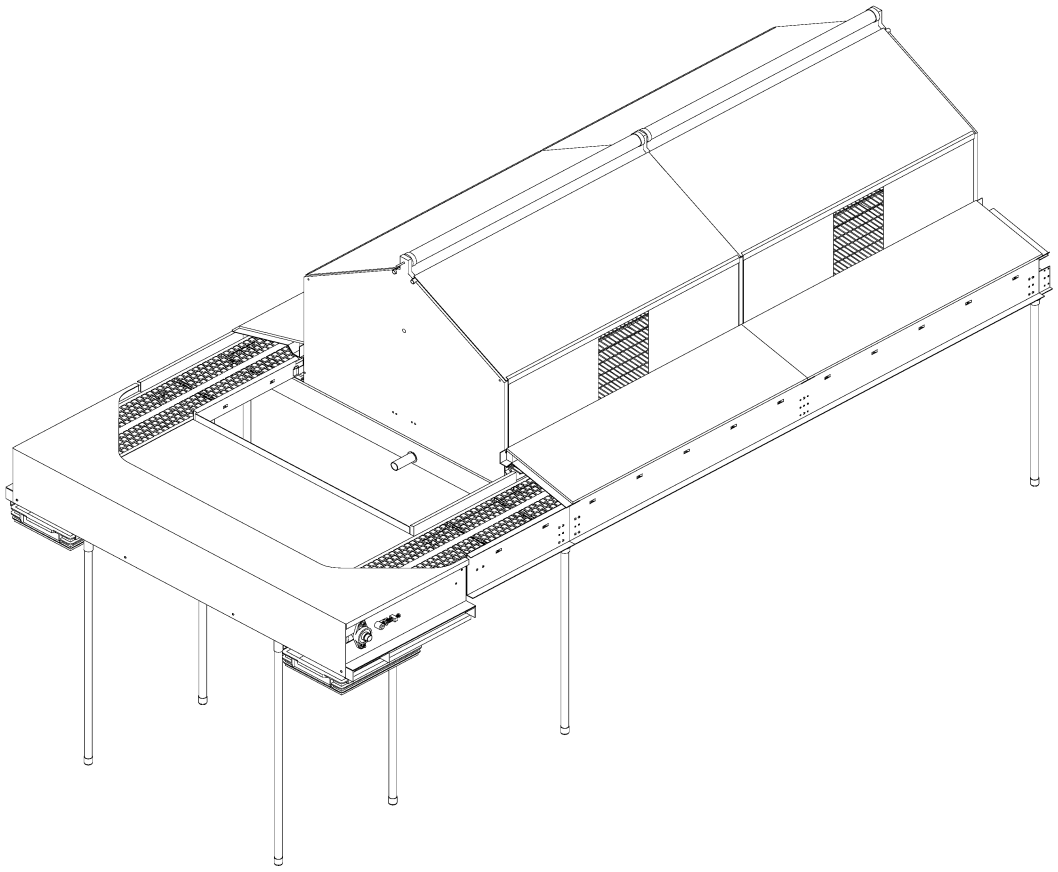
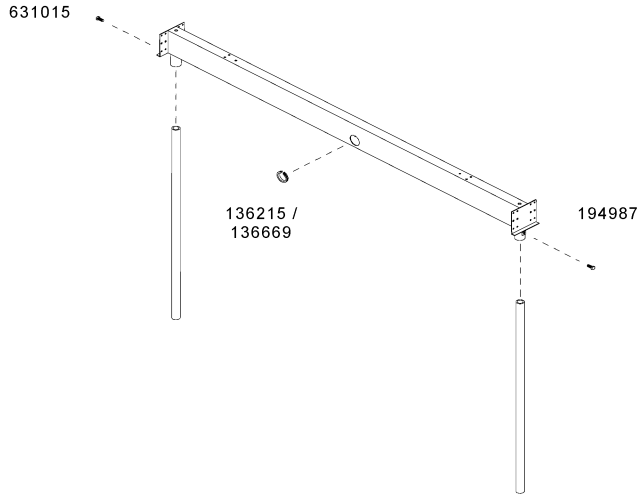
INSTALLATION MANUAL
SIDEBELT NEST



Please read and understand this entire manual before unpacking and beginning assembly of the nest.

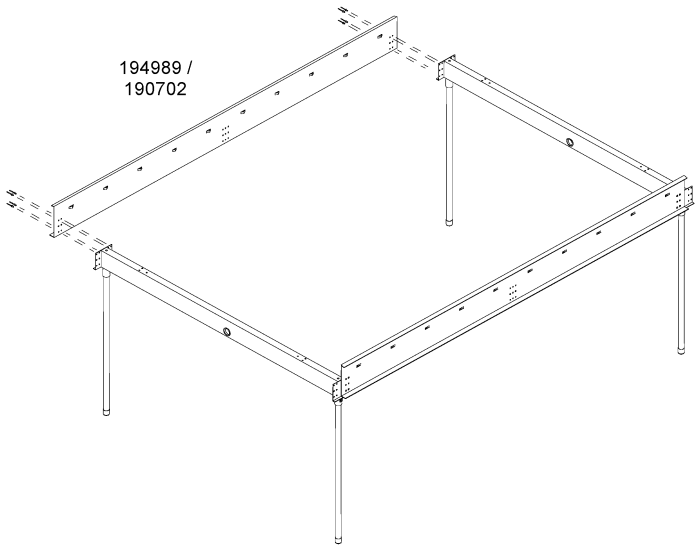
Tip: A 10 mm socket has been provided to assemble all M6 bolts and nuts.
A 7 mm drill bit has been to clean bolt holes when necessary.

Press the bronze plain bearings (136215 or 136669) into the undercarriages (194987).
Screw the legs in the undercarriages with hex bolts M8x20 (631015).



Fix the side plates (194989 or 190702) to the undercarriages with 4 taptite screws (911068) and 2 hex bolts (911068) and nuts (231105).

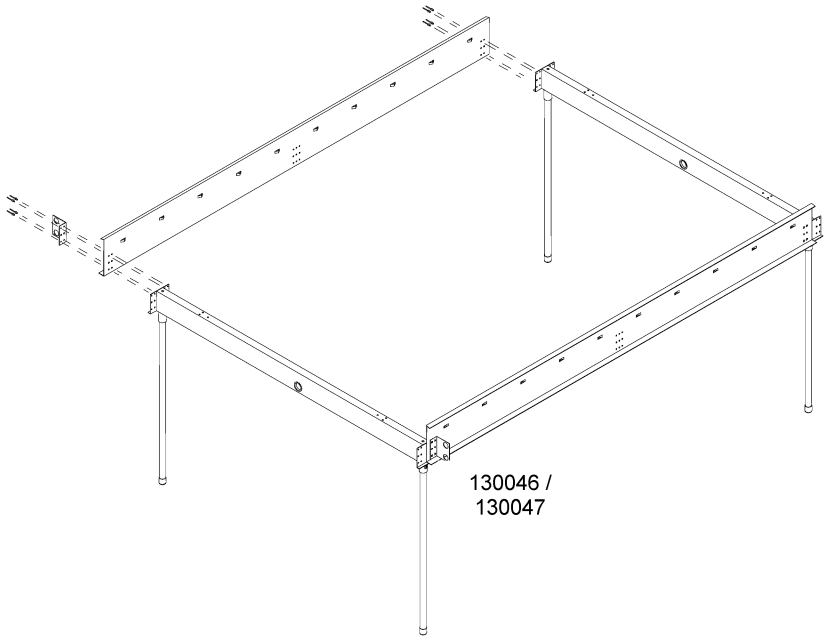
Attention: Check (especially in the beginning) if you set the undercarriages up square (measure the distances between the legs crossways: these should be equal).



Tip: Assemble the entire frame with hex bolts and nuts hand tight only. Check if it's square, then screw in all taptite screws and retighten the bolts and nuts.

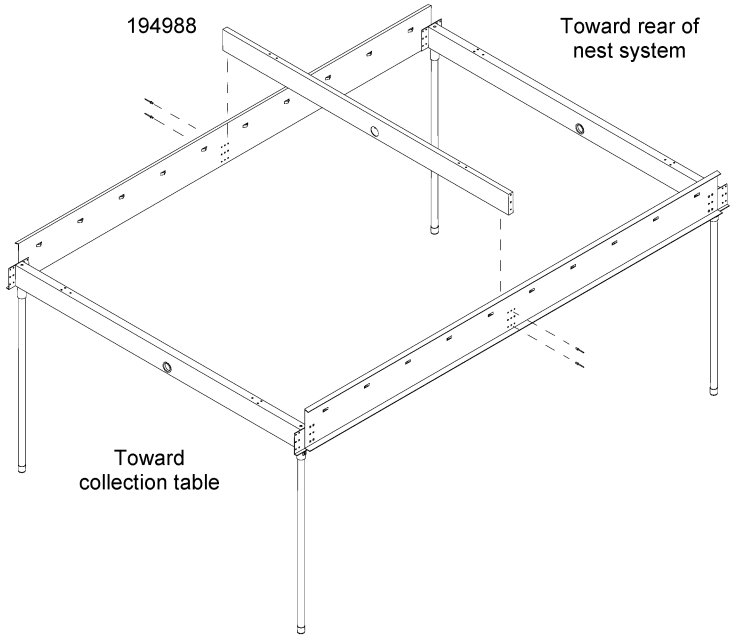
If you are using slat support tubes (optional), you should fix the supports for the slat tubes (130046 or 130047) together with the side plates to the undercarriages with the aforementioned taptite screws and bolts.

Attention: Use 1 support per side per undercarriage. The next support will be fixed with blind rivets with the next undercarriage.

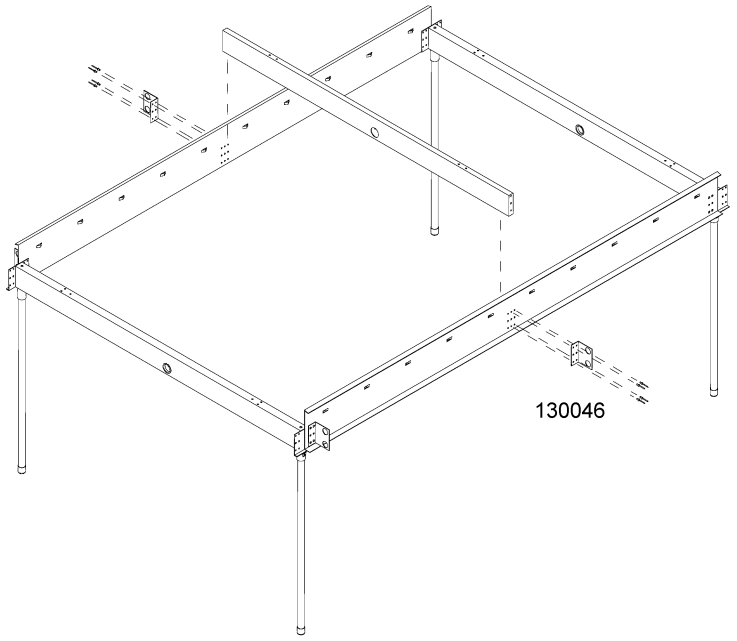


Fix the partition undercarriages (194988) between the side plates with taptite screws (911068) and bolts (231105). Use the middle holes in the side plates.

