

Application example

Watertight welding of membranes

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



Task

The compensation opening of a housing part is to be tightly sealed with a membrane. A special membrane laminate is used for this purpose so that any existing moisture can escape and the pressure can be equalised. These membranes are very delicate and often cannot be welded in a high-quality manner with conventional longitudinal ultrasonics. The “membrane effect” can result in tears or holes in the membrane or in films or fabrics.

Solution

Thanks to the SONIQTWIST® technology, membranes, films or filter fabrics can be welded tightly and gently, i.e. without excessive vibrations.

Configuration advantages

Torsional technology makes it possible to weld different membranes tightly and reliably, even those made from different materials and those with high glass content. The membrane is not damaged in any way. When equipped with vacuum technology, the sonotrode can pick up the prepunched membrane from a magazine and weld it into the part. There is no need for a handling device and the process is very fast and reliable. The sonotrode can also be fitted with a cutting edge so the membrane can be punched out from a strip and welded into the part at the same time.



The application can be produced with torsional SONIQTWIST® components of the TSP750 E welding system incl. TCS5 process controller and MAG generator (frequency 20 kHz, power 1200 W).

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