

# The mold & die journal

Machine tools | Standards | EDM technology | Accessories | 85088

**WE SET THE STANDARDS:**  
THE ORIGINAL AMONGST THE STANDARDS.



**/ NO MORE BAD LOCK!**  
WE HAVE 31  
GOOD REASONS



**/ ARE YOU WORKING WITH TOUGH MATERIALS?**

Then you know the risk of incorrect identification due to misaligned inserts.

Our identification stamps with 31 lock-in positions for every day of the month make unintended alignments nearly impossible!

Take a look: [www.opitz-gmbh.de/no-bad-lock](http://www.opitz-gmbh.de/no-bad-lock)



**Opitz GmbH** | Magnolienweg 34 | 63741 Aschaffenburg  
info@opitz-gmbh.de | www.opitz-gmbh.de



# Highest precision at perfect machine utilization

HIRSCHMANN GmbH in Winzeln (Baden-Württemberg) is considered among the 100 most innovative enterprises of Germany – not long ago the company was awarded with the label TOP 100. What this means in practice could be seen on exhibition AMB in Stuttgart where HIRSCHMANN GmbH presented the newest developments like High-End Clamping System  $\mu$ PrisFix nano,  $\mu$ PrisFix Hollow Axle Clamper or the extremely flat Zero Point Clamping System  $\mu$ PrisFix-Flat. Precise machining of parts – this is a challenge for a lot of manufacturers. Innovative machines are a decisive factor for efficiency in medical technology, automotive

engineering, precision mechanics or in optical industry. For efficient machining of parts HIRSCHMANN GmbH developed rotary indexing tables with compatible reference and clamping systems.

## High-End System $\mu$ PrisFix nano

One of the newest precise innovations is the High-End System  $\mu$ PrisFix nano, the most precise zero-point clamping system in the world for applications as wire EDM, sinking EDM, EDM drilling, laser machining or high-speed cutting. The system reaches a repetitive accuracy of  $\leq 0,1 \mu$  (unclamping and clamping in the same clamber) and a changing

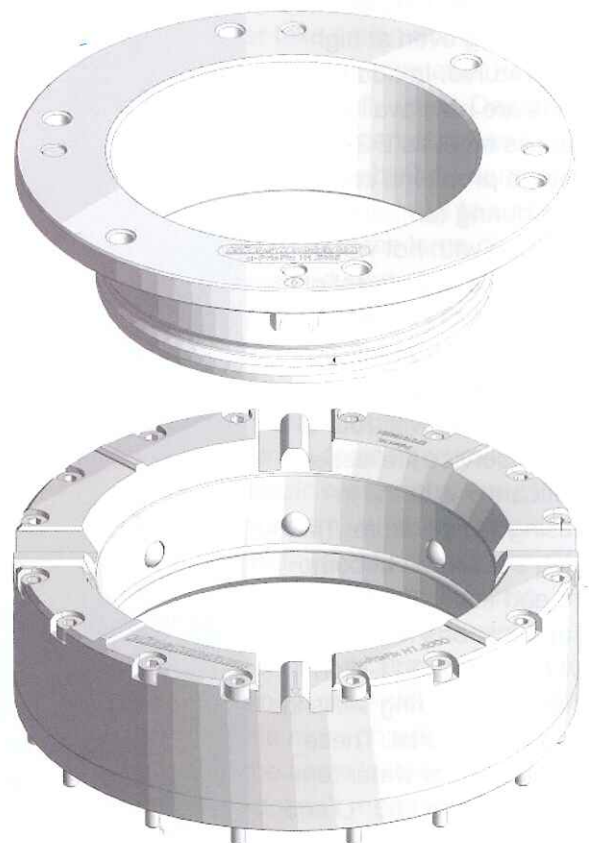
accuracy of  $\leq 0,5 \mu$  (clamber to clamber). “With the zero-point clamping system  $\mu$ PrisFix nano these excellent values can be reached for the whole manufacturing process”; says CTO Rainer Harter. Workpiece is always exactly referenced in all axes and best placed for  $360^\circ$  machining. With the new system HIRSCHMANN GmbH demonstrates its extensive competence based on development activity and know-how of more than 60 years.

