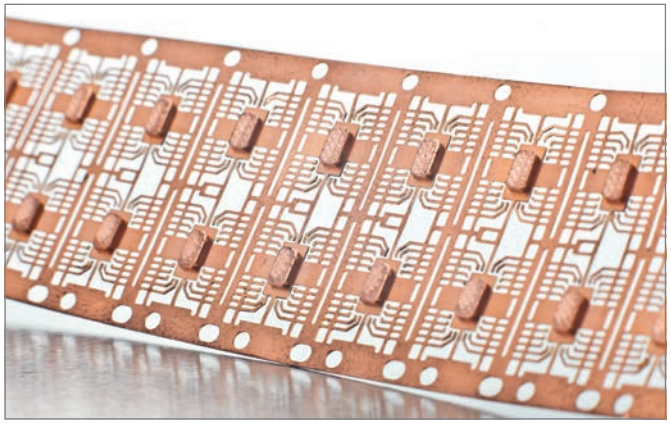
TELSONIC
ULTRASONICS

Application example

Contact studs on punched strip

PLASTIC WELDING | METAL WELDING | CUTTING | CLEANING | SIEVING



The application was welded using torsional SONIQTWIST® technology. The ultrasonic welding components were integrated into a special-purpose system.

Task

Perforated copper contact studs around 5 mm long need to be welded onto a sensitive punched 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 welding process controller comes with an array of monitoring options to ensure good quality.

Advantages of this configuration

Torsional SONIQTWIST® welding technology makes sure that the thin, sensitive punched strip is 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.