Polytec

Press Release

Date:	April 2026
Enclosure:	jpg.
Reference:	PR-0007-CPE-030225-X6

New 0.6X objective enhancing surface topography

Measuring both microstructures and large-area form parameters in one

In order to evaluate quality in production, semi-finished products and their surfaces are often characterized based on form parameters, finish or roughness. This provides insights about upstream manufacturing steps, particularly in machining or mechanical processing, ensuring dimensional and functional accuracy. Polytec has now developed its own 0.6X magnification for the TopMap line of surface profilers, building the bridge between microscopic and macroscopic topography.

TopMap white light interferometers from Polytec inspect surfaces over large areas using coherence scanning interferometry. In other words, they scan entire areas without contact, resolve even fine microstructures or texture with a z resolution below the nm range if required. In daily life quality control, usually several parameters are relevant, such as the flatness of a sealing surface, in compliance with the exact step height of an adjacent area and a required minimum roughness for proper lubrication. Instead of using a multi-sensor approach or time consuming stitching for the large-area analysis of the shape and high-resolution details, Polytec now closes the gap with a proprietary 0.6X magnification.

The TopMap Micro.View+ modular microscope system already offers autofocus and automatic focus tracking as well as a motorized turret - previously with magnifications from 2.5X to 111X for smooth and seemless topography analysis. Equipped with the new 0.6X objective, the single field of view extends to 15.53 x 11.71 mm². This means, it not only captures roughness and structural details with eagle eyes, but also measures flatness or shape on larger areas for faster and more efficient inspections. With a working distance of 9.2 mm, it offers a measurement point spacing of 9.76 µm.

Resolve fine structural details while still covering a large field of view? Contact Polytec!

Publication free of charge

For questions please contact
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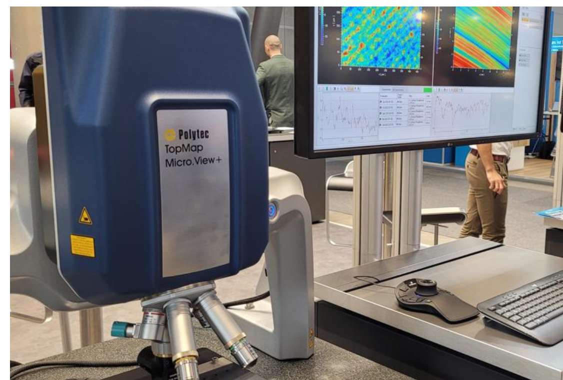

(Image source: Polytec GmbH)

Go to website
https://www.polytec.com/int/surface-metrology/products/3d-surface-profilers/topmap-microview

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