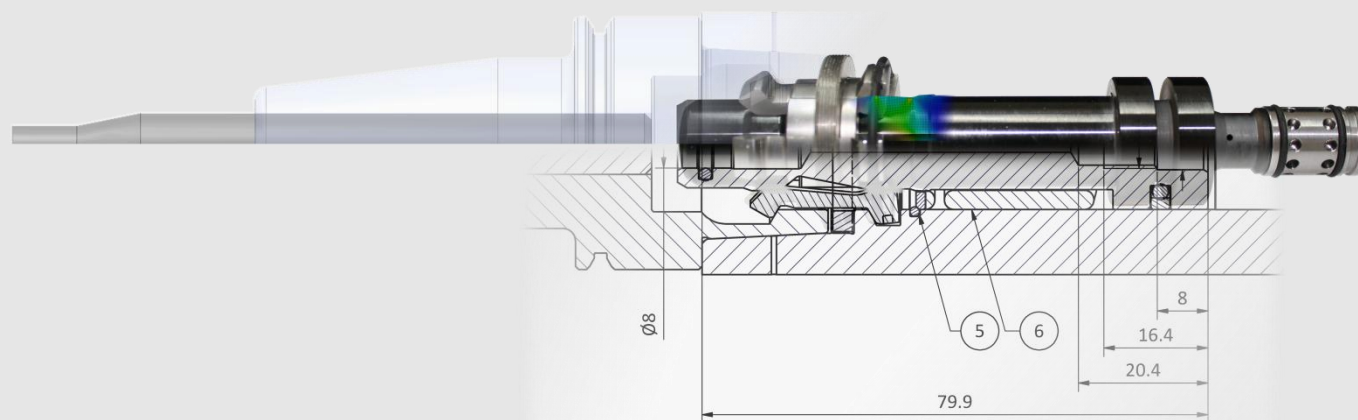


ULTRA-PRECISION MEETS CNC-PERFORMANCE

- **SLH-x** – Patent-pending integral HSK clamping unit // the spring-less simplicity
- **Tradeshows** – **Optatec** in Frankfurt, Germany
AMB in Stuttgart, Germany
JIMTOF in Tokyo, Japan



SLH-x | Integral HSK clamping units // the spring-less simplicity

Integral Spring-Less, Self-Locking Tool Clamping System for Hollow-Taper-Shank Tools (HSK, DIN 69893)



Tool spindle manufacturers know of all of the problems that come with a spring-based taper clamping system – a complex and stacked design combined with inconsistent balancing and shaft dynamics, spring-fatigue, inconsistent clamping positions and pull-in forces at excessive servicing.

Existing self-locking clamping systems on the other hand appear to be too complex and show quite different problems. Due to the serial combination of several taper connections these clamping systems have not only to cover a broad travel range, but also suffer from changes in clamping position and pull-force due to non-predictable changes in tribological conditions. Self-locking taper clamping system that comply with the current state of the art also use a self-locking unit connected to a standard clamping unit which can be used with other clamping systems. This again affects the already large change in clamping position.

Our new developed and patent pending spring-less automatic clamping system for Hollow-Taper-Shank (HSK) tools with optional aerostatic rotary feedthrough is based on the principle of a monolithic pre-loaded self-locking. For this the clamping and the locking unit used with other spring-less clamping systems are combined and reduced to only one single unit of a very simplistic design that covers the clamping as well as the self-locking.

The results for the spindle manufacturer:

- Number of parts involved reduced to the minimum
- Ultra compact, simple and light design
- clamping system removable (service) from shaft without removing the shaft from the spindle
- Non-rotating drawbar (standard)
- Forces to eject a tool reduced by 60 % (to preserve the spindle bearings)
- Optional aerostatic rotary feedthrough (not available for SLH-25)

The benefits for your machining application:

- Consistent clamping force and positions even over 2 million tool change cycles
- Consistent and excellent shaft balancing and dynamics
- Especially for spindle solutions that are meant to machine optical components
- Higher spindle speeds
- Greatly improved reliability
- Maintenance-free

Our integral tool clamping system SLH-x is currently available for HSK-E40 and HSK-E25. Sizes HSK-E63 and HSK-E32 are being developed and are going to be available by the end of the year. For more information, especially about shaft inner contour and installation drawings please visit <http://levicron.com/produkte/werkzeugspannung/slhx?lang=en>

Upcoming Tradeshows | Optatec, AMB und JIMTOF

Optatec, Frankfurt, May 16-18

Focus on Innovation Potential



Optatec focuses on the industry's innovation potential like no other event of its kind. In cooperation with technological and institutional partners including the SPECTARIS association for the high-tech industries, Optence and OptecNet, Optatec offers an international showcase for advanced technologies. Exhibitors from Europe and all over the world display future technologies from the field of industrial optics and take advantage of Optatec to present their innovations and product premieres. With its targeted offerings for development and production, as well as industrial use of optical components, optomechanics, optoelectronics, fibre-optics, fibre-optic cables, laser components and manufacturing systems, Optatec has become well-established within the industry sector and provides a top-level platform which brings suppliers and users together.

We are looking forward seeing you at our booth F15. Read more on: <https://www.optatec-messe.de/en/>

AMB, Stuttgart, Germany, Sep 18-22

Meeting point for the industry located in the heart of Europe



More than 1.500 Exhibitors from over 30 nations present their new products and services in the area of machines and tools for metal-working. 90,000 visitors were interested in 2016 in this offering in the centre of Europe's leading high-tech region Stuttgart. From 2018 with the new Paul Horn Hall (Hall 10) for even more space and more innovations!

We are looking forward seeing you at our booth 1Z101. Read more on: <https://www.messe-stuttgart.de/amb/en/>

JIMTOF, Tokyo, Japan, Nov 01-06



By likening JIMTOF to a tree that keeps growing over many months and years, the key visual depicts the fair as an ever-expanding platform that continues to showcase and present to the world the most cutting-edge technology.

We are looking forward seeing you at our booth W3069. Read more on: <http://www.jimtof.org/en/index.html>