



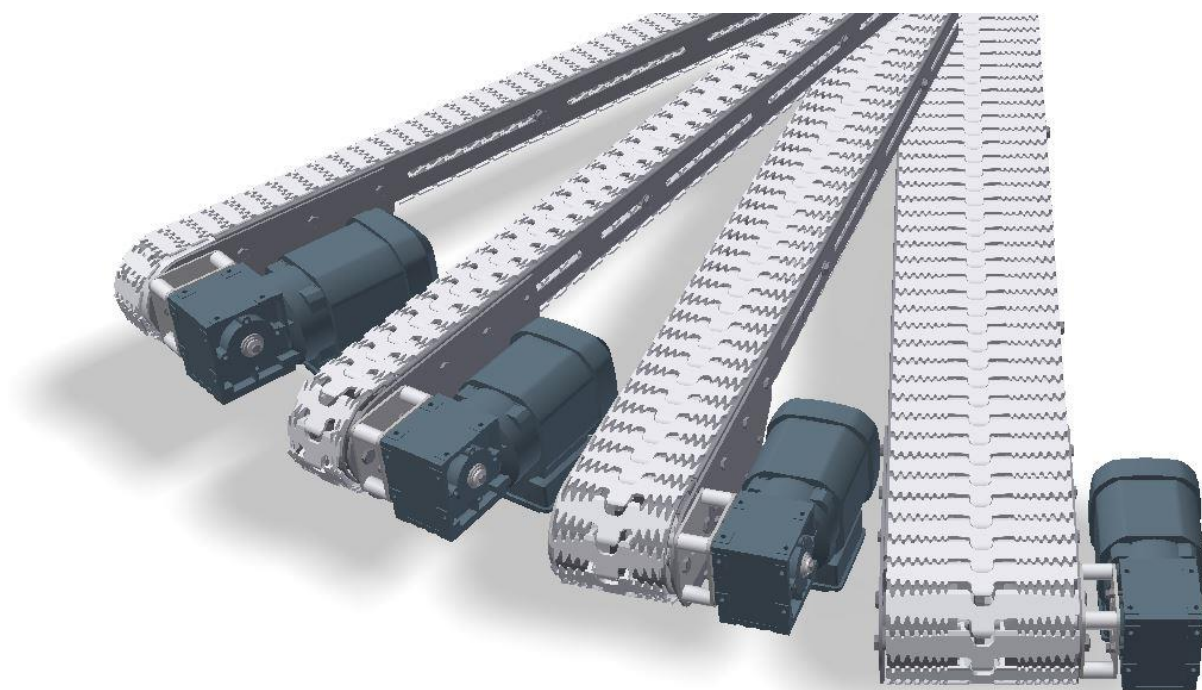
CONVEYOR

S520

S530

S540

S560



Instructions for use
Translation in original

1	General information about this document	1
1.1	Description of symbols used in this document	1
2	General safety instructions	2
2.1	Remaining hazards/risks	3
2.2	Important information before use, maintenance and service	3
2.3	Safety and function checks	3
2.4	Transport and arrival checks	3
2.5	Conversion or modification of the machine	4
3	Technical specification	4
4	Machine plate(s)	4
5	Installation	5
5.1	Mechanical installation	5
5.2	Electrical installation	6
6	Start-up	6
7	Service and maintenance	7
7.1	Inspection and adjustment of the conveyor chain, end-mounted drive unit	7
7.2	Inspection and adjustment of the conveyor chain, intermediate drive unit	11
7.3	Inspection and adjustment of the conveyor chain, catenary drive unit	15
7.4	Inspection and adjustment of drive unit transmissions	18
7.5	Replacing the conveyor chain and slide rail	23
8	Dismantling the machine	30
9	Removing the machine	30
10	Troubleshooting	31

Appendices

1.	Environmental product declaration	Included in this document
2.	EC Declaration of Conformity	Supplied as a separate document
3.	Remaining hazards/risks to be managed by customer	Supplied as a separate document
4.	Spare parts list	Supplied as a separate document
5.	Drawings	Supplied separately

1 General information about this document



NOTE!

Read this document and its appendices carefully

It is important that all personnel working with or nearby the equipment are aware of the risks they may be exposed to, and for all such personnel to have read and understood the contents of this document.

This document should be preserved throughout the service life of machines supplied by Carryline AB

Carryline AB is not liable for any injury or damage to equipment in cases where these regulations have not been complied with.

1.1 Description of symbols used in this document

The following symbols and warning texts are used in this document together with the descriptions shown below.



WARNING!

Indicates a dangerous situation which, if not avoided, will lead to death or serious injury.



CAUTION!

Indicates a dangerous situation which, if not avoided, may cause minor injuries or damage to equipment.



NOTE!

Indicates the presence of information that requires extra attention and which if ignored, may lead to damage to the machine.

2 General safety instructions



Warning!

Hair and working clothes – Hair must be tied back or restrained by a hairnet, and baggy garments or working clothes must be avoided as they may get caught in the machine.



Warning!

Power supply – Pneumatic or electrical power must be disconnected and a safe procedure applied whenever any form of work on the machine is carried out.



Warning!

Working at height – When working at height, safety procedures according to current regulations must be applied.



Caution!

Pinch or crush injuries – There is a risk of pinch or crush injuries between the conveyor and any built-on accessory.



Caution!

Pinch or crush injuries – Do not touch the conveyor chain during operation with your hands or any object.



Caution!

Pinch or crush injuries – Depending on the type and weight of the products conveyed, there is a risk of pinch or crush injuries between the product and the conveyor.



Caution!

Tripping risk – Support legs and attachment points in the floor present a risk of tripping and falling.



Caution!

Pinch or crush injuries – Risks can occur at pneumatic accessories without covers such as separation stop, pusher and divider.

Symbols that can be found on the machine



Pinch or crush injuries!

Indicates that there is a risk of pinch or crush injury. During operation hands or other objects must not come in contact with equipment marked with the symbol.

A risk analysis for the installation must be done by the responsible installer before work start up.

Make sure that all ergonomic aspects (light, air, safe and clear access etc.) are met during installation, operation and maintenance of the machine.

Tools used for maintenance must be of good quality and selected according to the work. Tools and personal safety equipment must be used according to the tool manufacturer's recommendations.

2.1 Remaining hazards/risks

Remaining risks that must be managed by the customer are described in Appendix 3.

2.2 Important information before use, maintenance and service

- Make sure that all operators (operations, service, maintenance etc.) have read and understood this document and have been properly instructed or trained.
- Before putting the machine into use, make sure that
 - all conveyors are securely anchored to the floor and/or walls,
 - all parts and add-ons are firmly secured to the conveyor, and
 - all installation work has come to an end.
- Keep the machine cleaned and serviced in accordance with this document.
- The user is responsible for such ergonomic aspects as lighting and keeping the machine available for operation and service.
- To reduce the risk of accidents, the user must keep the areas around the machine free of waste and other material that can have a negative effect on safe operation.
- Make sure all electrical and control installations comply with the applicable EU directives. NOTE – Make sure that safety and emergency stops are tested and in full function and that the machine is included in such stops in accordance with this document.
- This machine may not be used for purposes other than those specified in the accompanying EC declaration.

2.3 Safety and function checks

- Regularly check that warning signs are intact and fully visible both after commissioning and during operation.
- Regularly check that all fixed guards are intact and correctly installed, i.e. not dismantled or only partially installed.
- Regularly check that all safety devices are intact and in the event of damage repaired immediately before operation recommences.

2.4 Transport and arrival checks

- The machine is properly packaged before delivery and upon arrival at the customer, it must be handled with care using suitable lifting equipment.
- Upon arrival, check that the machine is undamaged before installation work is begun.

2.5 Conversion or modification of the machine

- In order for the warranty and the EC declaration to remain valid, no machine modifications or conversions may be performed unless carried out by Carryline AB or other party approved by Carryline AB.
- If modifications are made to the machine, they also affect the contents of this document.

3 Technical specification

Series	S520	S530	S540	S560
Data				
Chain width	62 mm	83 mm	540 mm	560 mm
Min radius	141 mm	150 mm	200 mm	600 mm
Chain pitch	30 mm	38 mm	38 mm	38 mm
Max speed	50 m/min*	50 m/min*	50 m/min*	40 m/min*
Max conveyor length per drive unit	20 m**	20 m**	20 m**	20 m**
Noise level	<70 dB	<70 dB	<70 dB	<70 dB

*Depends on the number of curves, product weight and design.

**Depends on the number of curves, product weight, speed and design.

The layout and the EC declaration belonging to the machine describe other technical specifications that apply to the relevant delivery and installation.

4 Machine plate(s)

The machine is identified with a machine plate(s) as illustrated below.



Carryline AB
BOX 543
S-442 15 KUNGÄLV

Tel +46 10 130 73 00
info@carryline.se
www.carryline.se

Tillverkningsnr.
Manufacturing no.

Tillverkningsdatum
Manufacturing date

5 Installation

The conveyors are delivered on pallets or wrapped in plastic only. While it is often possible for 2 people to lift the conveyors by hand, we recommend the use of lifting equipment. Always lift by the conveyor body and not by the guide rails.

Long conveyors may be split into sections, where the sections are marked according to the example below:

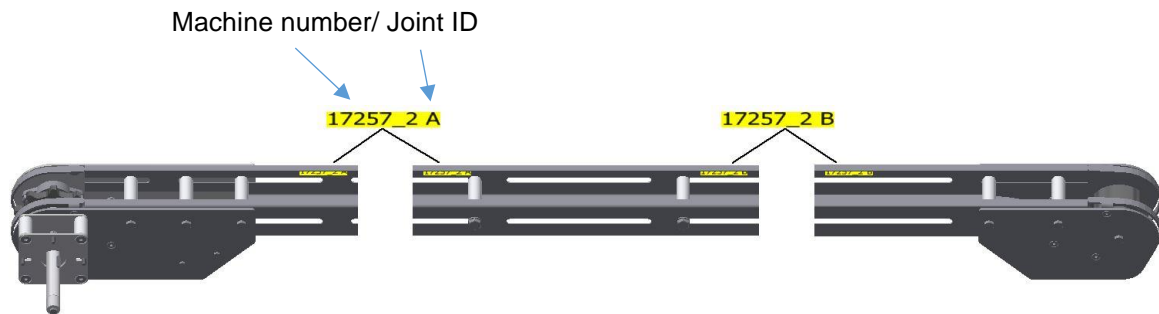


Figure. Conveyor sections with their markings

Move the parts to the installation site before beginning to assemble the sections.

5.1 Mechanical installation



Warning!

Working at height – When working at height, safety procedures according to current regulations must be applied.