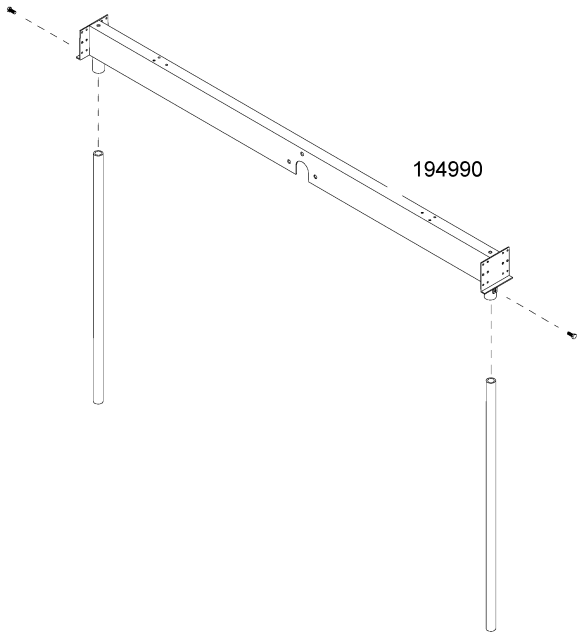
Attention: Make sure the flat side of the partition undercarriage faces the front of the house, because otherwise the sharp side of the partition undercarriage can wear through the conveyor belt.



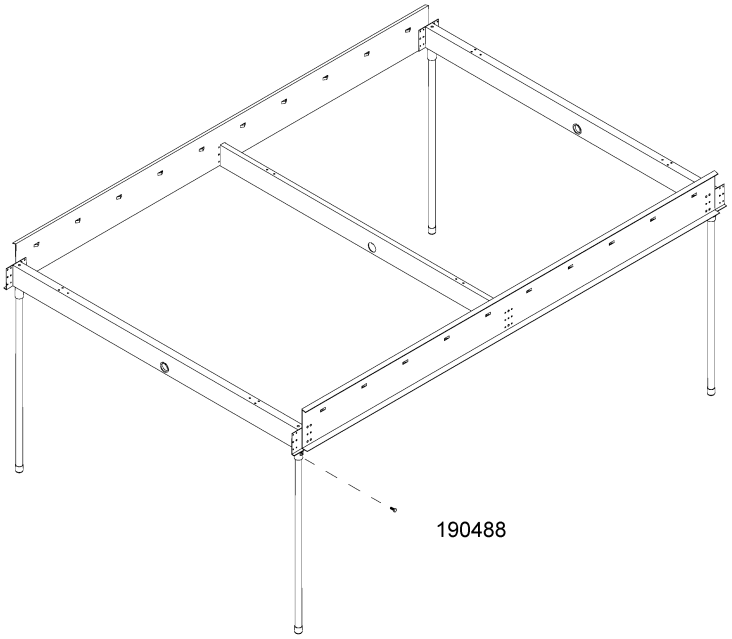
If you are using slat support tubes, you should fix the supports for the slat tubes next to the partition undercarriages with taptite screws (911068) and bolts (231105). Fix the supports for the slat tube on the side of the partition undercarriage where there is no support fixed to the undercarriage next to it.



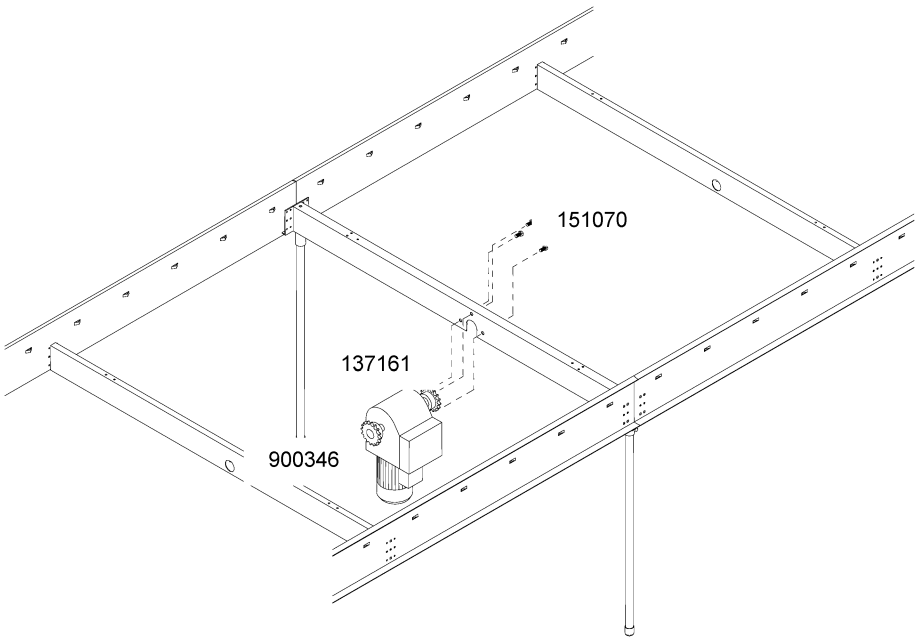
When you reach the middle of the nest row (or 1/4 and 3/4 when using 2 flapmotors), place the motor support (194990) with the legs.



After water or laser leveling the undercarriages, lock the leg position in the undercarriages using selfdrilling screws (190488).

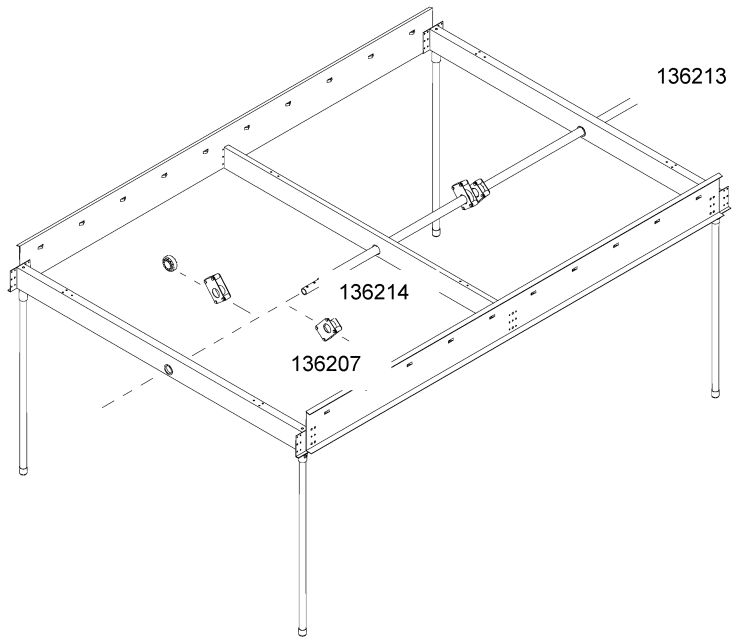


Screw the gearbox (137161) to the motor support with 3 hex bolts M10x20 (151070). Bolt the motor (900346) to the gearbox using 3/8” bolts (900094) and lockwashers (900095).

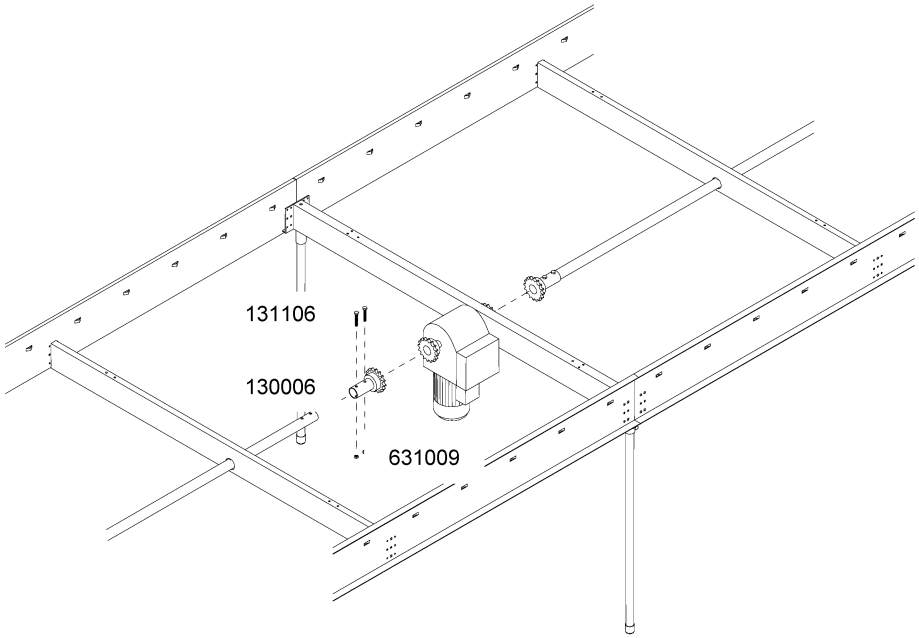


Tip: Bolt the motor/gearbox to the motor support on a workbench for easy installation.

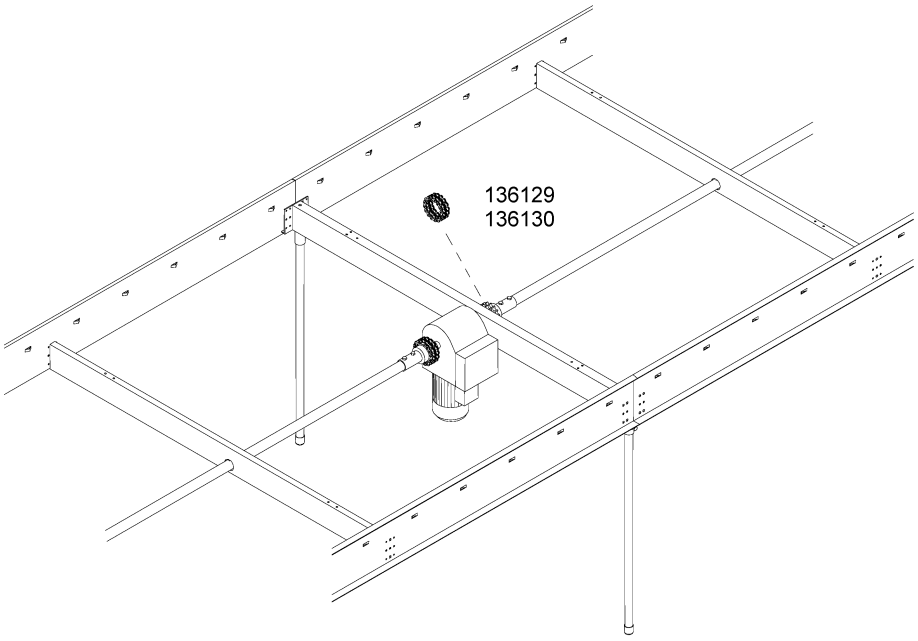
Push the extension shafts (136213) through the undercarriages. Don't forget to slide on the pinions with housings (136207+136214 or 136719)! (2x2 sets per undercarriage)



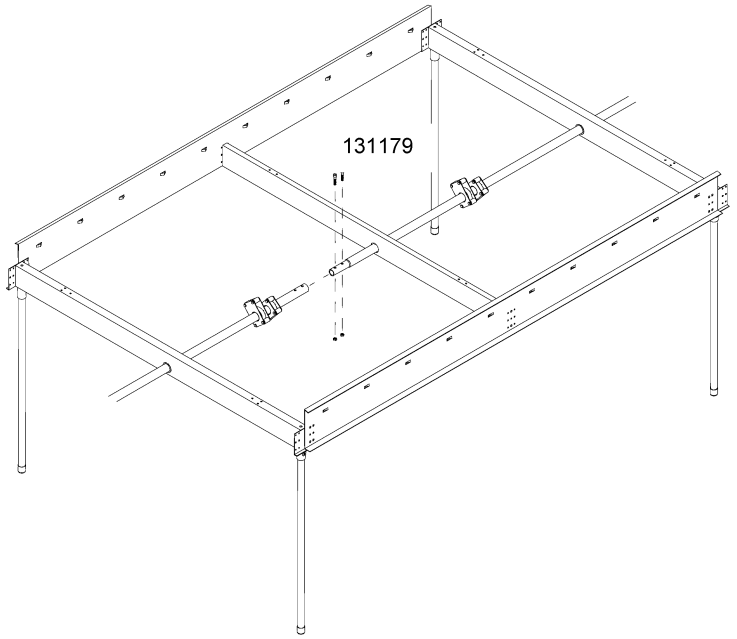
Screw the sprocket tube connections (130006) to the extension shafts where a motor support is placed, with 2 hex bolts M8x50 (131106) and 2 lock nuts M8 (631009).



