

Perfect Zero



ALIGNMENT SYSTEM FOR SWISS-TYPE AUTOMATIC LATHES & SHORT BED LATHES

MEASURING OPTIONS WITH PERFECT ZERO



CENTRICITY



CENTER HEIGHT



CENTRICITY CROSS-SECTION FOR LATERAL HOLES



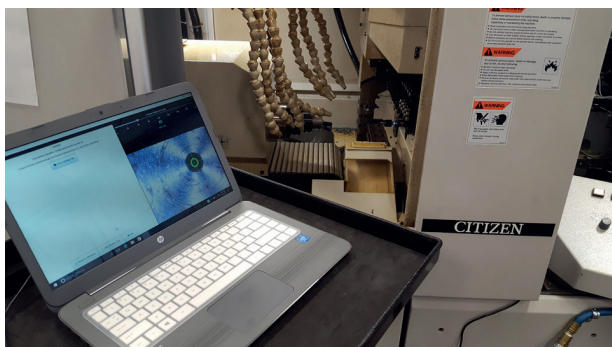
OPTICAL WEAR MONITORING

THE PERFECT ZERO ALIGNMENT SYSTEM

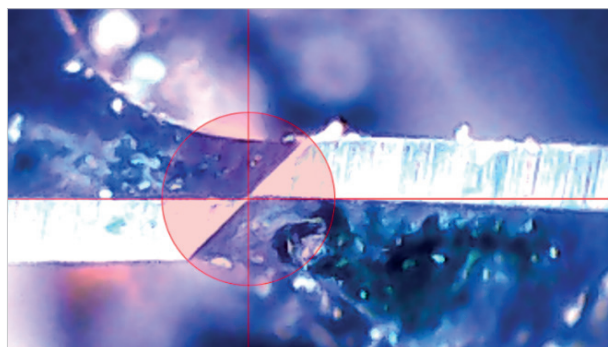
Perfect Zero is an alignment system for CNC turning machines in which a camera is used in combination with the **Perfect Zero software**. This system makes it possible to determine the middle of the spindle and the tool alignment with precision, and measure potential erroneous alignment of the axes exactly. The user-friendly system minimises tool breakages and speeds up the alignment process.

- Alignment of tools on main spindle and counter spindle
- No error sources due to use of optical measurement
- Measurement of micro and internal turning tools
- Measurement of external lathe tools, including thread-cutting tools, cutting tools and Y-axis tools
- Extends the service life of your micro tools and increases the tool life

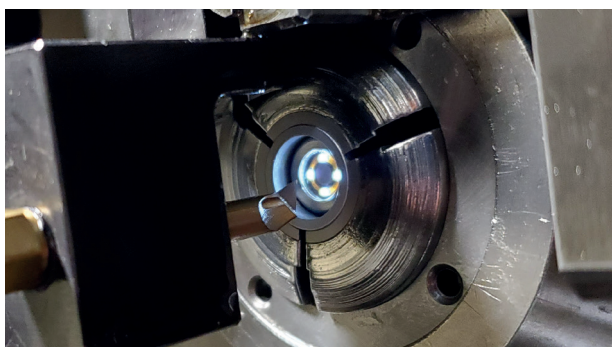
APPLICATION EXAMPLES



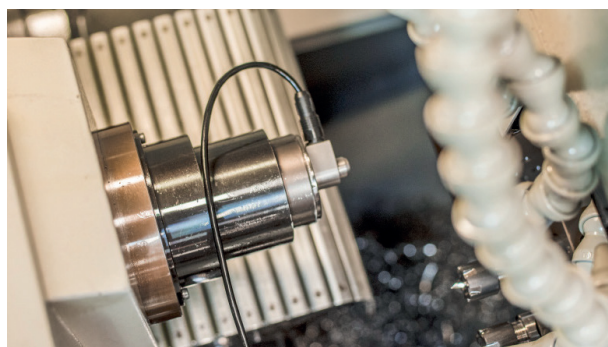
Perfect Zero aligning a micro-tool in a Citizen Swiss-Type automatic lathe.



Screenshot of the Perfect Zero software when measuring different points on the tool.



