

Application example

Insulation on plastic part

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



The application was produced with integrated 35 kHz IPA3505 actuator units, 500W output, fitted to a special-purpose system.

Task

For automotive applications, an insulator must be applied at several points on a plastic cover. The process should take place semi-automatically, i.e. the parts to be joined are positioned in the system by hand and the cycle is manually started by pressing the start knob. There are no special requirements with regard to welding quality.

Solution

The spot welding application is implemented with several integrated IPA3505 actuator units in a special-purpose system. The compact welding unit is available in two versions: The IPA type includes a pneumatic feed with a maximum welding force of 450 N and 50 mm stroke. The IPM type is ideal when the machine builder uses its own actuators. Control is performed by the system-side PLC controller.

Configuration advantages

The IPA3505 actuator unit combines a compact actuator, generator and converter in one compact unit, with no need for expensive cabling for high-frequency applications and communication. As a result, the IPA3505 actuator unit can be integrated into special-purpose systems with simplicity and flexibility. Additional advantages include high repeat precision and process fidelity, position-independent and process-optimised fitting as well as reliable operation across a long lifespan.