Connect the sprocket tube connections to the flap motors with the double chains 5/8" (136129) and the double chain closing links (136130).

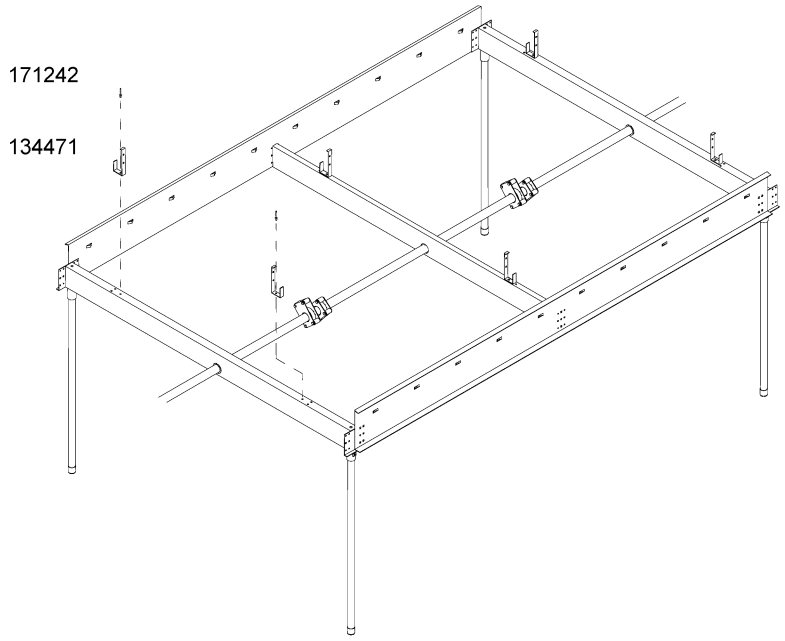


Connect the extension shaft with cylinder head socket screws M8x40 (131179) and lock nuts M8.



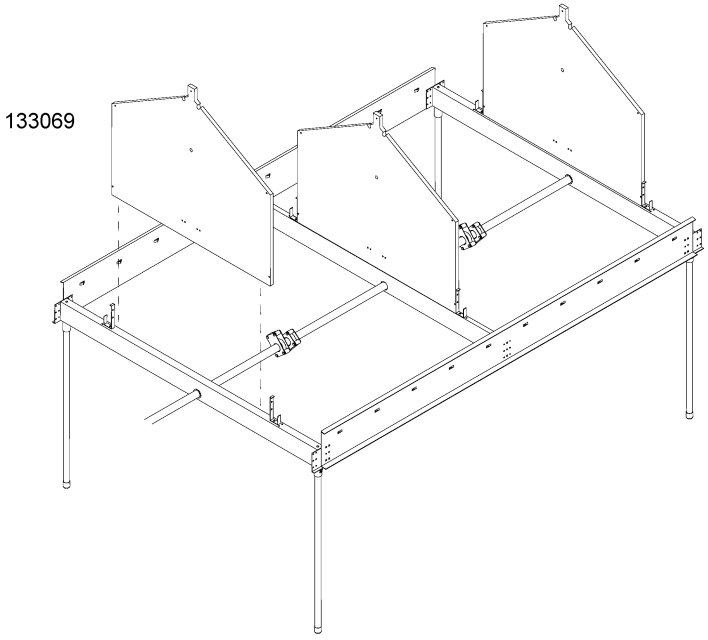
Saw the ends off the extension shafts in the beginning and the end of the row. Leave appr. 10 cm. sticking out.

Fix the C-brackets (134991) on the undercarriages and on the partition under-carriages with blind rivets 5x8 (171242).

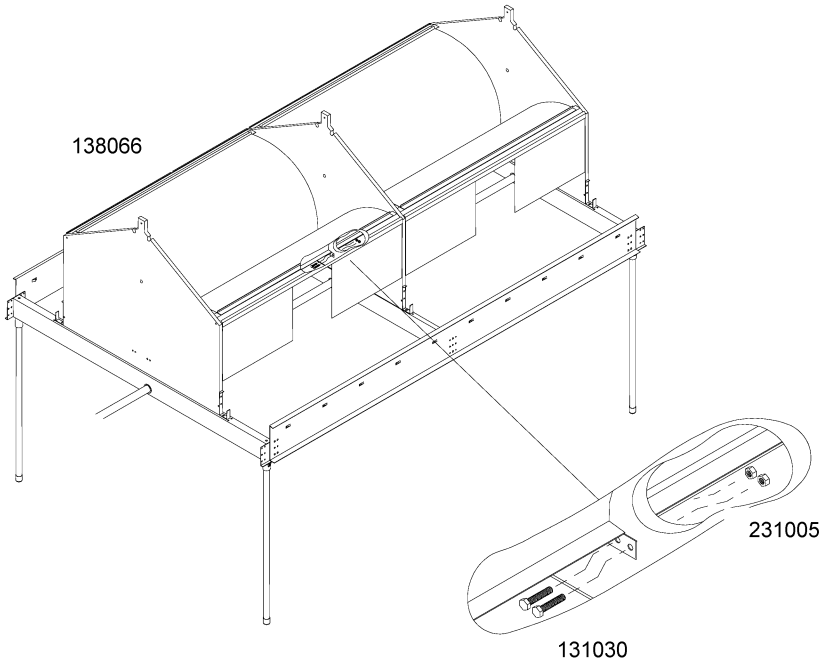


The following 3 steps should be carried out together:

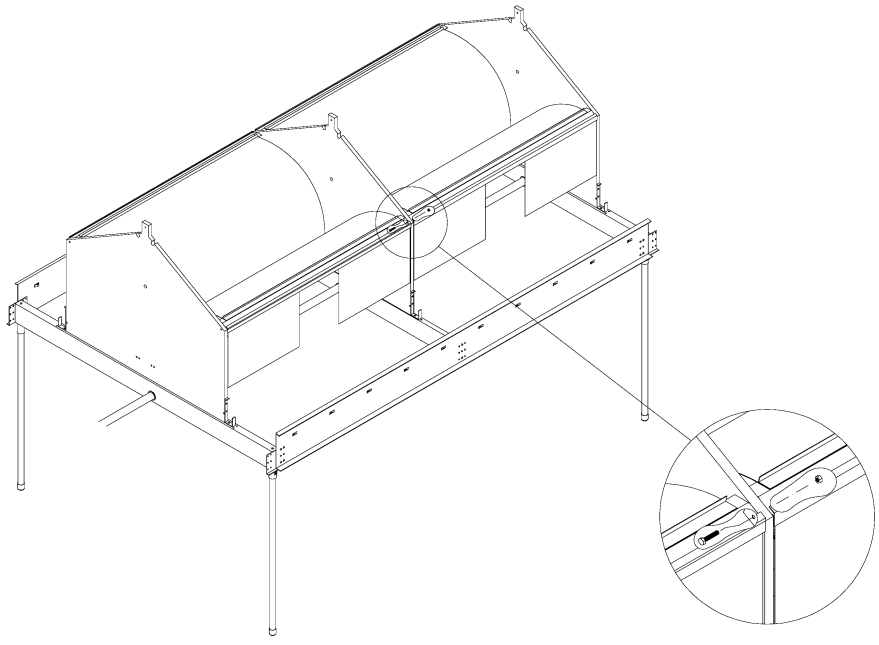
1. Place the Vencoboard partition walls (133069) on the undercarriages.
   Where there is a walkover, you should only place the **outer** partition walls of the entire walkover.



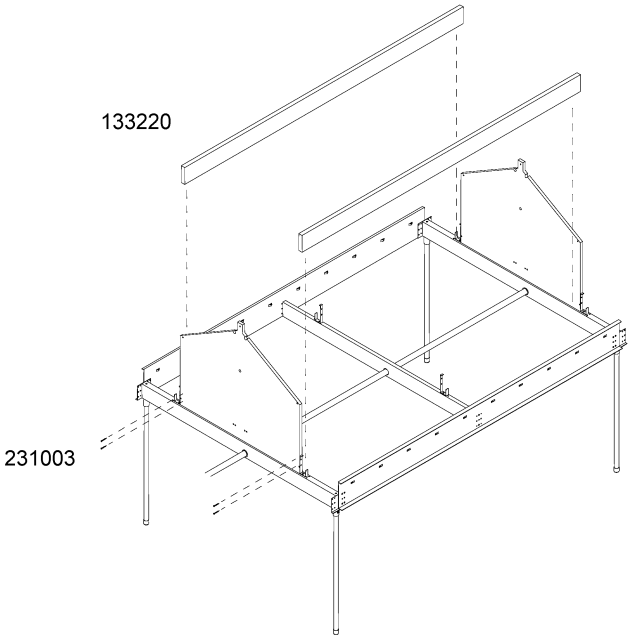
2. Screw the lower beams of the rear walls (138066) to the partition walls with hex bolts M6x30 (131030) and hex nuts M6 (231005). Tighten the bolts and nuts **handtight**.



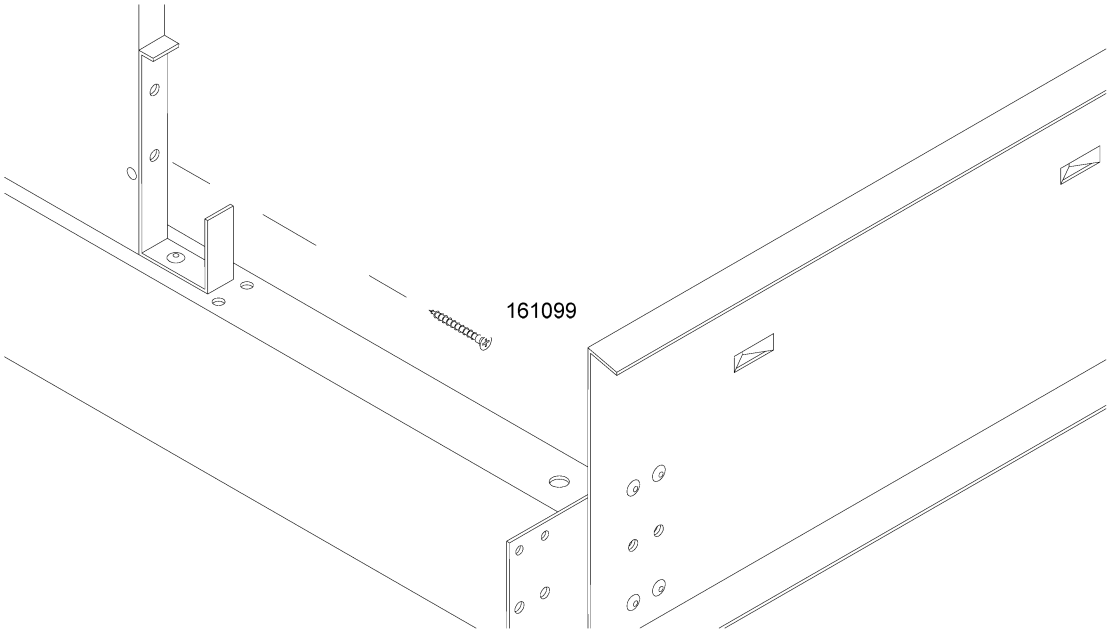
3. Screw the upper beams of the rear walls to the partition walls with hex bolts M6x30 and hex nuts M6. Tighten the bolts and nuts **handtight**. Now tighten the bolts and nuts through the lower beam of the rear walls **tight**.
If necessary add a washer M6x18 (311199) between the partition wall and the upper beam to avoid tilting of the partition walls. Check the vertical level on partition boards often during rear wall installation.



Where there is a walkover, screw the 2 walkover beams (133220) between 2 partition walls with 4 chipboard screws 5x50 (231003) per beam, so that the beams rest on the undercarriages, and at the same time the outsides of the beams correspond with the outsides of the partition walls.

