

Ultrasonic technology for the Russian automotive industry

On-site representation fosters customer proximity

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SIEVING



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Bronschhofen (CH), 02/2020

Technically optimum solutions are achieved most effectively when manufacturers and users work closely together and communicate with each other directly. This is particularly true for ultrasonic processes, which are increasingly gaining a foothold as reliable and economical joining and cutting technology in lightweight automotive construction. When an ultrasonic specialist and automotive supplier work together in the early design stage, an ultrasonic-compliant design of component and machining zone allows the machines to be custom-designed for economical operation, e.g., for mounting sensor brackets on thin-walled bumpers, door panels or spoilers. With headquarters near Moscow and representing the Swiss company Telsonic AG, Windeq TC is a competent partner for this task. The company is the first Russian system manufacturer to design and produce semi-automatic ultrasonic systems for the automotive supplier and has been an official supplier to Magna Russia since 2019. As such, the Russian automotive industry has a competent partner for ultrasonic processes directly on site.

Ultrasonic technology has proven itself in practical use

For instance, the front bumpers of the Škoda Karoq and Škoda Rapid are manufactured using ultrasonic welding and cutting equipment from Windeq TC. Front and rear spoilers as well as mountings for reflectors are manufactured for the VW 316 Tarek. Lada uses additional systems to attach the balcony structures



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- 01 Škoda Karoq automobile production
- 02 New Škoda Rapid Sedan
- 03 Ultrasonic welding system for bumpers

for guiding the electric window regulators and the brackets for the storage compartments to the interior door panels. It was possible to use dual sonotrodes here as well since these joining processes require welding to take place at particular spots and along seams. This is a huge advantage in areas where the welding points on the seams are close together. With two blades, a dual sonotrode is able to manage two welding points at the same time but only requires one converter and booster to apply mechanical vibrations. It is simple to integrate ultrasonic systems into a higher-level automation environment. The generators that generate the ultrasound communicate with the control system of the plastics processing machines using every common field bus interface.

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