	16	ISO 4017 - M12 x 20
10	12	ISO 4017 - M12 x 25
11	4	Clamping plate
12	1	Type plate
13	1	Central carrier
14	1	Swivel bearing, complete
15	4	ISO 4017 - M10 x 25
16	8	DIN 125 - A 10,5
17	4	ISO 4032 - M10
18	1	Connecting plate SKO or SO
19	4	ISO 4017 - M12 x 30
20	1	Tracking crossbeam
21	1	Central idler
22	2	Conical idler

3.6 Product dimensions & size table



Type	A	B	C min.	C max.	D	E min.	E max.	F	G	H	I	J	Weight (kg)
SKO-650-P (-A / -PU)	650	750	900	1160	285	20	185	200	242	250	200	150	55
SKO-800-P (-A / -PU)	800	900	1050	1316	285	20	185	307	242	250	200	150	61
SKO-1000-P (-A / -PU)	1000	1100	1250	1516	285	20	185	372	307	250	200	150	67
SO-1200-P (-A / -PU)	1200	1300	1475	1960	400	152	316	441	360	280	230	180	135
SO-1400-P (-A / -PU)	1400	1500	1660	2150	400	152	316	441	450	280	230	180	146
SO-1600-P (-A / -PU)	1600	1700	1870	2360	400	152	316	506	514	280	230	180	156
SO-1800-P (-A / -PU)	1800	1900	2070	2560	400	152	316	576	584	280	230	180	166

3.7 Overview of the idlers

Belt width	Type	Central idler	Dimension	Weight kg	Conical idler	Dimension	Weight kg
650 mm	SKO 650-P (-A / -PU)	MR50	∅ 80x200	3,4	CR65	∅ 83/104x242	3,8
800 mm	SKO 800-P (-A / -PU)	MR80	∅ 80x307	3,7	CR65	∅ 83/104x242	3,8
1000 mm	SKO 1000-P (-A / -PU)	MR100	∅ 80x372	4	CR80	∅ 83/110x307	4,7
1200 mm	SO 1200-P (-A / -PU)	MR120	∅ 124x441	11,4	CRO120	∅ 160/193x360	16,4
1400 mm	SO 1400-P (-A / -PU)	MR120	∅ 124x441	11,4	CR120	∅ 155/196x449	18,9
1600 mm	SO 1600-P (-A / -PU)	MR 140	∅ 124x506	12,7	CR140	∅ 155/201x514	20,4
1800 mm	SO 1800-P (-A / -PU)	MR160	∅ 124x576	14,2	CR160	∅ 155/207x584	21,8

P = idlers lined with wear-resistant rubber
A = idlers lined with ATEX-approved rubber
PU = idlers lined with polyurethane

4 Commissioning

4.1 General



Installation and, in particular, commissioning, may only be performed by authorised, skilled personnel that have been trained by the manufacturer or its representative. The locally applicable safety regulations must be observed. In the event of non-compliance the manufacturer is not liable for any resulting damage to the machine, personal injuries or any consequential damage.

4.2 Transport

- The CEN-TRAX belt tracker is supplied pre-assembled and is packed in a wooden box. This crate may weigh between 50 and 250 kg and is top-heavy. Only move this box with a forklift or trolleys with a lifting device.
- Place the box as close as possible to the installation location. If the installation location is difficult or impossible to reach with a forklift, open the box and remove the heavy parts (idlers and tracking crossbeam) from the CEN-TRAX belt tracker. Bring the parts to the installation location separately. Always use lifting assistance equipment (e.g. trolley, wheelbarrow) and lift with the assistance of a second person when possible.
- Heed the applicable health and safety standards and directives when carrying and lifting the parts of the belt tracker system. The maximum weight to be lifted by each person is 23 kg. When exceeding this maximum lifting weight always use lifting assistance equipment or lifting machinery.
- Consider the ergonomic aspects during activities such as lifting, bending over, reaching, etc. during work on the CEN-TRAX belt tracker.



It is essential that parts are not damaged or subjected to external forces during transport. Damaged parts may not be installed – risk of injury!

4.3 Storage

- The storage area must be dry.
- The CEN-TRAX belt tracker may not be installed or stored in an area where it will be exposed to moisture and water.
- After an extended period of storage the CEN-TRAX belt tracker must be inspected by skilled personnel.

4.4 Installation/commissioning



Switch off power and lock out/tag out the energy source to the belt conveyor installation and - accessories before starting any work on CEN-TRAX belt trackers.

If changes are made to the product, in particular during the installation, removal, replacement of parts, installation of new parts or changes to installed parts that are not authorised by the manufacturer, the warranty is void for any resulting deficiencies.

4.5 Determine the installation location

4.5.1 General

It is very important that the belt is tracking properly in the return strand, particularly where it approaches the tail pulley. If the belt is not centred as it arrives beneath the loading zone, in combination with off-centre loading, the mistracking will become even worse. Consequences include unplanned downtime as well as damage to the conveyor belt and belt construction.

To prevent this, a CEN-TRAX belt tracker SKO/SO is installed 5-10 metres before the tail pulley. For belts that operate in both directions, a CEN-TRAX belt tracker must also be installed before the drive pulley.

If the conveyor belt begins mistracking at a specific location, a CEN-TRAX belt tracker should be installed before the point where the mistracking begins.

If the mistracking extends over a longer stretch, multiple CEN-TRAX belt trackers should be installed. The distance between the belt trackers depends on multiple factors, such as the degree of mistracking and belt speed, and varies between 10 and 50 metres. If multiple belt trackers are installed, there must be at least one return idler between both systems. This prevents the belt trackers from influencing each other.

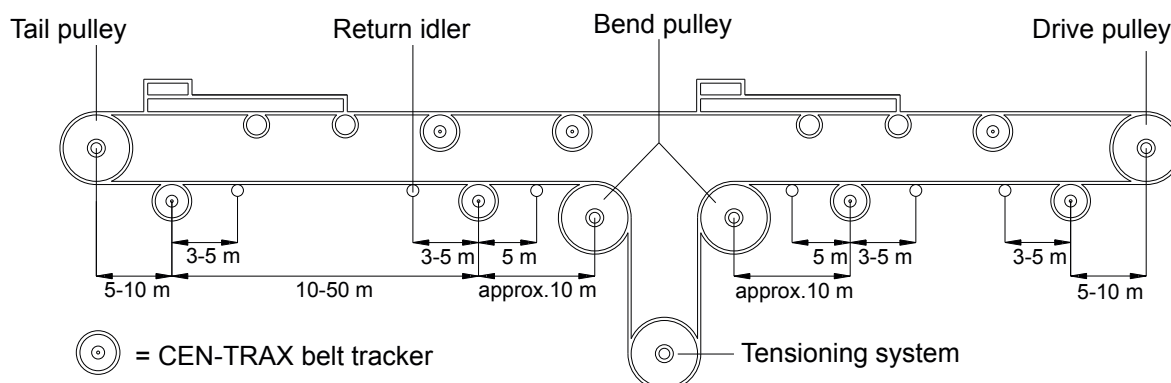
There are many factors that can cause mistracking of the lower section. These include:

- incorrectly or inadequately aligned pulleys and return idlers
- unevenly worn pulleys
- skewed belt joints
- skewed belt construction
- weather influences, such as crosswind
- off-centre loading of the conveyor belt
- mistracking of the return strand

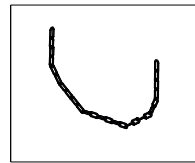
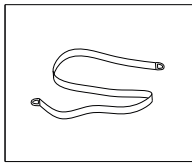
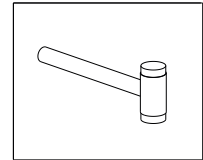
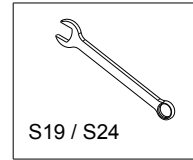
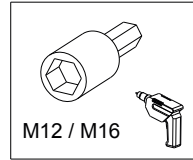
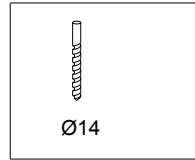
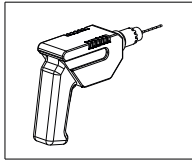
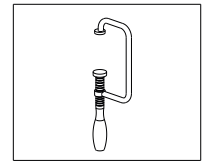
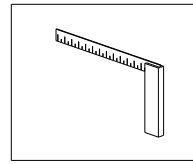
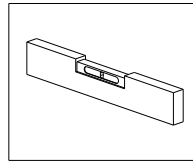
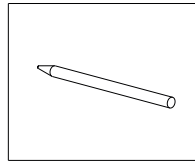
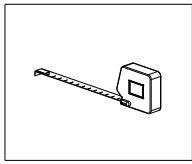
Inspect the belt conveyor system during operation beforehand to determine the cause of mistracking and the location where it begins.