Assemble the sections if the conveyor was delivered in separate parts and then install the conveyor on its support legs, ceiling suspension or similar. Note chain drive direction and pull on the chain from the underside of the drive unit. Adjust to the correct chain tension according to the Service and maintenance section.

Adjust the conveyor's position using the support legs or stand and its adjustable feet. Next, anchor the feet to the floor with suitable fasteners (self-grouting nails, expanders, bolts etc.)

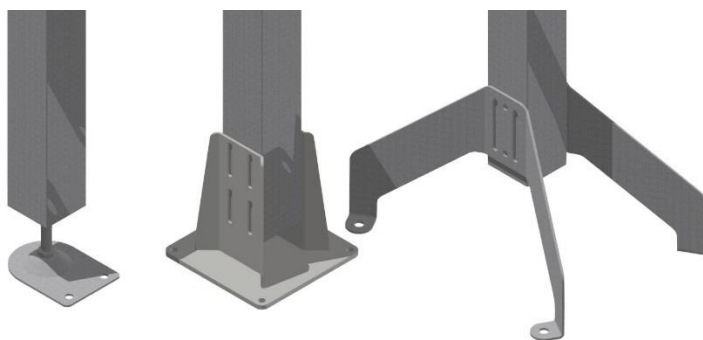


Figure. Typical feet.

Make sure the conveyor is stable and if necessary attach it to neighbouring equipment, walls etc. using extra brackets.

5.2 Electrical installation

All electrical installation must be carried out by a qualified electrician. Motors must be connected via a motor protector suitable for the motor concerned and fitted with a safety breaker where required.

The circuit diagram for connecting motors can be found in the relevant motor's terminal box.

6 Start-up



NOTE!

*Upon start up, check that the direction of operation is correct. Switch off **immediately** if it is wrong and reconnect the conveyor to make it run in the right direction.*

Start and run the conveyor without load for approx 5 minutes and check that it runs evenly without jerks or dissonant noises.

As necessary, adjust chain length according to the instructions in the Service and maintenance section.

7 Service and maintenance

Clean the equipment once a week; however, depending on the surroundings it may be necessary to clean it more often. Remove any product residue, adhesive labels etc. and wipe clean with a damp rag and mild detergent. Inspect for damage and replace damaged parts (refer to the spare parts list). For the replacement of chains and slide rails; see 7.5.

7.1 Inspection and adjustment of the conveyor chain, end-mounted drive unit

Check chain tension after 40 operating hours and then every 160 hours.



Caution!

Pinch or crush injuries – Do not touch the conveyor chain during operation with your hands or any object.

Visually check the underside of the drive unit where the chain may not droop below the side plates during operation. Excessive slack will result in a major risk of crush and pinch injuries and must be rectified immediately.

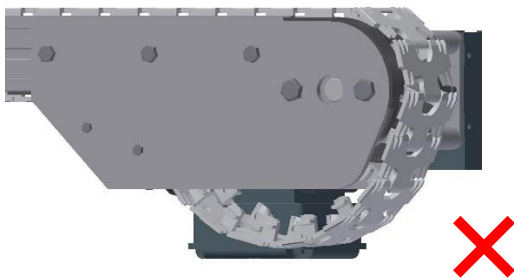


Figure. Chain that must be tensioned.

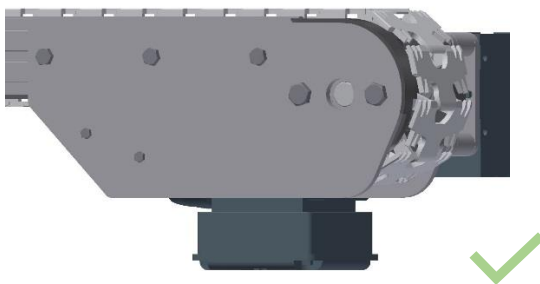


Figure. Chain with the correct tension.

Tools required for working with chain equipment:

Chain clamp 17036, Polygrip, chain pliers 10657–4 for S520



Switch off and lock the power supply!

Place the chain clamp in the conveyor at the side of the conveyor and tighten it to securely lock the chain on the underside as close to the drive unit as possible.

Remove the motor fan cowl and rotate the fan by hand clockwise to tension the chain along the top side to create slack below the drive sprocket. Long conveyors often need to be tensioned more than short conveyors.

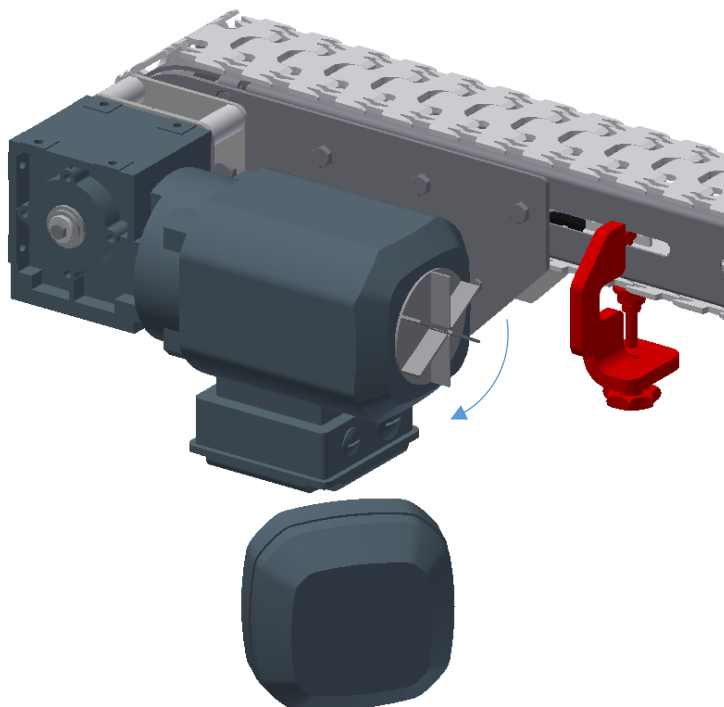


Figure. Locked chain and exposed fan.

For S520

Split the chain on the underside where the slack is present by using the chain pliers to press out the pin and separate the links. Note the pivot joint in the link that is now unlocked.

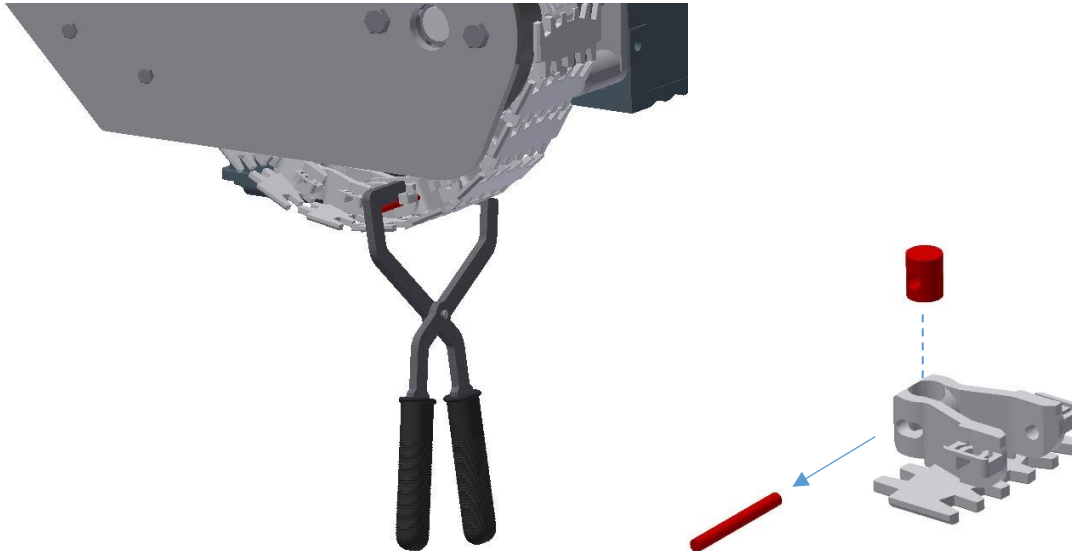


Figure. Chain separation S520

In the same way, remove a suitable number of links to obtain the correct chain length. Bring the ends together; make sure the pivot joint is in position and then reinstall the pin.

Turn the motor fan anticlockwise to release the energy in the tensioned chain, and then release the chain clamp. Next, reinstall the fan cowl.

Make sure that all tools and dismantled components are removed. Next, switch on the power supply and start the conveyor.

Check that the conveyor runs smoothly and without jerks or dissonant noise. Depending on the design of the conveyor, different chain tensions may be necessary for good function. If the chain still does not run smoothly without jerks and dissonant noise, repeat the steps for adjusting chain length until good function is achieved.

For S530, S540, S560

Split the chain on the underside where slack is present by first removing a top flight from the chain. Using the Polygrip, carefully bend away the conveyor chain top flight. The exposed pin can now be removed and the chain divided.

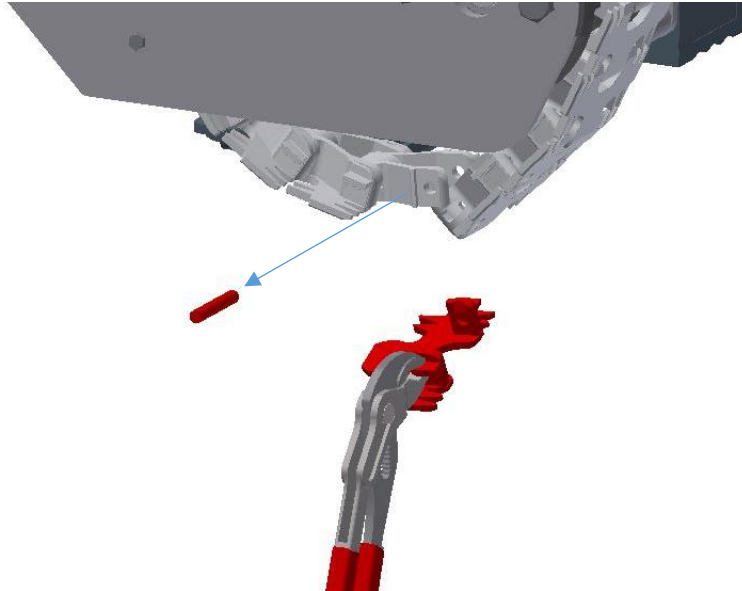


Figure. Chain separation S530, S540, S560.

In the same way, remove a suitable number of links to obtain the correct chain length. Join the ends and reinsert the pin.

Turn the motor fan anticlockwise to release the energy in the tensioned chain, and then release the chain clamp. Turn the fan until the link without a top flight stops at the bottom of the drive sprocket and then reinstall the top flight using the sprocket as an anvil.

