Press Release

Date: April 2024

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Reference: PR-0022-CPE-090424-FTP-

Flatness, Thickness and Parallelism in a single measurement

Combined top&bottom 3D topography measurement

Functionality and quality of industrially manufactured components relies on well-controlled and well-monitored machining processes. Quality control, close to line or inline quality inspection often uses surface metrology for evaluating form, roughness and other surface parameters. Sometimes, the combined look on front and back sides of a workpiece is indispensable for a comprehensive quality analysis. This might require swapping or flipping the sample, or using an additional reference surface as indirect measurement, or applying two sensors each from one side. Each approach can lead to additional measurement uncertainty.

Combined top and bottom measurement

Now, Polytec enhances the perspective for valid measurement results, providing a combined top & bottom topography in a single, but areal and direct measurement. The new Polytec *FTP Flatness, Thickness and Parallelism* measuring module represents the fast and comprehensive measurement solution for evaluating flatness, thickness and parallelism at once. The FTP measuring module for back and front measurements can become a game-changer in quality control of precision mechanics such as in the watch-making industry, for sealing surfaces, shim rings or optical components and more.

Flipping of the sample

In some cases front and back sides can be measured by flipping the sample. This is mostly realized by a rotational unit and requires a complex alignment procedure. The FTP concept of Polytec measures without need of rotation, nor flipping, thus avoiding additional sample alignment for a faster and more simple operation.

Indirect vs direct measurements

Indirect measurements use a reference surface to characterize the backside of a sample due to lack of access to the original sample surface. These standard procedures often lead to time-consuming sequential measurements of a workpiece. Plus, the results base on the assumption of the reference surface being perfect.

Publication free of charge

For questions please contact
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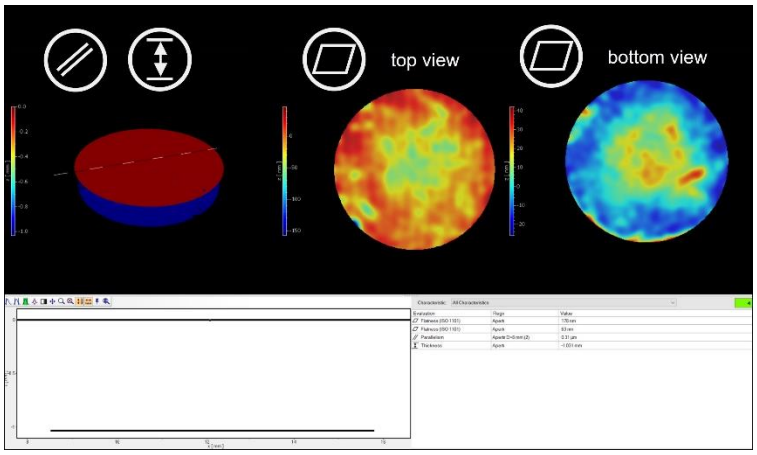

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Further information under:
www.polytec.com/eu/surfacemetrology/flatnessthickness-parallelism

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