

## Application example

### Blend of aluminium and copper wires

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

A varying number of copper and aluminium wires have to be connected to one another in an electrical system. A suitable connection technique has to be used for this mixture of materials. The application in this example consists of  $3 \times 10 \text{ mm}^2$  aluminium wires and  $1 \times 6 \text{ mm}^2$  copper wire. The total cross-section area amounts to  $36 \text{ mm}^2$ . The connection must have as low an electrical contact resistance as possible.

#### Solution

Ultrasonic welding technology is used as an economic way to generate firmly bonded welds. Depending on the total cross-section of the connection node, a Telso®Splice TS3 or TS6 wire splicing system is used. Thanks to the wire configurator, you have an easy way to define any variant of wire node.

#### Configuration advantages

Ultrasonics enables different types of metal to be welded together, guaranteeing minimum electrical contact resistance in the connection. After configuring a new node or selecting an existing one, the welding system automatically adapts to the type of node in question (both in mechanical terms and in relation to process parameters).



Depending on the total cross-section area, this application and similar cases are performed using a Telso®Splice TS3 or TS6 wire splicing system.