Reinstall the fan cowl.

Make sure that all tools and dismantled components are removed. Next, switch on the power supply and start the conveyor.

Check that the conveyor runs smoothly and without jerks or dissonant noise. Depending on the design of the conveyor, different chain tensions may be necessary for good function. If the chain still does not run smoothly without jerks and dissonant noise, repeat the steps for adjusting chain length until good function is achieved.

7.2 Inspection and adjustment of the conveyor chain, intermediate drive unit

Check chain tension after 40 operating hours and then every 160 hours.

It is more difficult to see when it is necessary to adjust the chain in a conveyor with intermediate drive unit. If the conveyor begins to run unevenly, make dissonant noises or if the chain bunches up, the cause may be incorrect chain tension.

Note! After adjusting the conveyor chain, synchronise the drive sprockets; see item 7.4.



Switch off and lock the power supply!

Check chain tension on the top side both before and after the drive unit. Depending on the conveyor type (series), different amounts of slack are permissible.

Pull the chain forwards and make a mark on the profile level with a link. Then pull the chain backwards; mark the edge next to the same link and measure the distance between the markings (T).

Rectify if the value exceeds the following:

- S520 = 30 mm
- S530, S540, S560 = 38 mm

Repeat the procedure on the other side of the drive unit towards the other end of the conveyor.

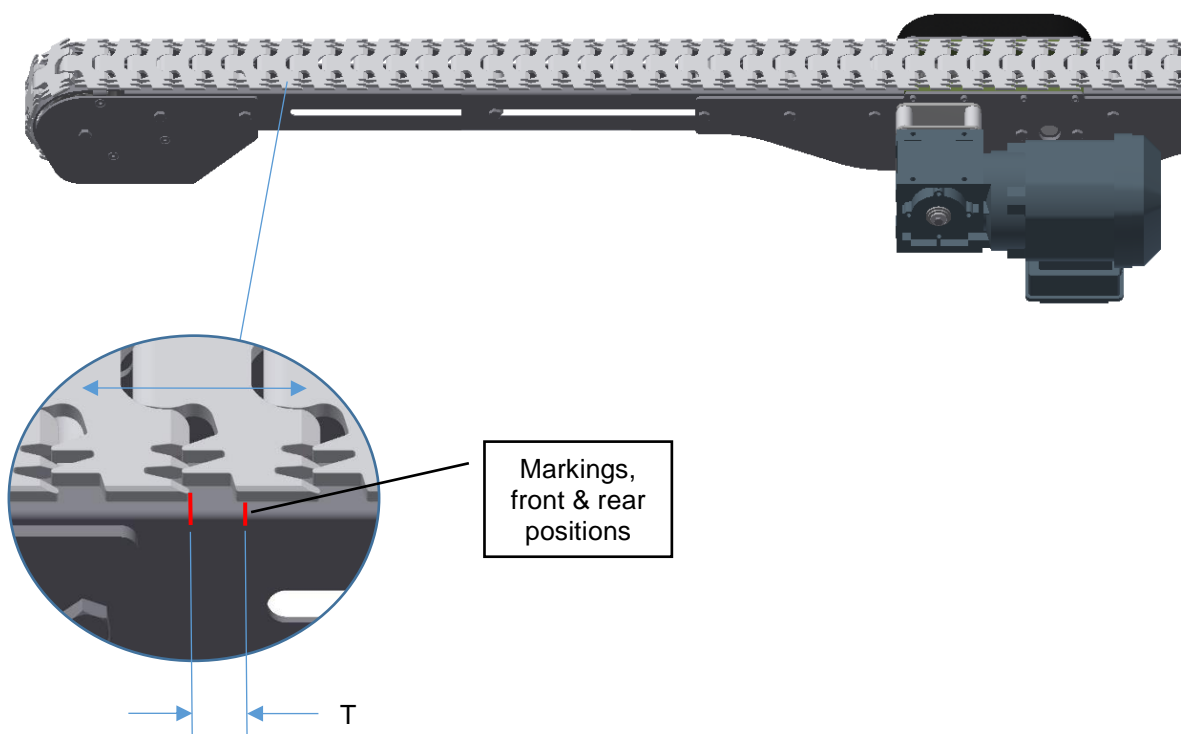
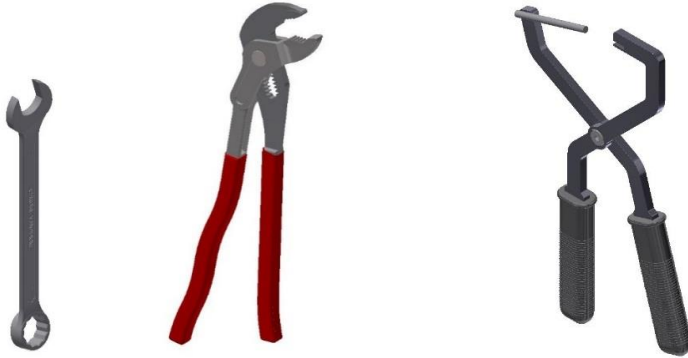


Figure. Measuring chain tension in intermediate drive units

Tools required for working with chain equipment:

Spanner 13 mm, Polygrip, chain pliers 10657-4 for S520



Switch off and lock the power supply!

Remove three M8 screws and one side plate on the idler unit to expose the chain.

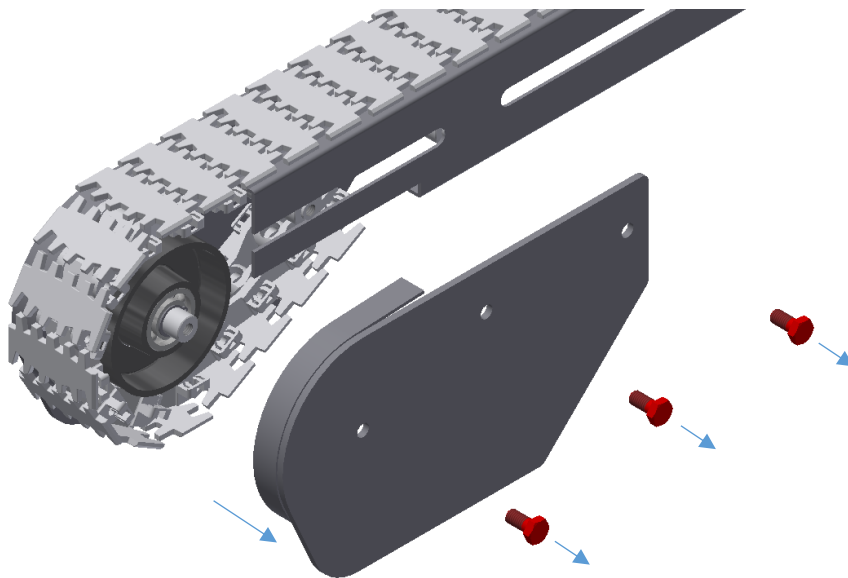


Figure. Removed side plate

For S520

Split the chain where it runs around the idler wheel by pressing out a steel pin with the chain pliers. Note the pivot joint in the link that is now unlocked.

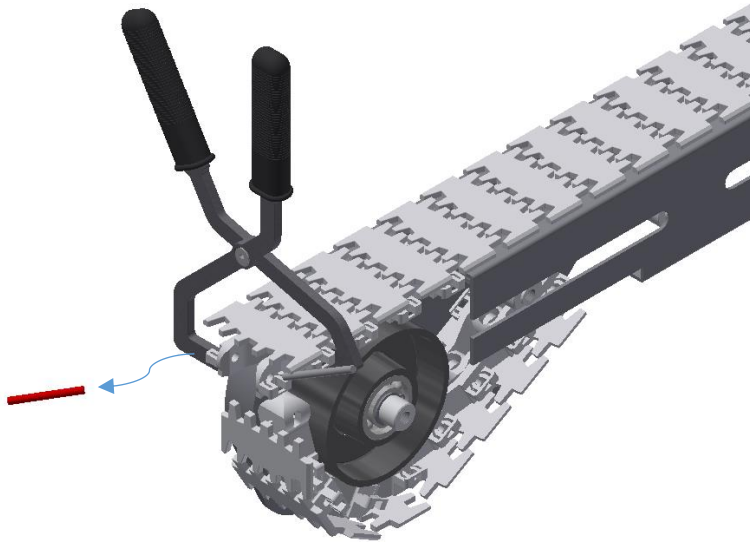


Figure. Splitting an S520 chain

By hand, tension both parts of the chain and remove a suitable number of links to achieve the correct chain length. Next, bring the ends together; make sure the pivot joint is in position and then reinstall the pin. Reinstall the side plate with the three M8 screws.

Repeat the procedure on the other side of the drive unit.

Make sure that all tools and dismantled components are removed. Next, switch on the power supply and start the conveyor. Check that the conveyor runs smoothly and without jerks or dissonant noise.

For S530, S540, S560

Split the chain where it runs around the idler wheel by first removing a top flight. Using the Polygrip, carefully bend away the conveyor chain top flight. The exposed pin can now be pressed out and the chain divided.

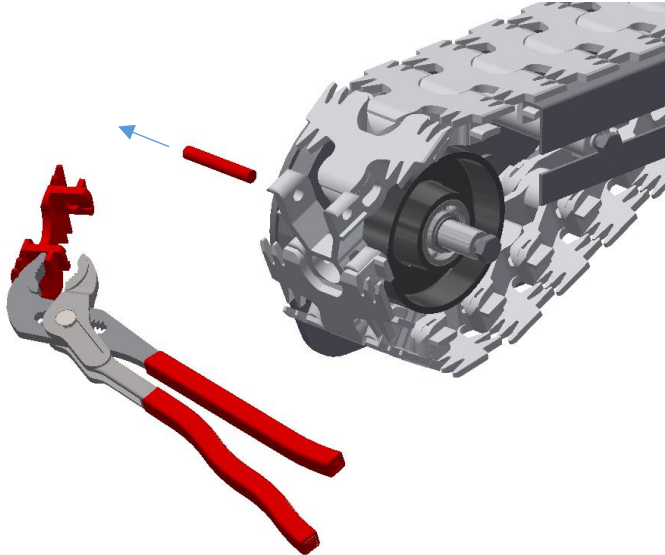


Figure. Splitting S830, S140 and S220 chains

By hand, tension both parts of the chain and remove a suitable number of links to achieve the correct chain length. Bring the ends together; reinstall the pin and top flight. Reinstall the side plate with the three M8 screws.

Repeat the procedure on the other side of the drive unit.

Make sure that all tools and dismantled components are removed. Next, switch on the power supply and start the conveyor. Check that the conveyor runs smoothly and without jerks or dissonant noise.