4.5.2 Installation instructions

- The distance between the belt tracker and the tail/snub pulley should be approx. 5 to 10 metres.
- Do not place return idlers between the belt tracker and the tail/snub pulley.
- The distance between the belt tracker and closest following return idler should be approx. 3 to 5 metres.
- Distance between bend pulley and belt tracker approx. 10 metres.
- Do not place a return idler between belt tracker and bend pulley.
- In the case of a V-shaped return strand, CEN-TRAX belt trackers of type SKO-V or SO-V must be used. For more information please contact TBK spillage control bv or your local distributor.
- If multiple belt trackers are installed, at least one return idler must be installed between the both systems.



4.6 Tool overview



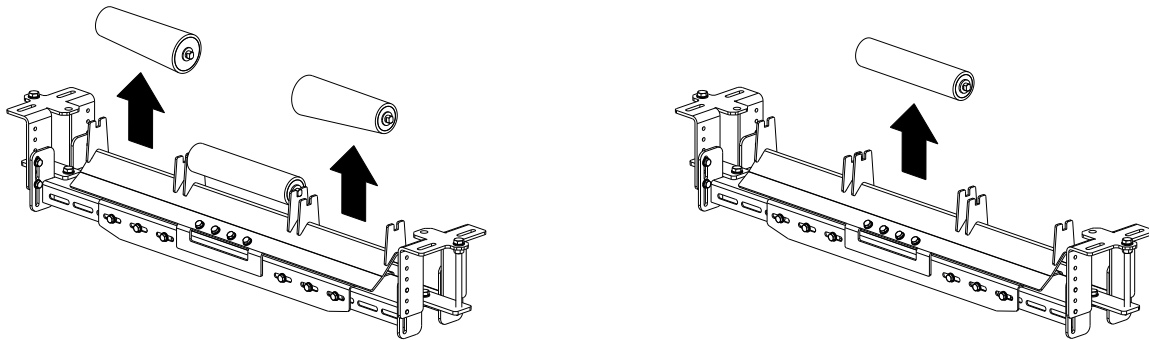
4.7 Open the packaging and remove the idlers and tracking crossbeam

1. Open the transport box and remove the packaging materials. The CEN-TRAX belt tracker is pre-assembled in the box.

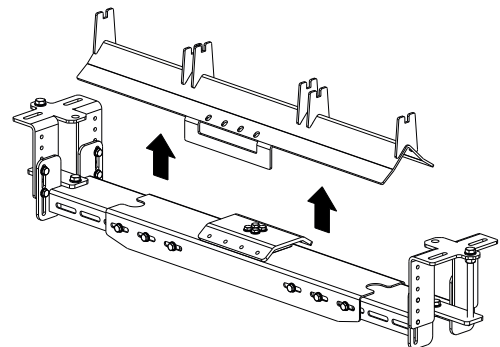
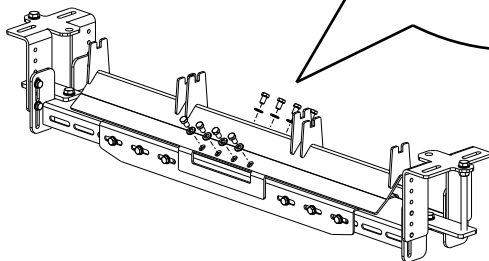
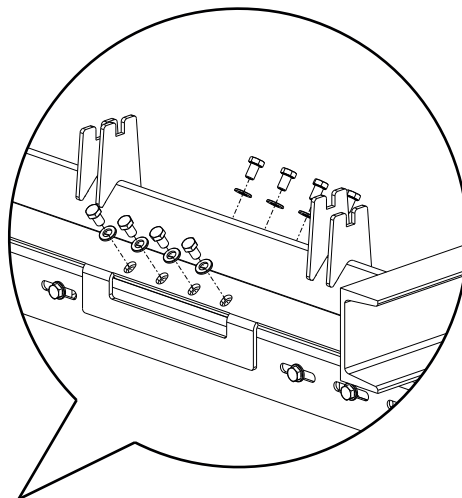
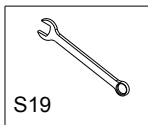


Attention! In the assembled state the CEN-TRAX belt tracker may be top-heavy. Therefore always remove the idlers and tracking crossbeam first. Always lift the individual parts with assistance from a second person and use lifting assistance equipment whenever possible. To do this, follow these steps:

2. remove the conical idlers from the brackets
3. remove the central idler from the bracket

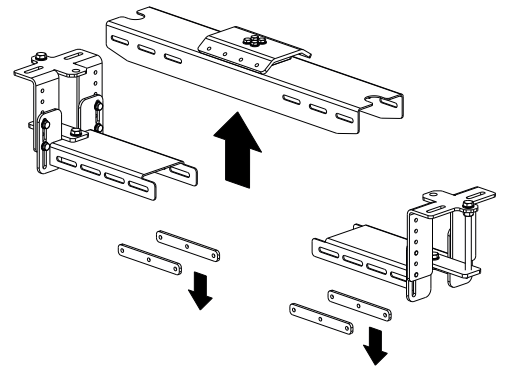
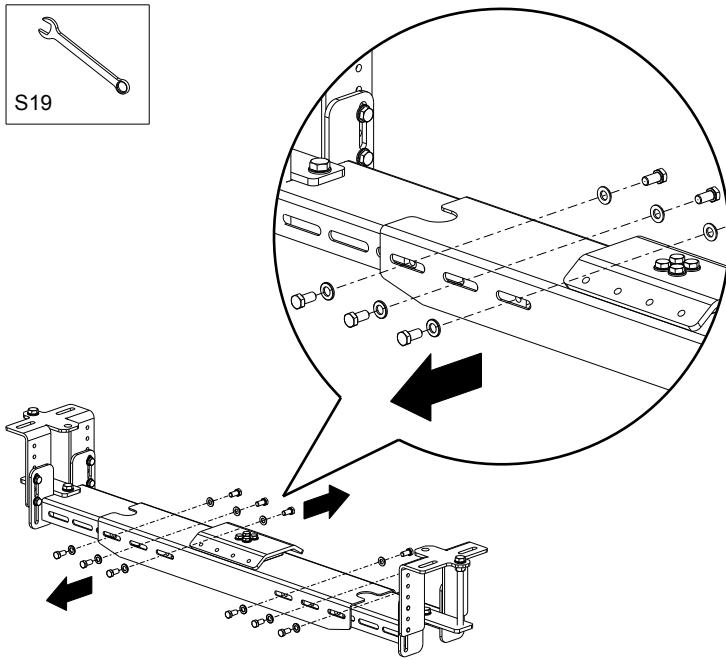
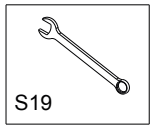


4. remove the eight bolts (incl. washers) from the tracking crossbeam
5. remove the tracking crossbeam



6. lift the system carrier, the idlers and the tracking crossbeam out of the box one at a time and place them on the floor beside the belt construction, at the installation location

7. at the installation location remove the twelve bolts (incl. washers) from the central support
8. remove the central support and the four clamping plates.

