

Application example

Copper cables with multiple wires on a Cu eyelet terminal

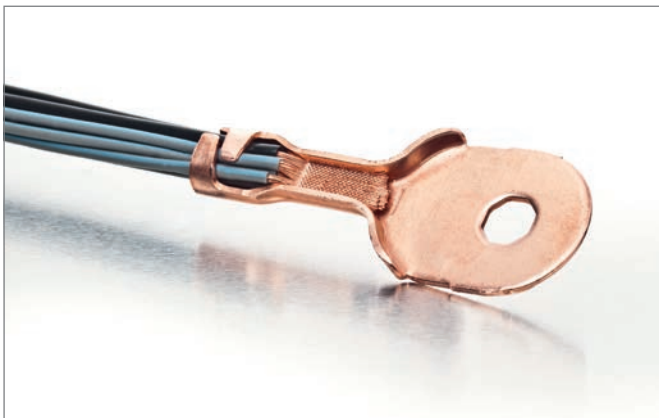
PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



Task

The terminals are used to attach a vehicle's earthing connections to certain points on the running gear. Side terminations are used for bringing the vehicle's earthing connections together and welding them. The terminal's cord grip then has to be crimped at a very particular height. The welding system has to be flexible enough to connect a large number of different terminals and cable combinations.

Solution

This application was solved using an MPX (3.6 kW, 20 kHz) universal welding system with a special device for ensuring repeatability in the process. The welding system logs the location of the terminal with a high degree of precision in order to make sure the cable is fed into exactly the right place. Using an exclusive, fixed oscillator helps to create a smooth weld – a key factor for achieving a high degree of strength and exceptional electrical properties.

Configuration advantages

The MPX universal welding system allows you to monitor quality using the data collected by a built-in load cell. Furthermore, the system precisely measures maximum power and the height before and after the welding process. The holding system balances out any differences in perforated terminals and the adjustable crimping tool can be adapted to various types and thicknesses of insulation. The cavity is designed so that a wide array of eyelet terminals and cable configurations can be welded onto the same system.



The application was produced on a linear 3.6 kW MPX ultrasonic welding system and suitable special equipment.