

Application example

Aluminum cable on a nickel-plated copper terminal

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



Task

An aluminum cable with a cross section of 120 mm² needs to be welded to a nickel-plated copper terminal. To add a further challenging aspect, the weld needs to be as narrow as possible for construction reasons. The tensile strength and shearing load also have to meet specified values.

Solution

In this case, the task was solved with the torsional PowerWheel® technology on a system such as the Telso®Terminal TT7 with a maximum power output of 14.4 kW. The system is equipped with a sound protection casing that is accessible from three sides. The welding process is controlled and monitored using the Telso®Flex control software with touchscreen.

Advantages of this configuration

PowerWheel® technology is able to distribute the welding force so that only 26 mm needs to be welded instead of 30 mm (as is the case in a linear process) while still protecting the aluminum cable. The nickel plating on the terminal increases corrosion protection on the one hand, while achieving better strength values on the other. Tensile strength of up to 5000 N can be achieved.



The application was welded using torsional PowerWheel® technology. Above, the Telso®Terminal TT7 with a maximum welding power of 14.4 kW.