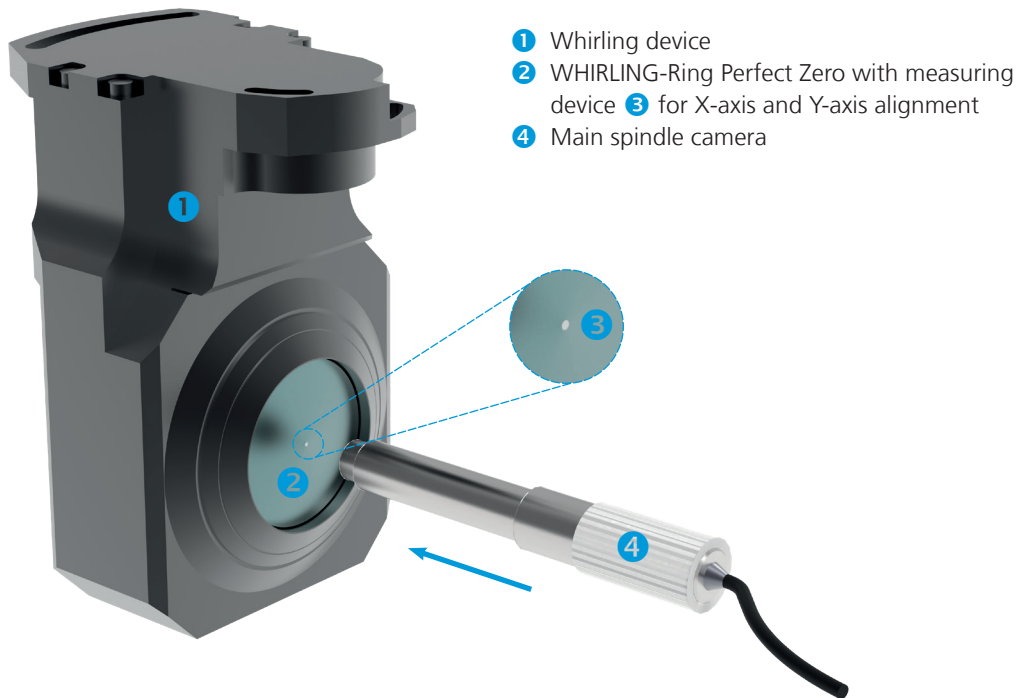
Camera in guide bushing, alignment of an internal turning tool in the clamping sleeve.



Camera in the counter-spindle.

OPTIONAL ACCESSORIES

Measuring device for whirling devices



MOUNTING

MWT... (Typ B)



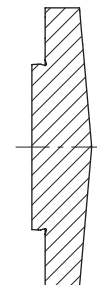
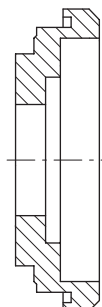
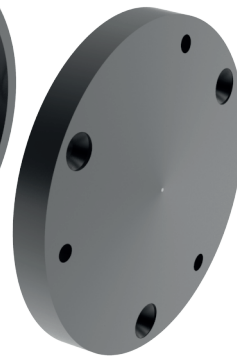
Mono-system

Highly compact single component system. This enables high concentricity of ± 0.005 mm to be achieved.

MWA... Adapter



MWR... WHIRLING-Ring Perfect Zero



Article no.	Order designation
252075	MWT00 164 4244 C85 00
252411	MWR00 164 2646 000 00
252412	MWR00 164 2542 000 00
252415	MWR00 164 4246 000 00

OVERVIEW OF PERFECT ZERO SETS

Short bed lathe set

Art. no. 214338

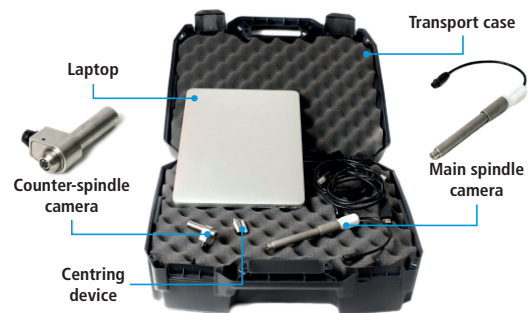
Contents	Description
Camera	1x spindle camera, 12 mm
Aiming optics	Centring device (all optics with 0.5 mm [0.02 in] inner diameter); use for determining the mid-point of the tool.
Laptop and software	The Perfect Zero software is pre-installed on every laptop that is delivered.
Transport case	Robust transport case, ideal for storing all Perfect Zero components and for on the move.



Swiss-type automatic lathe set

Art. no. 192738

Contents	Description
Cameras	1x Main spindle camera, 12 mm 1x Counter-spindle camera, 12 mm
Aiming optics	Centring device (all optics with 0.5 mm [0.02 in] inner diameter); use for determining the mid-point of the tool.
Laptop and software	The Perfect Zero software is pre-installed on every laptop that is delivered.
Transport case	Robust transport case, ideal for storing all Perfect Zero components and for on the move.



Swiss-type automatic lathe guide bushing set

Art. no. 214740

Contents	Description
Cameras	1x Main spindle camera 1x Counter-spindle camera
Aiming optics	Centring device (all optics with 0.5 mm [0.02 in] inner diameter); use for determining the mid-point of the tool.
Laptop and software	The Perfect Zero software is pre-installed on every laptop that is delivered.
Transport case	Robust transport case, ideal for storing all Perfect Zero components and for on the move.



Suitable for machines with the following guide bushings

F3001/3.001/J4

I352/498.001

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Tooling for High Technology

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