

Sample Holder for Nanopositioning

Adjustable sample holder

Reference no. P 174

BACKGROUND

Precise sample positioning is essential for various processing, measuring and analysis systems. For high-resolution measuring and analysis procedures, laser interferometers, for example, are increasingly being used to determine the sample position to the nearest nanometer. However, the disadvantage of this method is that the position of the sample cannot be determined directly, but rather indirectly based on the position of a reference object, as only the reference object or the sample can be positioned on the axis of rotation of a turntable. This can result in the measuring signal being temporarily lost or in the sample moving during the experiment.

SOLUTION

- Thanks to the innovative arrangement and setup of kinematic supports of an adjustment device, its position and orientation can be determined statically.
- Pivot joints between the sample holder and the kinematic supports (arranged on legs of the adjustment device) provide rotational degrees of freedom, thus allowing for a defined orientation of the sample.
- Sample holders can be used alone or in combination with an associated adjustment device.

ADVANTAGES

- Backlash-free and adjustable
- Sample holder can be removed from the experiment without the reflector of the measuring system having to be removed beforehand
- Time-saving: Sample holder can be pre-adjusted before experiment

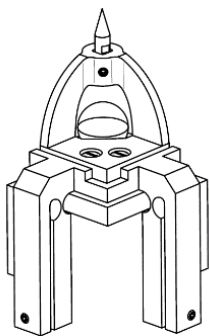


Fig. 1: Isometric view.



Fig. 2: Sample holder with laser.

FIELDS OF APPLICATION

Automation for:

- CT scans
- Semiconductor industry
- Chemical industry
- Biology industry
- Food industry

PROPERTY RIGHTS

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POSSIBILITIES FOR COLLABORATION

- Licensing
- R&D cooperation

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