

Application example

Compacting strands with a large cross-section

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



Task

A twisted copper wire with a cross-section of 160 mm² needs to be compacted or welded using ultrasonic technology. One important factor is to make sure the weld has a high degree of compaction while avoiding any damage to the individual wires at the connection between the compacted points.

Solution

Using high-powered ultrasonic PowerWheel® technology, you can apply high forces to the part in a very short time, achieving a secure seal in even the largest cross-sections. The application was resolved using an MT8000 system with sound protection casing accessible from three sides. The welding process is managed with a TCS5 controller and touchscreen operation.

Configuration advantages

Patented PowerWheel® technology is the only form of ultrasonic technology that enables users to weld copper cables with such large cross-sections. Thanks to the high output of 10 kW, users can achieve a positive, homogeneous compaction result. Furthermore, PowerWheel® technology enables you to reduce weld widths by up to 30% in contrast to conventional technology.



The application was created using a 10 kW MT8000 PowerWheel® system and TCS5 welding process controller with touchscreen operation.