TELSONIC
ULTRASONICS

Application example

Livestock identification

PLASTIC WELDING | METAL WELDING | CUTTING | CLEANING | SCREENING

The application was produced on a USP750 35 kHz ultrasonic welding system with MAG 1200 W generator and TCS5 process controller.

Task

The memory chip for livestock identification is to be welded into the two-part polyamide housing. The identification, which is programmed for the relevant animal, is fastened to the ear. Polyamide is a robust, weather-resistant thermoplastic with a semi-crystalline structure. The welded connection must be impermeable to splash water.

Solution

The connection task was carried out in a near-field process on a USP750 ultrasonic welding system with a frequency of 35 kHz and a maximum power of 1200 W. As a semi-crystalline plastic, polyamide requires a high amplitude for welding and the process therefore uses a sonotrode made from a high-strength titanium alloy. Welding projects can be conveniently programmed via a touch screen with the TCS5 process controller.

Configuration advantages

The ultrasonic welding technology joins plastics – with either an amorphous or semi-crystalline structure – quickly, reliably and economically. If necessary, the welding process can be automated without any problems with individual components of the USP750 welding system. The TCS5 process controller ensures high welding quality with diverse monitoring options, whether it is in an individual system as a manual workstation or fully automated in a production line.

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