

APPLICATION SHEET

COMPENSATION MEMBRANE

PLASTIC



■ The task

A compensation membrane has to be welded on to a ventilation duct in a plastic component used in medical technology which is exposed to fluctuations in temperature, pressure and humidity. Owing to the demanding requirements for the compensation membrane with respect to appearance and function, an aesthetically pleasing and tight weld, as well as few flying particles, is required.

■ The solution

Torsional technology is used in order to comply with the strict welding requirements. In contrast to conventional linear ultrasonic welding technology, the oscillations are not applied vertically, but tangentially to the component.

■ The advantages

The advantages of torsional welding technology - which involves a tangential friction and cutting movement at the periphery of the welding zone - is a very neat appearance and no fraying at the edges. Also, torsional welding with a tangential friction movement with respect to the component minimises, or even eliminates, flying particles. Another advantage of this configuration is the fact that the membrane is cut out of the material and welded into the plastic component in one process.



The application has been produced using a TSP750 500 W torsional welding system / the appropriate components in a bespoke system.

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