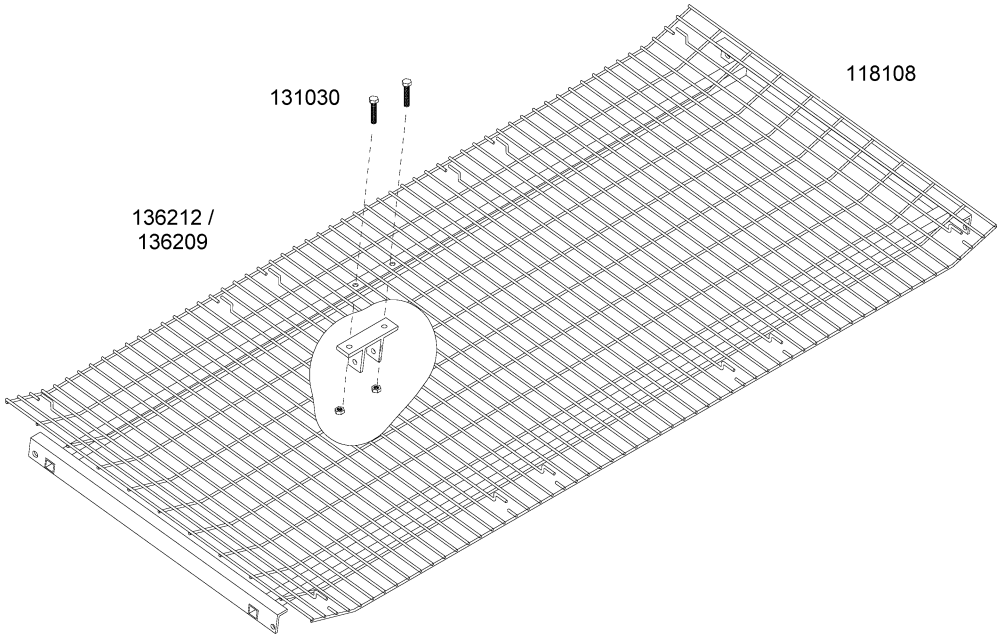


Fix the partition walls to the C-brackets with chipboard screws 4x30 (161099). Use only the **lower** hole in the C-bracket.

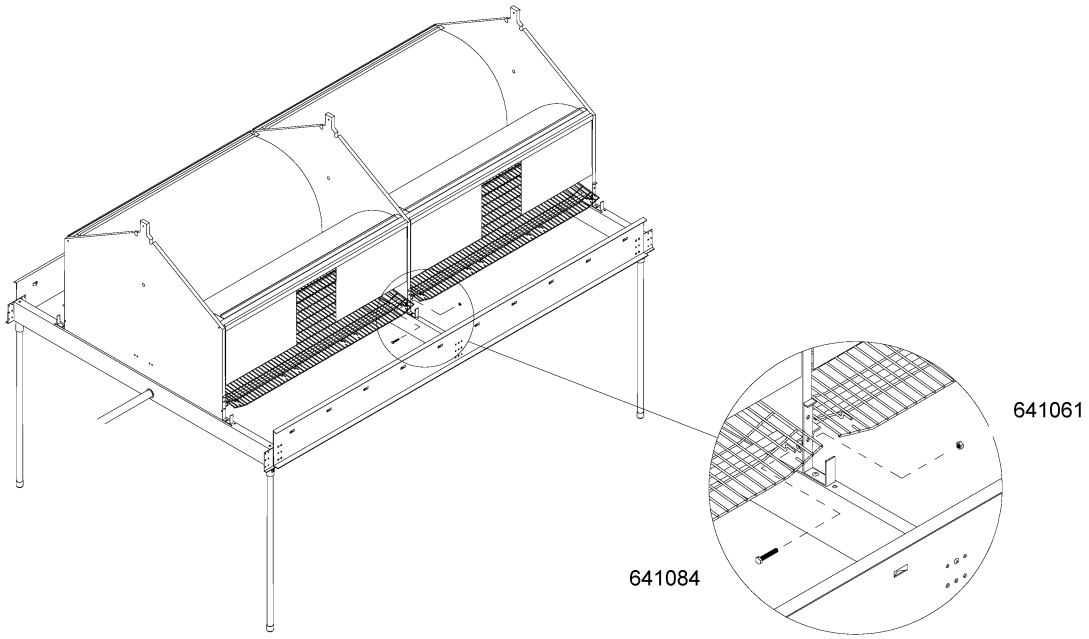


Tip: A screw bit (976475) has been provided to work with these screws.

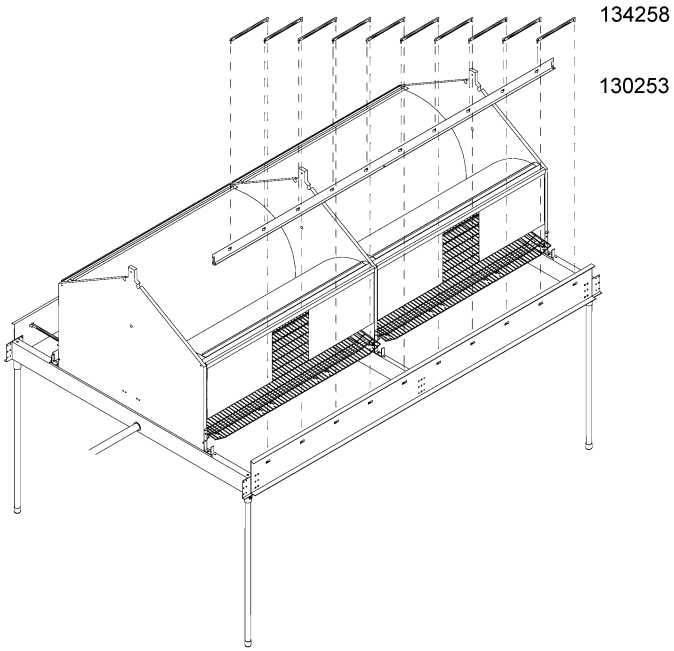
Screw the frame brackets (136212 or 136209) to the gauze floors (118108) with hex bolts M6x30 (131030) and hex nuts M6.
Hook the rubber mats (134085 or 134088) onto the gauze floors.



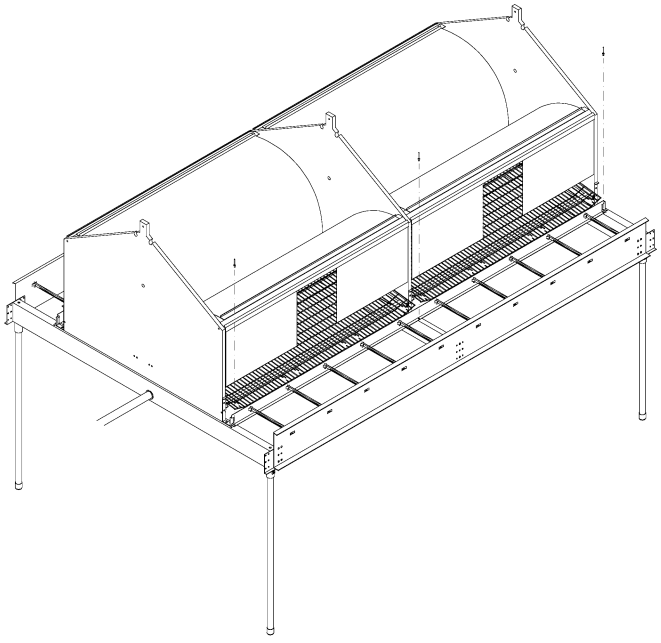
Screw the gauze floors between the partition walls with hex bolts M6x35 (641084) and hex lock nuts M6 (641061). Let the gauze floors rest on the lower beams of the rear walls. Do not tighten the lock nuts too tight – this bolt acts as the pivot for the nest floor.



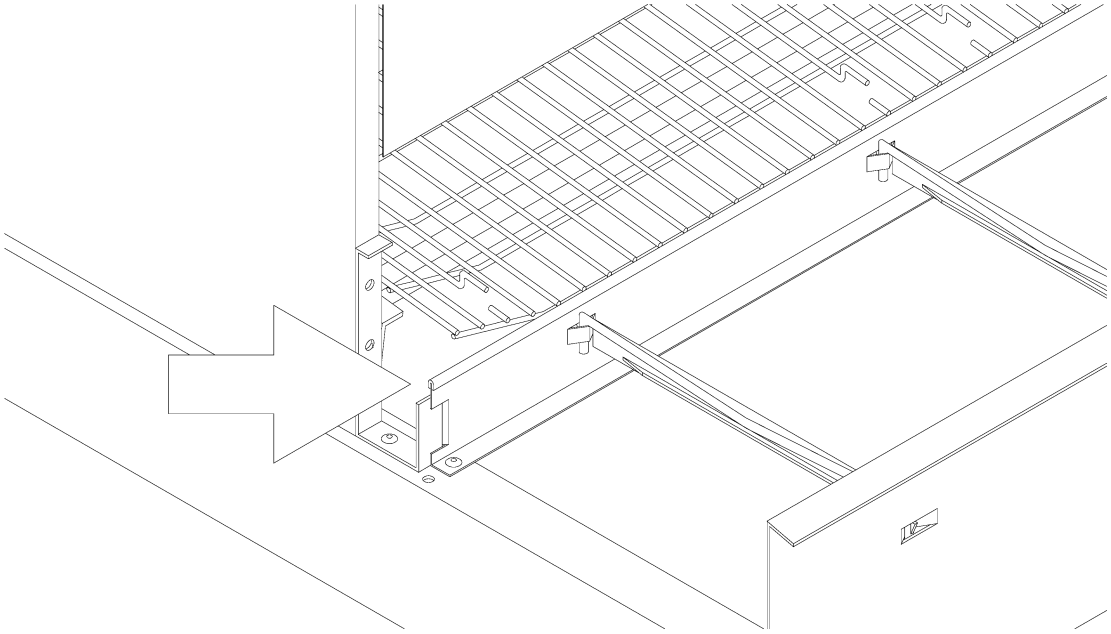
Stick the belt supports (134258) 90° turned in the outer belt guides/side plates. Fix the inner belt guides (130253) to the belt supports.
At a walkover, use a high belt guide (130304) instead of a low belt guide.



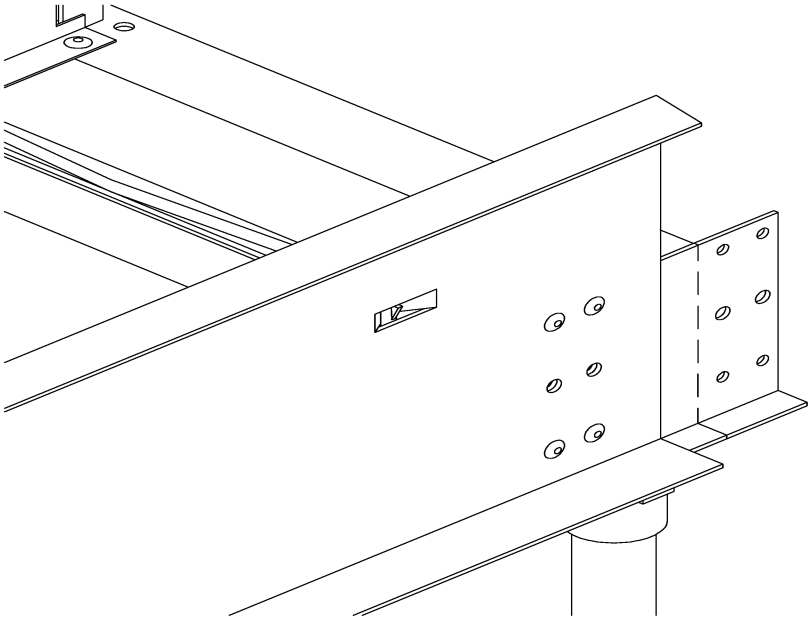
Push the inner belt guides towards the nests, and fix the belt guides to the undercarriages with blind rivets 5x8 (171242).



