

## Application example

### Flush welding conductors using ultrasonics

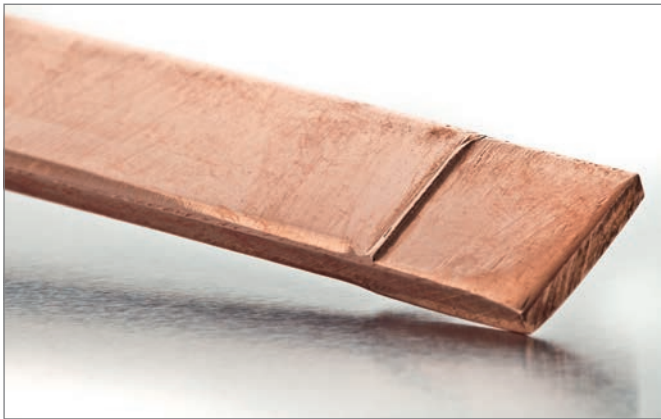
PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

Flat, rectangular copper conductors need to be flush-welded using ultrasonic technology. The welded joint must not be thicker than the conductor, i.e. overlapping must be avoided. The small bead generated by the process is cut off.

#### Solution

By configuring the ultrasonic units in a special way and using individually designed sonotrodes, flat metal conductors can be flush-welded using ultrasonic technology. Telsonic has registered a patent for this technology. This can also be achieved using PowerWheel® technology, which is used when welding larger cross-sections that require high levels of power.

#### Configuration advantages

This patent-registered technology can be used to quickly and reliably produce flush welds without having to significantly raise the welding point. With a high output of up to 10 kW, PowerWheel® technology can be used to flush weld copper or aluminium conductors with a cross-section of up to 200 mm<sup>2</sup>.



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