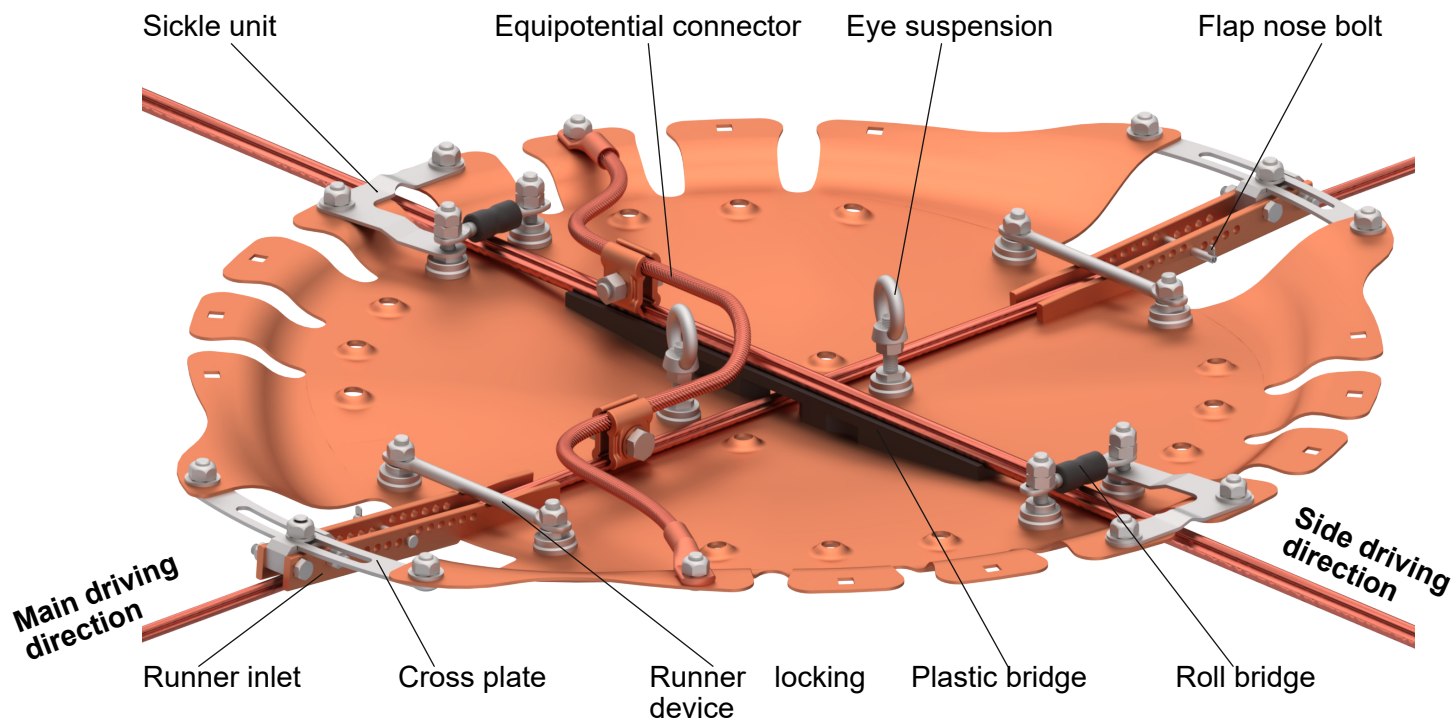


Contact wire crossing FDX 2.0

V 2026/04



The FDX 2.0 contact wire crossing has an adjustment range for angles 38° - 142°.

Optional accessories

Contact wire fixation	Art. No. 690.103.203
Flexible cable dropper	Art. No. 690.103.201

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RISK OF DEATH

Before working on the overhead line: Ensure that the overhead line is de-energized and properly grounded according to the regulations.

