

35-42MM² ALUMINUM CABLES ON SILVER PLATED COPPER BLADE TERMINAL



■ The task

The terminations are used in battery harnesses of automobiles.

The welding system has to have the capability to adjust to various cable sizes, and at the same time ensure that there is not a possibility of the aluminum material sticking to the tooling.

■ The solution

The application was processed by using the M5000 Universal welder (6.5Kw., 20kHz.) with a special fixture for welding aluminum cables. The welding system locates the terminal precisely, and guarantees that the cable is inserted to an exact location. The use of the exclusive solid mount transducer results in a uniform weld pattern which is very critical when welding aluminum cables.

■ The advantages

The M5000 Universal welder provides QC monitoring which includes the data collected via an integrated load cell. Due to the rigidity of the solid mount which practically eliminates any deflection during the weld, and the controlled application of the ultrasonic oscillations, the possibility of the aluminum material sticking to the tools is eliminated. The special design of the sonotrode yields welded joint with excellent tensile strengths, and at the same time the use of a highly resilient material results in excellent tool life and minimal downtime.



A Phoenix M5000 was used in the application.

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