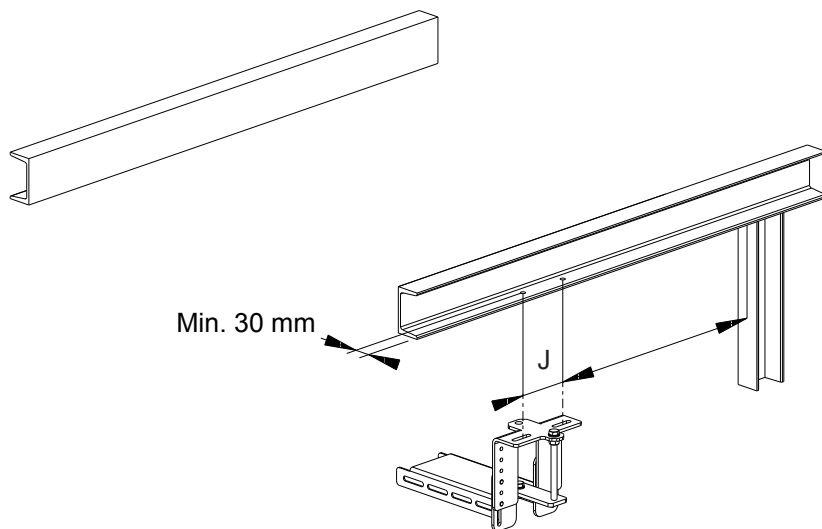
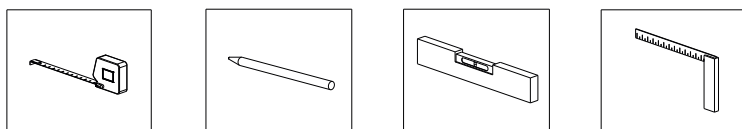


5 Installation

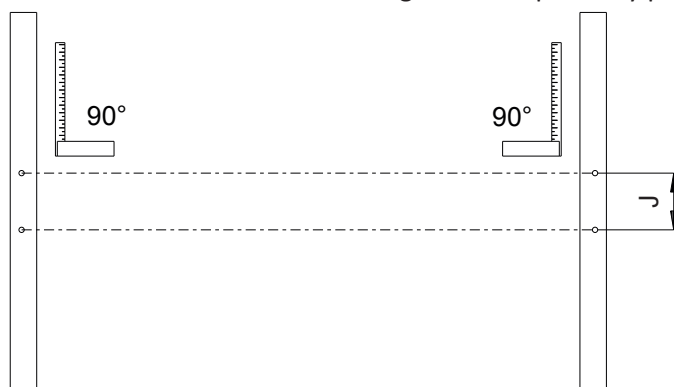
5.1 Positioning, marking and drilling mounting plates on belt frame

Once the position of the CEN-TRAX belt tracker has been determined, the holes are drilled on the belt frame.

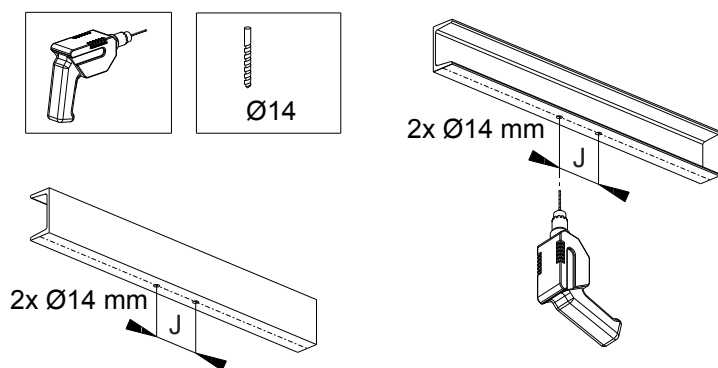
1. Determine the location of the first hole from a fixed point.
2. Mark the second hole at distance J. Make sure the mounting holes are at least 30 mm from the bottom edge of the belt frame.



3. Determine the location of the mounting holes on the opposite beam.
ATTENTION! Make sure the mounting holes are perfectly perpendicular to each other.



4. Drill the four holes (Ø14 mm) in the underside of the belt frame and remove any burrs.



5.2 Determining height of mounting plates

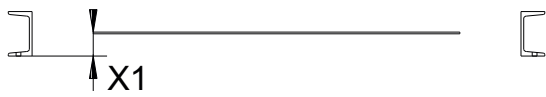
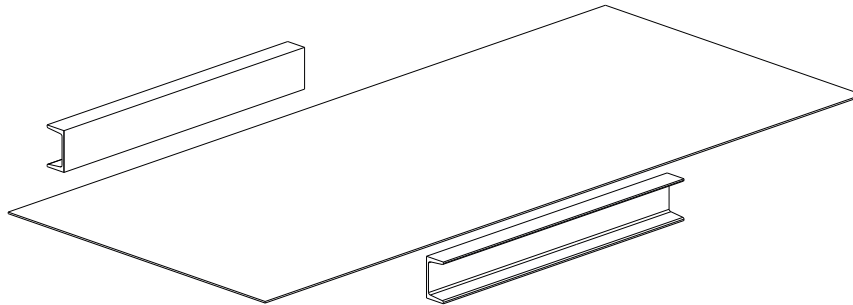
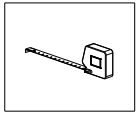
1. Measure the distance from the underside of the construction to the underside of the belt (dimension X)
2. Calculate dimension Y

Type SKO: $Y = 260 - X1$

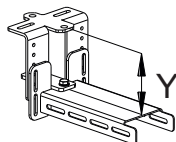
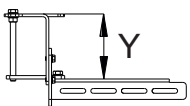
TYPE SKO: $Y = 260 + X2$

Type SO: $Y = 380 - X1$

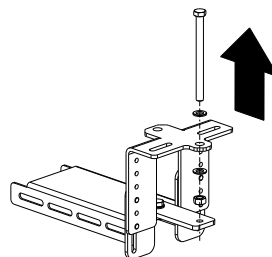
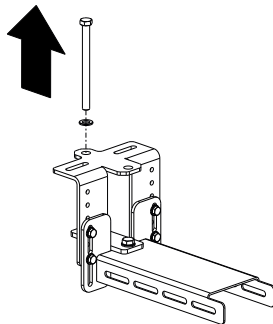
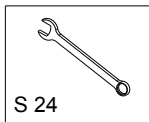
TYPE SO: $Y = 380 + X2$



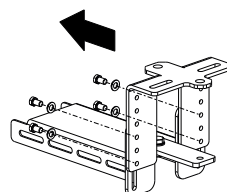
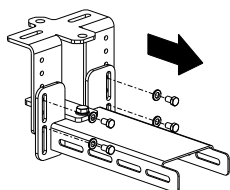
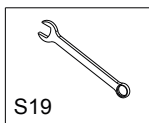
OR



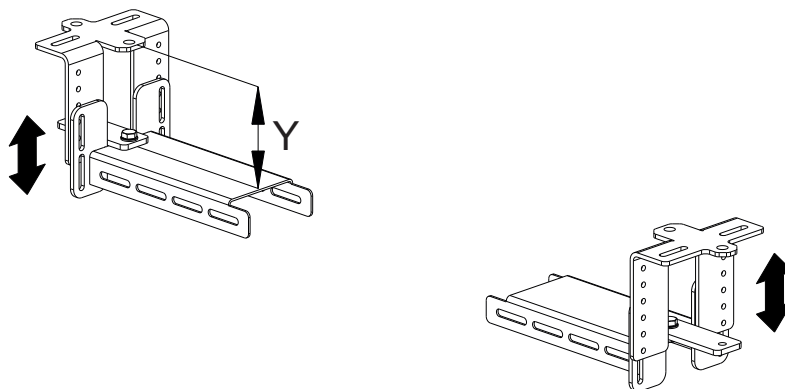
3. Remove the M16x200 tensioning bolts (2), washers (3) and M16 nuts (4).



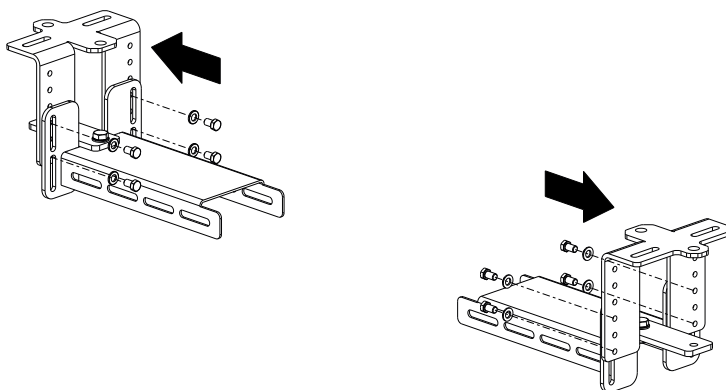
4. Remove the M12x20 bolts (9) and washers (8) from the mounting plates.



