

## Application example

### Medical part with membrane

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

A membrane is to be inserted into a medical part in an economical and reliable manner using a suitable procedure. The connection must be tight and particle-free. Furthermore, the surface of the membrane film should remain smooth after the process and must not exhibit any signs of damage. The joining process must be logged in a comprehensive, traceable manner.

#### Solution

The torsional ultrasonic SONIQTWIST® joining procedure enables the film membrane to be cut out and welded in in one step. The application was implemented with a TSP750 torsional ultrasonic system and a TCS5 process controller. Thanks to the appropriate shaping of the joining zone and the sonotrode surface, the membrane film is welded in without creating wrinkles.

#### Configuration advantages

The torsional SONIQTWIST® joining technology is the perfect match for the high requirements of the joining task. The torsional excitation of the tool creates a tight, clean and particle-free connection between the membrane and the injection-moulded part, without damaging the film (no membrane effect). The process is economical and can be automated without any problems. The TCS5 process controller ensures that all welding data is recorded and provides a reliable quality monitoring function.



The application was produced on a TSP750 torsional SONIQTWIST® system, or with corresponding components integrated in a special system.