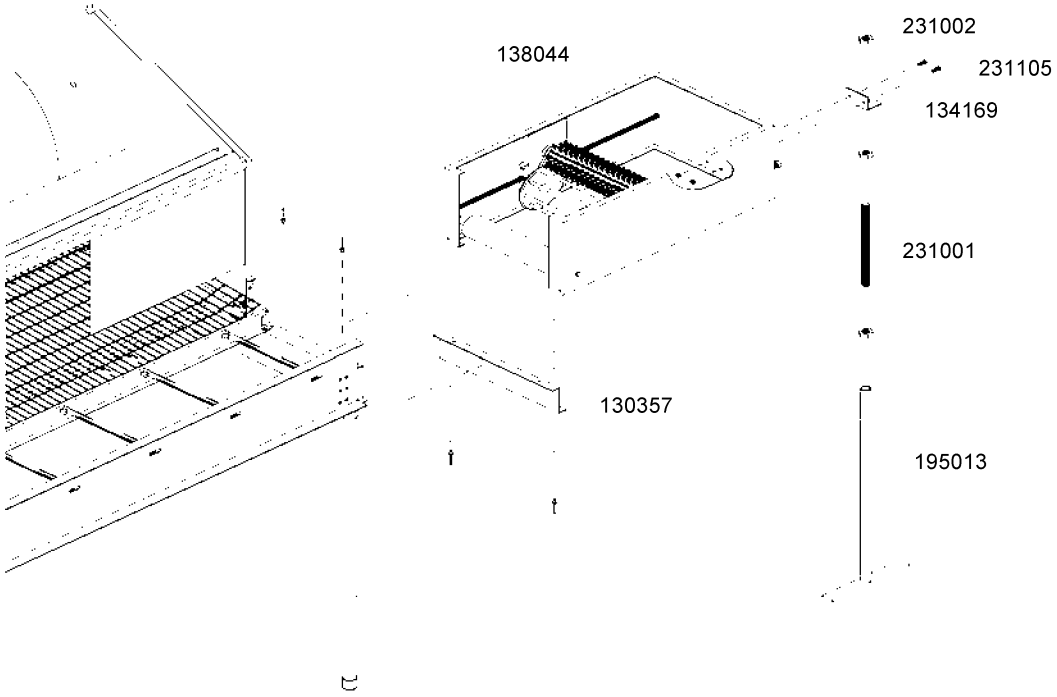
Press the egg bumper profile (130495) over the inner belt guides.



Cut a part of the side plates off of the last undercarriage, so that you can fix the return station to the last undercarriage.



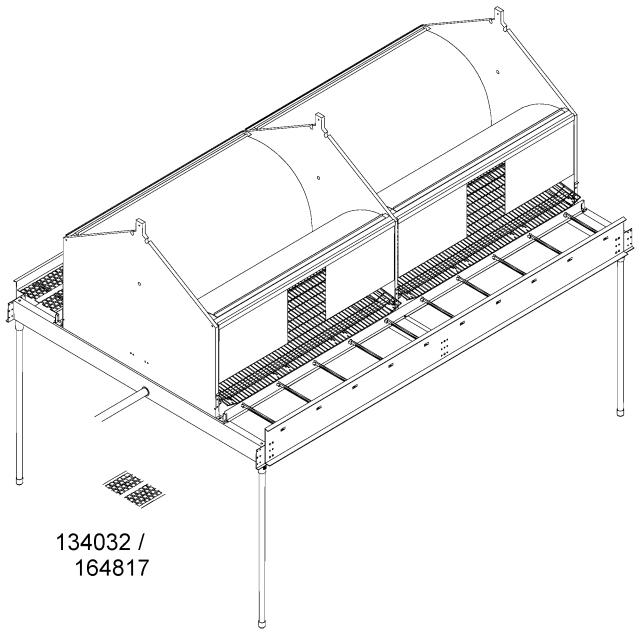
Assemble the return station (137200 or 137202): place the stud M16 (231001) with the 2 hex nuts M16 (231002) in the T-barred leg (195013). Screw the leg support (134169) to the return station with hex bolts M6x16 (231105) and hex nuts M6. Fix the T-barred leg to the leg support with hex nuts M16. Fix the Z-bracket (130357) to the return station with blind rivets 5x8. Fix the assembled return station to the last undercarriage with blind rivets 5x8.



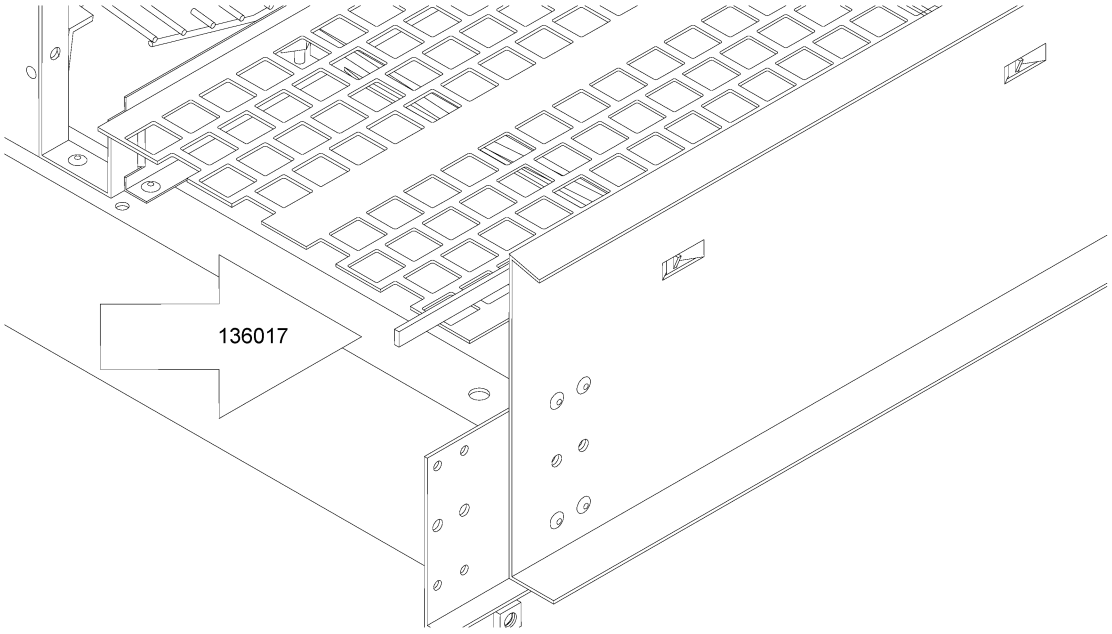
Pull the conveyor belt (134032 or 164817) from the front of the house, under the belt supports, through the return station, and back to the front of the house.

Attention: Guide the conveyor belt in the return station between the return belt roller and the stud M8 (see Appendix C).

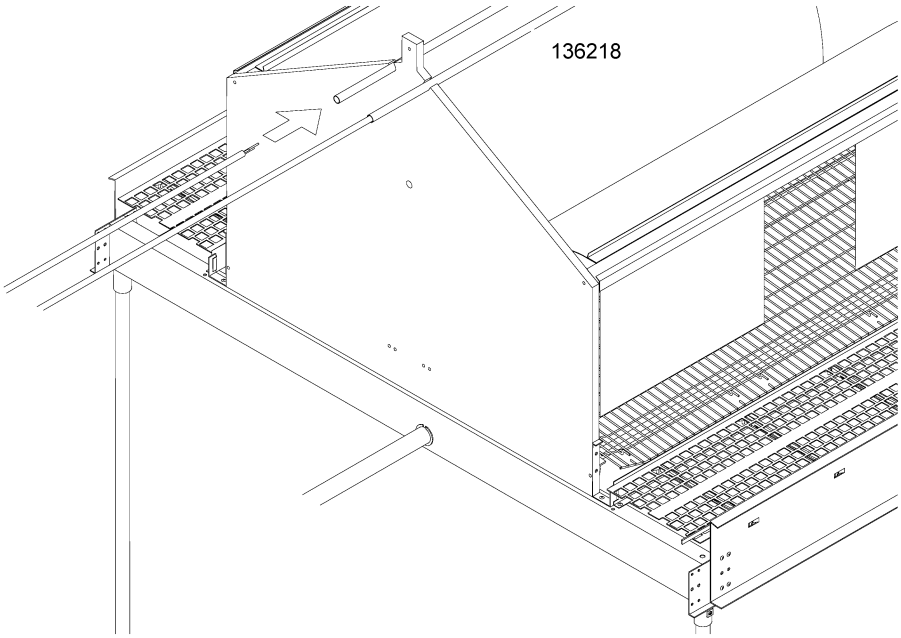
The belts will be welded later.



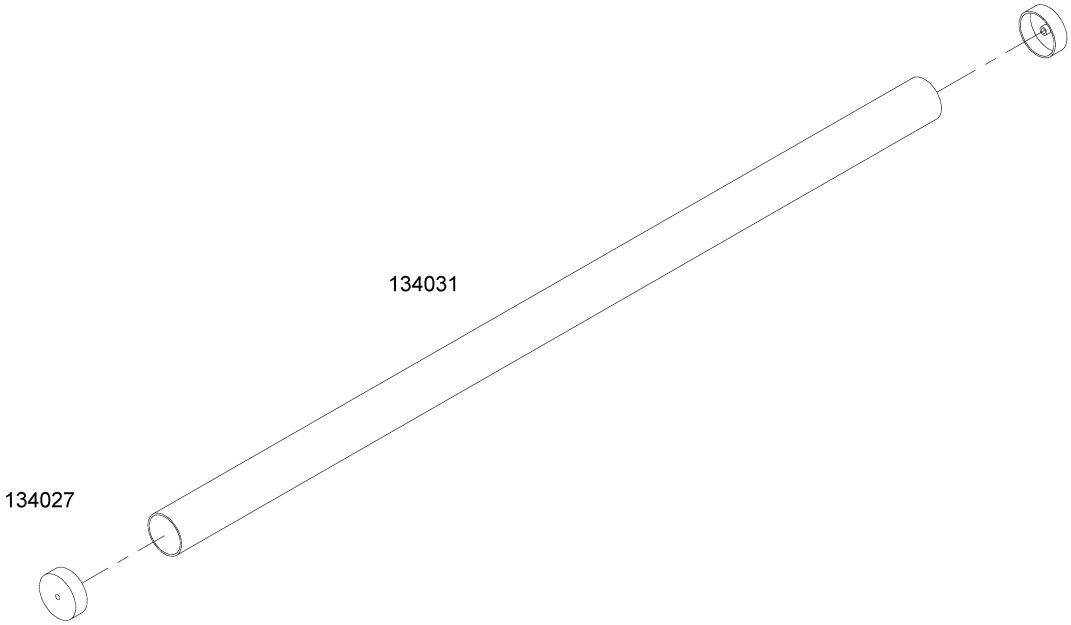
Stick the cellular tape (136017) to the inside of the outer belt guide, appr. 2 cm above the conveyor belt.



