INSTALLATION INSTRUCTIONS

SECTION INSULATOR LTN

Edition 2021/03

Accessories for installation of the section insulator

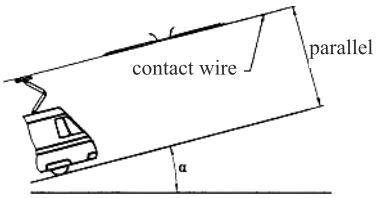
1 Torque wrench 15 and 17 mm (50 Nm)
1 Combination spanner 17 mm
1 Level gauge (item no 655.141.000)
1 Wire cutter (maybe metal saw)
1 Hammer
1 Straightening wood
1 Flat file
1 Pulley block with 2 cable sockets

Section insulator for speeds up to 30 km/h for installation in depots.

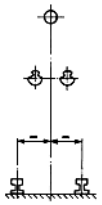
Preparation of contact and messenger wire

Straighten the contact wire at the installation location and make sure it is not twisted!

Each section insulator should be well centred and aligned parallel to the track.

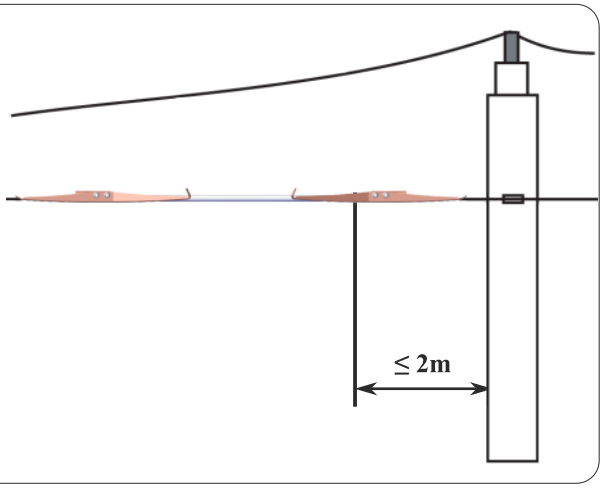


Align the contact wire and the messenger wire in the middle of the track (+/- 50 mm). Contact wire and the messenger wire must be positioned vertically above each other.



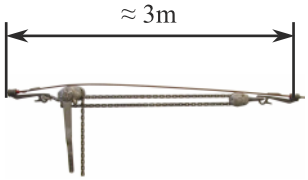
Installation Location

Installation near to a cantilever.

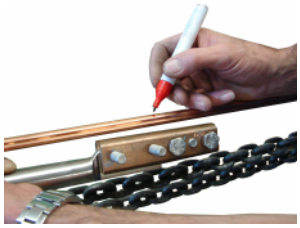


1. Remove runners and fixing-plates.

2. Mount the pulley block and tension it.



3. Place the section insulator on the contact wire and mark the cut.



RISK OF DEATH !

Before start working in the overhead line: Make sure that the overhead line is switched off and correctly grounded on both sides or the lifting platform is insulated.

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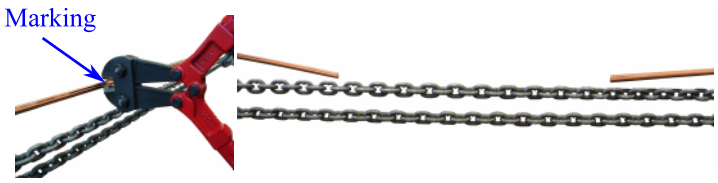
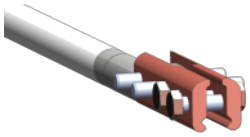
4. Cut the contact wire between both marks. Tighten the pulley block till the insulator fits the gap. Straighten the contact wire ends.

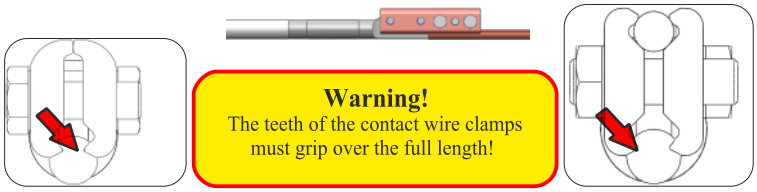


5. Clean the cut ends of the contact wire.

6. Open all the screws of the contact wire clamps.



7. Mount the section insulator on the contact wire (without runners).



Warning!
The teeth of the contact wire clamps must grip over the full length!

8. Only tighten the 3 screws the contact wire clamp (which attach to the contact wire) applying **50 Nm** and retightening them 2 times in order to get a proper grip.

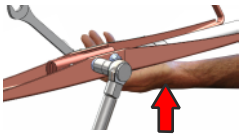
9. Remove the pulley block.

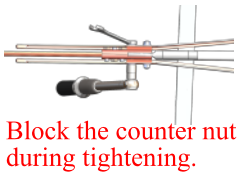
10. Flatten contact wire kinks by using a hammer and straightening wood.

11. Install the fixing-plate on both ends.

12. Install the runners on the insulator. Tighten the nuts by hand.

13. Adjust the runners if necessary by pushing up by hand and tighten the flange nuts firmly with **40 Nm**.



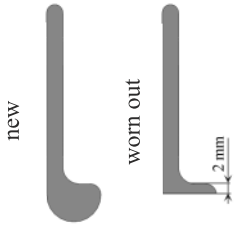


Maintenance

A well adjusted section insulator does not require any maintenance for a long period of time.

Insulator
The insulators are usually sufficiently cleaned by rain. In cases of extreme pollution (for example frequent traffic by diesel locomotives, installation in tunnels, etc.), we recommend cleaning the insulators with soapy water every year.

Runners
If there is recognizable damage on the surface, the insulator must be replaced.



Recommendations:

- The section insulator may only be installed by instructed specialists.
- Note the tightening torques.
- The bolts of the contact wire clamps must be tightened with 50 Nm and retightened two times. Otherwise the teeth do not grip the contact wire material sufficiently. Failure to do so could cause the contact wire to slip out of the contact wire clamp and cause accidents.
- When tightening the counternuts the bolts must be restrained with a spanner. Otherwise the bolts could be loosened by vibrations and cause accidents.
- The skids must be mounted and aligned correctly as instructed. Otherwise shocks by the pantograph might damage the section insulator or the pantograph.
- Turnbuckles must be secured with counternuts and locking wires. These could otherwise open and the resulting incorrect position of the section insulator could cause disturbance in rail traffic.
- All bolts and nuts must be tightened correctly as instructed.
- If individual components (contact wire underneath splice clamp and lever/glider/insulator/spring dropper) have excessive wear or are damaged, they must be readjusted or replaced according to the installation or maintenance instructions.

Arthur Flury AG rejects responsibility for any damage caused by not following this installation instruction.

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