7.3 Inspection and adjustment of the conveyor chain, catenary drive unit

Check chain tension after 40 operating hours and then every 160 hours.

It is more difficult to see when it is necessary to adjust the chain in a conveyor with a catenary drive. If the conveyor begins to run unevenly, make dissonant noises or if the chain bunches up, the cause may be incorrect chain tension.

Note! After adjusting the conveyor chain, synchronise the drive sprockets; see item 7.4.

Tools required for working with chain equipment:

Spanner 13 mm, Polygrip, chain pliers 10657–4 for S520, chain clamp 17036



Switch off and lock the power supply!

Undo the M8 bolts and remove the maintenance hatches to expose the chain.

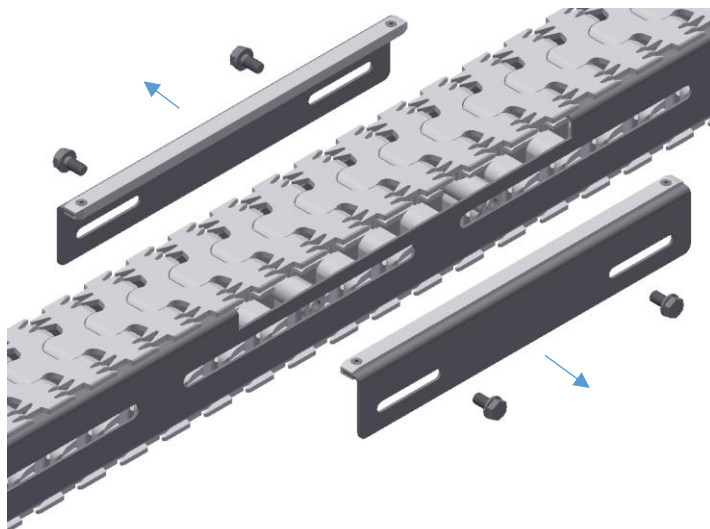


Figure. Maintenance hatches removed.

For S520

Split the chain by pressing out the pin in one link using the pliers. Note the pivot joint in the link that is now unlocked.

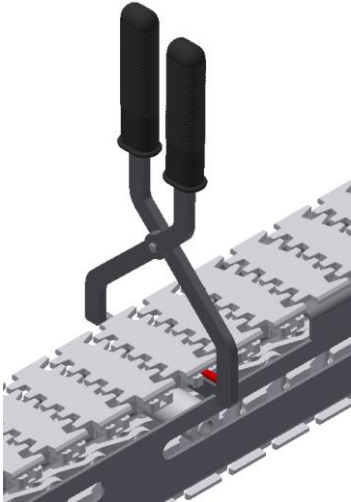


Figure. Splitting an S520 chain.

Using the chain clamp, lock the chain in front of the opening in the profile. Remove the motor fan cowl and rotate the fan clockwise by hand to tension the chain.

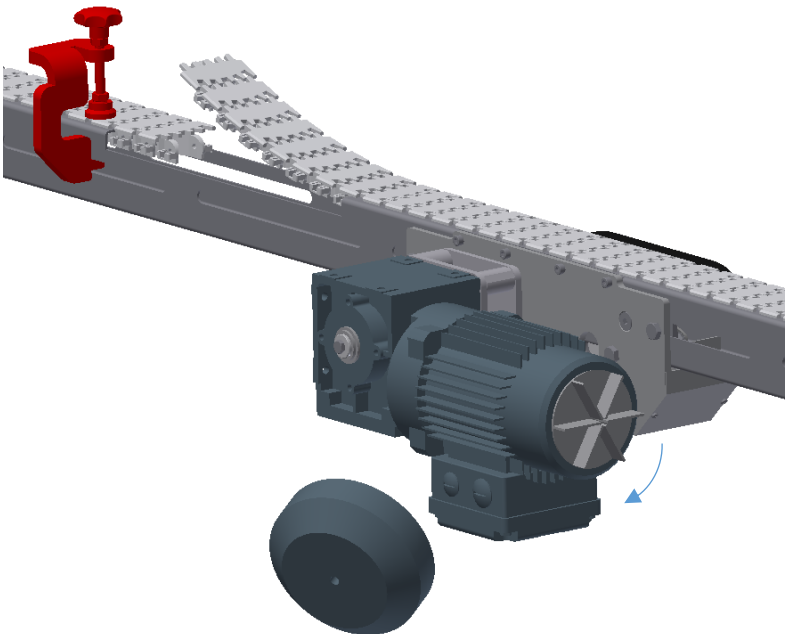


Figure. Tensioning an S520 chain.

Using the pliers, remove a suitable number of links to obtain the correct chain length. Bring the ends together; make sure the pivot joint is in position and then reinstall the pin.

Turn the motor fan anticlockwise to release the energy in the tensioned chain, and then release the chain clamp. Next, reinstall the fan cowl and the maintenance hatches. *Continued on page 18*

For S530, S540 and S560

Split the chain by first removing a top flight. Using the Polygrip, carefully bend away the conveyor chain top flight. The exposed steel pin can now be pressed out and the chain divided.

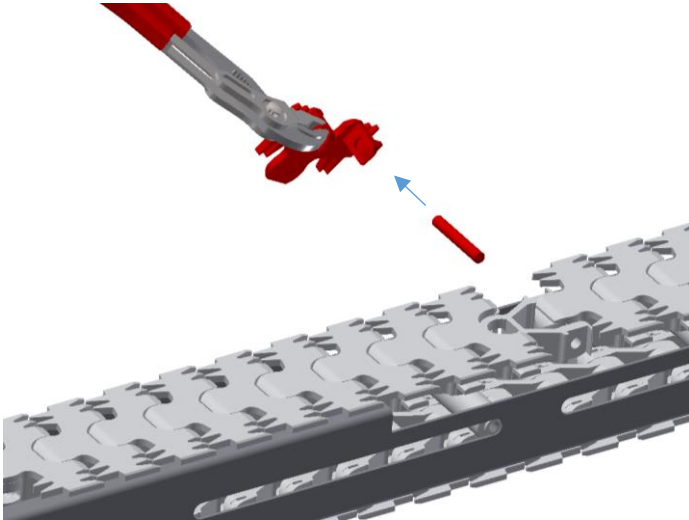


Figure. Splitting S530, S540 and S560 chains.

Using the chain clamp, lock the chain in front of the opening in the profile. Remove the motor fan cowl and rotate the fan clockwise by hand to tension the chain.

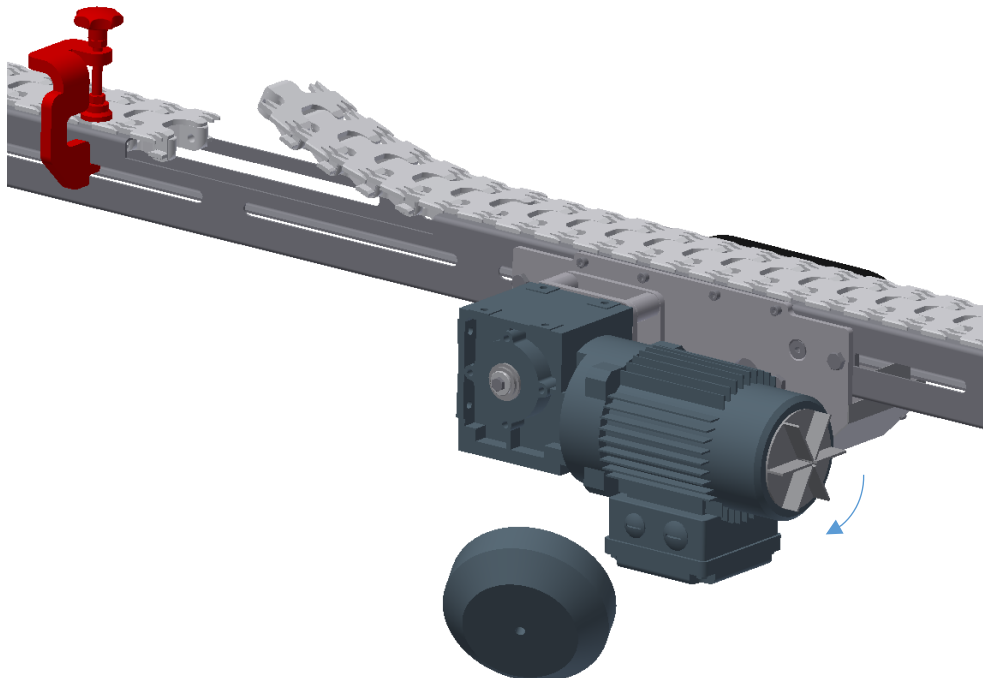


Figure. Tensioning S530, S540 and S560 chains.

Remove a suitable number of links according to the procedure above to obtain the correct chain length. Bring the ends together; reinstall the pin and top flight.

Turn the motor fan anticlockwise to release the energy in the tensioned chain, and then release the chain clamp. Next, reinstall the fan cowl and the maintenance hatches.

Make sure that all tools and dismantled components are removed. Next, switch on the power supply and start the conveyor.

Check that the conveyor runs smoothly and without jerks or dissonant noise. Depending on the design of the conveyor, different chain tensions may be necessary for good function. If the chain still does not run smoothly without jerks and dissonant noise, repeat the steps for adjusting chain length until good function is achieved.

7.4 Inspection and adjustment of drive unit transmissions

There are two types of transmissions, belt transmissions and chain transmissions. Catenary and intermediate drive units have chain transmissions in all series. On such units, it is necessary to synchronise the two drive sprockets following maintenance on the transmission or if the conveyor is in separate parts on delivery; see page 20.

There are different types of transmissions for drive units with suspended motors in the various series.

- S520 and S530 – belt transmissions
- S540 and S560 – chain transmissions

Check the transmission and adjust as necessary after 250 operating hours and then every 500 hours. In the case of chain transmissions, also grease with a suitable lubricant. Replace worn-out parts (see spare parts list)

Tools required for working on the transmission:

Spanners 13 mm and 27 mm, Polygrip, Allen key 5 mm



Catenary and intermediate drive units



Switch off and lock the power supply!

Adjusting the transmission chain

Remove the M8 screws and the transmission cover.

Check the tension on the upper chain section between the chain sprockets. It must be possible to move the chain between 2-8 mm.