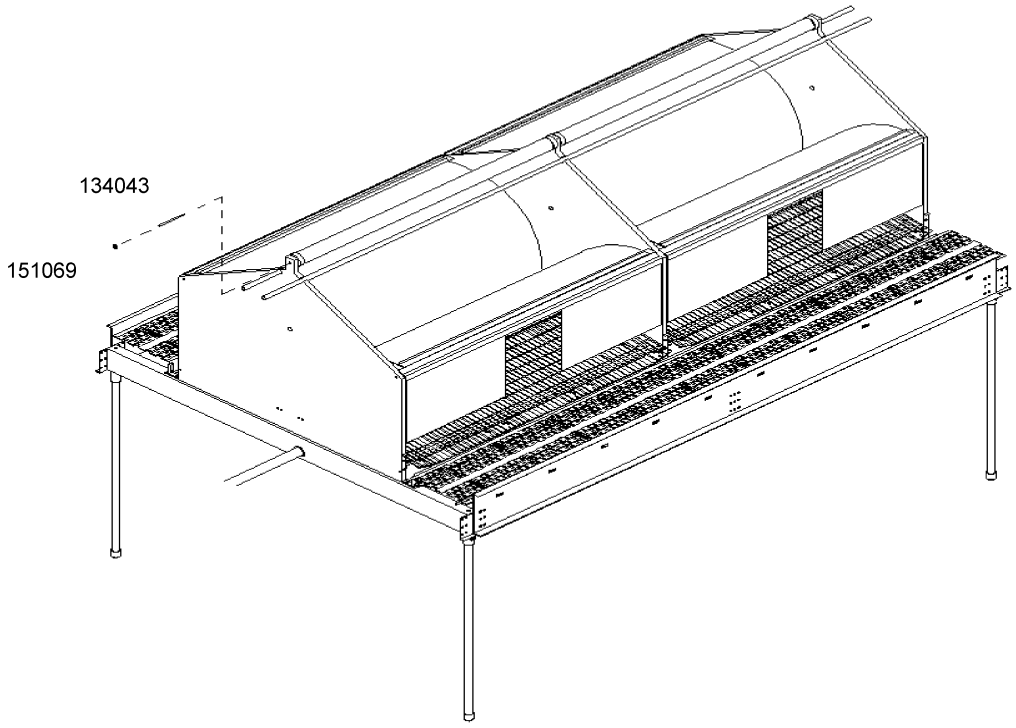
Place the 16 mm diameter tubes (136218) on the nests in the recesses in the partition walls. Connect the tubes with PVC sleeves 5/8" (136219).



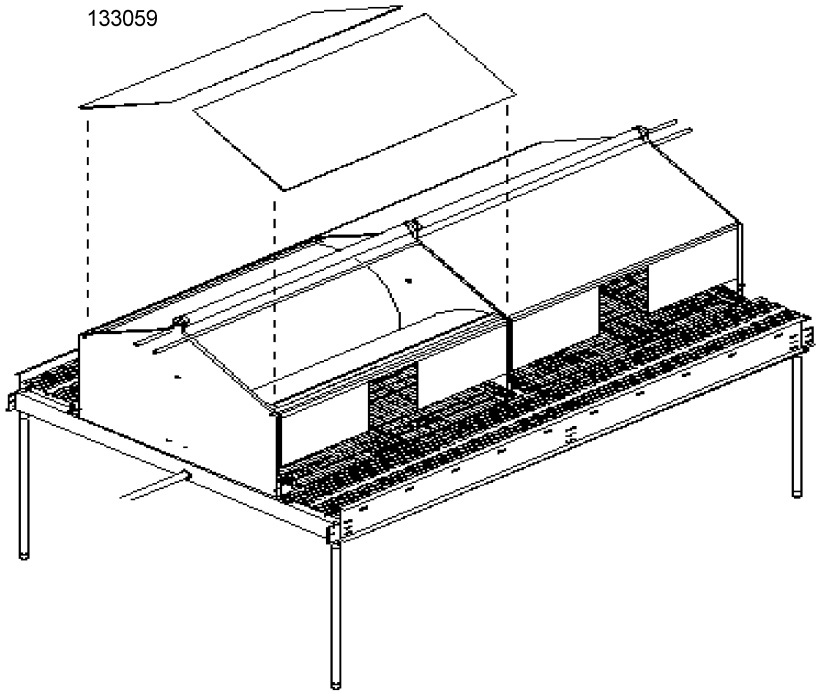
Press the covers for the roller tubes (134027) on the roller tubes (134031). This step can be done in advance of nest assembly.



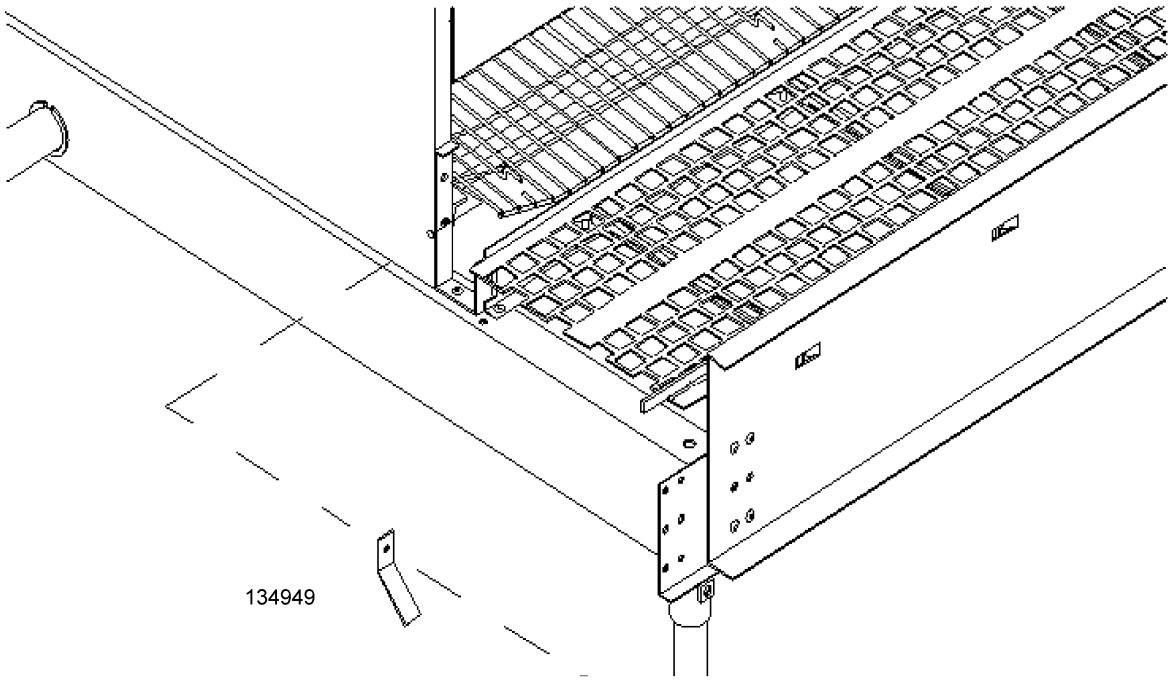
Press the spindles for the roller tubes (134043) through the ridge points of the partition walls. Secure the spindles with 6 mm diameter starlocks (151069). Fix the roller tubes with the covers on the spindles.



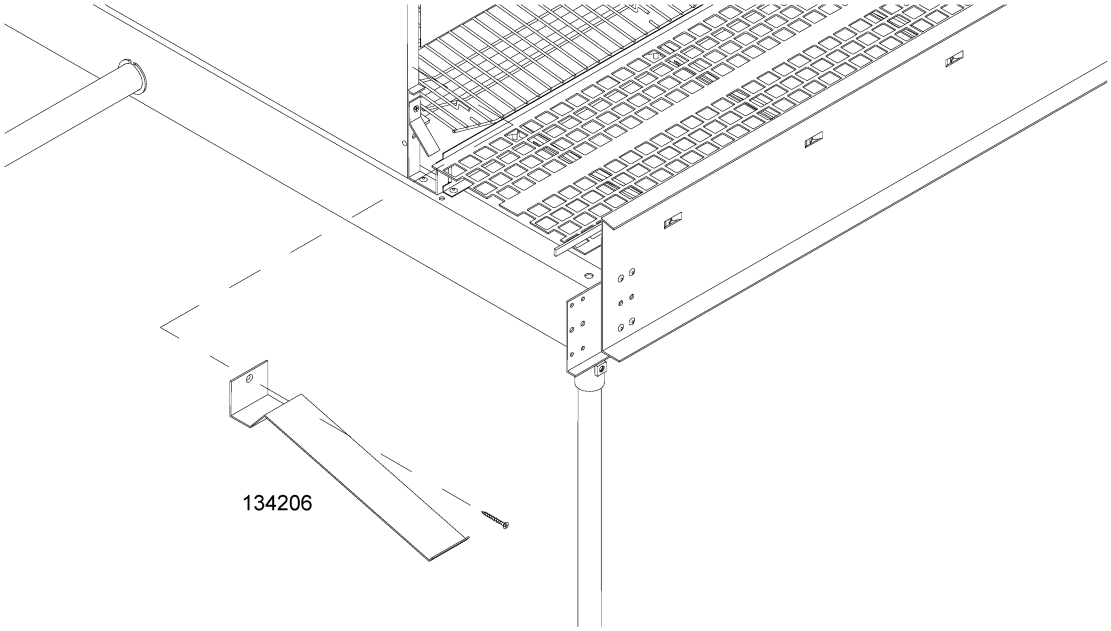
Place the roof plates (133059) on the nests. Set the roof plates between the upper beams of the rear walls and the partition walls.
Tighten the hex bolts and hex nuts through the upper beams of the rear walls and the partition walls.



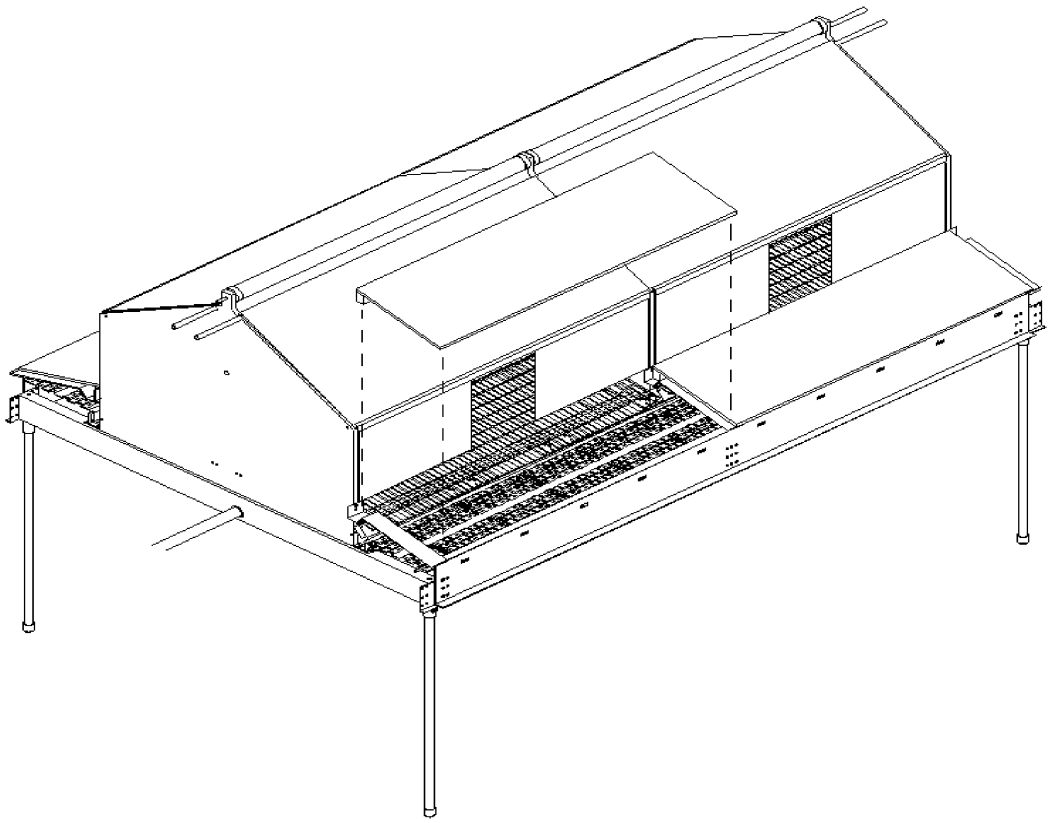
Screw the fill-up plates (134949) on the C-brackets through the upper holes of the C-brackets with chipboard screws 4x30 (161099).



