

4D Mounting Components

4D Technology

For Fizeau Interferometers

Fizeau interferometers provide high quality wave front measurements of general purpose and meter-class optics. Measurement quality, however, can be compromised by inferior mounting components and ad hoc mounting configurations.

4D Technology's optical mounting components make setup fast and repeatable, improving both productivity and measurement quality. Rigid and vibration-resistant, these easy-to-use mounts interface with most manufacturers' optics to maximize investment value. Mounts are available in 4-inch and 6-inch versions to accommodate most Fizeau interferometers, including 4D AccuFiz and FizCam interferometers.



2-Axis Base with Rotation Adapter and Bayonet Mount.
4-inch transmission flat shown is also available from 4D.



AccuFiz and FizCam Interferometers

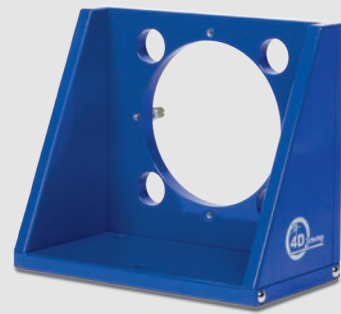
4D's compact AccuFiz® Fizeau interferometers offers an unmatched combination of performance, quality and value, for highly accurate shape and transmitted wave front quality measurements. FizCam™ dynamic Fizeau interferometers enable challenging measurements such as wedge, homogeneity, optical thickness and more, even in the presence of vibration and air turbulence.

4D Mounting Components

4D optical mounting components can be purchased individually and as combinations to accommodate a wide range of optics. Components are available for 4-inch and 6-inch diameter optics.

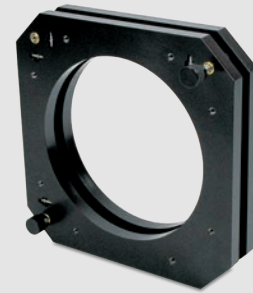
Transmission and Return Flats and Spheres

4D offers a range of bayonet-mounted, 4- and 6-inch optics to complete your test setup. Choose from $\lambda/10$ or $\lambda/20$ quality transmission and return flats, or $\lambda/10$, $\lambda/15$ or $\lambda/20$ transmission and reference spheres, from F/0.65 through F/12.5. Various reflectivities and attenuation coatings are offered. Larger optics up to 18 inches are also available.



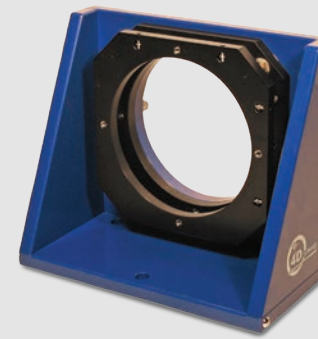
◀ Fixed Base

This rugged, stable base is the heart of the 4D mounting system. Captive screws enable quick attachment of additional components. Steel ball guides enable the mount to be accurately translated along the optical axis with the available Table Guide.



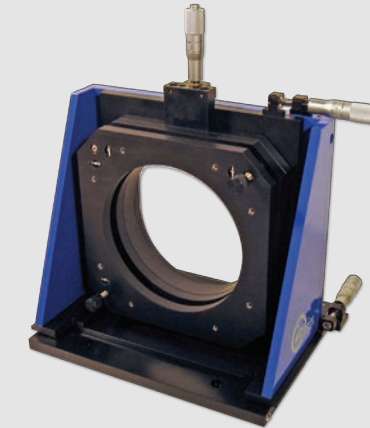
◀ Tip/Tilt Mount

Provides precise tip and tilt adjustment for accurate alignment of flats. The 4-inch version provides ± 4 degrees tip/tilt, while the 6-inch version provides ± 3.5 degrees tip/tilt.



◀ Two-Axis Base

Combines the Fixed Base with the Tip-Tilt Mount for accurate alignment of flats.



◀ 3-Axis and 5-Axis Base

The 3-Axis Base combines the Fixed Base with precision translation in the X, Y and Z axes. Micrometers offer precise, drift-free positioning with negligible backlash.

The 5-Axis Base (shown) adds the Tip-Tilt Mount as well as translation.



◀ Rotation Adapter

Adds full 360 degree rotation, with precision stops at 90 degree increments for absolute flat and sphere testing. The adapter includes ± 10 degrees fine adjustment, with coarse and fine position locks. The scale is easy to read in low light.



◀ Shelf Mount

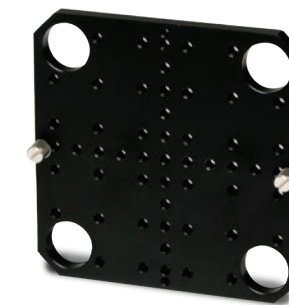
Level support for prisms, corner cubes, etc. Locking slides allow vertical travel. The 4-inch version provides 2.75 inches travel; the 6-inch version provides 3.25 inches travel.

The shelf itself includes a mounting hole array in either English (1/4-20 threaded holes on 1-inch centers) or Metric (m6 threaded holes on 25 mm centers) configurations.



◀ 3-Jaw Mount

Offers gentle grip and positive positioning for a wide range of optics. With a single knob the mount adjusts from 0 inches to full diameter. Viton® jaw tips provide superior grip and resist dust and chemicals.



◀ Adapter Plate

Enables custom mounting configurations. The 4-inch adapter plate is 5.9 inches square, with 1-inch holes in the corners to accommodate the Tip/Tilt Mount controls. The 6-inch adapter is a solid, round plate, 8.75 inches in diameter.

Both adapter plates include a mounting hole array in either English (1/4-20 threaded holes on 1-inch centers) or Metric (m6 threaded holes on 25 mm centers) configurations. The center row of holes along both major axes are on 1/2-inch (12 mm) centers.