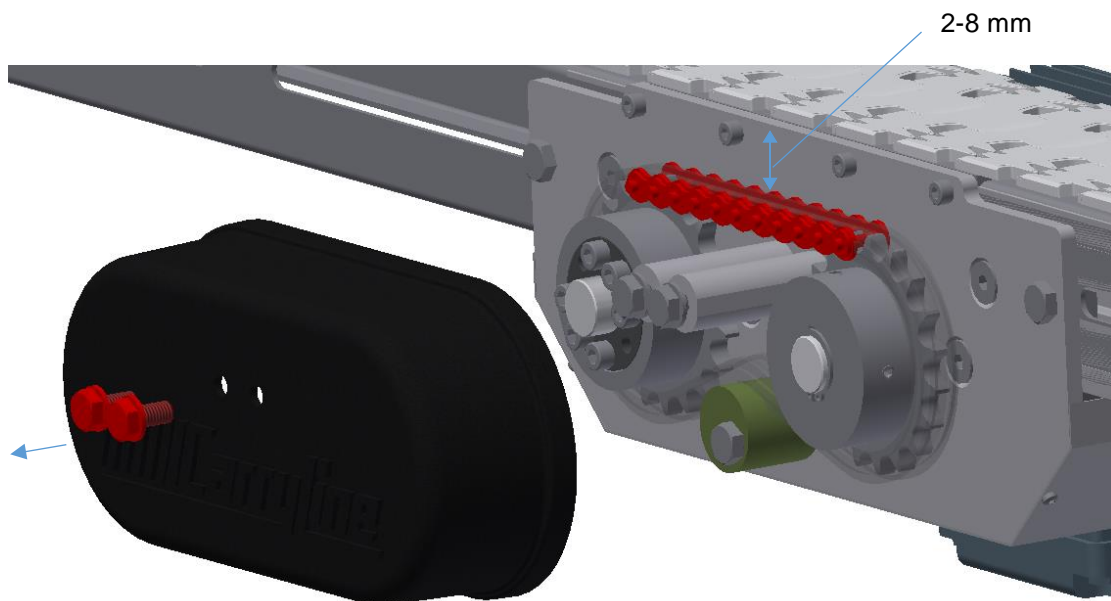


Figure. Exposed transmission with tensioner

Adjust by releasing the M8 screw and turning the tensioner to achieve the correct tension.

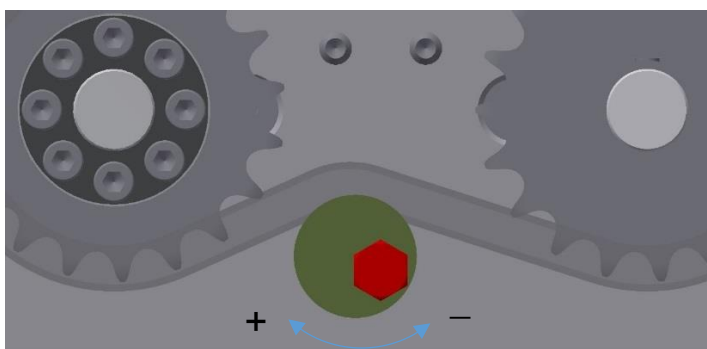


Figure. Transmission chain tensioner

Tighten the tensioner screw again while making sure the tensioner does not turn.

Synchronising the drive sprockets

Synchronisation must take place once the conveyor chain and the transmission chain have been correctly adjusted.

Remove the socket head screws for the shaft coupling and make sure the driveshaft in the coupling can move freely.

Next, pull the conveyor chain backwards by hand so that it engages the front drive sprocket.

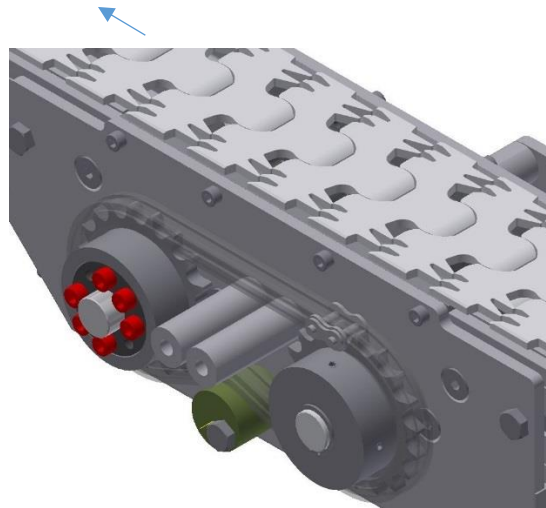


Figure. Clamp coupling

With the conveyor chain tensioned, use the Polygrip to turn the rear driveshaft with its drive sprocket forwards until the sprocket engages the conveyor chain. Torque tighten the socket head screws to 17 Nm.

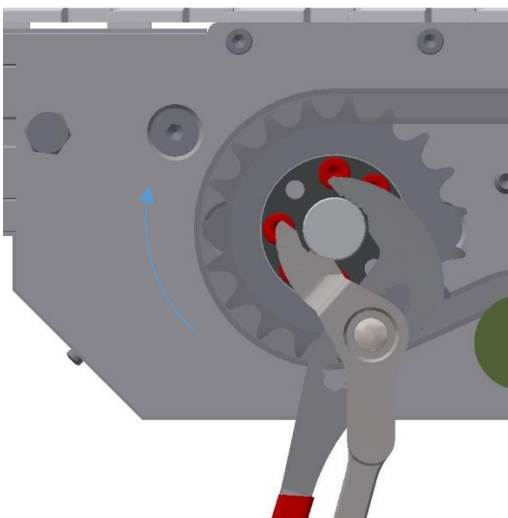


Figure. Turning the rear driveshaft

Next, reinstall the transmission cover.

Make sure that all tools are removed. Next, switch on the power supply and start the conveyor. Check that the conveyor runs smoothly and without jerks or dissonant noise.

Drive unit with suspended motor



Switch off and lock the power supply!

Adjusting transmissions with timing belts

Remove the M8 screws and the transmission cover.

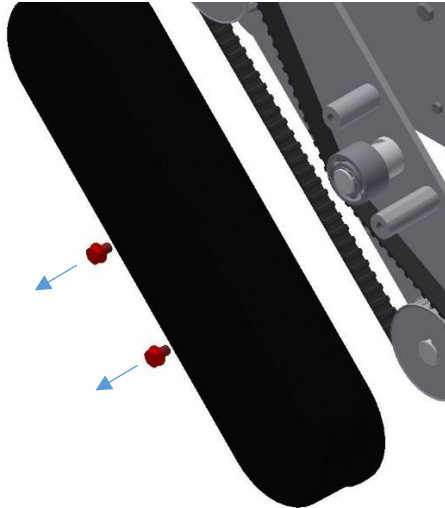


Figure. Exposed belt transmission

Check the tension in the centre where the timing belt runs freely between the belt pulleys. Press the timing belt inwards with a force of 20 N. It must be possible to press the belt in 8-12 mm.

Adjust by releasing the M8 screw at the back of the tensioner and turning the latter to achieve the correct tension.

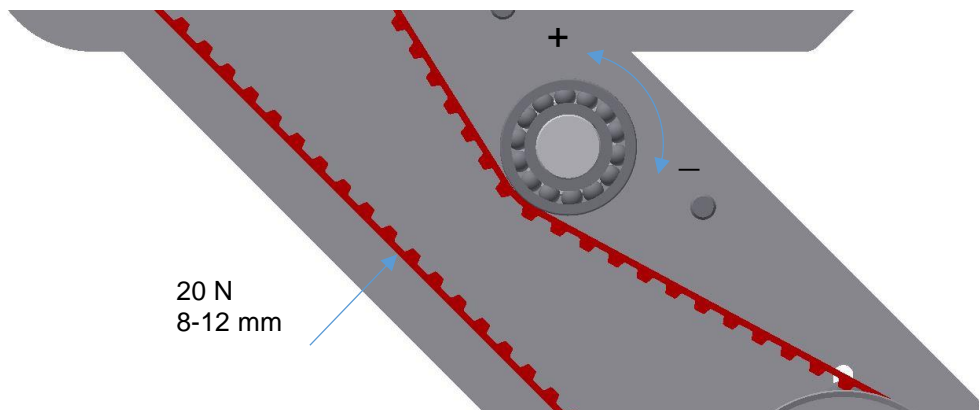


Figure. Checking and adjusting the timing belt

Tighten the tensioner screw again while making sure the tensioner does not turn.

Reinstall the cover. Make sure that all tools are removed. Next, switch on the power supply and start the conveyor. Check that the conveyor runs smoothly and without jerks or dissonant noise.

Adjusting transmissions with steel chain

Remove the M8 screws and the transmission cover.

Check the tension where the chain runs freely between the chain sprockets. It must be possible to move the chain between 5-10 mm.

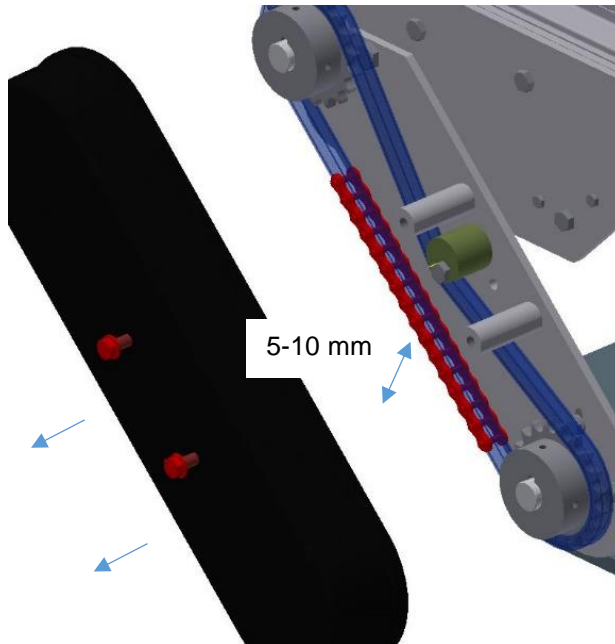


Figure. Exposed transmission chain

Adjust by releasing the M8 screw and turning the tensioner to achieve the correct tension.

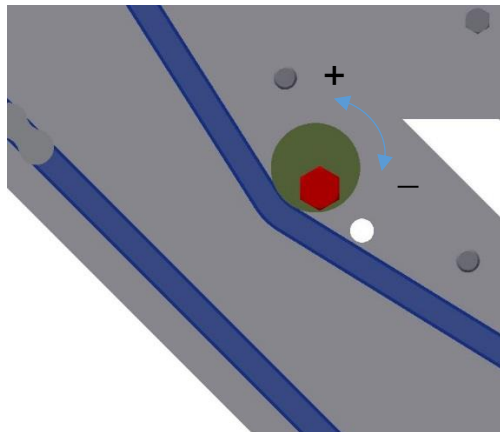


Figure. Transmission chain tensioner

Tighten the tensioner screw again while making sure the tensioner does not turn.