Screw the run-in plate brackets (134206) directly above the C-brackets against the partition walls with chipboard screws 4x30 (161099).



Place the run-in plates on the run-in plate brackets.



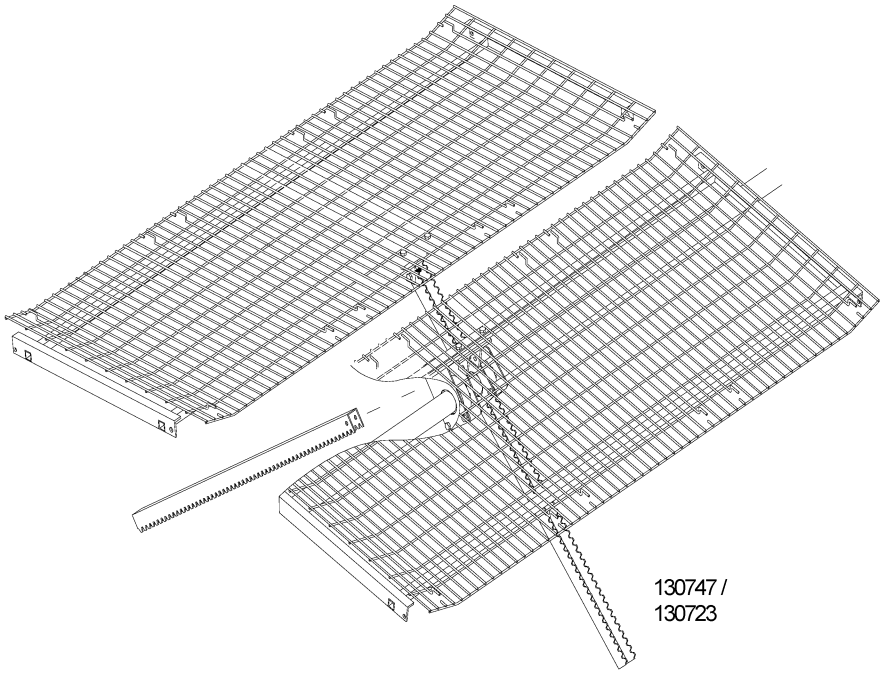
Push the racks (130747 or 130723) through the pinion houses, and screw them to the frame brackets on the gauze floors with hex bolts M6x50 and hex lock nuts M6.

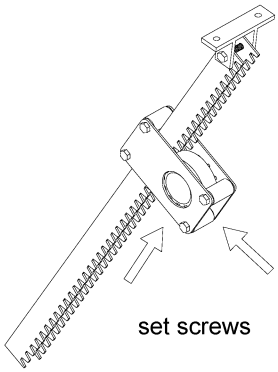
Attention: The set screws in the pinions should stay reachable when the racks are fixed to the gauze floors.

Attention: The drive shaft of the pinions is not in the middle of the undercarriages. Make sure the teeth of BOTH racks point towards the drive shaft.

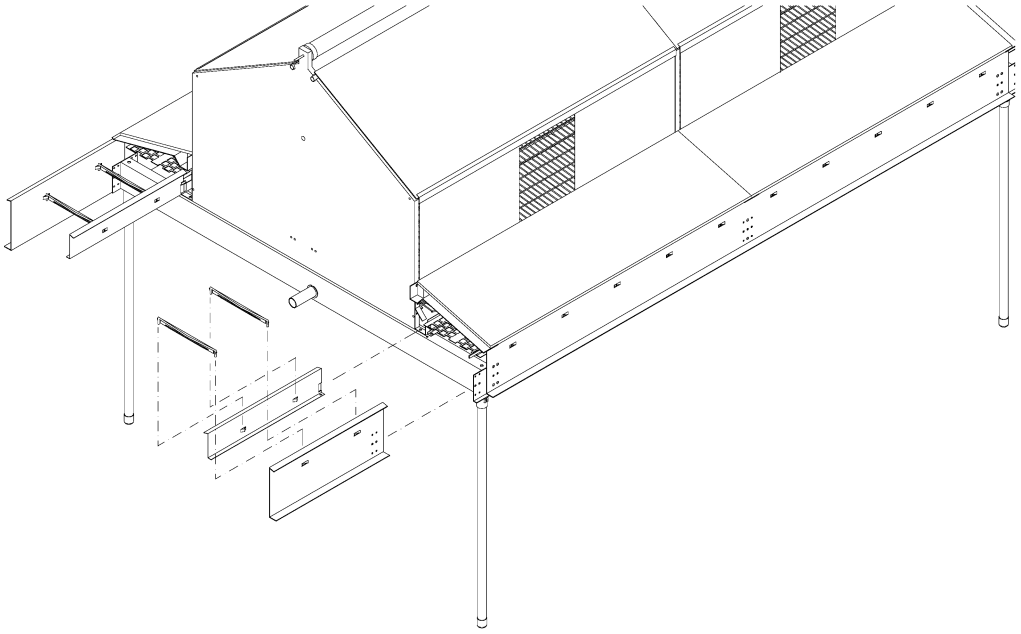
Tip: Try to push a rack through the pinion house correctly, so that the set screws are still accessible when the rack is fixed to the gauze floor. Pull the rack back out, until the rack is just out of the pinion house. Remember the position of the pinion. When you make sure the next pinion is positioned the same way, the set screws will be reachable when the rack is fixed to the gauze floor.

Tighten the set screws in the pinions very well!



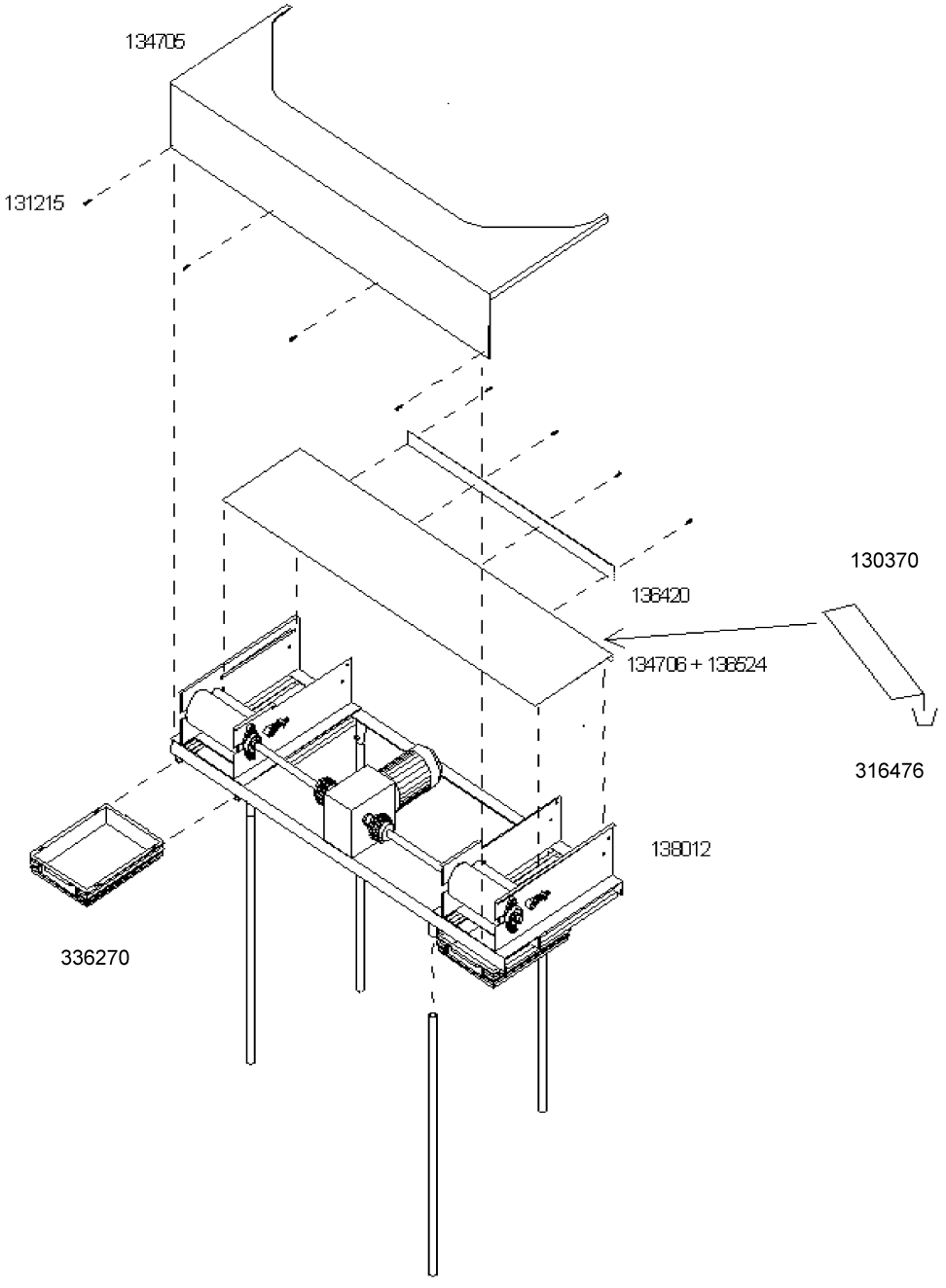


To make the lead-through through the wall, you must cut the spare side plate (194989 or 194702) and the spare high belt guide (130304) to size. Cut a piece off both sides of the side plate and the belt guide, so that you can use the holes that are already in the plates, and so that the press-throughs are opposite to each other. Stick the belt supports in the belt guides, and fix the belt guides to the first undercarriage with blind rivets 5x8 and taptite screws (911068).

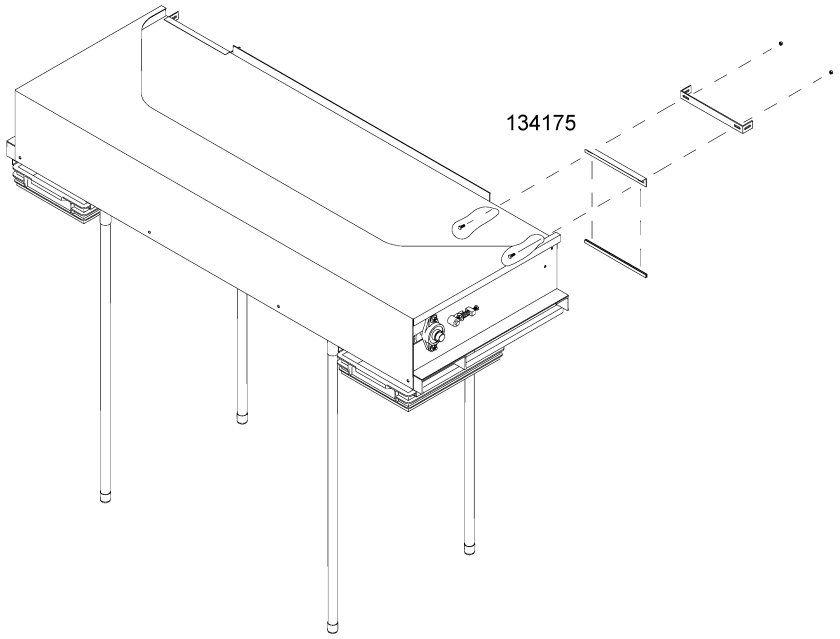


Assemble the drive unit:

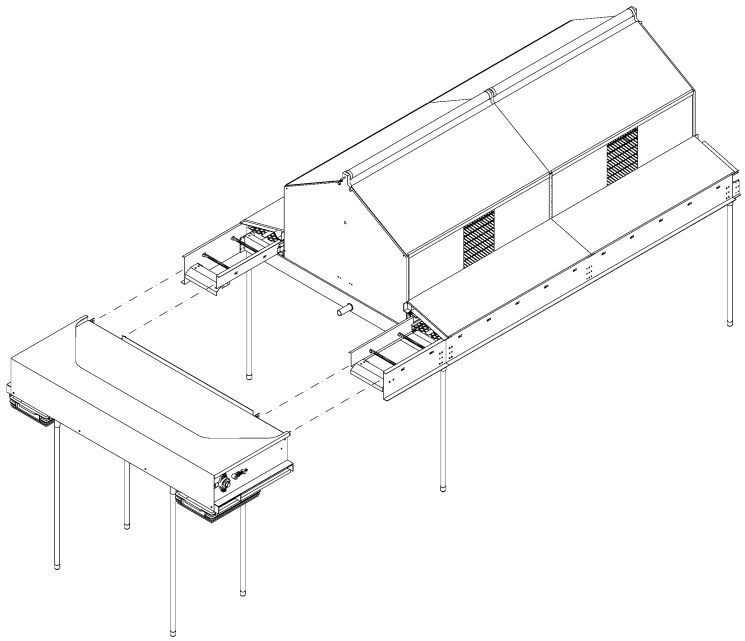
- Insert the legs (136466) and secure with hex bolts M8x20 to the drive unit.
- Screw the aluminium strip (136420) to the side of the rear side of the tabletop (134706), where the conveyor belt does not run. Use 4 metal screws 5.5 mm diameter x 13 mm long (131215).
- Place the rubber of the table top (136524) on the tabletop. Place the tabletop on the drive unit.
- Place the cover (134705) on the drive unit and screw the front of the cover with 4 metal screws 5.5 mm diameter x 13 mm long to the frame of the drive unit.
- Push the waste containers (336270) into the guiding rails under the drive unit.



