Application example

**Contact stud on punched strip**

**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 TC55 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 1.2 kW torsional TSP750 SONIQTWIST® system and TC55 controller, as well as using a special system with corresponding components.