Spring-loaded vice – rapid and repeatable positioning with limitable clamping force
We are family: Spring-loaded vice and tailstock for optical and tactile measuring and testing

dk has developed these spring-loaded vices as a sister product to the successful tailstocks. While the tailstock holds all types and sizes of rotationally symmetrical parts quickly, reproducibly, securely and simply with adjustable clamping force, the vice offers these same functions for test pieces with arbitrary geometries. In addition, the vice can hold items internally or externally. Both products are fully compatible with other programs from dk FIXIERSYSTEME.

Proven: Tailstock mostly for rotationally symmetrical parts, on a pallet (image) or slotted rails

Centres, hollow centres and special centres for part specific configurations

Further development: Spring-loaded vice for part with arbitrary geometries, on slotted rails (image) or pallet

Turn, drilled and prism jaws for spring-loaded vice

2D and 3D stops for repeat precision positioning
Function principle

Various clamping force ranges can be preset and the force direction configured by simply changing the springs provided.

The width for the workpiece is then adjusted. Finally, a fine adjustment of the clamping force is carried out, so that by simply pulling (external clamping) or pushing (internal clamping) the jaws are released and the next part can be held with exactly the same clamping force.

The possibility of mounting the moving and fixed units horizontally or vertically on the base of the system, makes the spring-loaded vice ultimately variable and adaptable to the workpiece and measuring process.

Your benefits from the technical advantages

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<th>Technical advantages</th>
<th>Practical application</th>
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<tr>
<td>Fixating with just one movement</td>
<td>Simple, quick and secure operation</td>
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<tr>
<td>Limitable, repeatable clamping force</td>
<td>No deformation of sensitive parts</td>
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<td>Various force ranges selectable</td>
<td>Part specific clamping situations producable</td>
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<td>Fine adjustment within the force range</td>
<td>Infinitely precise interpretation to the workpiece</td>
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<td>Adjustable for pressure or tension force</td>
<td>Can clamp internally or externally</td>
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<td>Jaws can be mounted vertically or horizontally</td>
<td>Vertical or horizontal positioning of the part</td>
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<td>Arbitrary spacing for the fixed stop</td>
<td>Arbitrary long parts can be held</td>
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<td>Area under jaws fully free</td>
<td>Optimum for optical or tactile measurements</td>
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<td>Extremely low construction of 32 mm</td>
<td>Excellent suitability for optical metrology equipment</td>
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<tr>
<td>Exchange jaws in standard program</td>
<td>Economic adaption to diverse geometries</td>
</tr>
<tr>
<td>Special jaws can be mounted</td>
<td>Economic design for very special parts</td>
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<td>2D and 3D stops as accessory</td>
<td>Simple repeatable positioning</td>
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<td>Compatible with the dk fixturing programs</td>
<td>Complements the modules and is complemented by these</td>
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Setups

Rails and pallets as basic elements onto which the spring-loaded vice can be directly or indirectly adapted to.

Rails mounted directly on the measuring machine for long term positioning of the spring-loaded vice, or as precise stops for exchange pallets with vice.

Positioning the spring-loaded vice on an exchange pallet for pre-sets up outside the machine as prerequisite for simple and quick exchanges between different measuring tasks.

The spring-loaded vice is ideally suitable for special and series clamping.

3D model of the product for downloading in any data format can be found under www.dk-fixiersteme.de
Applications

The spring-loaded vice can hold items internally or externally. The fixed and moving units can be set up horizontally or vertically by simply re-positioning them.

We are happy to demonstrate clamping tasks for special or process specific parts and display all possibilities.

Drilled jaws with offset pins, for raised part clamping

Large prism jaws, for 3-point contact

Prism jaws on a vertically positioned spring-loaded vice, to hold a part vertically

Vertically mounted spring-loaded vice without additional jaw pads, for holding flat parts of offset faces

Spring-loaded vice with mounted stop, for repeatedly precise positioning of workpieces
The entire world of fixating, clamping and positioning under www.dk-fixiersysteme.de

**SCHIENENFIX**

SCHIENENFIX - Modular clamping system for optical or optical-tactical measuring. Specific modules for optical measuring machines, measuring projectors and measuring microscopes as a system of base, structural and clamping elements for a wide range of workpiece geometries.

**SPANNFIX**

SPANNFX - Modular clamping system for tactile measuring. Comprehensive, intelligent modular systems consisting of base, structural and clamping elements for holding various workpiece geometries.

**QUADERFIX**

QUADERFIX - Highly robust modular clamping system with rotation lock for holding heavy and overhanging workpieces for tactile measuring. Compatible with the other dk fixturing systems.

**SPEZIALFIX**

SPEZIALFIX - customer specific solutions for optimising measuring processes such as multi-clamping for optical and tactile measuring.

**MESSFIX**

Messfix - High quality accessory range for measuring and testing. Useful measuring instruments such as dial gauges, precision indicators, lever gauges, stands, squares and V-blocks from a single expert source.