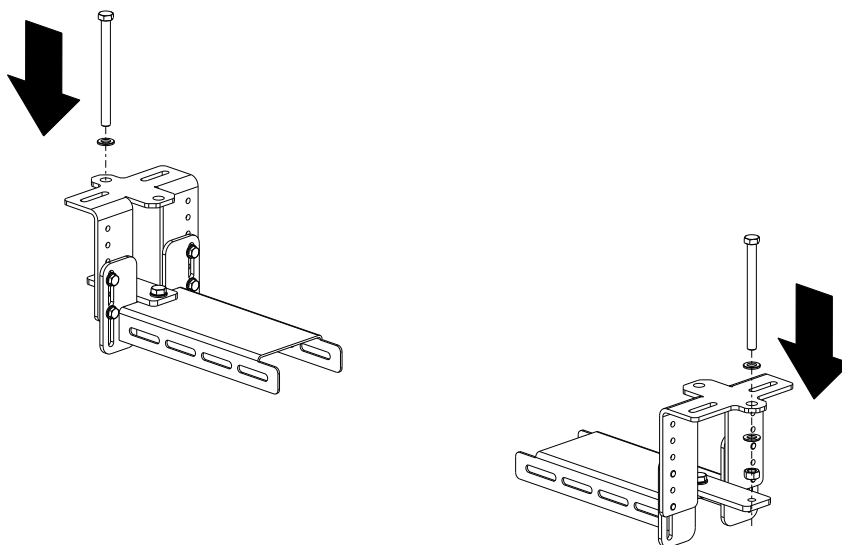
5. Position the mounting plates at height Y.



6. Fit the mounting plates on the end pieces with the M12x20 bolts (9) and washers (8).



7. Fit the M16x200 tensioning bolts (2), washers (3) and M16 nuts (4).



Attention! Tighten the bolts hand-tight initially, because the belt tracker must still be pre-tensioned.

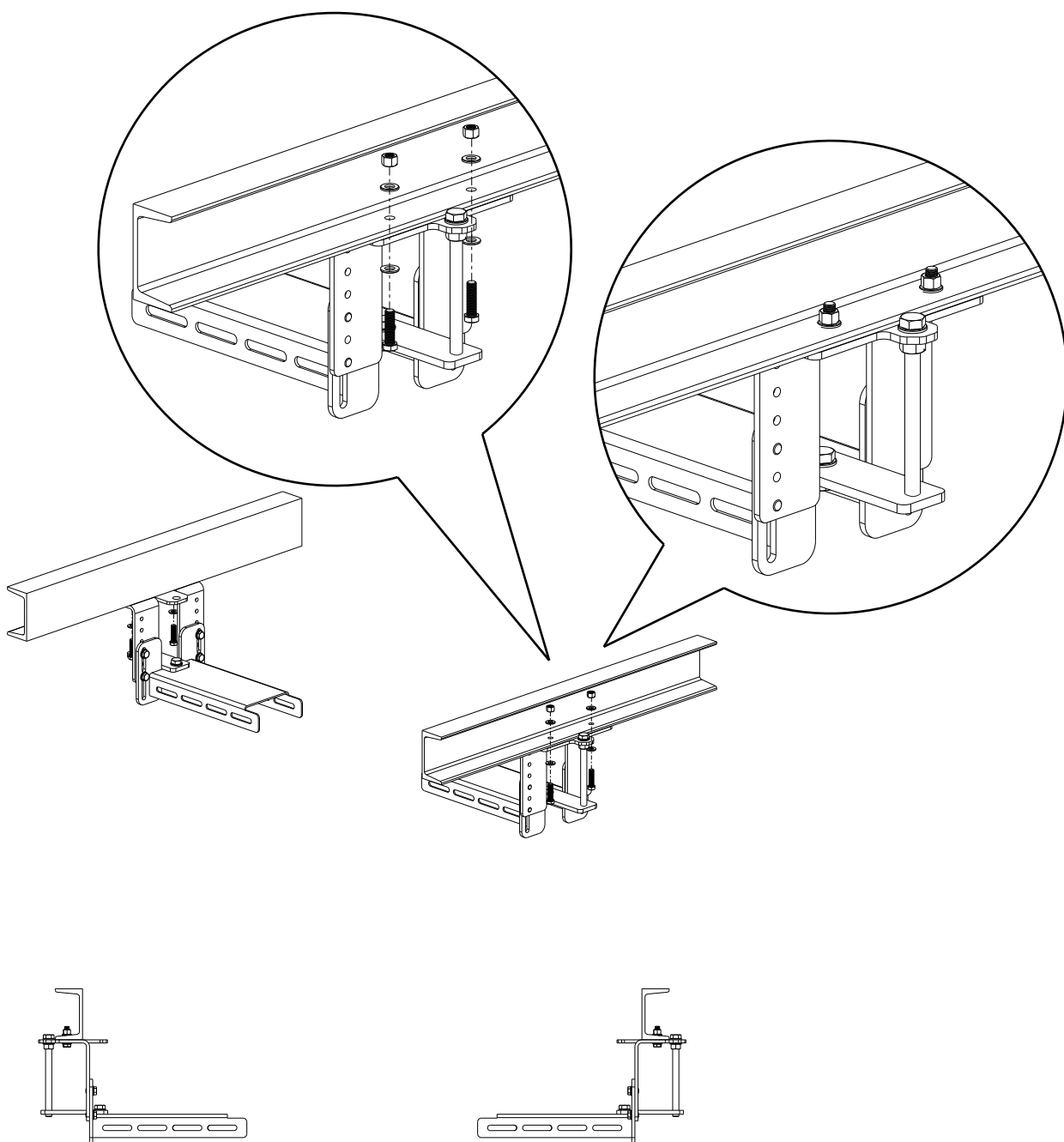
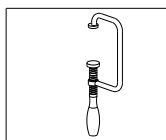
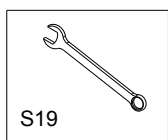
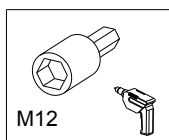
5.3 Installing mounting plates (incl. end pieces) on the belt frame

1. Place the mounting plates (incl. end pieces) against the mounting holes in the underside of the belt frame and clamp them in place.



Make sure your fingers never come between the mounting plates and the belt frame.

2. Make sure the centre of the slotted holes in the mounting plates are aligned with the mounting holes in the belt frame.
3. Make sure the mounting plates are level and perfectly perpendicular to the belt frame.
4. Attach the mounting plates to the belt frame with M12 bolts, nuts and washers.