A) Tools

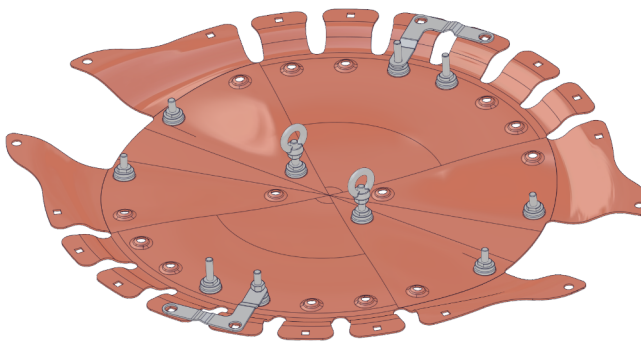
- 1 Ring / open end wrench 17 mm and 19 mm Art. No. 656.000.001
- 1 Torque wrench 17 mm and 19 mm Art. No. 655.114.000
- 1 Hexagon socket wrench 6 mm

B) Preparation

1. Check components

Before installation, check all parts for completeness.

Pre-assembled base plate FDX 2.0



Plastic bag no. 2: Plastic bridge



Plastic bag no. 3: Cross wire fixing kit

- 2x roll bridge



- 2x hexagon nut M10 A4



- 8x hexagon lock nut M10 A4



- 4x round head screw M10x10 A4



- 4x washer M12 A4



2x plastic bag no. 4: Runner inlet kit

- 1x runner inlet A4



- 2x round head screw M10x10 A4



- 4x hexagon lock nut M10 A4



- 2x washer M12 A4



- 1x flap nose bolt



- 1x runner locking device



Plastic bag no. 5: Compensating and connection-kit

- 2x hexagon lock nut M10 A4



- 2x round head screw M10x10 A4



- 2x parallel feeder clamp

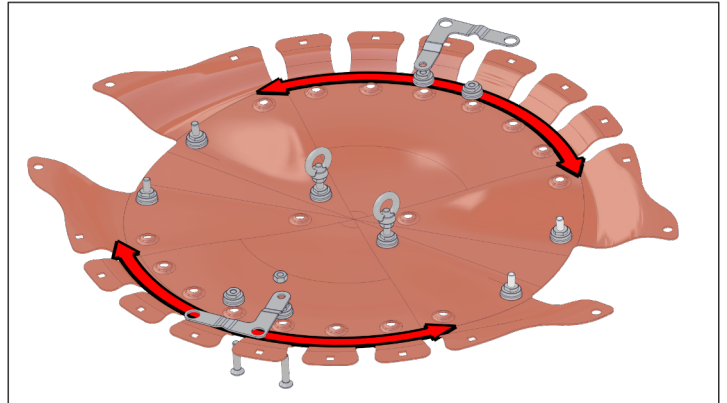


- 1x equipotential connector



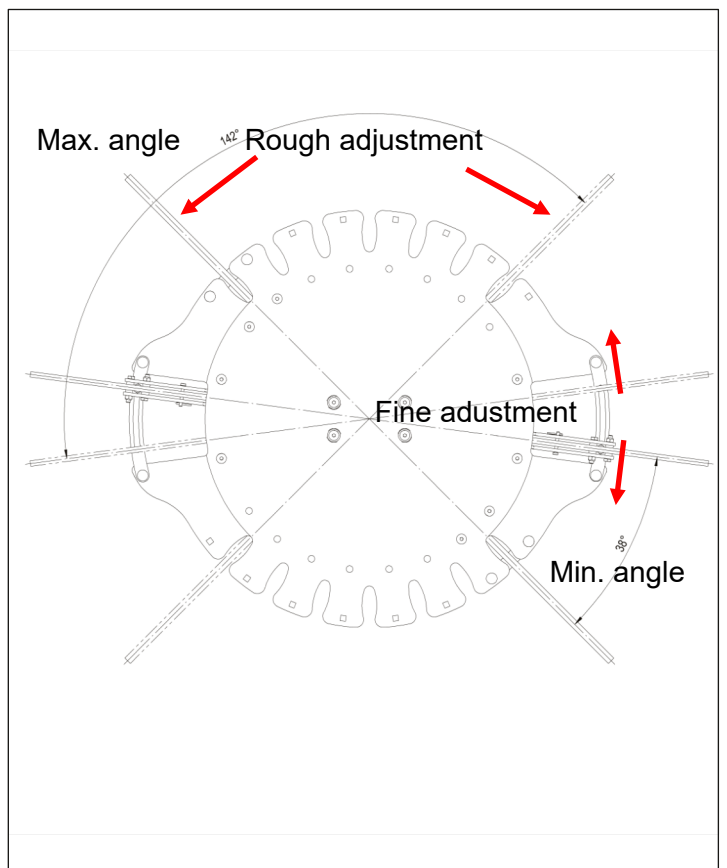
2. Transferring the contact wire crossing angle onto FDX 2.0

The FDX 2.0 is delivered in the basic configuration for $90^\circ \pm 7,5^\circ$ crossings.



