

Application example

Switch foil in an electric shaver

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING

**Task**

A switch foil is to be welded into a housing half of an electric shaver in a watertight manner. The process should be fully automated and the switch foil should ideally be punched out of the base material and welded into the housing in the same work step. The process data must be logged for quality assurance purposes.

Solution

The application was carried out successfully with torsional SONIQTWIST® ultrasonic welding technology. Due to the special shaping of the sonotrode, the switch foil can be punched out of a strip and welded directly into the housing. A 20 kHz TSP750 SONIQTWIST® system with MAG generator and TCS5 process controller is used for this purpose.

Configuration advantages

Thanks to the torsional SONIQTWIST® technology, the switch foil can be cut out from a plastic compatible with the housing material and welded on tightly in one work step. The low vibration levels during torsional joining ensure that the switch foil is cut cleanly from the strip and welded into the housing without any damage (no membrane effect). The process is economical, fast and low-maintenance. The TCS5 controller offers extensive programming and quality monitoring options.



The application was produced on a torsional TSP750 SONIQTWIST® welding system with MAG generator and TCS5 controller, or with corresponding components in a special system.