Reinstall the cover. Make sure that all tools are removed. Next, switch on the power supply and start the conveyor. Check that the conveyor runs smoothly and without jerks or dissonant noise.

7.5 Replacing the conveyor chain and slide rail

Tools required for working with the chain and slide rail:

Power drill, bit \varnothing 3.3 mm, countersink, 2.5 mm bits, secateurs, box cutter, slide rail tool 17770, Polygrip, spanners 10 and 13 mm, chain pliers 10657-4 for S520, chain clamp 17036



Switch off and lock the power supply!

Split the chain as described in 7.1.–7.3.

Remove the 4 x M6 screws inside the motor plate and the single M6 screw on the driveshaft and remove the motor from the driveshaft.

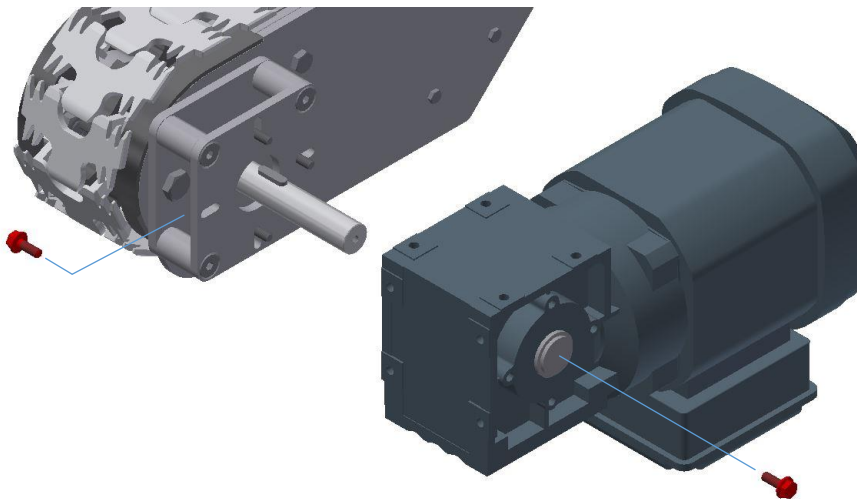


Figure. Removing a motor

Remove the chain clamp and pull the chain out of the conveyor in its drive direction.

Next, remove the old slide rail.

Using a knife, chamfer all three edges at the end of the two slide rails. By hand, manipulate approx 300 mm of slide rail until it is straight.

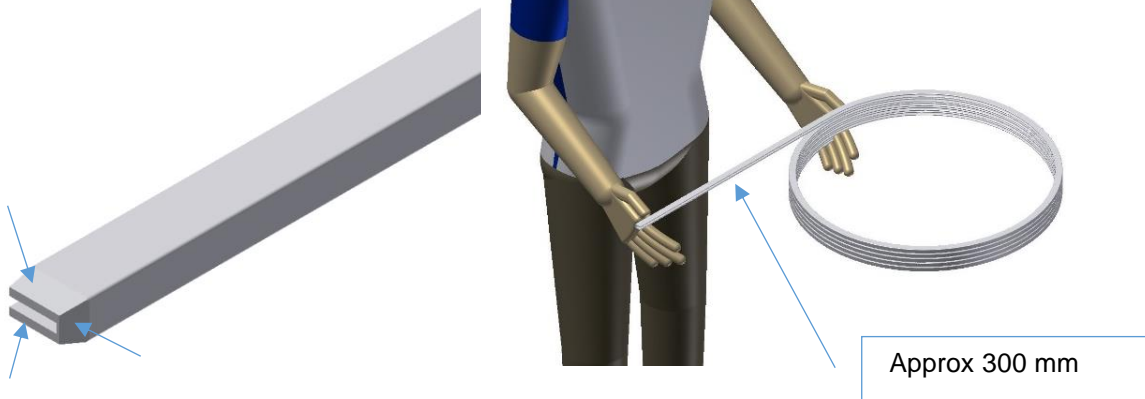


Figure. Chamfered slide rail edges

Illustration. Shaping slide rails

Press the two chamfered slide rails securely in place underneath the drive unit and in level with the profile edge. Use slide rail tool 17770 to press the slide rail along the profile.

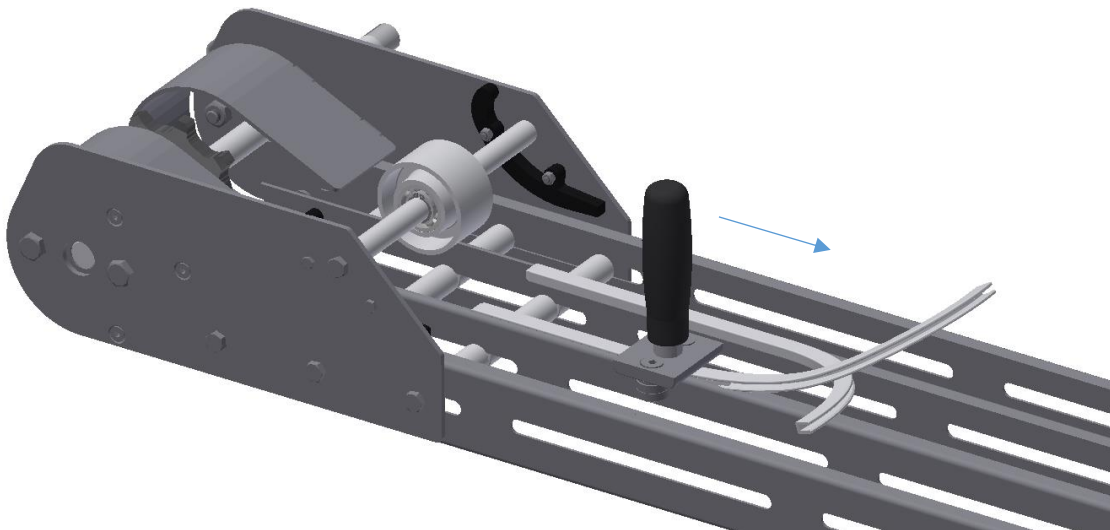


Figure. Installing the slide rail on the underside

Cut the slide rail in level with the profile edge in the idler unit.

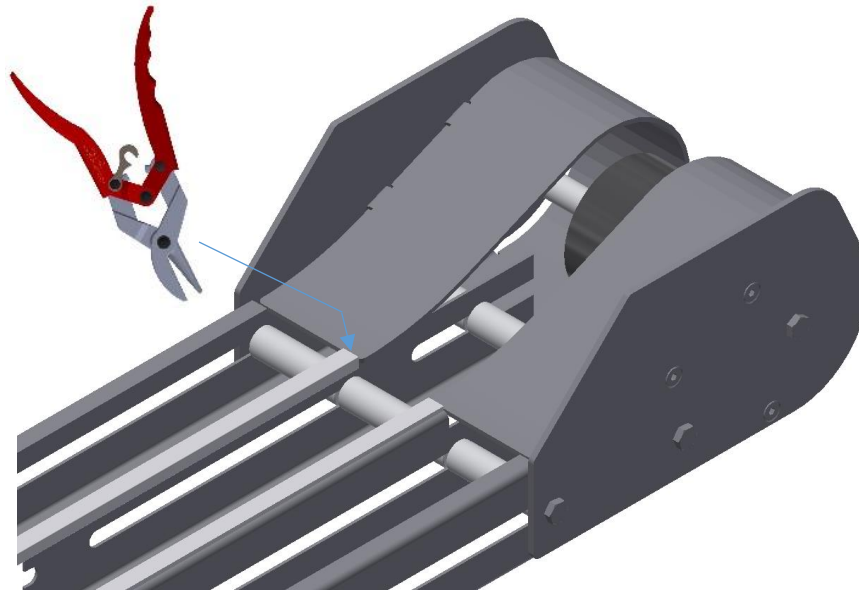


Figure. Ending the slide rail, underside

As illustrated, drill a 3.3 mm diameter hole. Countersink and fasten the slide rails to the drive unit using the slide rail screws 500-4200. Hold the slide rail fast by hand throughout the drilling procedure. Make certain that all swarf is removed. Make sure the head of the screw is fully countersunk in the slide rail. However, the tip of the screw may not penetrate the other side of the slide rail.

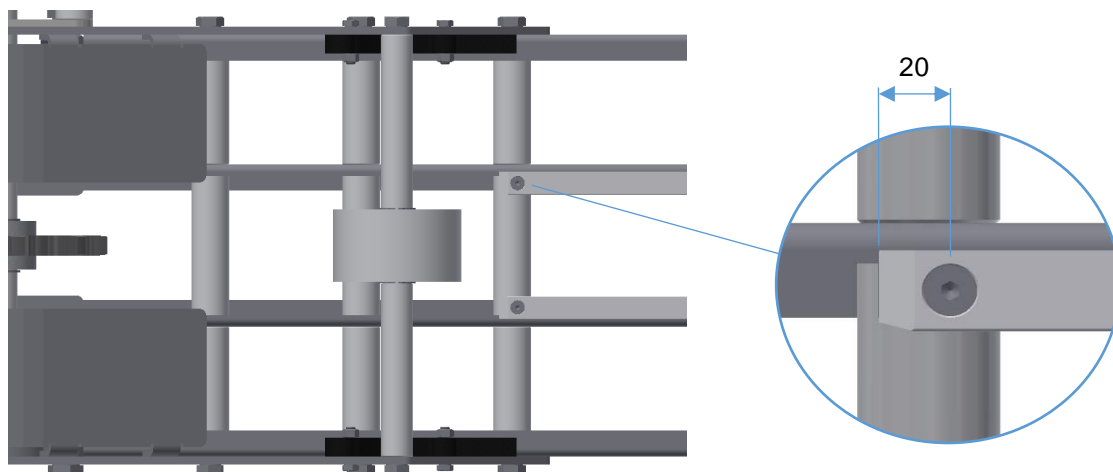


Figure. Fastened slide rail on the underside

Slide rails of differing types and quantities are used on top of each respective series.

- S520 and S530 2 pcs 500-4000
- S540 2 pcs 500-4100
- S560 4 pcs 500-4000

Chamfer and straighten the new slide rail in the same way as above. Begin installing the slide rail on the top side of the idler unit level with the profile. Use slide rail tool 17770 to press the slide rail along the profile. S540 with a single wide slide rail: install by hand without using tools.