◀ Bayonet Mount

Accepts industry-standard bayonet mounted optics from most manufacturers. Thumbwheel locks ensure positive positioning and zero drift.



◀ Bayonet Adapter

Use 4-inch bayonet mounted optics with a 6-inch aperture interferometer. Thumbwheel locks ensure positive positioning and zero drift.



◀ Table Guide

Precisely translate mounts along the optical axis. Steel balls on the Fixed Base slide along the guide for positive positioning. 24 inches (61.0 cm) long. Use on either English- or Metric-scale optical tables.



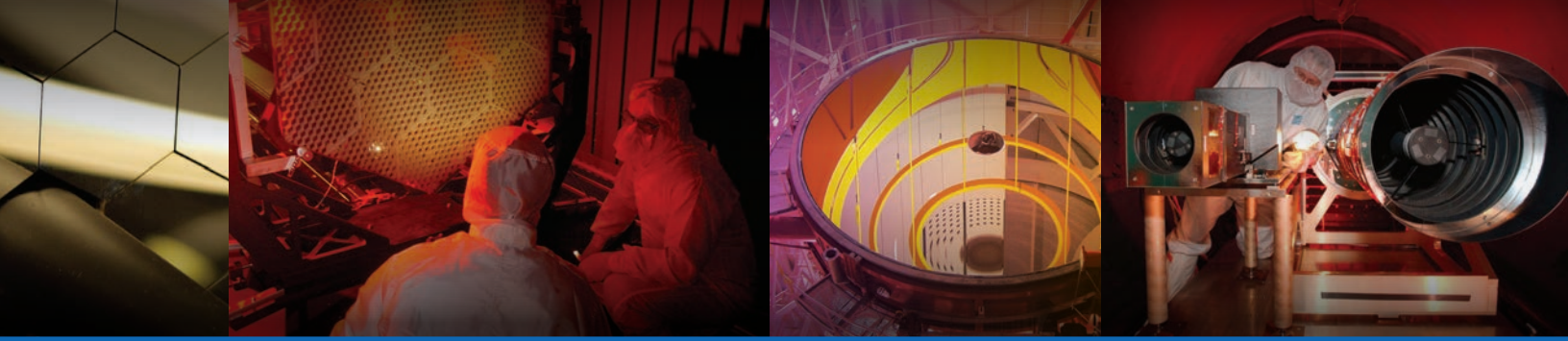
▶ Pellicle

Provides 25-30% transmission attenuation to maximize fringe contrast when measuring highly reflective samples. Solid case and integral covers.

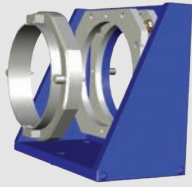
▶ Look-Down Stand

Vertical mounting for the AccuFiz, with either 36- or 72-inch posts.



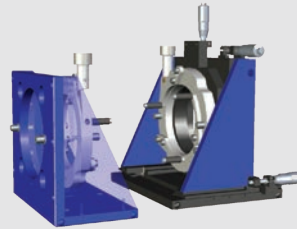


Suggested Configurations



Flats:

- 2-Axis Base or 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Rotation Adapter for absolute flat testing.
- Optional Pellicle to improve contrast with high reflectors.



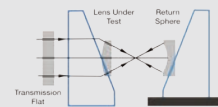
Lenses (diameter smaller than aperture)

Test Mount:

- 2-Axis Base.
- Bayonet Mount or 3-Jaw Mount.

Return Mount:

- 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Table Guide.



Spheres:

- 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Rotation Adapter for absolute sphere testing.
- Optional Table Guide for positioning along the optical axis.
- Optional Pellicle to improve contrast with high reflectors.



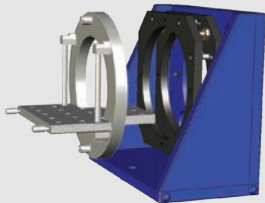
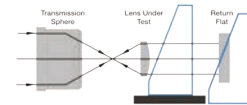
Lenses (Diameter larger than aperture)

Test Mount:

- 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.

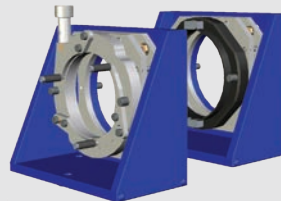
Return Mount:

- 2-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Table Guide.



Prism

- 2-Axis Base or 5-Axis Base.
- Shelf Mount.



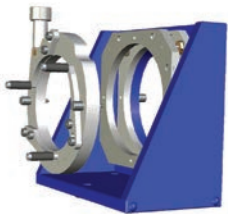
Afocal System

Test Mount:

- 2-Axis Base.
- 3-Jaw Mount.

Return Mount:

- 2-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Table Guide.



Corner Cube

- 2-Axis Base or 5-Axis Base.
- 3-Jaw Mount.



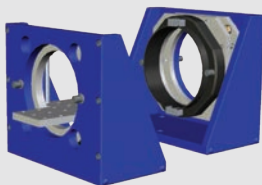
Finite Conjugate

Test Mount:

- 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.

Return Mount:

- 5-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Table Guide.



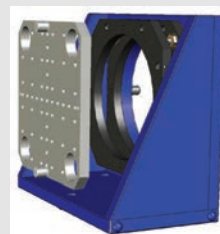
Transmission

Test Mount:

- 2-Axis Base.
- Shelf Mount.

Return Mount:

- 2-Axis Base.
- Bayonet Mount or 3-Jaw Mount.
- Optional Table Guide.



Other Optics

- 2-Axis or 5-Axis Base.
- Adapter Plate.
- Optional Table Guide.

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