The task
A contact is to be made fully automatically at any chosen place of an insulated aluminum conductor. Expensive partial insulation before making the contact should be avoided.

The solution
The task was solved with torsional technology. The machine causes the aluminum bolt to vibrate torsionally. The bolt penetrates the insulation and makes a secure weld with the aluminum conductor. The outer edge of the bolt is firmly pressed into the insulation while the inner part makes the firm aluminum connection.

The advantages
It is not necessary to remove the insulation from the part. Likewise it is not necessary to mark the exact position of the spot where the insulation would have been removed in the production process. The process can be carried out quickly and securely at any place of the insulated conductor. The outer edges of the bolt are pressed into the insulation.

The application was carried out on a USP3000 using additional components for the special rigging.