Screw the connecting strips between the table and the belt guides (134175) together with the protection angles to the table top with hex bolts M6x16 and hex nuts M6.

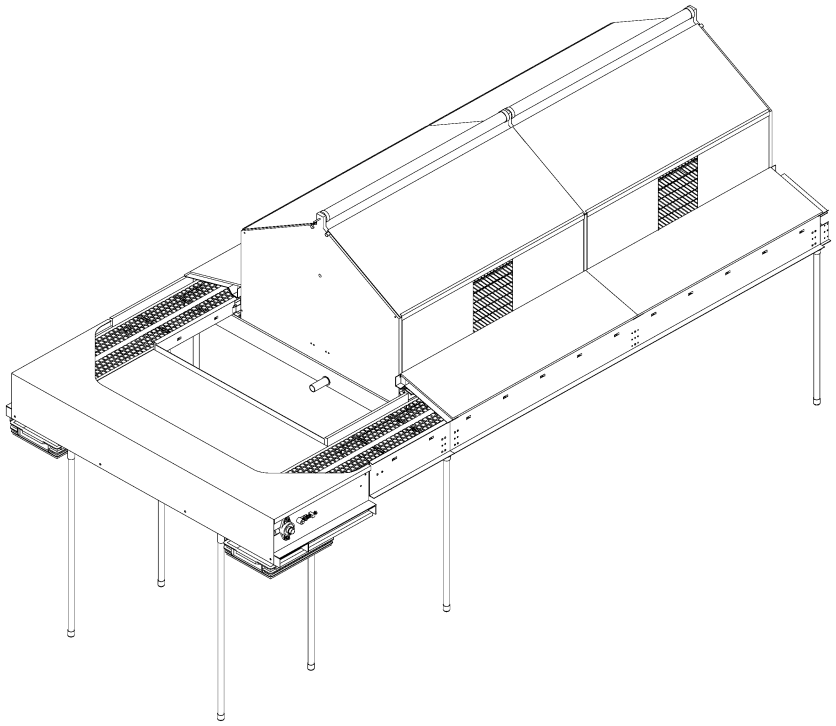


Fix the drive unit to the shortened belt guides and weld the belts.



Connect the electrical box according to the electrical drawings.
Connect the motor and the end switches according to the electrical drawings.
Set the end switches according to the appendix.
Set the timer according to the appendix.

Your nests are ready for use.



Appendix A: Setting the timer

Introduction

The LACRON timer is a programmable time switch with two channels. Channel A controls the nest floors, and channel B controls the optional nest lights. The clock can be programmed to automatically open and close the nests, and switch on and off the nest lights.

Setting up a new clock

1. Before you use the clock, it must be powered for at least 1 minute to charge its internal battery.
2. Make sure that the toggle switches on the control panel are set to “Clock” and “Auto” to allow the clock to control the nest flaps and lights.
3. Press the two clear buttons (C and C) together. This resets the memory of the clock. The nest motors will run the flaps to the open position, and the nests lights will come on.

The clock should now read 06:00, with an “O” and a triangle shown beside both the “A” and “B” at the left of the display and is now ready to be programmed.

4. Set the current time.

Setting the current time

The Lacron clock uses 24 hour, or military time. For example, 9:00 a.m. will be displayed as 9:00, and 3:00 p.m. will be shown as 15:00.

- Press this button once to start setting the time.
- Set the day. Use Sunday as day 1, Monday is day 2, etc.
- Set the hours, keeping in mind the 24 hour clock.
- Set the minutes.
- Store the time.

You are now ready to set the times that you wish your nest to open and close.

Programming the nests to open and close automatically

Programming the nests to close:


This button is the Program key. Press it until a small triangle appears beside the “A” on the left side of the display.


Command 'nests close'. An “I” will appear beside the triangle and the “A” in the display.

Press this key until all numbers 1-7 are lit at the bottom of the display.

Set the hours.

Set the minutes.

Press the enter key one time to store the program


Display the current time

You have just programmed the nests to close at the desired time on every day of the week. Next we can program the time to automatically open the nest.

Programming the nests to open:


Press this button until a small triangle appears beside the “A” on the left side of the display.

Command 'nests open'. An “O” will appear beside the triangle and the “A” in the display.

Press this key until all numbers 1-7 are lit at the bottom of the display.

Set the hours.

Set the minutes.

Press the enter key one time to store the program.


Display the current time

You have just programmed the nests to open at the desired time on every day of the week. The next step is to program the nest lights on and off.

Programming the optional nest lights to turn on and off automatically.

Programming the lights to turn off:

This button is the Program key. Press it until a small triangle appears beside the “B” on the left side of the display.

Command 'lights off'. An “I” will appear beside the triangle and the “B” in the display.

Press this key until all numbers 1-7 are lit at the bottom of the display.

Set the hours.

Set the minutes.


Press the enter key one time to store the program


Display the current time

The nest lights have now been programmed to turn off at the desired time.

Programming the lights to turn on:

Press this button until a small triangle appears beside the “B” on the left side of the display.


Command 'lights on'. An “O” will appear beside the triangle and the “B” in the display.


Press this key until all numbers 1-7 are lit at the bottom of the display.


Set the hours.

Set the minutes.


Press the enter key one time to store the program.


Display the current time

You have just programmed the lights to come on at the desired time.

Reviewing the programs

Press : 

The clock will show the number of free memory places. If the display reads "CL 28", this means there are 28 memory places free. There are 30 memory places available.

Once more, press: 

The clock now shows the first program's time and operation (For example if channel "A" shows an "O", the nests are programmed to open at the time displayed).

Every time you press this button, you will see the next programmed switch time.

When you press 
you will return to the time display.

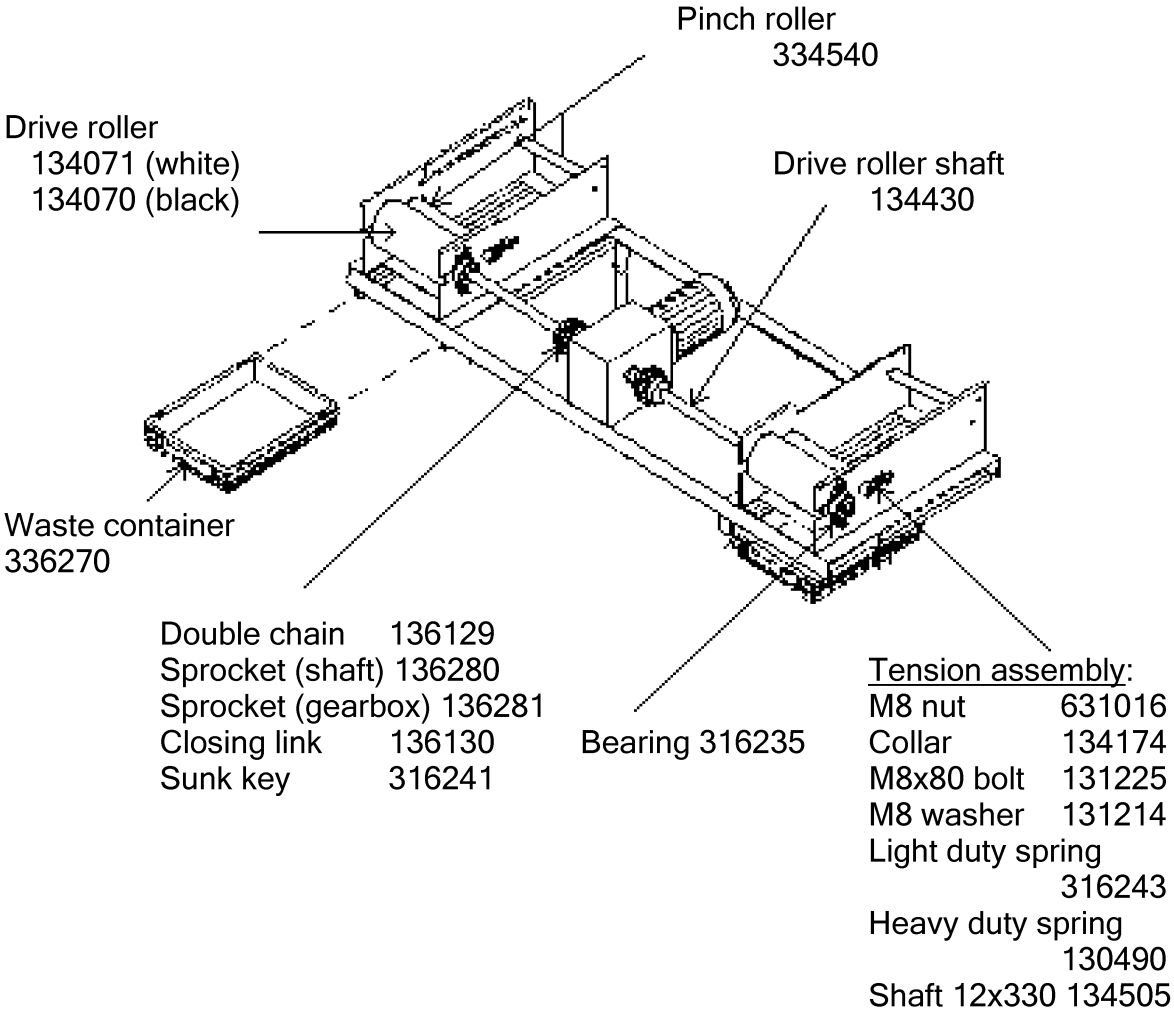
Erasing a program

Press
 until you reach the switch time you want to clear.
Press
 . The switch time will now be cleared (CM = Clear Memory).

Do not be afraid to start over from the beginning or try different things - you can do no damage to the clock or nest by programming it!

It may take 24 hours for the clock to "catch" all of the programs you have entered. If the clock has been disconnected for more than a few minutes, it may be necessary to reprogram the clock, starting from the beginning of this instruction.

Appendix B: Drive unit parts breakdown



- Motor & gearbox SK12063L/4 (370W) 137091
  Motor only SK12063L/4 (370W) 927175
  Motor & gearbox SK12063L/4 (550W) 137013
  Motor only SK12063L/4 (550W) 137128

- Options for connection to cross conveyor:
  Rod conveyor table top (2 required) 134743
  Bracket to mount transfer brush (10”) 134234
  Transfer brush 134043

- Weight roller kit 139377

Appendix C: Egg belt routing at return station