

## Application example

### High-flex cable on a contact

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

A 70 mm<sup>2</sup> high-voltage copper cable needs to be welded to a copper contact. The contact width means that the welding width cannot exceed 15 mm. The tensile strength and shearing load also have to meet specified values and the thin, sensitive individual wires in the area of crossover must not sustain any damage.

#### Solution

This application can only be resolved using the high-powered ultrasonics of PowerWheel® technology. In this case, an MT8000 system with a maximum output of 10kW and a TCS5 process controller are employed.

#### Configuration advantages

The large amount of energy required can only be generated using PowerWheel® technology. At the same time, the PowerWheel®'s movement pattern and a suitable weld surface design for the sonotrode prevents the thin wires from sustaining damage. Another benefit offered by the PowerWheel®'s movement pattern is the fact that the weld width can be reduced by up to 30% in contrast to conventional technology.



The application was welded using a 10kW MT8000 PowerWheel® system and TCS5 welding process controller.