INSTALLATION INSTRUCTIONS

SECTION INSULATOR LT

Edition 2012/05

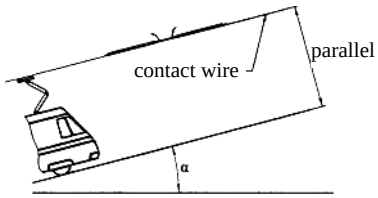
Accessories for Installation of the FLURY light section insulator

1 Torque wrench 15 and 17 mm (50 Nmt)
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

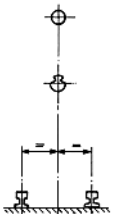
Preparation of contact and messenger wire

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.

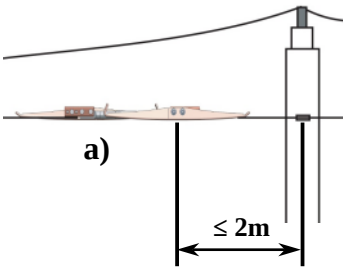


Align the contact wire and the messenger wire in the middle of the track (+/- 50 mm). Contact wire and the messenger wire must be positioned vertically above each other.

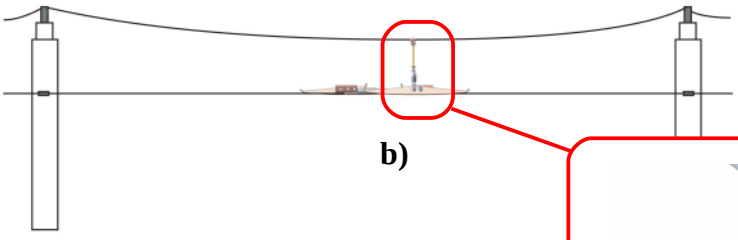


Installation Location

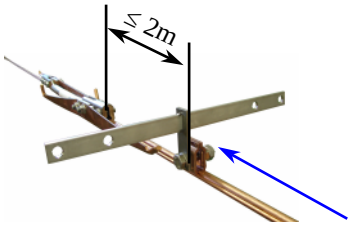
a) Installation near to a cantilever.



b) Installation at mid span: needs suspension (see I/II)



I) LT Suspension on contact wire
Item no 625.000.001

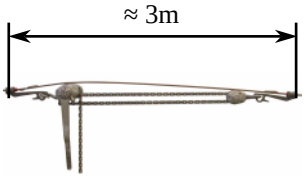


II) LT Suspension direct
Item no 625.000.002

Main running direction

1. Remove runners and fixing-plates.

2. Set the pulley block and tension it.



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

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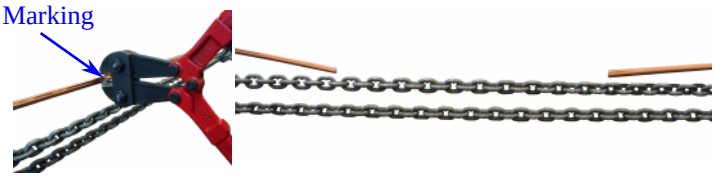
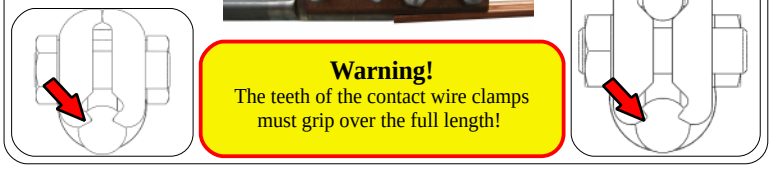
4. Cut off the contact wire between both marks. Tighten the pulley block till the break correspond to the insulator. Straighten its ends.



5. Clean the cut ends of the contact wire.

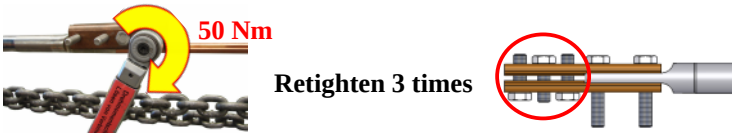
6. Open all the screws of the contact wire clamps.

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!

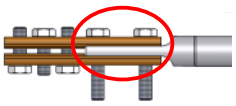
8. Just tighten the 3 screws of the contact wire clamp (which fix the contact wire) applying 50 Nm and retightening them 3 times in order to get a proper grip.



Retighten 3 times

9. Remove the pulley block.

Then tighten the 2 connecting screws. Do the same on the other side of the section insulator.



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 screws by hand.

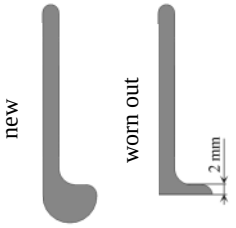
13. Adjust the runners if necessary by pushing up by hand and tighten the flange nuts firmly with 40 Nm.

Maintenance and Service

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

Insulator
The PTFE cover of the insulating rod is cleaned well enough by rain water under normal circumstances. In case of exceptionally strong dirt accumulation (for instance from frequent diesel traffic, installation in a tunnel and so on) we suggest cleaning the insulator every 2-3 years with our Special Cleaner for High Voltage Insulators (order no 655.168.000). The insulator must be replaced if the GRP rod becomes visible through damage of the PTFE cover.

Runners
Well adjusted runners need to be checked first after approximately 200'000 to 300'000 passages of current collectors. Should the wear have reached the maximum value (bulb only 1-2 mm thick) the runners must be replaced.



Caution! Danger of accident if these points are not observed:

- The screws at the contact wire clamps must be retightened three times. Otherwise the teeth do not grip the contact wire material completely. The contact wire could therefore slide out later and falling parts could cause damage of material or even injure people.
- The screws must be restrained with a ring wrench when tightening the counternuts at the contact wire clamps. The screws could otherwise get loosened when tightening the counternuts and this could cause the contact wire to slide out, damage material and injure people.
- The runners of the section insulator must be correctly adjusted as described. Otherwise shocks might damage the section insulator or the carbon sliders.
- Turnbuckles, if available, must be locked with counternuts and secured with locking wires. These could otherwise open and the resulting incorrect position of the section insulator could cause malfunction of the overhead line.
- All screws and nuts must be tightened correctly according to the description. They could otherwise become loosened by vibration and cause malfunction of the overhead line.
- Should the protective plastic finish of PTFE of one of our insulators be so severely damaged, either that the glass fiber inside is visible or that humidity and dirt can obviously penetrate, the insulator must be replaced immediately. Otherwise a high-voltage flash-over could damage the insulator and the overhead line.
- A stationary pantograph, directly under the section insulator, may cause sufficient overheating to damage the runners.
- **Arthur Flury AG rejects responsibility for any damage caused by not observing this installation instruction.**

! RISK OF DEATH !
Do not begin to work on the overhead line before you have ensured that it is switched off and correctly grounded!