Cutting tool metrology

Modern manufacturing methods require the use of highspeed, multi-geometry cutting tools for quick and efficient material removal to produce all types of parts. Cutting tools can require cutting edge honing, flute roughness inspection, and inspection for edge fracturing. Common vision systems have the ability to perform some of these tasks to a level of resolution, but to encompass both form and surface texture measurements. Coherence Scanning Interferometry (CSI) techniques are now allowing the tool makers and users unprecedented access to the quantification of their surface parameters.

Ease of use

With the adaptability of the ZeGage™ optical profiler, any user can place a cutting tool on the stage, press a single button, and capture the area of interest.

Highly repeatable

To monitor a process that ability to repeatably measure parts, even after reprocessing, is critical for production to cut down on scrap and increase the cutting tool's lifespan.

ISO compliant

Mx™ software is fully ISO 4287/4288 (2D profile) and ISO 25178 (3D area) compliant, with easy-to-understand on-screen tools and controls.

Why ZYGO?

Coherence Scanning Interferometry (CSI) produces the highest level of vertical resolution, independent of the interferometric objective used. This means for any objective, the measurement of the slope, surface roughness, or form, the instrument will provide you better than 0.1 nm vertical resolution, without external vibration isolation.

With over 40 years of metrology experience, Zygo Corporation has a reputation of being the premier supplier of non-contact optical metrology worldwide. With sales and service office located around the world, Zygo Corporation's strong reputation for support ensures customers of their purchase decisions.