

Application example

Plug connector with short busbar

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



Task

The Mini HPLB plug contact from Royal Power Solutions should be welded to a short busbar made of silver-plated copper for a 12V distribution in a vehicle.

However, in tests with linear ultrasonic welding technology, the contact slats of the connector broke due to the propagation of the ultrasonic waves.

Solution

The torsional SONIQTWIST® ultrasonic welding technology is utilized as a solution. This technology uses a high-frequency, concentric movement for welding, which significantly reduces the propagation of ultrasonic waves to the surrounding areas. This protects the contact slats against damage. In addition, the components required for welding can be easily integrated into a fully automated production system. The application is welded in series with process stability.

Advantages of this configuration

The SONIQTWIST® torsional welding process is particularly gentle on sensitive components located in the vicinity of the welding point. The joint is characterized by high mechanical strength and long-term stable, high electrical conductivity values in the area of the joining partners. The integrated monitoring of the process ensures a consistently high quality of the connections.



The application was welded using torsional SONIQTWIST® technology. Above, the TSP3000 torsional welding system.