

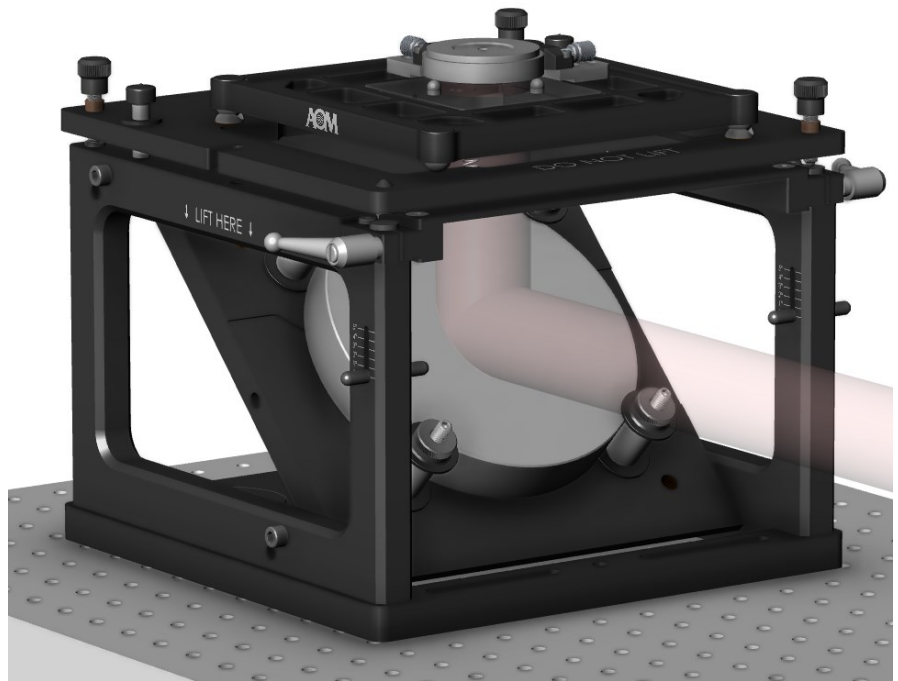
Upward-Looking Fold CGH Stage

Direct-mount Optical Metrology

Enable quick and easy measurements of aspheric optics with a direct-mount CGH and Upward-Looking Fold CGH stage.

Leverage gravity to mount optics to uniquely designed mounting features on the CGH that automatically align the test. Pick-and-place test optics, ideal for production environments with high volume output requirements.