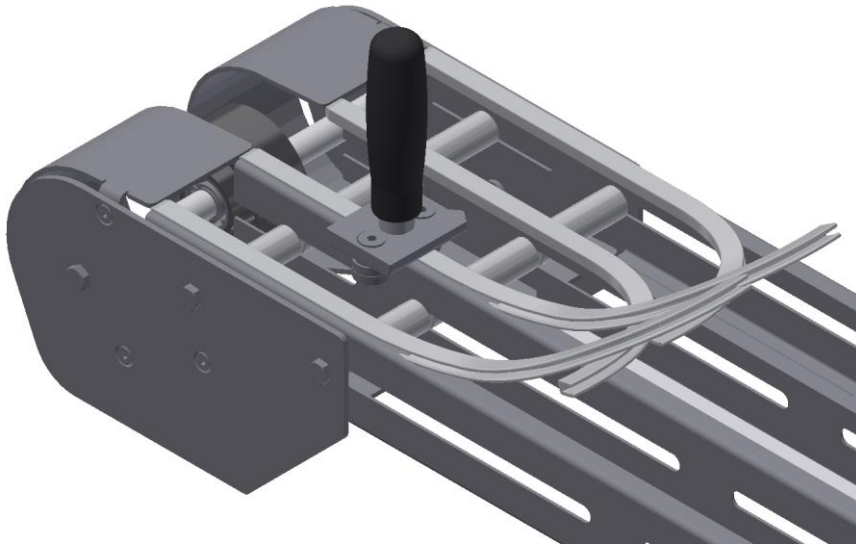


Figure. Installing the slide rail, top side

Cut the slide rail in level with the profile edge in the drive unit.

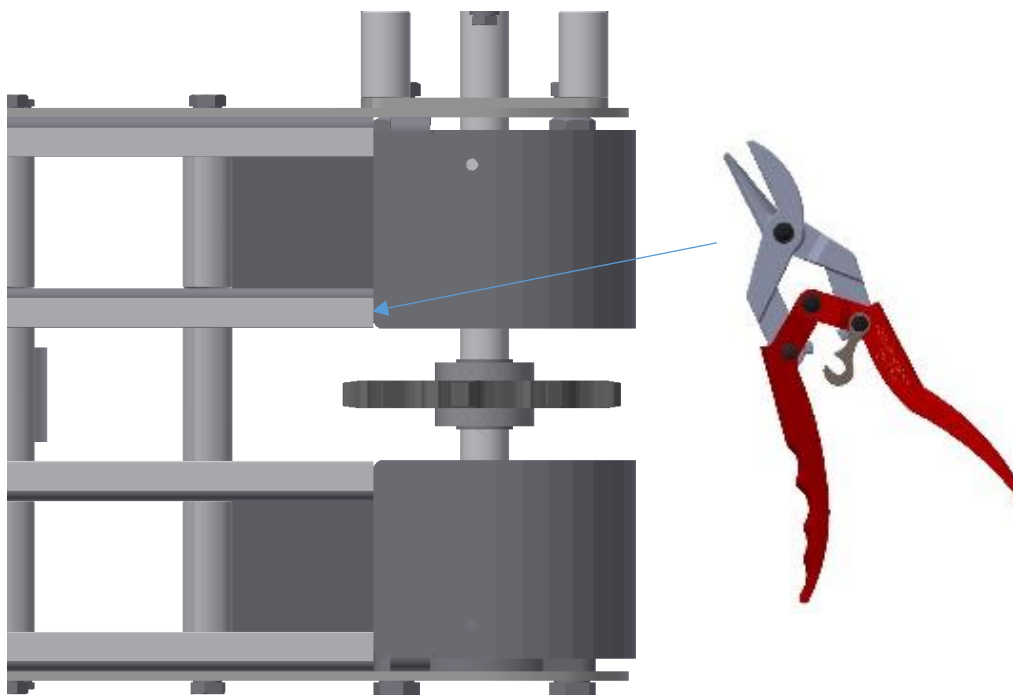
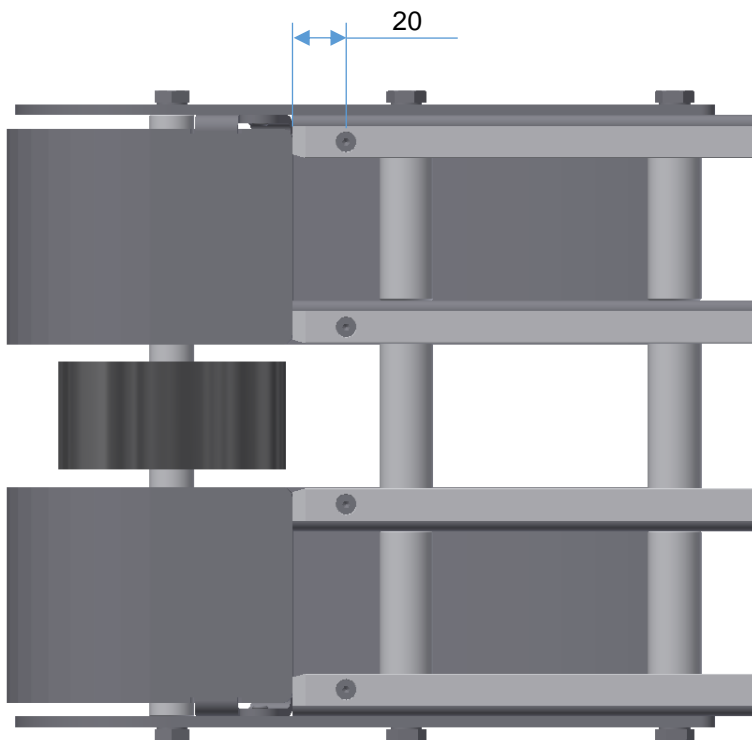


Figure. End of slide rail on the top side

Drill, tap and countersink the slide rail in the idler unit before fastening with slide rail screw 500-4200.



When splitting the conveyor, the slide rail must be cut according to the below. Always locate a slide rail join in a straight section and approx 100 mm from the profile split.

Join the slide rail on the top side of each series as illustrated below. Cut and chamfer the slide rail. Drill, tap and countersink before fastening with slide rail screw 500-4200.

S520 and S530

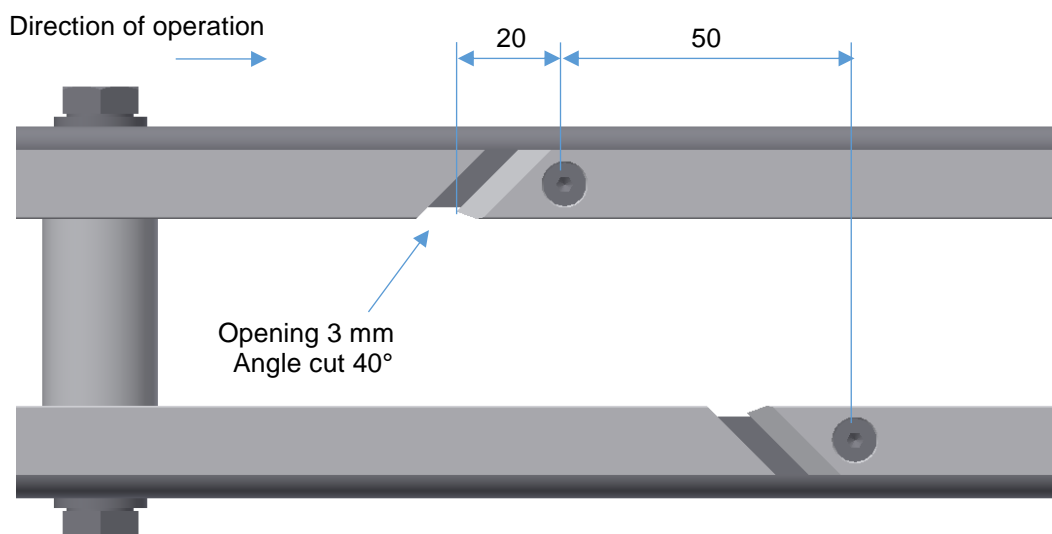


Figure. Slide rail join on top side, S520 and S530

S540

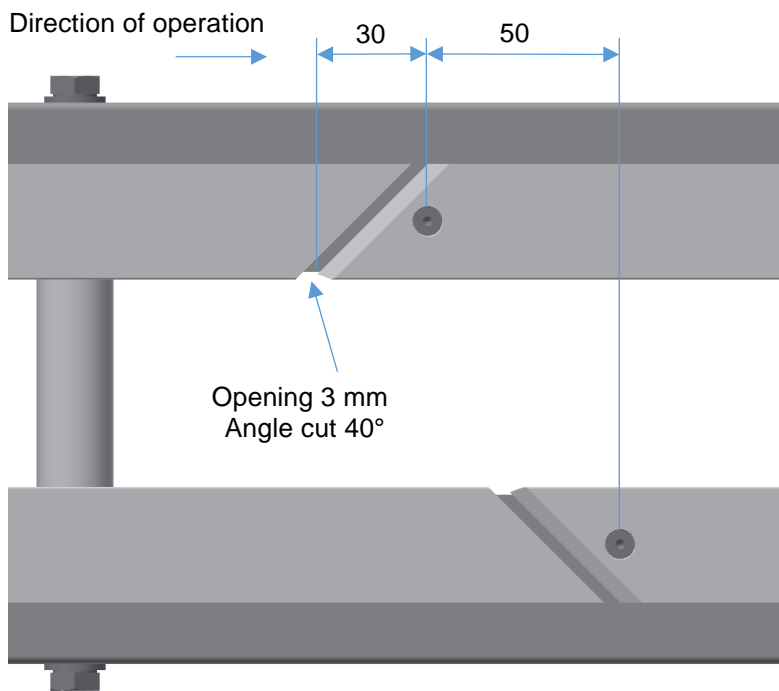


Figure. Joining the slide rail, top side, S540

S560

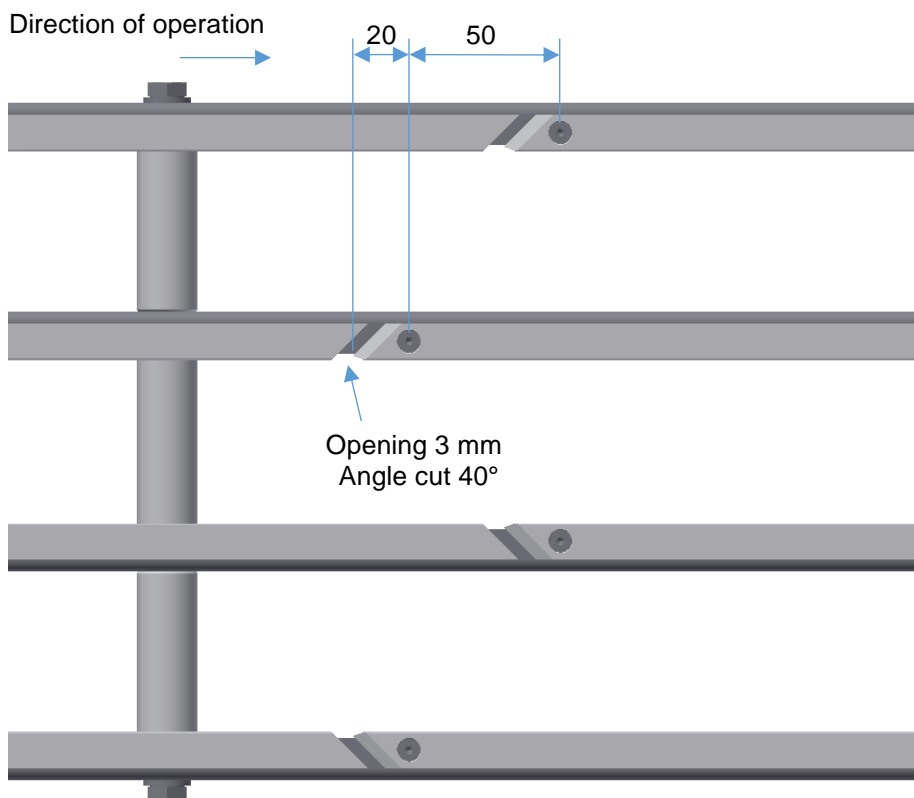


Figure. Joining the slide rail, top side, S560

On the underside, the slide rail is joined in the same way in all series.

