

Application example

## Multiple copper cables on a Cu eyelet terminal

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



### Task

The terminals are used to attach a vehicle's earthing connections to certain points on the running gear. The individual cables must be grouped together within the side terminations and welded securely in place. 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 ultrasonic welding machine (3.6kW, 20kHz) 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.

### Advantages of this configuration

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 realized on the MPX-GL ultrasonic welding system with automatic insulation crimping.