

Workshop »Coatings for Optics and Optical Components«

IBF As A Part Of An Optics Production Line

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Ion Beam Figuring (IBF) is nowadays an established technology to achieve optical surfaces with very low form error (high accuracy). We see an increasing interest in the application of IBF for high precision, but not high end requirements of optical and mechanical parts with an required peak-to-valley (PV) error of about $\lambda/20$. The IBF-process has many advantages in comparison to traditional polishing methods including magneto-rheological-finishing (MRF). To name a few: IBF is a very deterministic process, it will not create any additional structures or roughness on the surfaces and it can be used for a smoothing process to achieve ultra smooth surfaces e.g. for low-loss, high-threshold laser applications. We present our newest product lines, including the robotic automation of IBF-machines to achieve higher productivity and continuous production without human involvement.