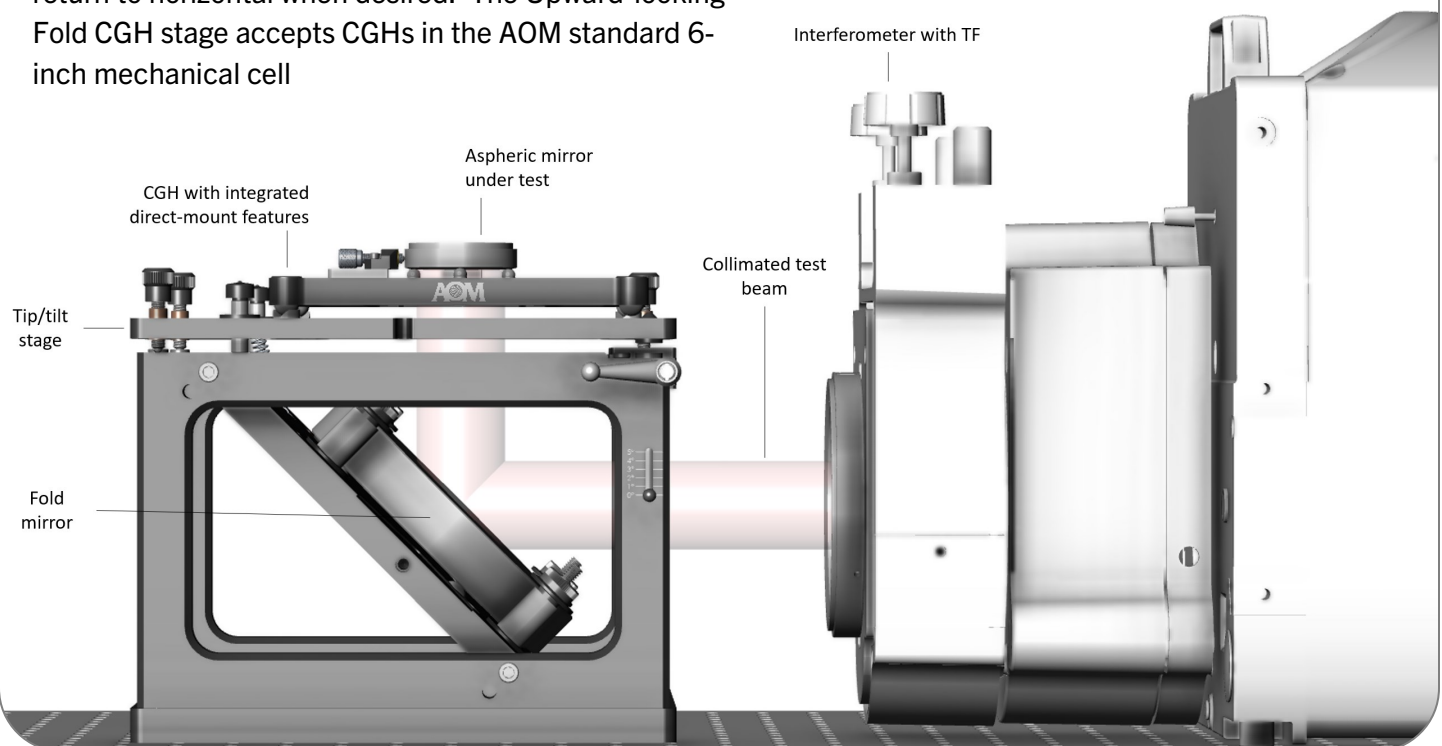
A range of optical surfaces and mechanical interfaces can be accommodated and customized to suit the application, performance requirements, and production setting.



UF4: 4-inch Upward-Looking Fold assembly with a direct-mount CGH and test optic mounted

Convert any Fizeau or Twyman Green interferometer into an upward-looking configuration on-demand, and return to horizontal when desired. The Upward-looking Fold CGH stage accepts CGHs in the AOM standard 6-inch mechanical cell

Direct-mount CGH Test Setup



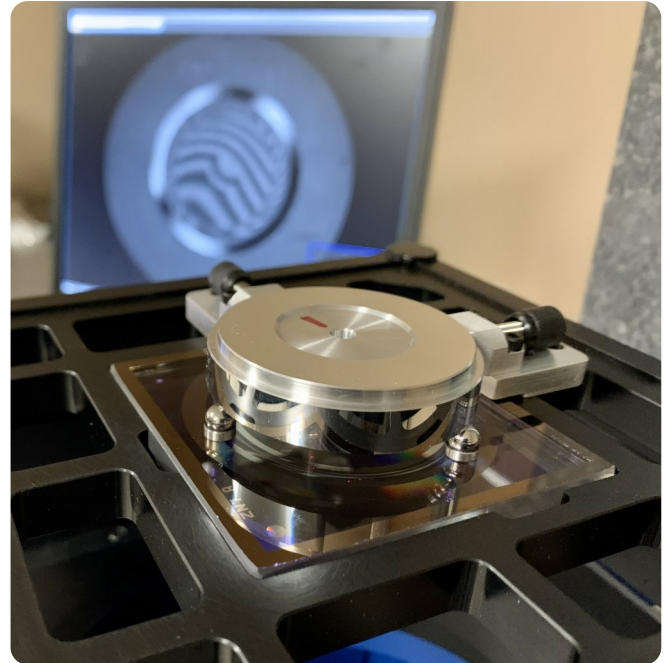
Direct-mount CGH

Precision meets ease of use for complex optics metrology! AOM's unique capabilities enable mechanical alignment features that position the test optic to < 5 mm uncertainty.

Mechanical reference features precisely registered to the CGH pick up test optic datum features, providing a quantitative measure of alignment of the optical surface relative to its datums.