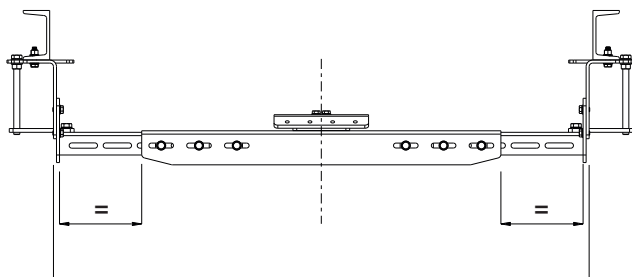
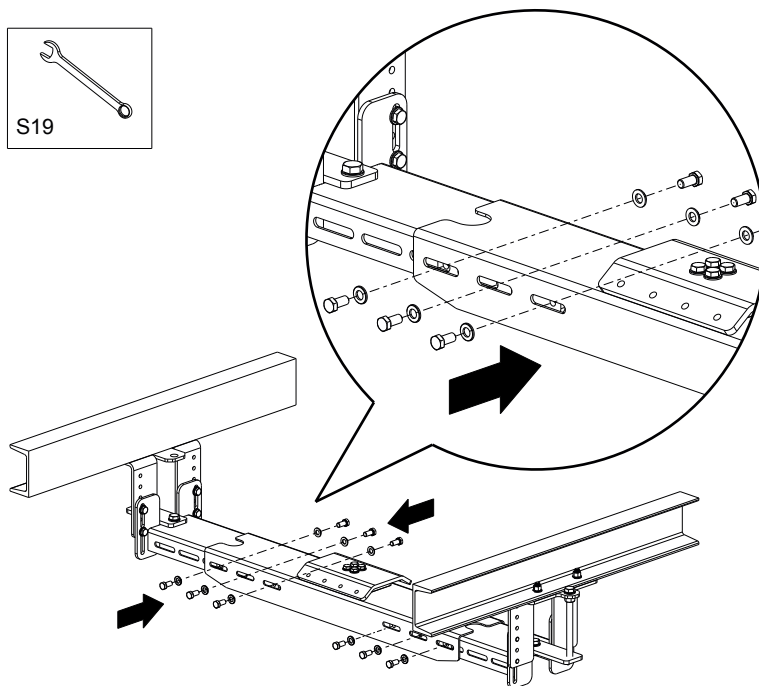
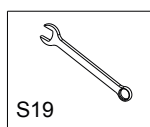
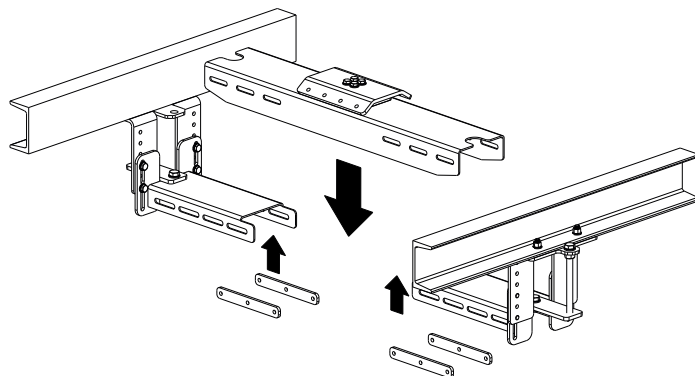
5.4 Installing central carrier

1. Place the central carrier on the two end pieces and align it to the middle of the belt.



Make sure your fingers never come between the end pieces and the central carrier.

2. Attach the central carrier to the end pieces with M12x25 bolts (10), washers (8) and the clamping plates.



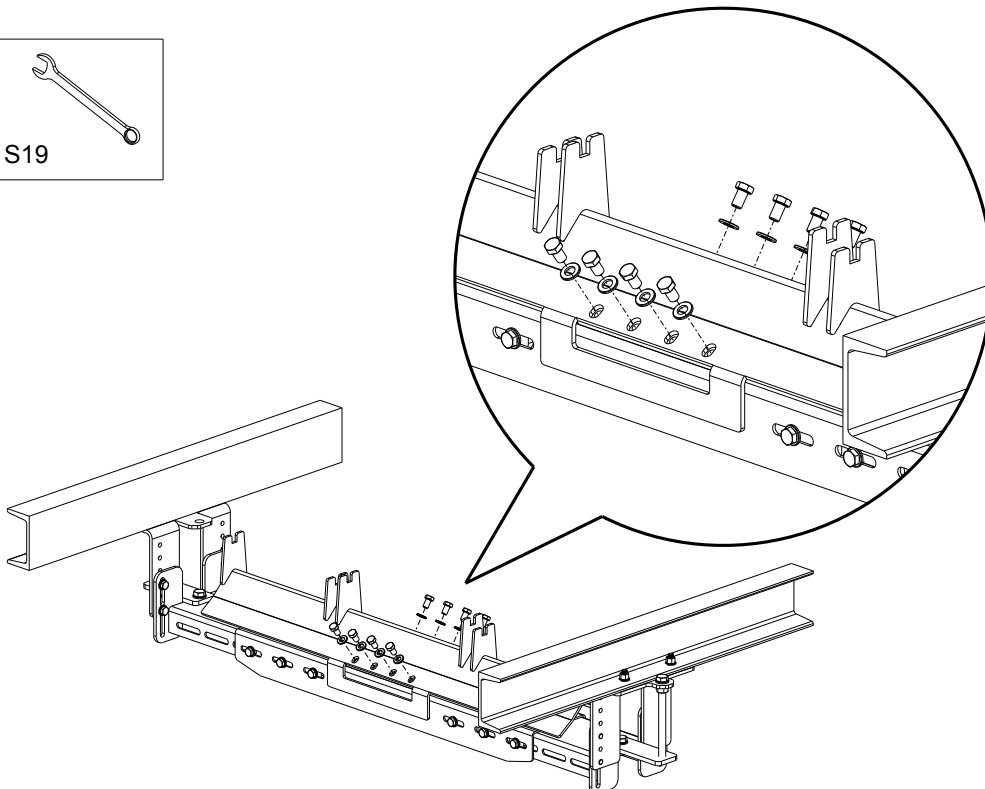
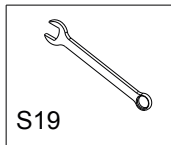
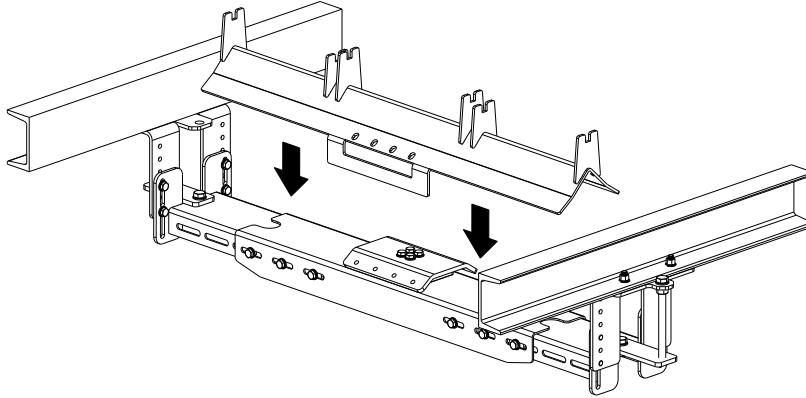
5.5 Installing tracking crossbeam