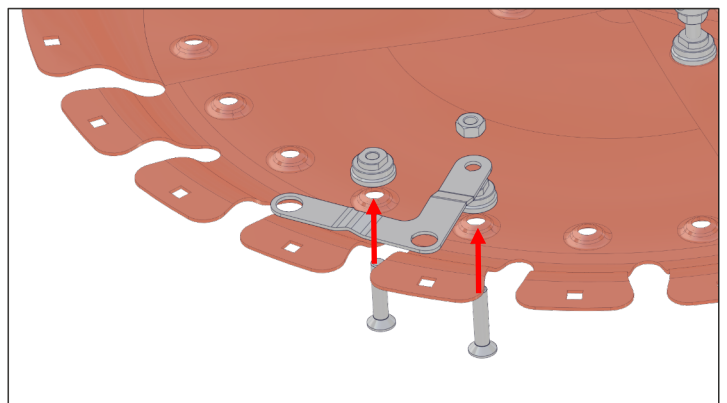
If a different angle is required, remove the preassembled sickle units and move them to the correct slot for the rough adjustment.

The fine adjustment is made later with the runner inlet units.



Counter the special nut with a open end wrench and tighten the screws with a torque wrench with hexagon socket 6 mm to **35 Nm**.

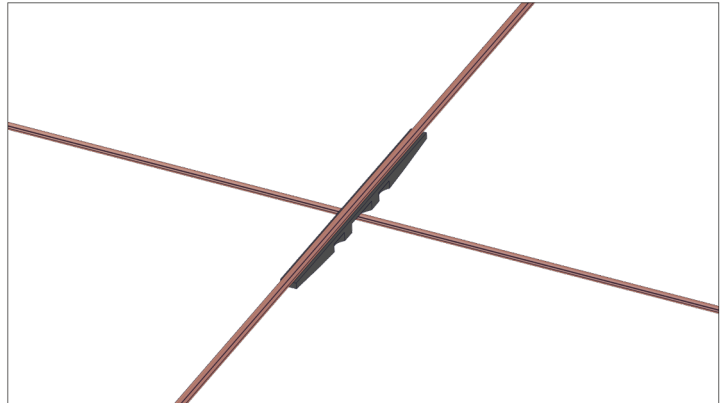
Attach the sickle units and tighten the nuts by hand. The contact wire guides must remain rotatable.



C) Installation

3. Clamp the plastic bridge between the contact wires

Clamp the plastic bridge between the contact wires.

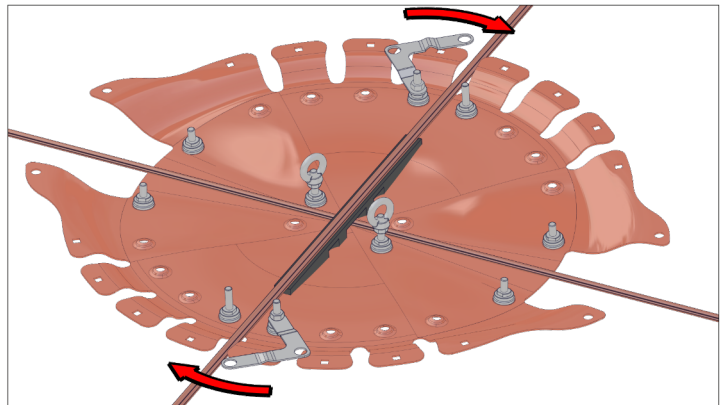


4. Attach the base plate to the contact wire

Temporarily attach the base plate to the cross contact wire or upper contact wire by turning the sickles.



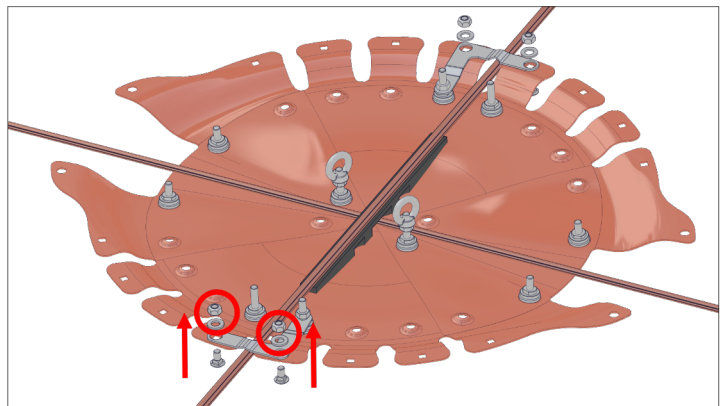
Attention: Do not lean on the base plate. Otherwise the sickles may bend.



