TELSONIC
ULTRASONICS

System Integrators Can Now Benefit From The Digital Revolution In Ultrasonic Metal Welding For High Voltage Applications

PLASTIC WELDING | METAL WELDING | CUTTING | CLEANING | SIEVING

Bronschhofen (CH), 01/2023

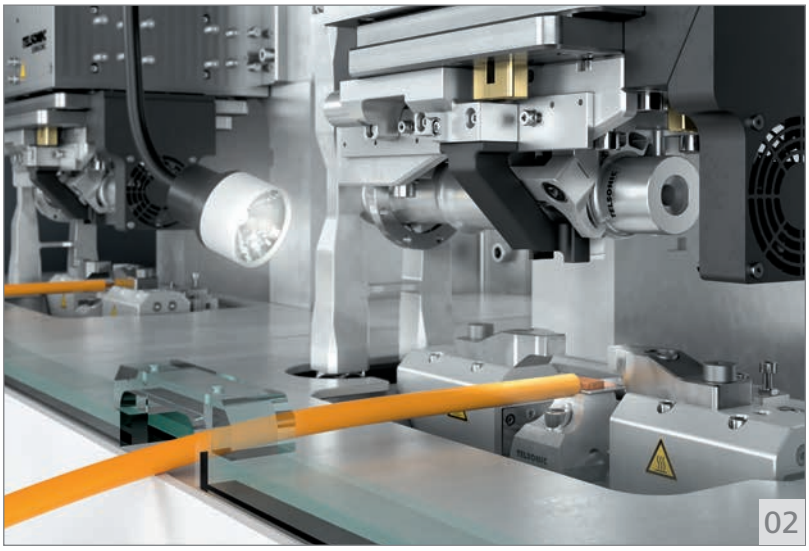
Since the recent launch of Telsonic's Telso®Terminal TT7, this innovative system has received a warm welcome from a number of leading wiring harness and battery component manufacturers within the Electromobility sector.

The Telso®Terminal TT7 system has been instrumental in setting the standard for the highest levels of quality and process control in cable assembly, terminal assembly, and battery production applications. Now, as the demand for Electric Vehicles and Hybrids continues to grow, production levels of the associated high-voltage componentry are reaching levels where either semi-automated or fully automated manufacturing systems are increasingly being required to keep pace. As production methods transition from manual operation to semi-automated or fully automated, it is essential that the ultrasonic welding technology is configured to maximise productivity, whilst maintaining the highest levels of consistency and quality.

Furthermore, ease of incorporation within production systems is also an essential attribute, to allow machine builders and system integrators to optimise system build and commissioning timescales. Telsonic's TT7 therefore provides machine designers with the freedom to consider a wide range of options on the overall system configuration, in relation to both integration and parts presentation for processing.

Depending upon the application, and of course the preferences of the individual system integrator, the methods used to present the components for welding may be different. Some may choose to present the parts on a linear or rotary indexing system, whilst others may prefer to use a robot or other mechanism to load and unload the ultrasonic welding system. The inherent flexibility of the new TT7, with

01 A wide range of applications



clear access from the front, rear and both sides, allows maximum flexibility in the way the technology can be integrated, making it possible for machine builders and system integrators to future proof the system to meet the demands of what is a dynamic market sector.

Already proven to be the optimum solution for welding a wide range of metal cable configurations and connector types, with cable cross sections up to 200 mm², PowerWheel® torsional welding technology is also at the heart of this new integrator friendly configuration. This powerful ultrasonic system ensures maximum reliability and optimum process control at all times during welding. Enhancing the capability to process multiple part variants, Telsonic has further developed this innovative technology to make it possible for tool changes to take less than five minutes, thanks to a new quick-change system. In addition, productivity levels are maximised by the ultra-short cycle time of only 20 seconds, and new features which ensure efficient cooling (without compressed air), for the ultrasonic tooling make it possible to attain the highest OEE levels.
Telsonic's Telso®Flex operating software, which has been enhanced for the TT7, facilitates efficient production monitoring and logging of each application. The intuitive user interface displays only the information relevant to the user. Production data and values from various sensors are available for digital data logging and process evaluation purposes.

The complete package for easy integration

Telsonic has configured a complete package for system integrators which includes the PowerWheel® torsional ultrasonic welding station, MAG ultrasonic generator, electrical panel complete with control, OPC UA, and a touchscreen interface.

By Christian Huber, Product manager, TELSONIC AG and Tom Pettit, Genesis Sales & Marketing Limited

02 The TT7 press unit enables a compact arrangement and best accessibility to the welding zone

03 The complete package for easy integration
❶ = electrical panel complete with control
❷ = PowerWheel® torsional ultrasonic welding unit
❸ = MAG ultrasonic generator

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