1. Place the tracking crossbeam on the central carrier and align it to the middle of the central carrier.



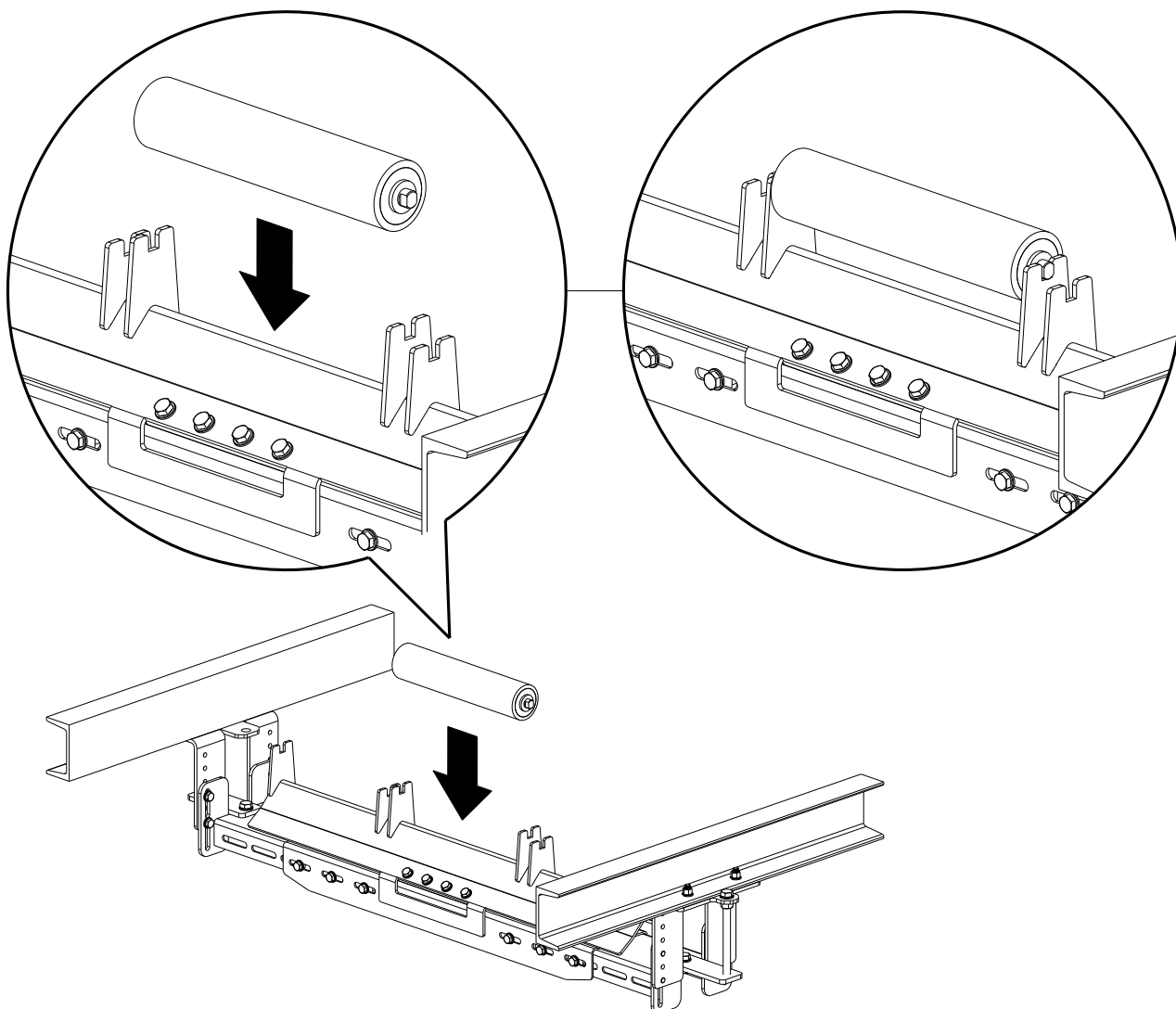
Make sure your fingers never come between the central carrier and the tracking crossbeam.

2. Attach the tracking crossbeam to the central carrier with M12x20 bolts (9) and washers (8).



5.6 Installing central idler

Fit the central idler in the central idler bracket.

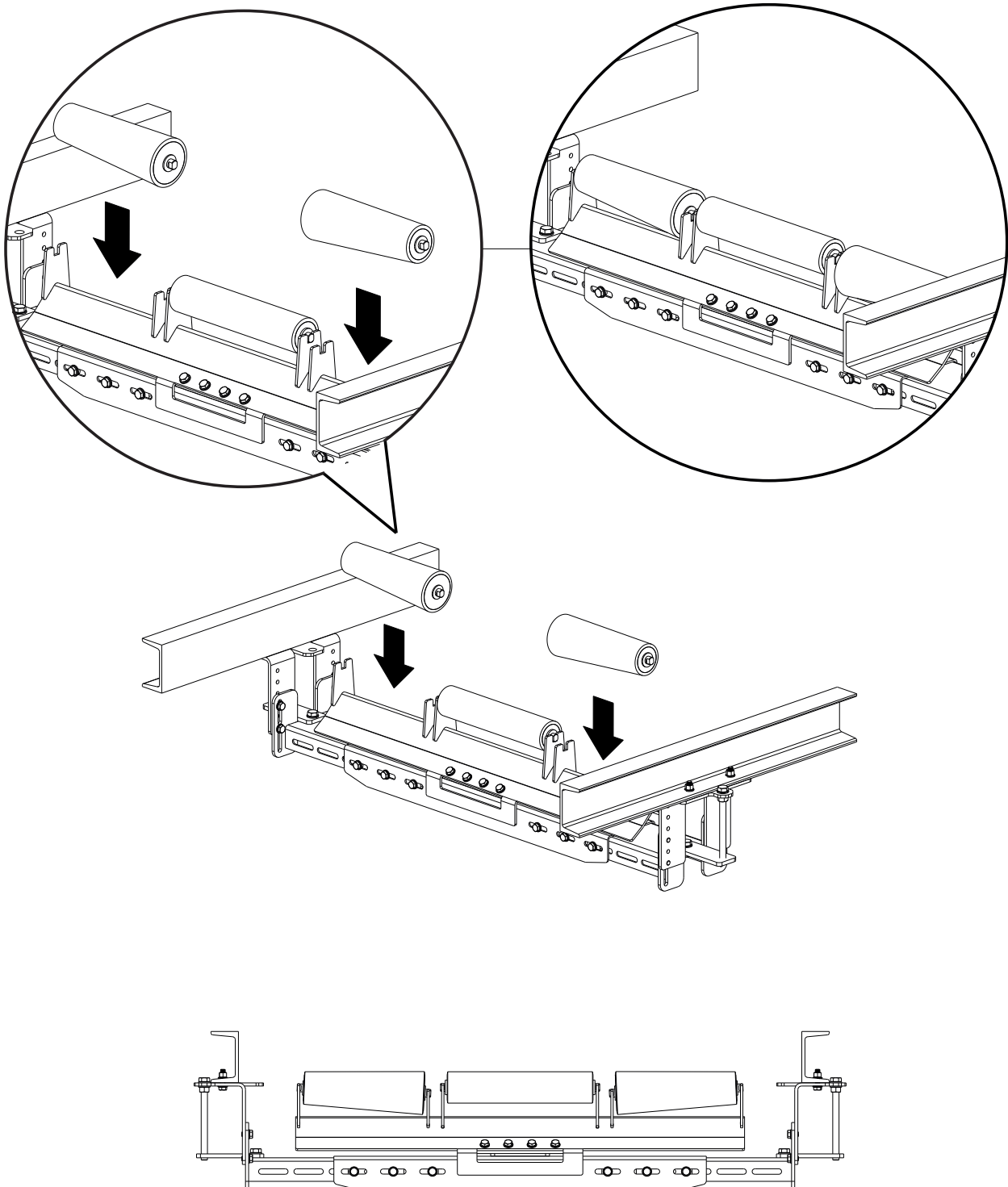


5.7 Installing conical idlers

Place the two conical idlers in the conical idler brackets.