5. Attach the sickle units

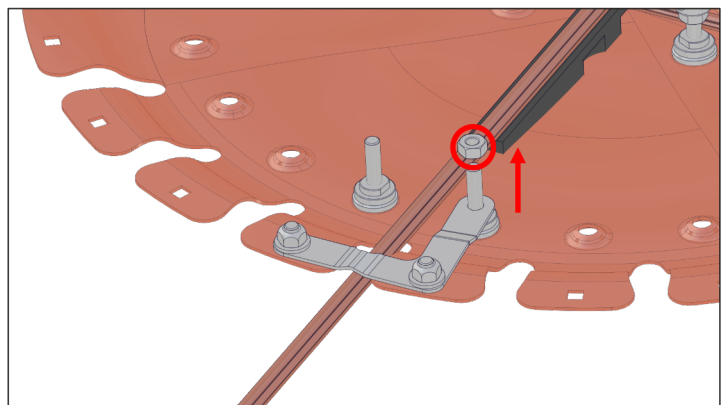
Insert the round head screws, washers and lock nuts from plastic bag no. 3.

Place the washers on the round head screws and tighten with lock nuts to **35 Nm**.



6. Install and adjust the roll bridges

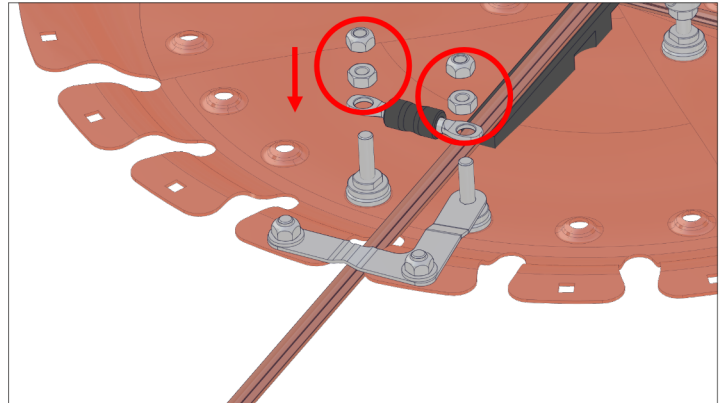
Remove the inner nuts and keep them safe.



Attach the roll bridges, nuts and locknuts to the threaded bolt.

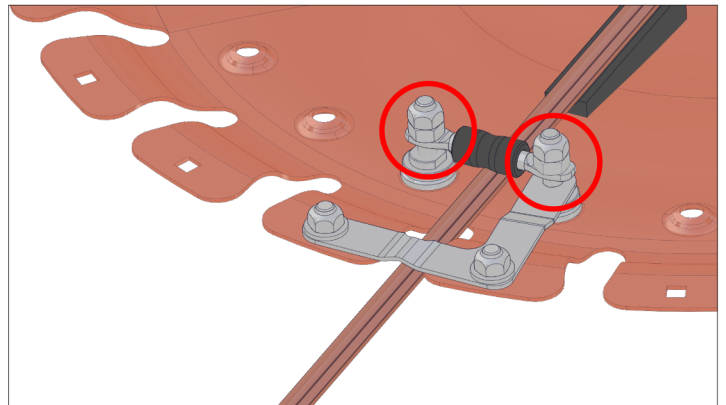
The roll bridges must be fixed parallel to the plate, rest on the contact wire and be able to turn easily on the contact wire.

Adjust the height of the roll bridges with the nuts so that the contact wire touches the plate.



Tighten the lock nuts to **35 Nm**, counter the lower nuts.

The contact wire must no longer touch the sickle unit.