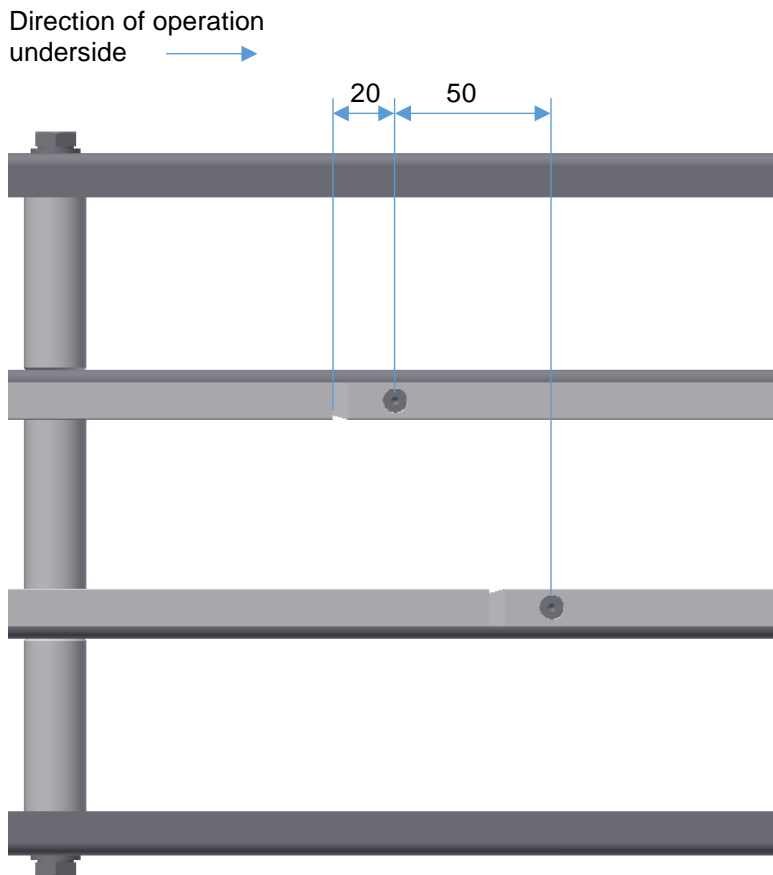


Figure. Joining the slide rail, underside

Check all joints. Take around 300 mm of chain and pull it by hand in the drive direction through the entire conveyor making sure the chain runs smoothly over all joints.

Note the drive direction; install a new chain and adjust chain tension according to 7.1–7.3.

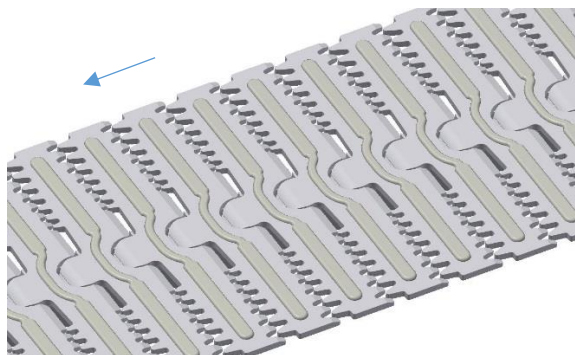


Figure. Chain, direction of drive

Make sure that all tools and replaced components are removed. Next, switch on the power supply. Start the conveyor and check that it runs smoothly without jerks or dissonant noise.

8 Dismantling the machine



Switch off and lock the power supply!

Dismantle the machine by following the instructions in Chapter 5 in reverse order.

9 Removing the machine



Switch off and lock the power supply!

Removal of the machine means that it must be disposed of and scrapped. In order for disposal and scrapping to take place properly, make sure that

- the machine is dismantled correctly and safely; see Chapter 8.
- the machine's various components are broken down into the material fractions as used by Carryline AB and described in Appendix 1.
- that the various material fractions are sent for recovery according to local regulations.

10 Troubleshooting

Motor overheats

Check power supply (A) and compare with the motor rating plate.

Cause	Action
Excessive product weight on the conveyor.	Remove products and test without load. Check current product weight and compare with specification.
Damaged conveyor, chain runs slowly	Remove the chain and replace the damaged parts.
Dirt or fluids on the conveyor.	Clean with a damp rag and a mild detergent.
Oil leak in gearbox.	Replace motor/gearbox.

Chain runs unevenly or jerkily

Cause	Action
Damaged or poorly installed slide rail.	Check and replace damaged slide rail.
Damaged conveyor.	Remove the chain and replace the damaged parts.
Dirt or fluids on the conveyor.	Clean with a damp rag and a mild detergent.
Chain too tightly or loosely tensioned.	Adjust chain tension.

Abnormal wear

Cause	Action
Excessive product weight on the conveyor.	Check current product weight and compare with specification.
Speed too high.	Check current speed and compare with specification.
Dirt on the conveyor.	Clean with a damp rag and a mild detergent.
Corrosive chemicals in contact with plastic parts.	Contact Carryline AB for information about approved chemicals.
Chain too tightly or loosely tensioned.	Adjust chain tension.

Dissonant noise

Cause	Action
Speed too high.	Check current speed. Compare with specification and adjust to correct value as necessary.
Worn or damaged driveshaft bearing.	Replace the bearing and driveshaft.
Worn or damaged slide rail and/or chain.	Replace the slide rail, and if necessary the chain.
Corrosive chemicals in contact with plastic parts.	Contact Carryline AB for information about approved chemicals.
Chain too tightly or loosely tensioned.	Adjust chain tension.

For other queries, contact

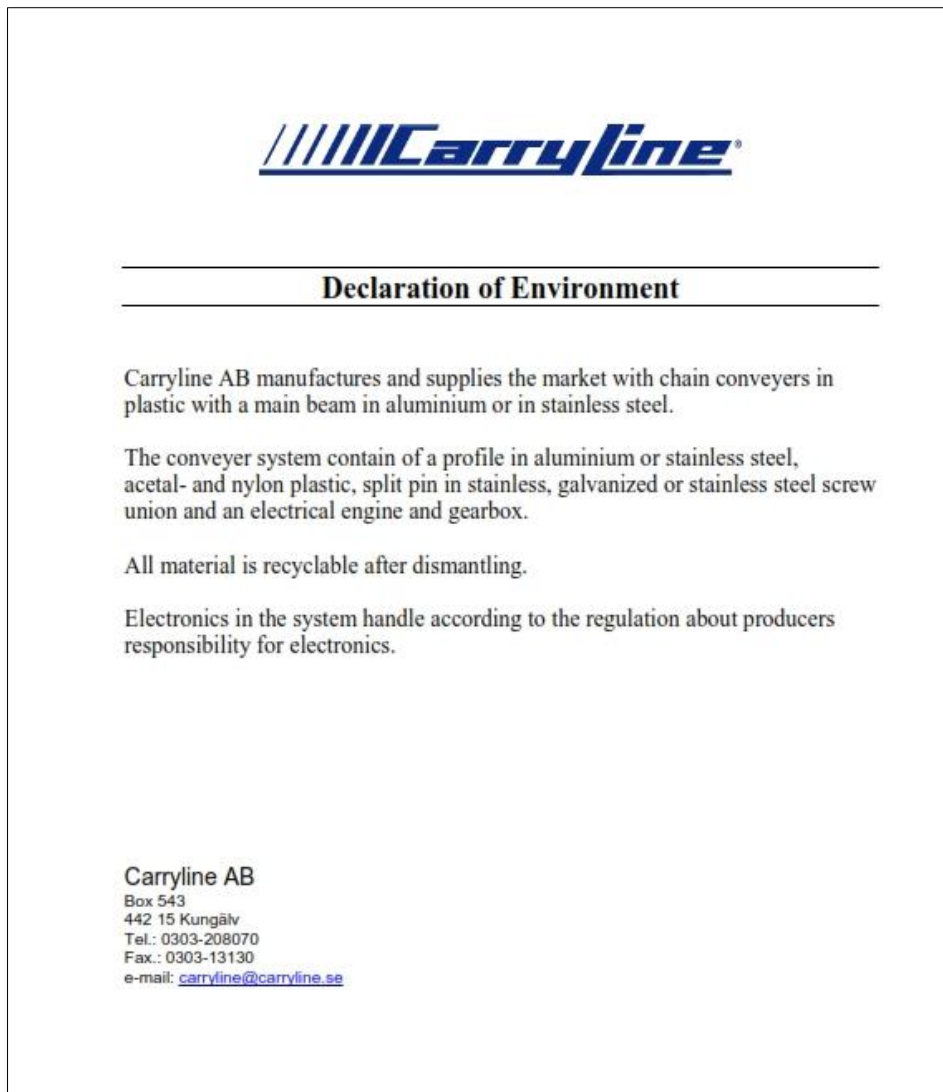
Carryline AB

+46 10 130 73 00

info@carryline.se

Appendices

Appendix 1 – Environmental product declaration



Carryline AB manufactures and markets chain-driven conveyors whose materials break down into the following fractions:

- Corrugated cardboard
- Aluminium
- Stainless steel
- Metals
- Chemicals (hazardous waste)
- Electronics
- Flammable waste
- Plastic (packaging)

All materials are recyclable after removal.

Also, Carryline AB has an internal recycling system for plastic granulate used in the manufacture of plastic links.