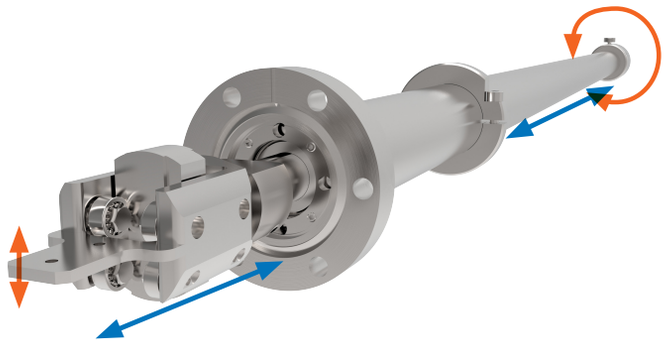
Linear & Elevation



Elevating PowerProbe

(XEPP Series)

Complete sampling-handling system for use in UHV applications requiring minimal outgassing. XEPP provides linear motion and up to 50mm of lift in the Y-axis for sample hand-off. Stroke lengths from 304mm to 1219mm and motorisation options available.

EPP KEY ADVANTAGES

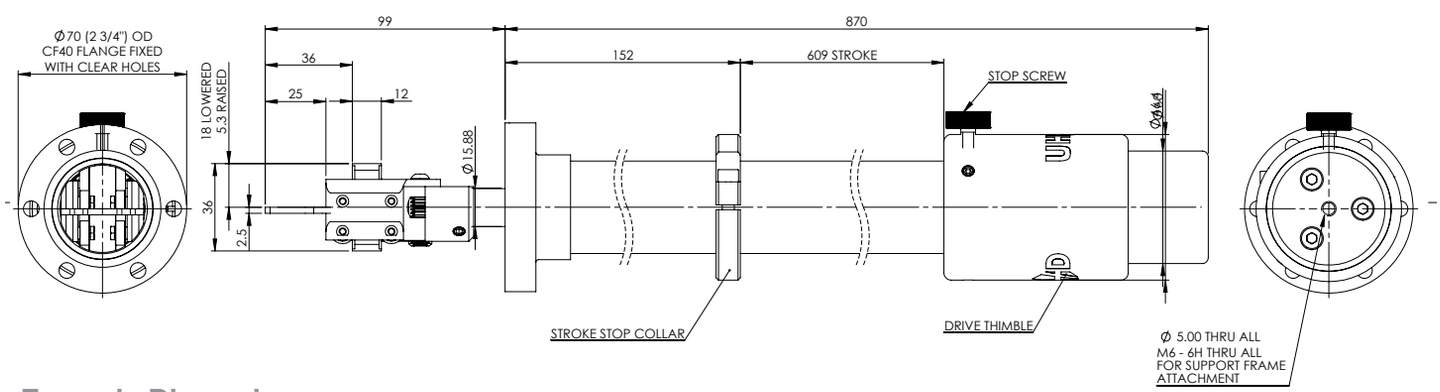
- » Up to 50mm of lift in the Y-axis
- » Unrivalled axial coupling strength
- » Exceptional axial stiffness
- » Zero backlash under low load
- » Bakeable to 250°C without removing any components

The Elevating PowerProbe transforms conventional approaches to sample transfer. In addition to its internally-guided linear motion, the probe has the ability to elevate its end-effector throughout its stroke, providing 12.7mm of lift as standard (with 25mm and 50mm options) in the Y axis for sample hand-off.

This PowerProbe variant greatly simplifies sample transfer techniques, providing a single device to provide both linear motion for sample introduction and the lift/lower motion to collect or hand-off the sample.

With a range of industry-standard effectors, the Elevating PowerProbe provides a complete sample-handling system in its own right removing the need for secondary motion tools. This reduces cost and simplifies the transfer process.

The XEPP contains all metal bearings for smooth low friction actuation with minimal outgassing.



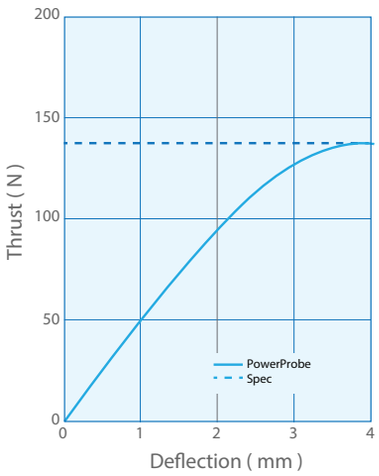
Example Dimensions (mm) **XEPP40-609-H-12.7 shown**

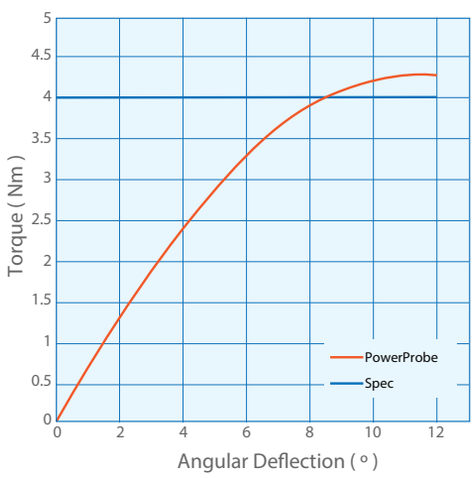
Visit www.uhvdesign.com to configure, view and download 3D models

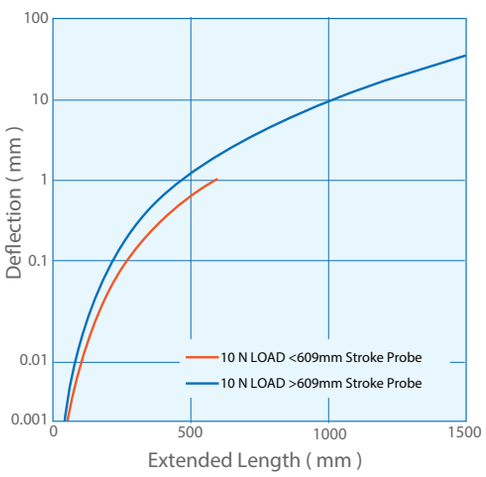
EPP Technical Data

SPECIFICATION	VALUE
System mounting flange size standard (12.7mm lift)	CF40 (2 3/4” OD) with clear holes
System mounting flange size optional (25.4mm or 50.8mm lift)	CF63 (4 1/2” OD) with clear holes
Magnetic rotary breakaway torque	4Nm (35 in-lbs)
Magnetic linear breakaway thrust - standard	140 N (31.5 lbs)
Available stroke range	304mm to 1219mm
Elevating Lift stroke - standard	12.7mm (0.5”)
Elevating Lift stroke - options	25.4mm (1”) or 50.8mm (2”)
Bakeout temperature	250 °C with motor removed
Shaft radial run out	N/A
Shaft radial deviation (linearity) over full stroke	+/- 1 degree
Maximum cantilevered load	1.5 Nm (13 in-lbs) on elevating plate
Maximum working axial load	90 N (20 lbs)
Retracted position switch - type	Bakeable micro switch wire to WD-020
Stepper motor option	AS4118L1805 with P42H (4:1) gearbox
Stepper motor - motor wiring	UTO socket wired to drawing WD-M-003
Stepper motor option - switches	bakeable limit and home switches with lemo socket wired to diagram WD-002
Stepper motor maximum linear speed	25 mm/second (ballscrew option up to 100mm/second)
Linear resolution per 1/2 step	0.00375 mm
Motor option - leadscrew pitch	6mm

XEPP Technical Performance







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