

Title (en)
DEVICE FOR HOLDING A FLUIDIC COMPONENT

Title (de)
VORRICHTUNG ZUM HALTERN EINES FLUIDISCHEN BAUTEILS

Title (fr)
DISPOSITIF POUR FIXER UN COMPOSANT FLUIDIQUE

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Application
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Abstract (en)
[origin: WO2005065836A1] Special precautions must be taken when maintaining a component under fluidic pressure, if the component consists of hard and brittle material and can be destroyed by locally increased stresses. According to the invention, one such fluidic component, e.g. consisting of silicon or glass, is arranged in an elastomer mould, e.g. consisting of silicon rubber, having a contour that is adapted to the outer contour of the component and to the inner contour of a support. Said elastomer mould is bevelled on the pressure side thereof towards the fluidic component. During the assembly of the support, the elastomer mould is deformed by means of a projection on the counterpart, and subjected to homogeneously distributed inner stress, whereafter the elastomer mould surrounds the fluidic component over the entire height thereof. Said floating support prevents any unacceptable local stress peaks and any deformation of the component. The support is sealed from the fluid, even if the fluidic pressure fluctuates repeatedly from a very small value to several hundred bar. The support is especially suitable for a fluidic component consisting of glass or silicon in a miniature embodiment. Said support is used in the field of medical technology, for example, for a nozzle in a miniature atomiser for producing an aerosol or a mist without a propellant, and for the needleless subcutaneous injection of a liquid containing a medically active substance.

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