UHV WobbleStick

LINEAR / ROTARY AND ANGULAR MOVEMENT IN HV or UHV

- Strong magnetic coupling
- Bakeable to 250°C
- Hydroformed bellows
 give reliable seal
- Constructed of all UHV-compatible material
- Linear rotation angular motions
- Handles flag-style plates, pucks & sample stubs

Customizable

Typical Applications

A wide range of uses include:

- MBE substrate exchange
- Operating shutters
- Any short simple transfer



3 Axis MCTS Shown with Custom Sample Gripper for Discs

The Model MCTS, Magnetically-Coupled WobbleSticks are an economical way to perform simple linear / rotary / angular motion within a vacuum system. Robust and reliable, these WobbleSticks reduce the risk of leaks by eliminating the use of edge welded bellows.

Rare earth magnets provide a strong magnetic coupling. This completely UHV-compatible unit is bakeable to 250°C with the external magnet carriage assembly removed.

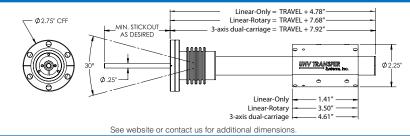
With customer specified linear travel and an angular tilt of $\pm 15^{\circ}$, WobbleSticks with one, two or three axis of motion can operate a variety of grippers and end-effectors including flag style sample holders.

A complete family of UHV Precision Magnetic Manipulators are available to perform more complex linear and/or rotary motions under vacuum. Call us to discuss your requirements and request datasheets with specifications.

SPECIFICATIONS

Material	
Flange, outer tube	and shaft 304ss
Seals	Hydroformed ss Bellows
Rare earth magne	is SmCo
Vacuum range	1 x 10-11 Torr
Bakeout temperature	e 250°C magnet removed
	150°C magnet on
Linear force	8 lbs (35.58N)
Linear force Angular movement	8 lbs (35.58N) <u>+</u> 15°
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Angular movement	<u>+</u> 15°
Angular movement Standard mounting	± 15° 2.75" OD CFF

DIAGRAM OF MAGNETICALLY-COUPLED WOBBLESTICK





355 Piercy Road San Jose, CA 95138 Phone 408-613-2888 contact@bricada-inc.com http://www.bricada-inc.com

Wobble Stick DS-104 2-6-25