

## Application example

### Welding on filter made from non-woven fabric

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

Openings in components for the medical industry must be sealed with a fleece membrane. This must be securely welded into the injection-molded plastic part without any damage. The opening enables pressure compensation that prevents any particle of contaminant from entering the component.

#### Solution

The problem was solved with torsional SONIQTWIST® technology. As a result of the tangential stimulation in torsional technology, the components are not exposed to any damaging vibrations. The application runs fully automatically (no membrane effect!).

#### Configuration advantages

With torsional technology, very thin filter fleeces can be welded securely and tightly without membrane effects, i.e. there is no damage to the thin fleece.

Equipped with vacuum technology, the sonotrode can remove the already pre-stamped membranes from a magazine and weld them into the plastic component without additional pick-and-place equipment. For an additional increase in productivity, the membrane can also be removed from a belt and welded into a component at the same time. However, this requires a worked-in, ring-shaped knife contour at the sonotrode welding surface.



The applications were produced with torsional SONIQTWIST® components of the TSP750 welding system, integrated into a special-purpose system with bus communication.