

## Application example

### Cover support

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

A fastening clip made from another type of material should be fixed to an injection-moulded fascia holder made from plastic. The connection must be created by an inexpensive method that guarantees a fixed and unbreakable connection.

#### Solution

The fastening clip is riveted to the fascia holder with a USP750 ultrasonic welding system, frequency 35 kHz. Two solid rivet shafts are applied to the injection-moulded part and simultaneously reshaped using a double rivet sonotrode, thus fixing the pre-inserted fastening clip. The electronic measurement system, which is integrated as standard, switches off the ultrasonics in a path-dependent way.

#### Configuration advantages

Compared to riveting with heat, ultrasonics enables firm and thread-free connections as the forming tool (sonotrode) is cold and, once the ultrasonics are switched off, continues to press with force upon the reshaped rivet heads until the soft plastic is solidified. A sonotrode with a double rivet contour guarantees short cycle times and thus high productivity. A highly precise path measurement system ensures that the ultrasonics is always deactivated in the correct position in order to guarantee even head formation and thus rivet quality.



The application was created on a USP750 ultrasonic welding system (35 kHz/1200W) with MAG generator and TCS5 controller or with corresponding components in a special system.