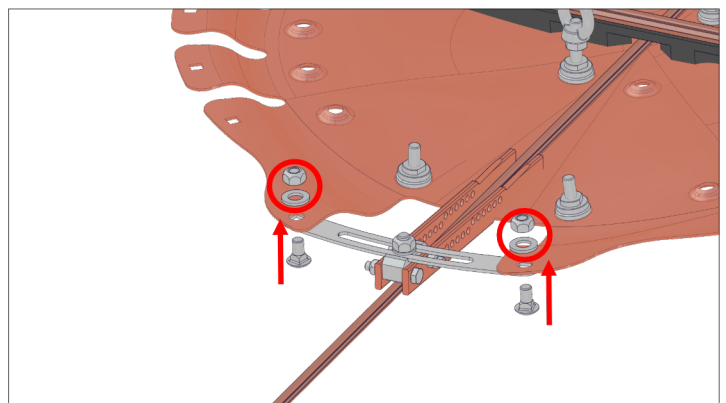
Attention: If the roll bridges are tightened too much, the contact wire crossing cannot move when the contact wire expands in length (temperature difference summer-winter) and may possibly leave the centre of the crossing. This can cause damage to the FDX 2.0 and the pantographs.

7. Mount the runner inlet for main contact wire

Prepare the runner inlets from plastic bag no. 4 for assembly.

Attach the runner inlet to the base plate and install the cross plate under the base plate.

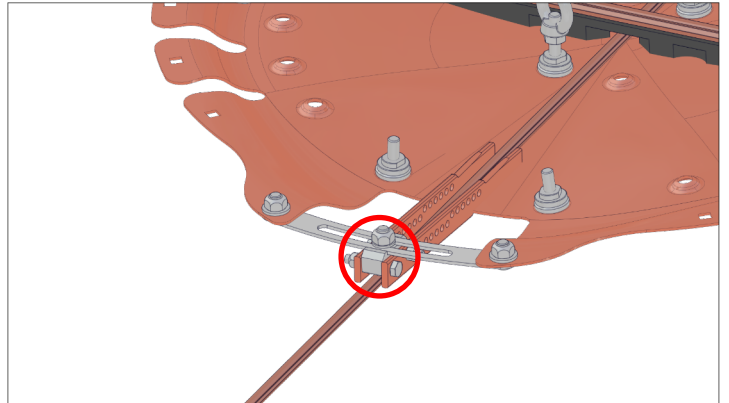
Place the washers on the round head screws and tighten with lock nuts to **35 Nm**.



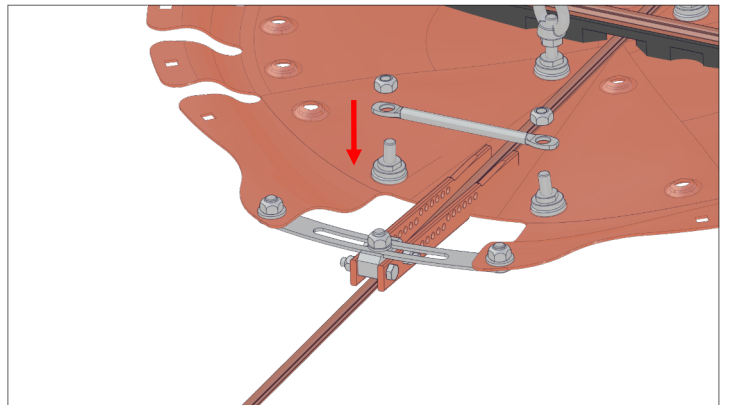
Align the runner inlet with the contact wire and tighten the lock nut to **35 Nm**.



Attention: The runner inlet must be centred to the contact wire. The contact wire must not touch the runner inlet sideways.



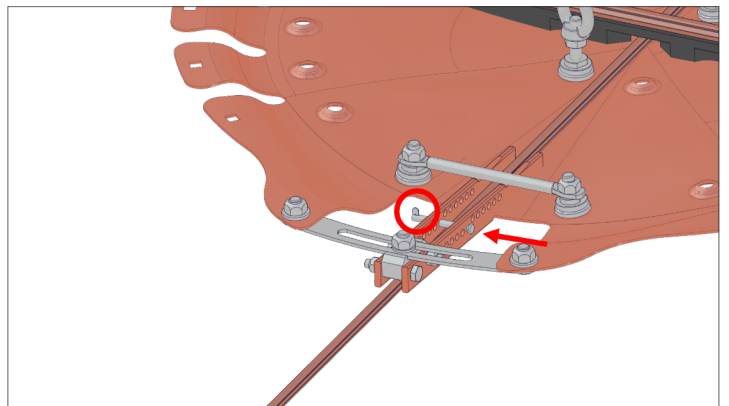
Attach the runner locking device from plastic bag no. 4 onto the thread and tighten the lock nuts to **35 Nm**.



