

# 4D Mounting Components

**4D** Technology

## ***For Fizeau Interferometers***

Fizeau interferometers provide high quality wavefront 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's family of FizCam dynamic interferometers.

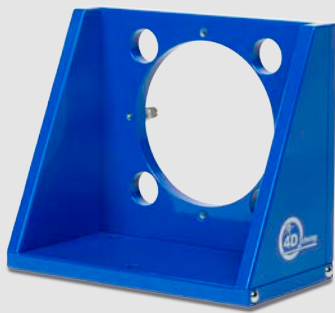


2-Axis Base with Rotation Adapter and Bayonet mount. 4-inch transmission flat shown is also available from 4D.

4D TECHNOLOGY

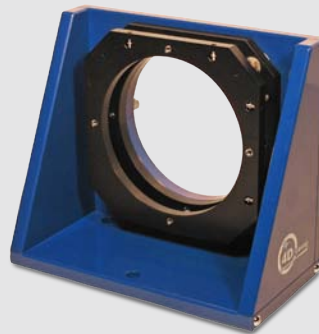
## 4D Mounting Components

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



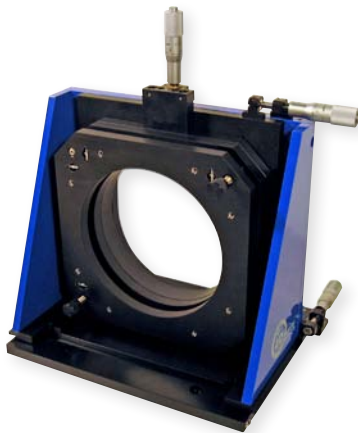
### ◀ Fixed Base

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



### ◀ Two-Axis Base

This mount combines the Fixed Base with tip and tilt adjustment for accurate alignment of flats. The 4-inch version provides  $\pm 4$  degrees tip/tilt, while the 6-inch version provides  $\pm 3.5$  degrees tip/tilt. Steel ball guides enable the mount to be accurately translated along the optical axis with the available Table Guide.



### ◀ 5-Axis Base

The 5-Axis Base adds precision translation in the X, Y and Z axes, as well as tip and tilt adjustment (4-inch version provides  $\pm 4$  degrees tip/tilt, 6-inch version provides  $\pm 3.5$  degrees tip/tilt). Micrometers offer precise, drift-free positioning with negligible backlash. Steel ball guides enable the mount to be accurately translated along the optical axis with the available Table Guide.



### ◀ Rotation Adapter

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



### ◀ 3-Jaw Mount

This mount provides 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.



### ◀ Bayonet Mount

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



### ◀ Shelf Mount

The shelf provides level support for prisms, 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 ( $\frac{1}{4}$ -20 threaded holes on 1 inch centers) or Metric (M6 threaded holes on 25 mm centers) configurations.



### ◀ Adapter Plate

This plate enables custom mounting configurations. The 4-inch adapter plate is 5.9 inches square, with 1 inch holes in its corners to accommodate the tip/tilt adapter controls. The 6-inch adapter is a solid, round plate, 8.75 inches in diameter.

Both 4-inch and 6-inch adapter plates include a mounting hole array in either English ( $\frac{1}{4}$ -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  $\frac{1}{2}$  inch (12 mm) centers.



### ◀ Table Guide

The table guide enables the Fixed Base, 2-Axis or 5-Axis Base to be translated precisely along the optical axis. Ball guides on the mounts slide along the guide for positive positioning. Mounting slots enable use on either English-scale or Metric-scale optical tables.



### ◀ Pellicle

When measuring highly reflective samples the pellicle provides 25-30% transmission attenuation at 633 nm wavelength to maximize fringe contrast. Solid case and integral covers enable safe storage and transport.



### ◀ Bayonet Adapter

This adapter lets you use 4" bayonet mounted optics with a 6" interferometer. Thumbwheel locks ensure positive positioning and zero drift.

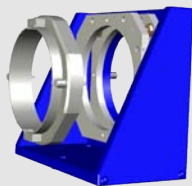


## FizCam Dynamic Fizeau Interferometers

FizCam dynamic Fizeau interferometers provide accurate, large aperture measurements even in challenging environments such as production floors, clean rooms and environmental testing chambers. FizCam systems capture full wavefront measurements in under 1 millisecond, enabling accurate measurement even in the presence of vibration and air turbulence.

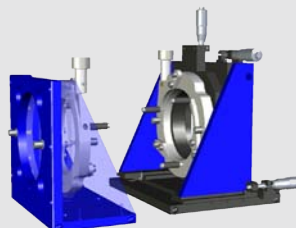


## Suggested Configurations



### 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.



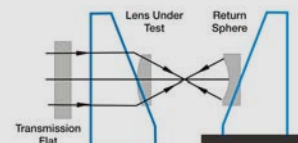
### Lenses (diameter smaller than aperture)

#### Test Mount:

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

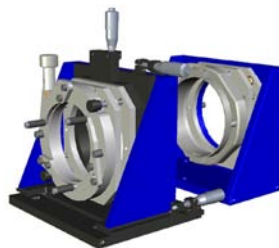
#### Return Mount:

- 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.



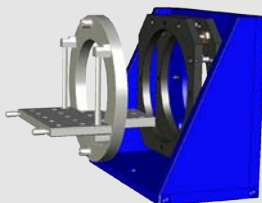
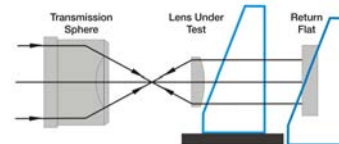
### Lenses (diameter larger than aperture)

#### Test Mount:

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

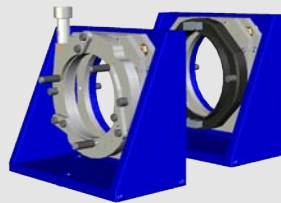
#### Return Mount:

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



### Prism

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



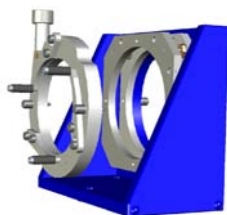
### Afocal System

#### 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.



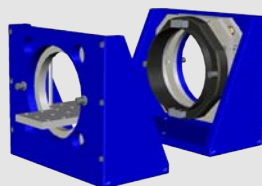
### Finite Conjugate

#### 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.



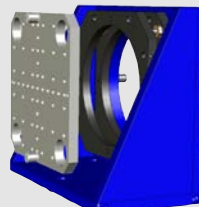
### Transmission

#### 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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