## Hollow Axle Clamping System $\mu$ -PrisFix

The hollow axle clamber  $\mu$ -PrisFix



1/  $\mu$ -PrisFix nano



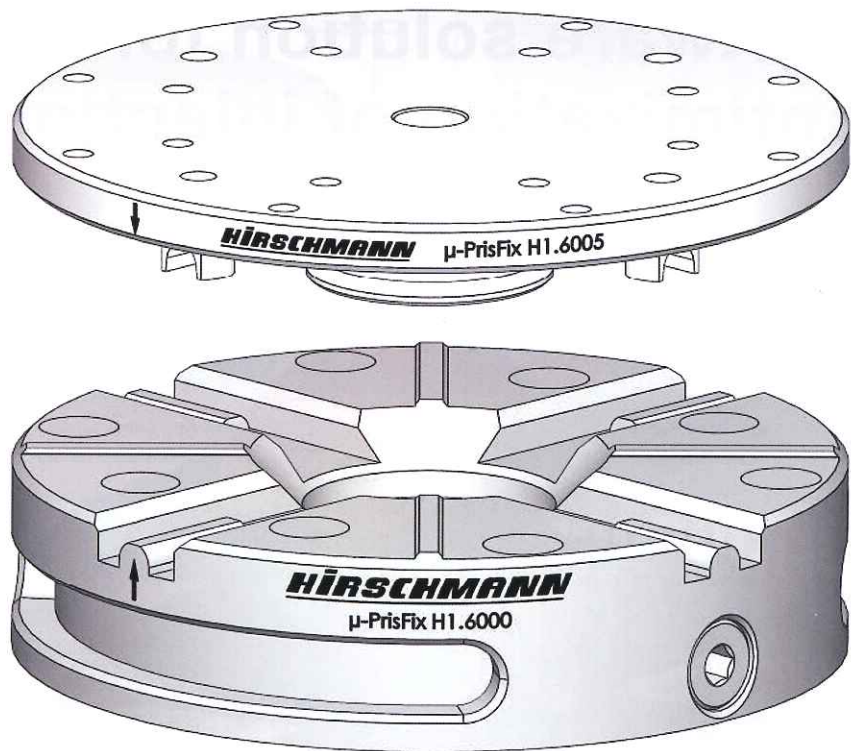
2/  $\mu$ -PrisFix Hollow Axle Clamber



is another new development of HIRSCHMANN GmbH which can be seen on AMB trade fair. Without any effort workpieces can be exactly positioned in a hollow axle or directly to the machine table. This offers the possibility of 360° machining of internal contours and creating of even extremely complex shapes. Previously, operators had to look for individual clamping solutions which are much more complicated and less precise. To obtain maximum inner diameter for workpiece HIRSCHMANN developed a clamping mechanism that needs minimum assembly space but offers highest flexibility in realization of various requirements. "Our new Hollow Axle Clamper  $\mu$ -PrisFix together with  $\mu$ -PrisFix-Flat hollow pallet can be adopted to nearly all imaginable customer specifications", so CTO Rainer Harter.

#### Zero-Point Clamping System $\mu$ -PrisFix-Flat

The manual Zero-Point Clamping System  $\mu$ -PrisFix-Flat has convincingly lower installation height as other products currently available on the market. The extremely flat reference clamper together with special designed workpiece holder is only 35 mm high. The significantly lower installation height helps manufacturers to optimize their processes. "As nearer as the workpiece for example during wire EDM can be placed to the lower injector as better is cutting performance", Norbert Weisser, Team Manager Design of HIRSCHMANN GmbH explains. The manual clamping system  $\mu$ -PrisFix Flat shows an attractive price-performance ratio and



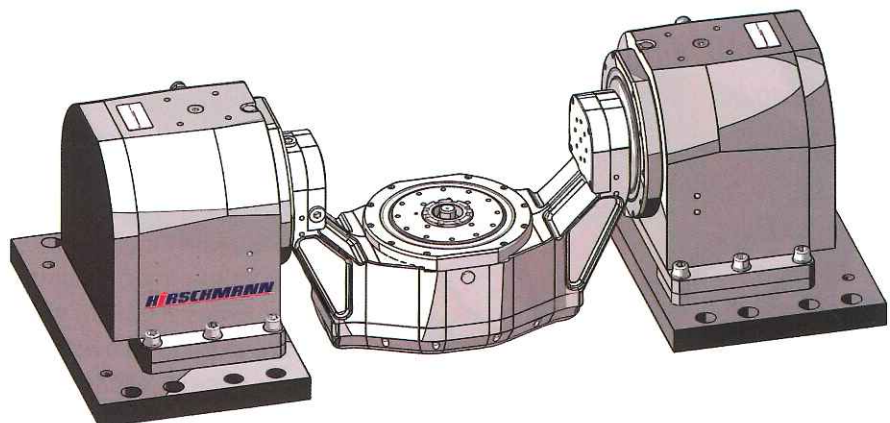
3/  $\mu$ -PrisFix Flat

a short period of amortization and is the ideal product for current or future users of rotary indexing tables in manufacturing.

#### Rotating-Tilting Table for Laser Machining

Especially for serial laser machining application in tool manufacturing HIRSCHMANN GmbH developed a 2-axial rotating-tilting table that combines highest dynamics and precision. "Our innovation is setting new standards in efficient laser machining of workpieces

with tight curve radius or complex shapes. The present changes of movement require acceleration profiles which are at the limits of technical possibilities", explains CTO Rainer Harter. In this combined movement of rotation and tilt extremely high acceleration values are reached on T-axis and on R-axis. A water-cooled laser beam is cutting the part contour out of basic material and takes over also finishing process. The rotary indexing table is responsible for passing the workpieces directly along the laser beam.



4/ Highspeed RT-Axis / Rotating-Tilting Table  
(Pictures: Hirschmann GmbH, Fluorn-Winzeln, Germany)