

McTilt Gimbal Tilt Stage

Specifications and Instructions



Frequently a probe or other device mounted on a chamber flange will not precisely reach a specified point inside the chamber. This can be due to the mass on the end bending the device and/or inaccuracies of chamber port alignments.

To overcome this problem we have the **McTilt** series of port aligners which can be mounted between the device and the chamber port.

The **McTilt** is the finest 2-axis tilt stage available. From the self-lubricating pivot bearings to the rugged construction, everything speaks of quality. The **McTilt 200** with CF35 conflat flanges (pictured) has the shortest overall height (3.2" (81 mm)) of any similar gimbal on the market. The clear inside diameter (ID) on all gimbals are maximized to clear your gizmo and tilt it farther. Motorized and extra heavy-duty versions, in virtually any size, are also available.

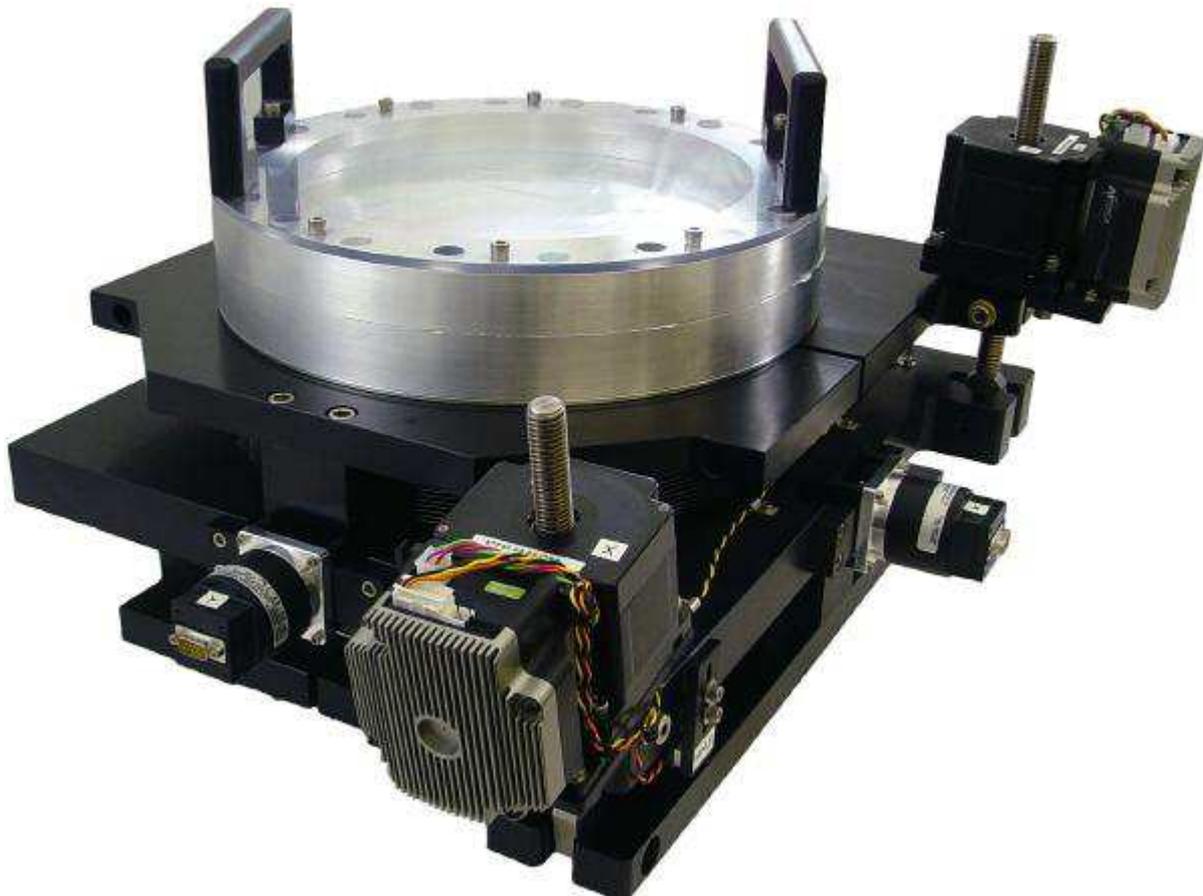
There are five standard sizes of McTilt and other, custom sizes are also available. Standard flange sizes range from CF35 to CF200. All versions are fully bakeable to 210°C.

The McTilts with conflats use welded bellows. This further minimizes the overall height and gives maximum clear ID, but does not increase the cost. In fact, the McTilts with welded bellows often cost less than ones with formed bellows from other manufacturers. All the McTilts have a total range of 20° ($\pm 10^\circ$) in both axes.

Extra Heavy Duty

The robust McTilt design concept lends itself well to scaling for larger sizes. These pictured gimbals, below, both use 14" (CF300) flanges, are stepper motorized and the upper one includes Z-axis (vertical) travel of 30" (762 mm) travel in 120 seconds while lifting a 600 pound (270 Kg) load.

Both McTilts also include encoders with 0.005° resolution for angular precision from a remote location. Other models have also included XY translation, all [stepper motorized](#) and with encoders, too. Give us a call to discuss special needs.



McTilt Part List

Model	Dimensions	Clear I.D.	OAL
McTilt 200 CF35	Drawing below	1.50" (38)	3.2" (81)
McTilt 450 CF63	Drawing below	2.89" (73)	4.1" (102)
McTilt 600 CF100	Drawing below	4.0" (100)	4.0" (100)
McTilt 800 CF150	Drawing pls ask	5.87" (147)	4.75" (120)

Dimensions are in inches (mm) -

Consult factory for models not shown

