

MULTIPLE STRANDED COPPER WIRES ON COPPER EYELET TERMINAL

**■ The task**

The terminations are used for bringing the grounding connections of an automobile to specific locations on the chasis.

The individual strands have to be confined within the side walls of the terminal, welded reliably and then the strain relief feature of the terminal has to be crimped to a precise height. The welding system has to have the flexibility to join a large number of different terminal designs and a wide range of wire combinations.

■ The solution

The application was processed by using the M5000 Universal welder (6.5Kw., 20kHz.) with a very special fixture to ensure process repeatability. The welding system locates the terminal precisely, and guarantees that the wires are inserted to an exact position. The use of the exclusive solid mount transducer results in a uniform weld pattern which is critical in achieving high tensile strengths and excellent electrical characteristics.

■ The advantages

The M5000 Universal welder provides QC monitoring which includes the data collected via an integrated load cell. There are also precise measurements of the heights before and after the weld, as well as the peak power.

The design of the gathering system compensates for variations in the stamping of the terminals, and the adjustable insulation crimp die can be dialed in to accommodate various insulation thicknesses and types. The nest is designed in such a way that numerous eyelet terminal types and wire configurations can be welded in the same system.



A Phoenix M5000 was used in the application.

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