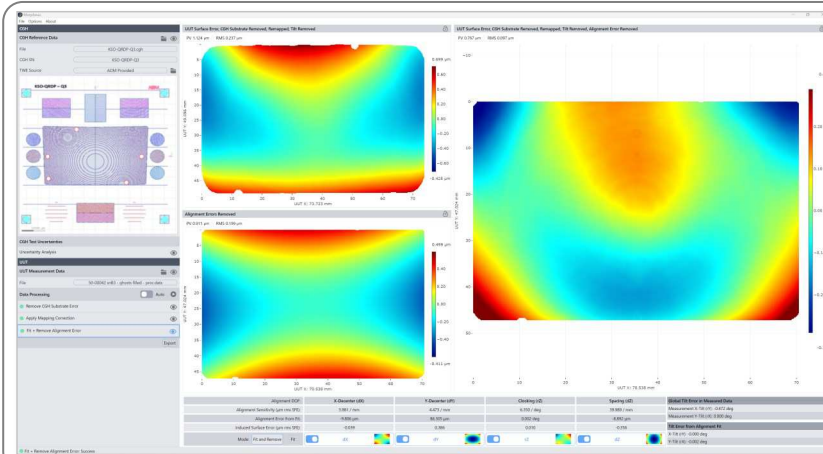
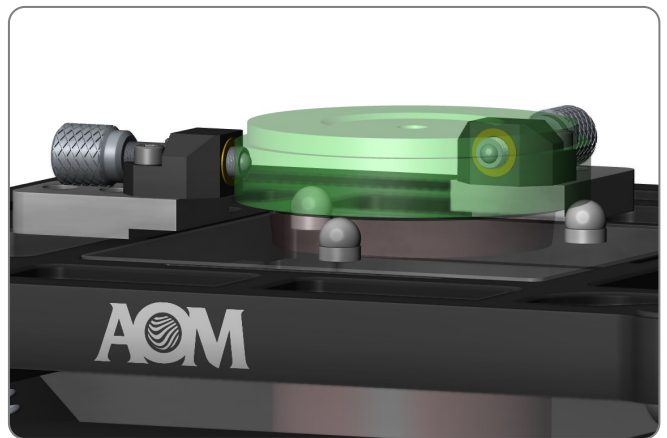
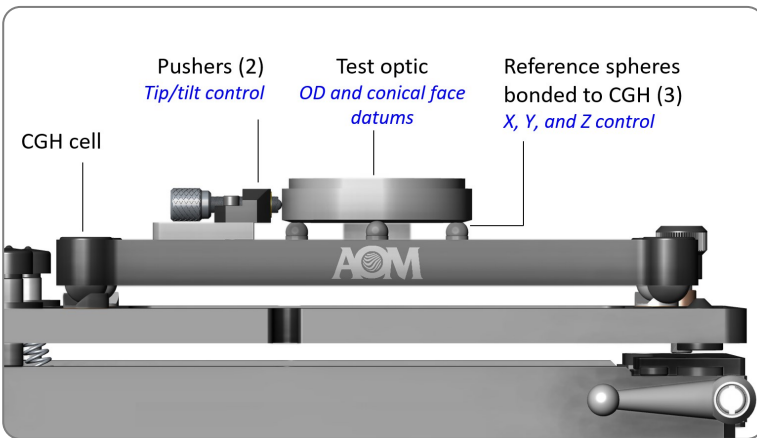
Features and Benefits

- Flexibility to convert horizontal interferometer to vertical, on-demand
- Leverage gravity for pick-and-place optic mounting and alignment to CGH
- Reduce or eliminate test alignment DOFs for ease of use in production
- Accepts AOM standard 6-inch mechanical cell (C6)
- Integrated CGH tip/tilt alignment and CGH carrier tilt
- 4" and 6" interferometer apertures accommodated



Aspheric test mirror direct-mounted to CGH using precision reference spheres aligned and bonded to CGH,

Test optic alignment to CGH < 6 fringes with no adjustment required



Complete Solution

Utilize AOM's Morpheus™ software to analyze and remove residual misalignment of the test.

Quantify optical surface position relative to datums for comparison to mechanical tolerances and reduce metrology steps for critical opto-mechanical specifications.