

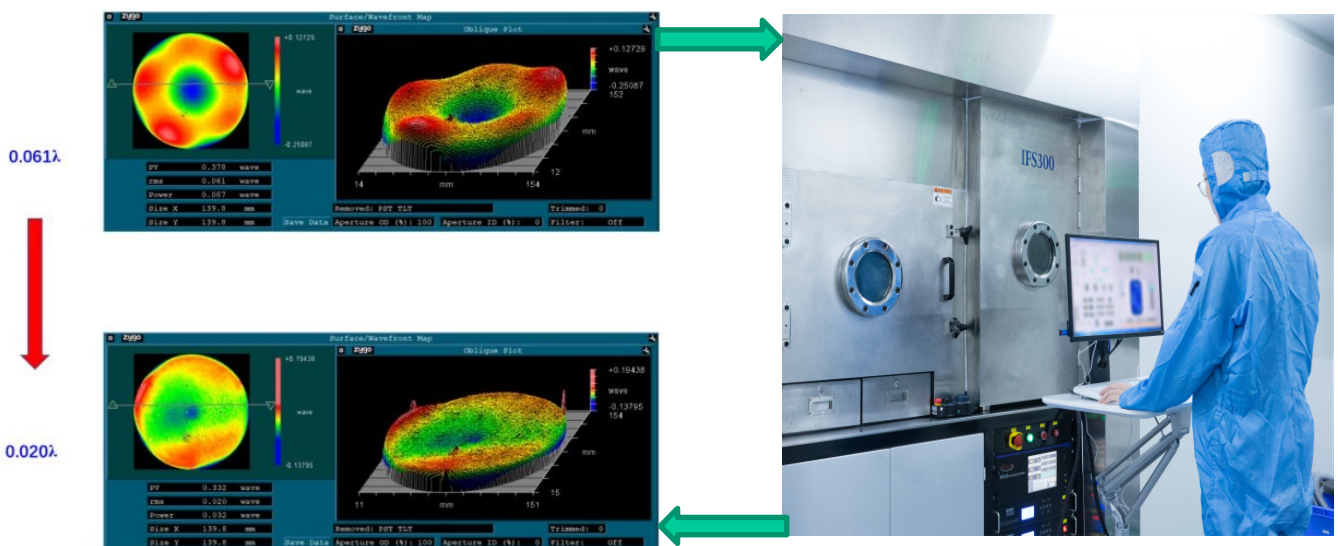
High Flatness Optics

Ion Beam Figuring (IBF)

The ion beam figuring (IBF) process is realized as the most precise technology of optical surface figure correction. A Gaussian formed beam of accelerated ions operating in a vacuum environment bombards into the surface of workpiece to remove the material by physical sputtering at the atomic level. Following the time dwell strategy employed, the accurately controlled Ion Beam spot transits over the surface to generate the desired surface shape.

CASTECH offers nanometer flatness quality by its IBF machine with a computer-controlled three-axes precision motion system. Up to 300mm large size components could be treated at most geometries by a diverse range of optical materials.

- Excellent stability of atomic level removal
- Contactless process without induced stress
- Flat, Spherical, Aspherical surfaces workable
- Surface quality $PV < \lambda/40$ achievable



4D Interferometer(FizCam 2000) for high accuracy measurement of flatness



ZYGO GPI-XP Interferometer for wave front & parallelism measurement
With $\lambda/50$ accuracy
Parallelism measure accuracy: 0.5 "