

## Application example

### Contact stud on punched strip

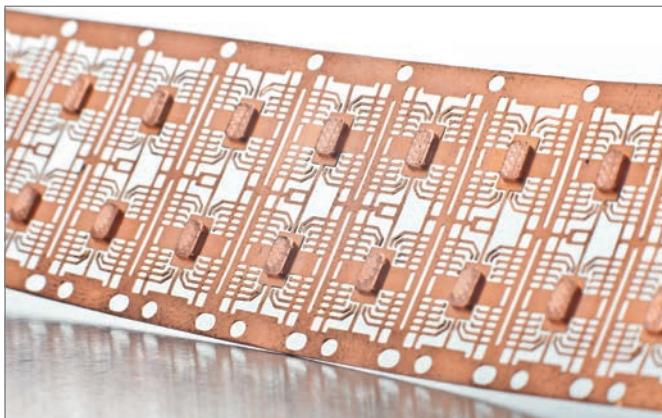
PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

Perforated copper contact studs around 5 mm long need to be welded onto a sensitive perforated copper strip during the production process. The fine contact panels must not be damaged in the process and the electrical contact resistance must be as low as possible.

#### Solution

By using ultrasonic welding technology as a method for creating firmly bonded connections, you can achieve exceptionally low contact resistance (at a similar level to the base material). This application can be resolved using torsional SONIQTWIST® technology. The TCS5 welding process controller comes with an array of monitoring options to ensure good quality.

#### Configuration advantages

Torsional SONIQTWIST® welding technology makes sure that thin, sensitive perforated strips are not damaged by applying ultrasonic oscillations to the component in a tangential direction instead of vertically. This enables you to achieve high levels of strength in a corrosion-resistant electrical connection. The feeding motion occurs vertically on the Z-axis, which generates a wealth of advantages in terms of construction space and productivity on an automatic production line.



This application was produced using a 1.2kW torsional TSP750 SONIQTWIST® system and TCS5 controller, as well as using a special system with corresponding components.

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