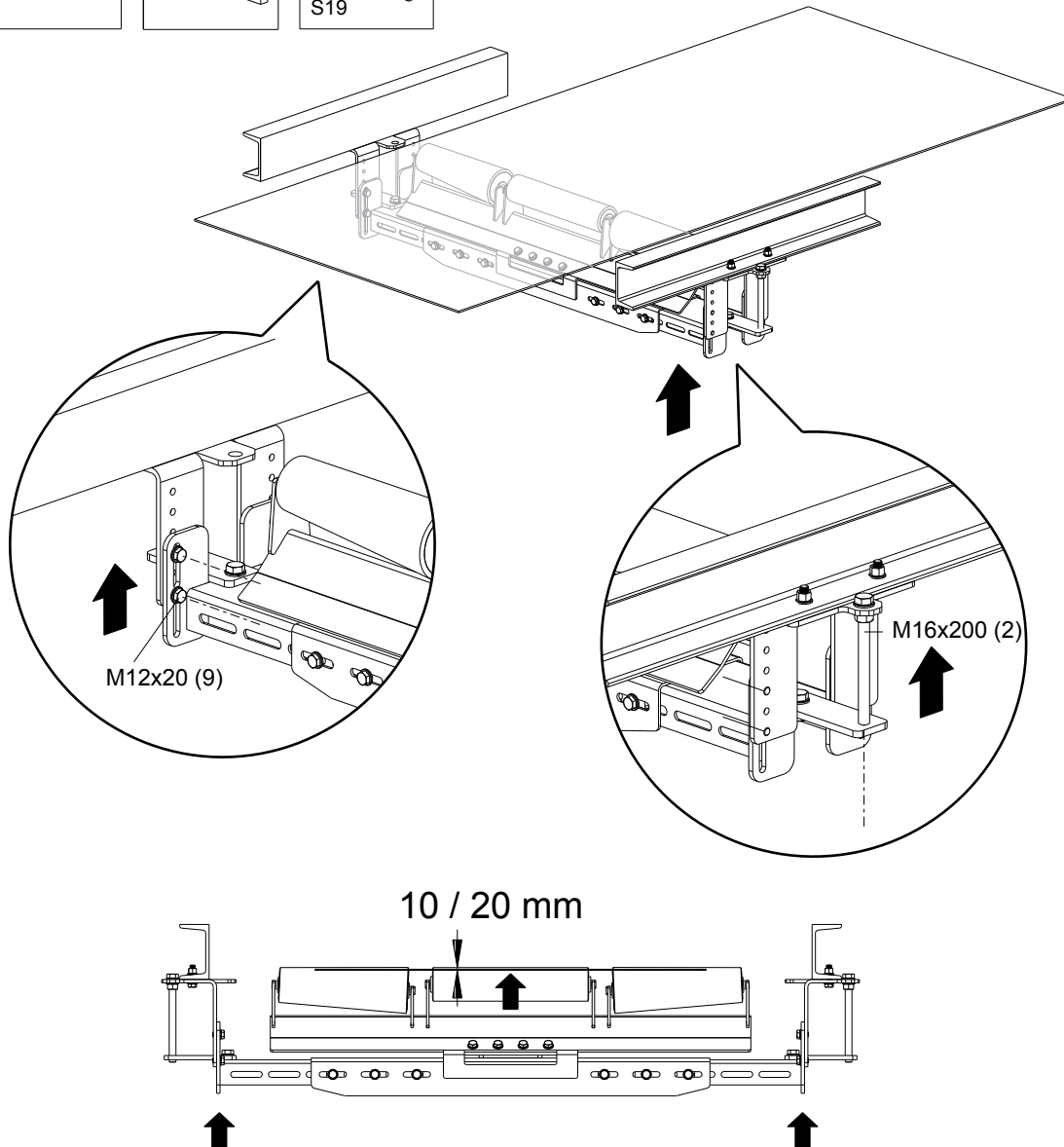
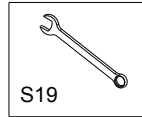
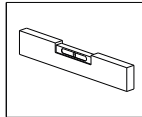
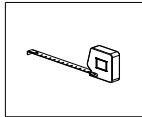
Attention! The conical idlers must be installed with the large diameter towards the middle of the systems.



5.8 Alignment and pre-tensioning

Align the CEN-TRAX belt tracker so it is parallel with the belt.

1. Raise the entire system using the M16x200 tensioning bolts (2) until the central idler and conical idlers touch the belt.
2. Tension the entire system 10-20 mm using the M16x200 tensioning bolts (2). The rule of thumb for determining the correct pre-tension is that the idlers can no longer be turned by hand.
3. Tighten the M12x20 bolts (9).
4. Make sure the tracking system can turn freely around the swivel bearing shaft.



5.9 Test run



Make sure all tools and other parts on and around the conveyor belt have been removed before the power is switched on again. If this is not done, there is a significant risk of damage to the machine and injury to people.



Do not touch the moving belt, and stay at a safe distance. There is a risk of being pulled into the machine and being crushed.

The test run takes at least 30 minutes. The belt may not be loaded during the test run. Check whether the CEN-TRAX belt tracker responds to mistracking and guides the belt towards the middle position. If necessary, increase the pre-tension of the system.



Switch off power and lock out/tag out the energy source to the belt conveyor installation and - accessories before starting any work on CEN-TRAX belt trackers

Repeat test run and observe the guiding effect again.

Then repeat with loaded belt.



Re-install any safety provisions that were removed!

6 Maintenance

6.1 General

The optimal operation and long life of the CEN-TRAX belt tracker are only guaranteed if the device is maintained in accordance with the applicable maintenance instructions.

6.2 Maintenance instructions and intervals



Attention!



Switch off power and lock out/tag out the energy source to the belt conveyor installation and - accessories before starting any work on CEN-TRAX belt trackers.. All the instructions regarding accident prevention must be heeded.

Although the CEN-TRAX belt tracker requires very little maintenance, the following points must be checked regularly:

1. Weekly
Are the idlers free from dirt deposits? Clean if necessary, also below the idlers.
Is the wear of the idlers such that further use is still possible?
If the idlers are worn, they must be replaced to prevent damage to the belt!
Is the pre-tension correct? Adjust if necessary.
Legibility of the warning stickers
2. Every twelve weeks
Are all the bolts properly tightened? Tighten if necessary.
Can the tracking system pivot freely around the swivel bearing shaft?

6.3 Maintenance instructions for use in explosive atmosphere zones



Attention!



Maintenance of CEN-TRAX belt trackers may only be performed if the belt conveyor system is switched off and protected against unauthorised activation. All the instructions regarding accident prevention must be heeded.

Replacing the idlers

The idlers of the belt tracker must be preventively replaced every three years or after 26,000 hours of operation, or sooner if the lining on the idlers is worn. The idlers have an orange indicator layer included in the vulcanisation. Once this becomes visible the idler must be replaced.

Checking the earthing:

The earthing of the CEN-TRAX belt tracker and the earthing of the belt conveyor system itself must be checked every three months. The leakage resistance should have a value of $<10^6 \Omega$.

6.4 Repairs / parts replacement

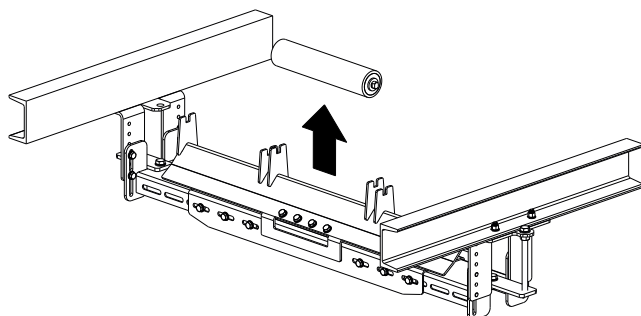
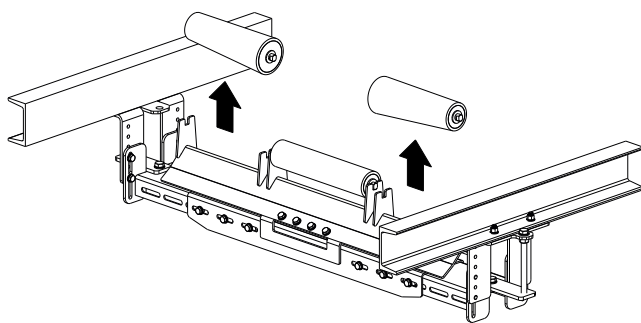
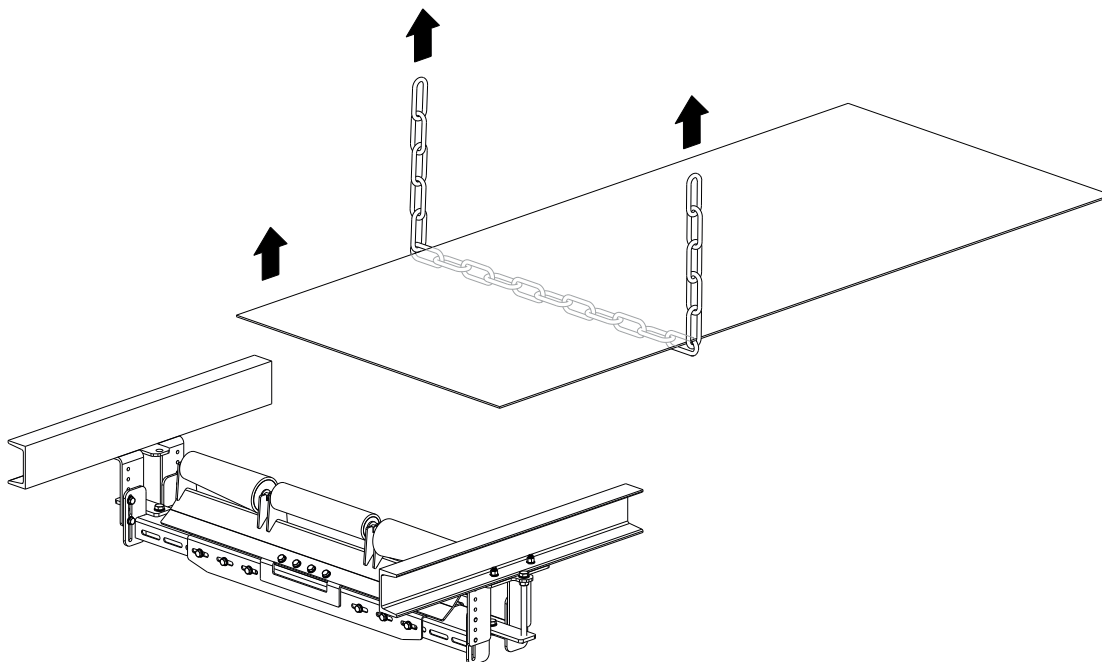
Only original parts from the manufacturer may be used for replacement.