The contact wire must be braced against the base plate by using a flap nose bolt.

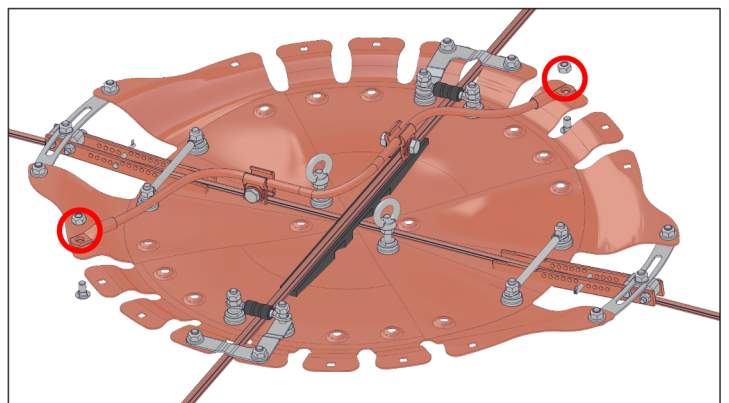
Insert the flap nose bolt in a suitable hole and fold down the flap nose.

The hole through which the flap nose bolt is inserted depends on the contact wire type and the wear.



8. Attach the equipotential connector

Attach the ends of the equipotential connector at the free, opposite slots to the edge of the base plate.

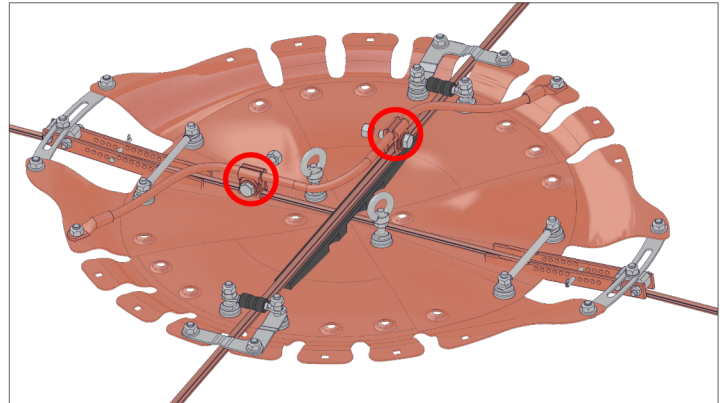


Attach the copper cable with the parallel feeder clamp from the plastic bag no. 5 in the main driving direction in the centre (between the runner locking device and the plastic bridge).

Attach the copper cable to the contact wire in the other driving direction using the second parallel feeder clamp, centred between the rolling bridge and the crossing of the two contact wires.

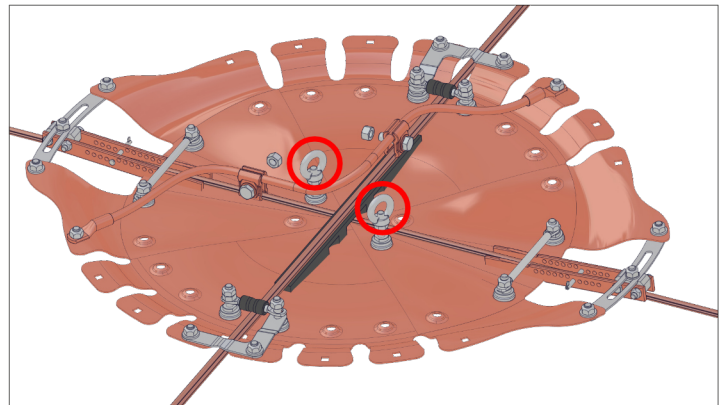
This ensures that the FDX 2.0 can move with the contact wire in both directions. Tighten both clamps to

