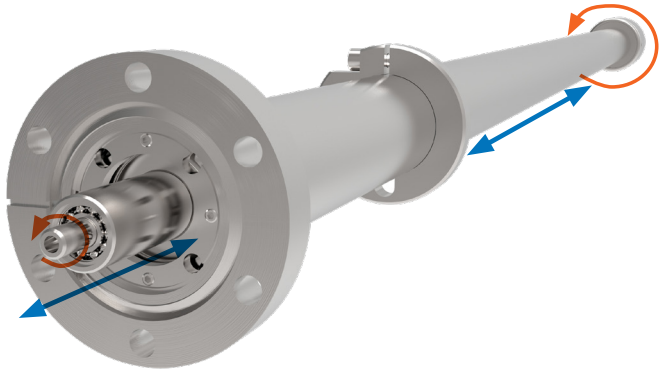
Linear With Rotatable Inner Shaft



Dual Axis PowerProbe

(DAPP Series)

High performance magnetically-coupled devices designed for sample transfer with outer shaft linear motion and independent rotary motion of inner shaft. Ideal for systems where a secondary motion is required to actuate an end-effector mechanism. Range includes end-effectors to transfer industry-standard flag and puck sample holders.

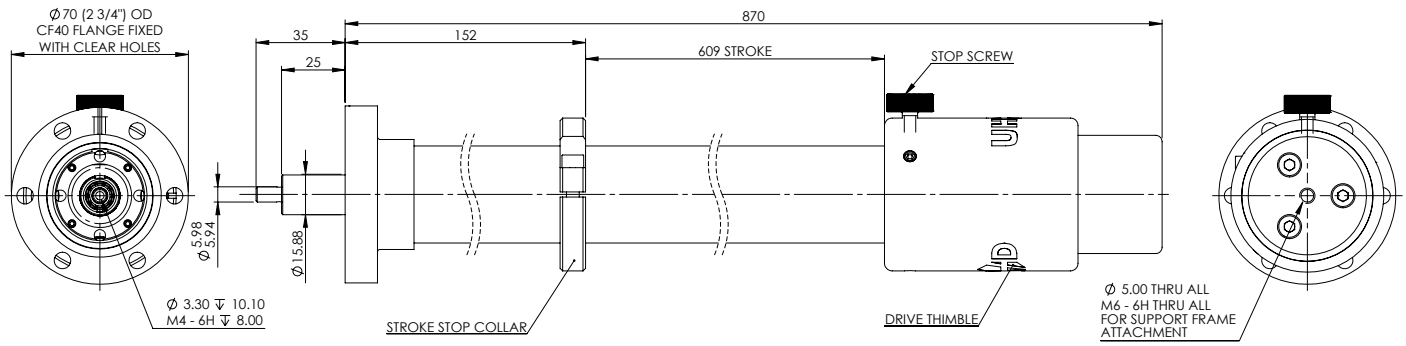
DAPP KEY ADVANTAGES

- » Independent linear & rotary motion
- » Unrivalled axial coupling strength
- » 4x torque compared to conventional devices
- » Exceptional axial stiffness
- » Zero backlash under low load
- » Bakeable to 250°C without removing any components

The Dual Axis PowerProbe (DAPP) has two concentric output shafts providing independent axes of motion. The outer tubular shaft has linear only motion provided by the linear PowerProbe magnetic coupling. The inner shaft has independent rotary motion provided by the PowerProbe rotary magnetic coupling. The DAPP has a single driving thimble allowing simultaneous actuation of both the linear and rotary axes.

This PowerProbe variant is ideally suited to system designers who wish to employ a secondary motion to actuate an end-effector mechanism, such as a sample locking system, for example.

The Dual Axis PowerProbe benefits from our powerful magnetic coupling technology providing robust, reliable performance. Additionally, the internal linear guidance system, prevents rotation of the main shaft, thus removing the need for conventional external guide bars, providing an elegant and compact solution to sample transfer.



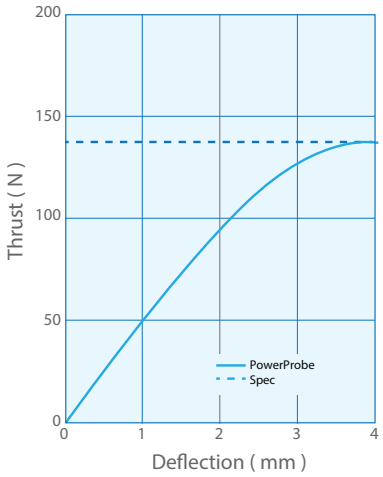
Example Dimensions (mm) **DAPP40-609-H shown**

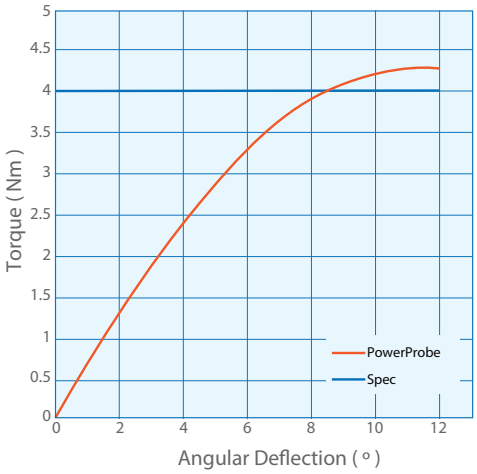
Visit www.uhvdesign.com to configure, view and download 3D models

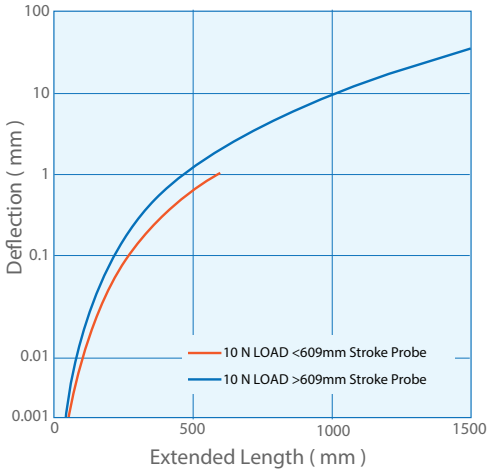
DAPP40 Technical Data

SPECIFICATION	VALUE
System mounting flange size	CF40 (2 3/4" OD CF) with clear holes
Magnetic rotary breakaway torque	4Nm (35 in-lbs)
Magnetic linear breakaway thrust - standard	140N (31.5 lbs)
Available stroke range	304mm to 1219mm
Output shaft diameter - linear axis end interface details	15.88mm
Output shaft diameter - rotary axis end interface details	6.00mm with M4 tapped hole
Bakeout temperature	250 °C
Shaft radial run out	N/A
Shaft radial deviation (linearity) over full stroke	+/- 1 degree
Maximum cantilevered load	20 Nm (177 in-lbs)
Maximum working axial load	90 N (20 lbs)
Retracted position switch - type	Bakeable micro switch wire to WD-020

DAPP Technical Performance







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