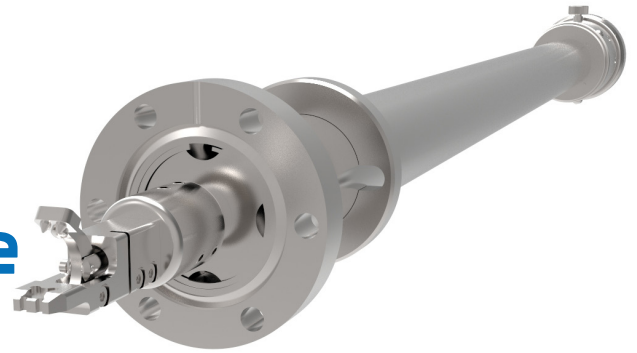


Linear With Rotatable Inner Shaft & Lock

Triple Axis PowerProbe

(TAPP Series)



Magnetically-coupled triple axis transfer arm, providing linear and rotary motion with a unique sample gripping mechanism allowing samples to be locked onto and off the probe. Linear and rotary motion of the sample is achieved via a single actuator with stroke length from 304mm to 1219mm.

TAPP KEY ADVANTAGES

- » Unique locking mechanism
- » Unrivalled axial coupling strength
- » 10x thrust and 4x torque compared to conventional devices
- » Exceptional axial stiffness
- » Zero backlash under low load
- » Bakeable to 250°C without removing any components

The Triple Axis PowerProbe (TAPP) has two concentric output shafts providing two independent axes of motion. Linear and rotary motion of the outer shaft is provided through a high power magnetic coupling, driven by the thimble.

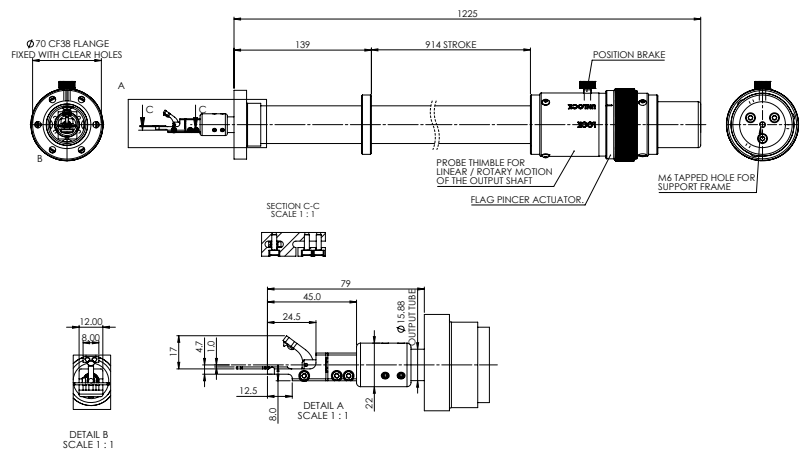
Compared with conventional devices the Triple Axis Power Probe provides more than 10 times the thrust and 4 times the torque with exceptional axial stiffness.

In addition to linear and rotary motion the thimble incorporates a unique secondary linear motion that can be used to lock/unlock samples held by a gripping end-effector. This PowerProbe variant is ideally suited to system designers who need linear and rotary motion with an independent end-effector mechanism. When ordered with an end-effector the Triple Axis Power Probe provides the ultimate in secure sample transfer.

Two standard end-effectors are offered to grip and safely transfer industry-standard surface analysis flag and puck sample holders.

Example Dimensions (mm)

For comprehensive 2D drawings & 3D models please contact us.



TAPP Technical Data

SPECIFICATION	VALUE
System mounting flange size	FC38 (2 3/4") with clear holes
Magnetic rotary breakaway torque	4Nm
Magnetic linear breakaway thrust - standard	180 N
Available stroke range	250mm to 1219mm
Output shaft diameter linear axis	15.99/15.88mm
Output shaft diameter secondary linear axis	8mm
Secondary linear Axis stroke	5mm
Secondary linear Axis linear breakaway thrust	90N
Bakeout temperature	250°C
Shaft radial run out	+/-0.5mm
Shaft linearity over full stroke	+/- 1 degree
Maximum cantilevered load on output shaft	20 Nm
Maximum working axial load on output shaft	90 N
Retracted position switch - type	Bakeable micro switch wire to WD-020



Unique locking mechanism

For more information:

UHV Design Ltd
 Judges House, Lewes Road,
 Laughton, East Sussex, BN8 6BN, UK
 T: +44(0)1323 811188
 E:sales@uhvdesign.com
 www.uhvdesign.com

To find your nearest UHV Design
 representative please visit
www.uhvdesign.com and click 'Contact'.