

PLASTIC PART WITH PUNCHED HOLE FOR SENSOR HOLDER

**■ The task**

A paint-coated plastic part, in this case a car bumper made of PP with a thickness of 3.6 mm, is to be punched for the installation of a sensor holder.

The part is extremely delicate and the paint finish is to be drawn into the punched hole over the rounded edge.

■ The solution

In this case, the task was accomplished in a special rig using the 20 kHz punching sonotrode with a generator output of 2 kW.

■ The advantages

With a punching sonotrode it is possible to carry out punching operations with significantly less force compared to pneumatic or hydraulic punching devices. In addition, this configuration requires less space.

With this ultrasonic punching method cuts are carried out with zero tolerance.

In addition, the quality of the punched holes is better and the deformation of the leading radius is carried out in one process with the actual punching, including the drawing in of the paint finish.



The application was carried out on a USP3000 using additional components for the special rigging.

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