

Application Example

High-flex cable on a contact

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



Task

A high-voltage copper cable with a cross section of 70 mm² needs to be welded to a copper contact. The contact width means that the welding width cannot exceed 15 mm. The tensile load and shearing load strength also has to meet specified values and the thin, sensitive individual wires in the area of crossover must not sustain any damage.

Solution

This application can be resolved only using the high-powered ultrasonics of PowerWheel® technology. In this case, a system of type Telso®Terminal TT7 with a maximum output of 14.4 kW and the Telso®Flex control software is used.

Advantages of this configuration

The high-energy input is generated with PowerWheel® technology. At the same time, the PowerWheel®'s movement pattern and a suitable weld surface design for the sonotrode prevents the individual thin wires from sustaining damage. Another benefit offered by the PowerWheel®'s movement pattern is the fact that the weld width can be reduced by up to 30% in contrast to conventional technology.



The application was implemented on a torsional ultrasonic PowerWheel® system Telso®Terminal TT70, power 14.4 kW, with the Telso®Flex control software.