35 Nm.



9. Attach the suspension

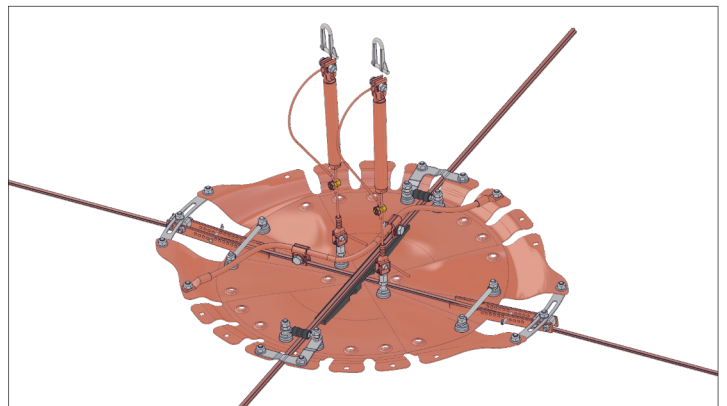
Attach the suspension to the specified eye suspensions.



Optionally our separately available flexible cable droppers can be used as suspension.

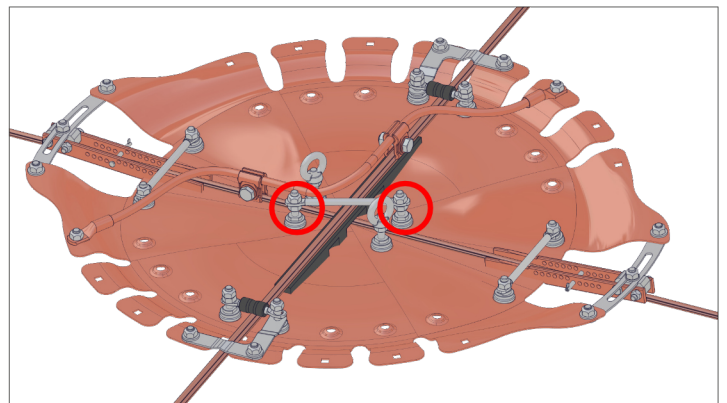
To attach them to the FDX 2.0, remove the two pre-installed eye suspensions and secure the clamping profiles supplied with the flexible cable droppers to the threads.

Finally attach the flexible cable droppers to the clamping profiles.



10. Attach the contact wire fixation (optional)

If the contact wires do not touch in the middle of the FDX 2.0, the separately available contact wire fixation can be installed.

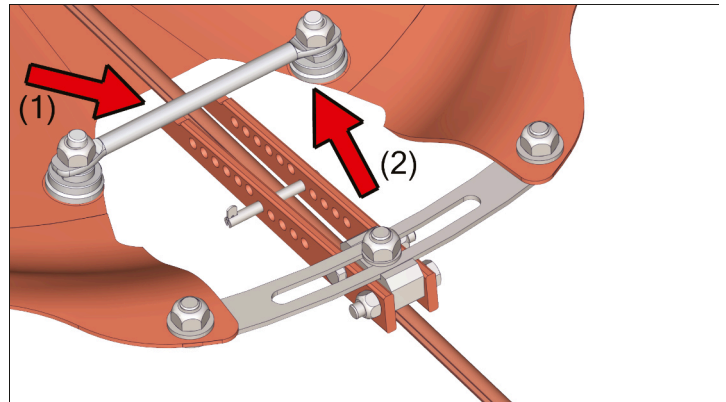


D) Maintenance

The contact wire crossing is maintenance-free.

The contact wire crossing must be replaced if

- the runner inlet no longer rests completely on the base plate (1).
- a fastening screw of the skid locking device start to break out (2).
- a hole appears on the base plate due to wear.



E) Legal information

The product must only be operated by trained specialists.

The product can be permanently damaged by loads that exceed the maximum values. If the product is exposed to absolute maximum loading for an extended period, it may impair the product's reliability and life. Arthur Flury AG will not accept any liability in this case.

Arthur Flury AG will not accept any liability for incorrect use and use for applications other than those specified in these instructions.

If damage to the product is suspected, any use or operation must be stopped immediately. Arthur Flury AG will not accept any liability in the event of continued use despite suspected damage.

Due to the diverse ways in which this product can be used, the instructions for use represent a general guide only and do not constitute a guarantee of the product's suitability for use in a specific application. The user is responsible for checking the full product data and clarifying the product's suitability for the intended use. The user is responsible for the choice of product and compliance with all the safety regulations and warnings. Please contact Arthur Flury AG if you require additional product information.

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