Deviation from the aforementioned instructions may have consequences for the safety of the CEN-TRAX belt tracker. The manufacturer accepts no liability for this.

6.5 Replacing the idlers



1. Switch off the power and protect against unauthorised reactivation.
2. Use a chain or strap to lift the conveyor belt at the location of the idlers so the idlers can be removed from the brackets (alternatively, the tensioning bolts can be loosened to lower the system).
3. Remove the worn conical idlers from the brackets.
4. Remove the worn central idler from the bracket.

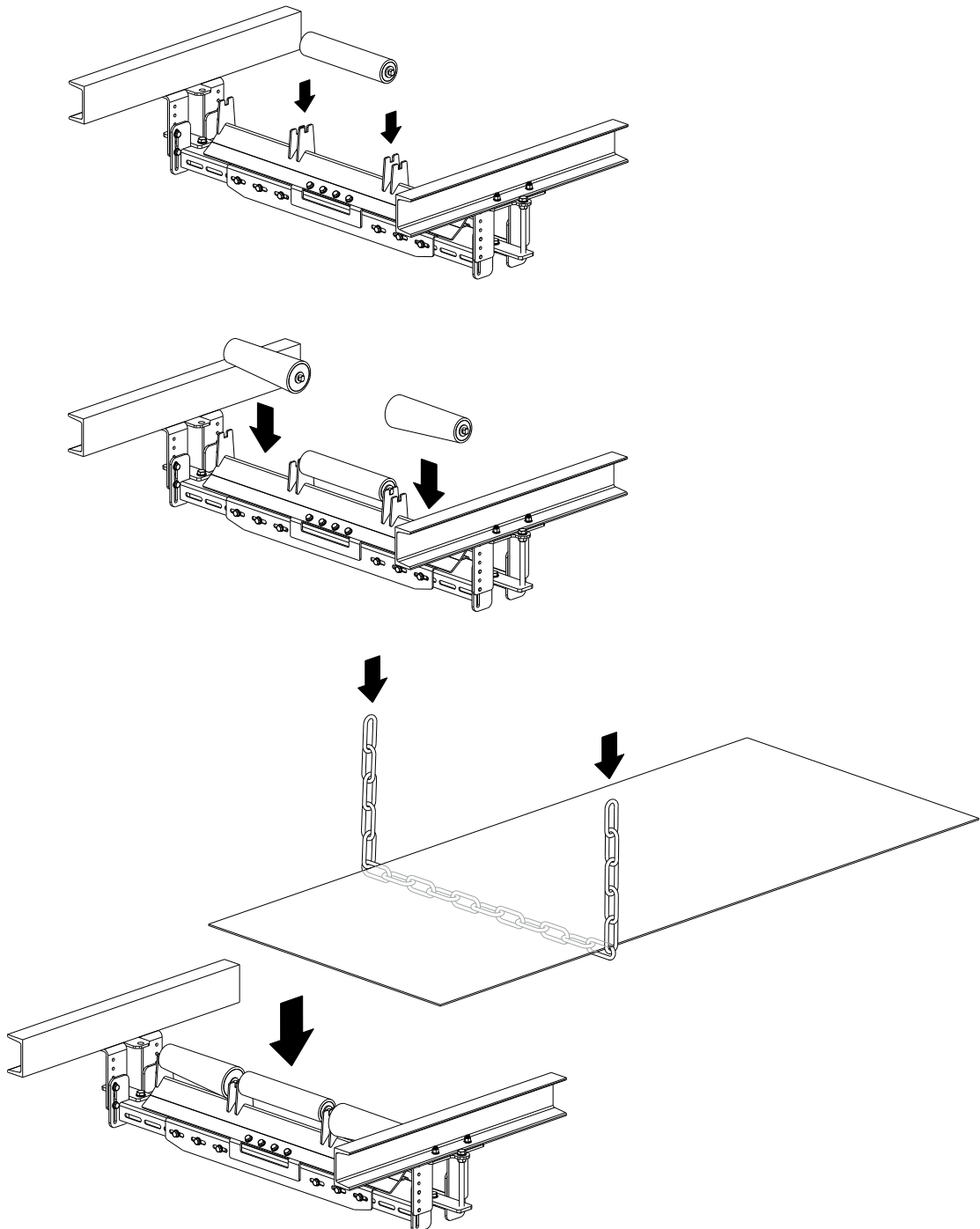


6. Fit the new idlers in the brackets.



Attention! The conical idlers must be installed with the large diameter towards the middle of the belt.

7. Lower the conveyor belt back onto the idlers. Remove the chain/strap.
8. Make sure all tools and other parts on and around the conveyor belt have been removed before the power is switched on again.
9. Switch the power back on.



7 Malfunctions

7.1 Troubleshooting table

Problem	Possible cause	Possible solution
Belt tracker corrects alignment too little or not at all	<p>Too little pre-tension Conical idlers are installed backwards</p> <p>Belt tracker not installed in the middle of the belt construction</p> <p>Belt tracker is not level</p> <p>Belt tracker installed in wrong location</p> <p>Tail drum and/or snub pulley are so badly misaligned that belt tracker cannot correct belt alignment</p> <p>Return idlers too badly mis-aligned</p>	<p>Increase pre-tension Turn conical idlers around</p> <p>Centre the belt tracker</p> <p>Level it</p> <p>Select different location</p> <p>Align pulley(s)</p> <p>Align return idlers</p>
Belt tracker not providing maximum correction while conveyor belt mistracking is at its worst	Too little pre-tension	<p>Increase pre-tension</p> <p>Measures listed above do not correct situation adequately or at all: Increase pretension of belt tracker on the side where the belt is mistracking.</p>
Idlers do not turn	<p>Idlers are worn</p> <p>Belt tracker very dirty</p>	<p>Replace idlers</p> <p>Clean</p>
Idlers wear out too fast	<p>Conveyor belt dirty</p> <p>Pre-tension too high</p> <p>Idler lining inadequately wear-resistant for the application*</p>	<p>Install belt scraper</p> <p>Reduce pre-tension (then check whether adequate tracking correction is still achieved)</p> <p>If the application allows (ATEX environment), replace idlers with type that has PU lining</p>
Tracking crossbeam no longer rotates	Swivel bearing defective	Replace swivel bearing

*Idlers with rubber lining (type A, = ATEX) are less wear-resistant than idlers with a rubber lining (type P).

In the event of a malfunction always contact TBK spillage control bv.

8 Environment

8.1 Disposal of material

Remove the packaging materials from the product in accordance with local laws and regulations.

The coated idlers may not be disposed of with household waste. Contact the local waste processor or the manufacturer. Before the central swivel bearing is disposed of, the oil present in the swivel bearing must be removed and disposed of in accordance with applicable regulations. Then the swivel bearing and all the other parts can be disposed of via a metal waste processor.

9 Warranty

For the duration and the terms and conditions of warranty we recommend that you contact TBK spillage control bv. We also refer you to our General Conditions of Sale and Delivery, which are available on request.

10 Contact

TBK spillage control bv

Groot Overeem 7
3927 GH Renswoude

Tel.: +31 (0) 318 745740
E-mail: info@tbkgroup.com